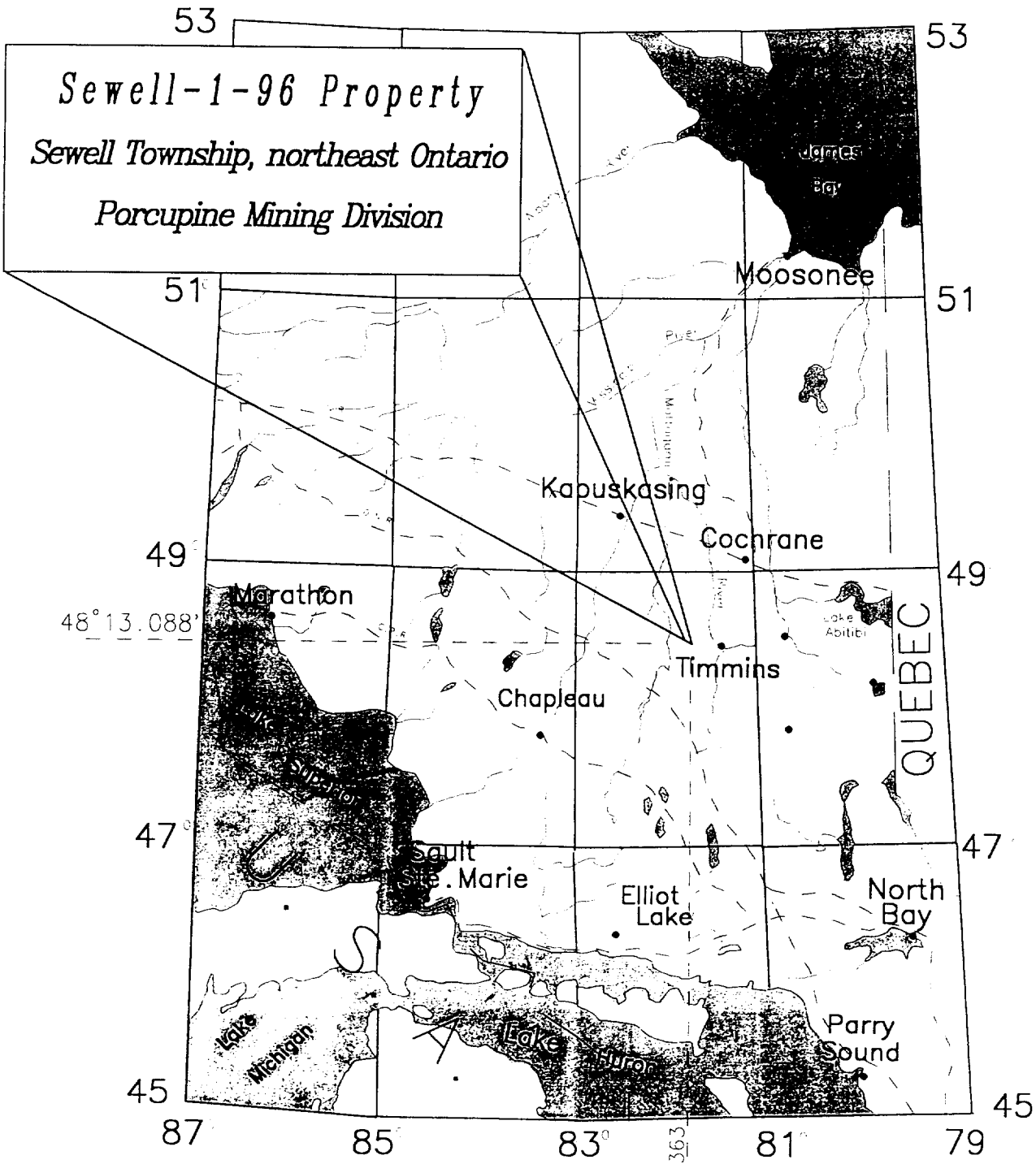


2.17497

Assessment Report for Sewell Mining Corporation



010



Summary

Sewell Mining Corp. of Vancouver, BC, explored their twenty (20) adjoining claim property, Sewell-1-96 from July to October, 1996 with line cutting, magnetics, and time domain induced polarization surveys. The property is in Sewell Township, roughly 50 kilometers west of Timmins, ON. Past exploration and the recent state-of-the-art geophysical surveys encourages further work. The author recommends a 1040 meter drill program, thirteen holes (13) in six areas of interest on the property. This program will evaluate past work in conjunction with favourable recent geophysical targets.

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Addendum

Twenty 1:5000 Induced Polarization Sections, Chargeability & Resistivity, n1 to n6.



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010C

*By: M.C. Exploration Services Inc.
Quota 2.17497*

1.0 Introduction

As per the June 6, 1996 agreement between **Sewell Mining Corp.** (SMC) and Mike Caron, SMC initiated the said work program. In the summer of 1996, exploration began on the **Sewell-1-96 Property**. The property comprised of twenty (20) adjoining claims near 73 (units) X 40 acres of mineral rights is located in Sewell Township, fifty (50) kilometers west of Timmins, ON, along Highway 101 West. Situated within the Abitibi Greenstone Belt, the property is in a favourable geological environment for both gold and base metal occurrences, and deposits. Recent and past exploration has proven this to be a reality (refer to section 3.0, past exploration). The main objective of the 1996 work is an attempt to delineate favorable Au targets. Two areas on the property which have previously been exposed (mechanical stripping) were sampled by one of the author's. The grab samples which were sent to Swastika Laboratories (see attached results in the addendum) returned the following results; sample 59556 (line 100E/200N) -- 3857 ppb Au, and sample 59559 (line 400W/300S) -- 1853 ppb Au. The work done by SMC in 1996 covers the entire Sewell-1-96 Property and comprises **line cutting, total field magnetics, and time domain induced polarization surveys**. This report evaluates both past and the recent exploration done by various mining companies.

2.0 Property

2.1 Location and Accessibility

The near 2900 acre Sewell-1-96 Property is in the SW corner of Sewell Township, northeastern Ontario, Porcupine Mining Division. It is accessible by a NS gravel road (Kenogaming Road) near 50 km west of Timmins, ON, along Highway 101 West. The Kenogaming Road is an all season road that goes to the Penhorwood Lake Lodge. It bisects the property near and along line 2000E, on the present grid system.

2.2 Physiography

The property is relatively flat with smooth rolling hills. The only exceptions are high, steep sinuous esker ridges, which trend south southwest across the township. Two lakes, Sewell Lake and Deer Foot Lake border north and south respectively of the property and drain north. Deer Foot Creek bisects the property north northeast and flows north. There are also several small lakes and ponds on the property.

2.3 Tenure

The claims are registered under the names of three Timmins, ON, entrepreneurs. The twenty claim (73 unit) property is now under option agreement with Sewell Mining Corporation of Vancouver, B. C. The following table describes the Claims, which are located in Sewell Township, Ontario:

1.0 Introduction

As per the June 6, 1996 agreement between **Sewell Mining Corp.** (SMC) and Mike Caron, SMC initiated the said work program. In the summer of 1996, exploration began on the **Sewell-1-96 Property**. The property comprised of nineteen (19) adjoining claims near 71 (units) X 40 acres of mineral rights is located in Sewell Township, fifty (50) kilometers west of Timmins, ON, along Highway 101 West. Situated within the Abitibi Greenstone Belt, the property is in a favourable geological environment for both gold and base metal occurrences, and deposits. Recent and past exploration has proven this to be a reality (refer to section 3.0, past exploration). The main objective of the 1996 work is an attempt to delineate favorable Au targets. Two areas on the property which have previously been exposed (mechanical stripping) were sampled by one of the author's. The grab samples which were sent to Swastika Laboratories (see attached results in the addendum) returned the following results; sample 59556 (line 100E/200N) -- 3857 ppb Au, and sample 59559 (line 400W/300S) -- 1853 ppb Au. The work done by SMC in 1996 covers the entire Sewell-1-96 Property and comprises **line cutting, total field magnetics, and time domain induced polarization surveys**. This report evaluates both past and the recent exploration done by various mining companies.

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Table 1

| Tenure No | Recorded | Due Date | Units | Needed Credits |
|------------------|----------|----------|-----------|-------------------|
| 1204330 | 5/13/94 | 5/13/97 | 6 | \$2400.00 |
| 1204331 | " | " | 13 | \$5200.00 |
| 1204332 | " | " | 2 | \$800.00 |
| 1204333 | " | " | 1 | \$400.00 |
| 1204334 | " | " | 13 | \$5200.00 |
| 1193705 | " | " | 8 | \$3200.00 |
| 1198873 | " | " | 16 | \$6400.00 |
| 798200 | 7/13/84 | 7/13/97 | 1 | \$800.00 |
| 798201 | " | " | 1 | \$400.00 |
| 798202 | " | " | 1 | \$400.00 |
| 798203 | " | " | 1 | \$400.00 |
| 804622 | 8/24/84 | 8/13/97 | 1 | \$400.00 |
| 804623 | 10/17/84 | 10/17/97 | 1 | \$400.00 |
| 804636 | " | " | 1 | \$400.00 |
| 801625 | 9/04/17 | 9/17/97 | 1 | \$400.00 |
| 801626 | " | " | 1 | \$400.00 |
| 867633 | 9/03/85 | 9/03/97 | 1 | \$400.00 |
| 867634 | " | " | 1 | \$400.00 |
| 826331 | 9/04/84 | 9/04/97 | 1 | \$400.00 |
| 19 Claims | | | 71 | \$28800.00 |

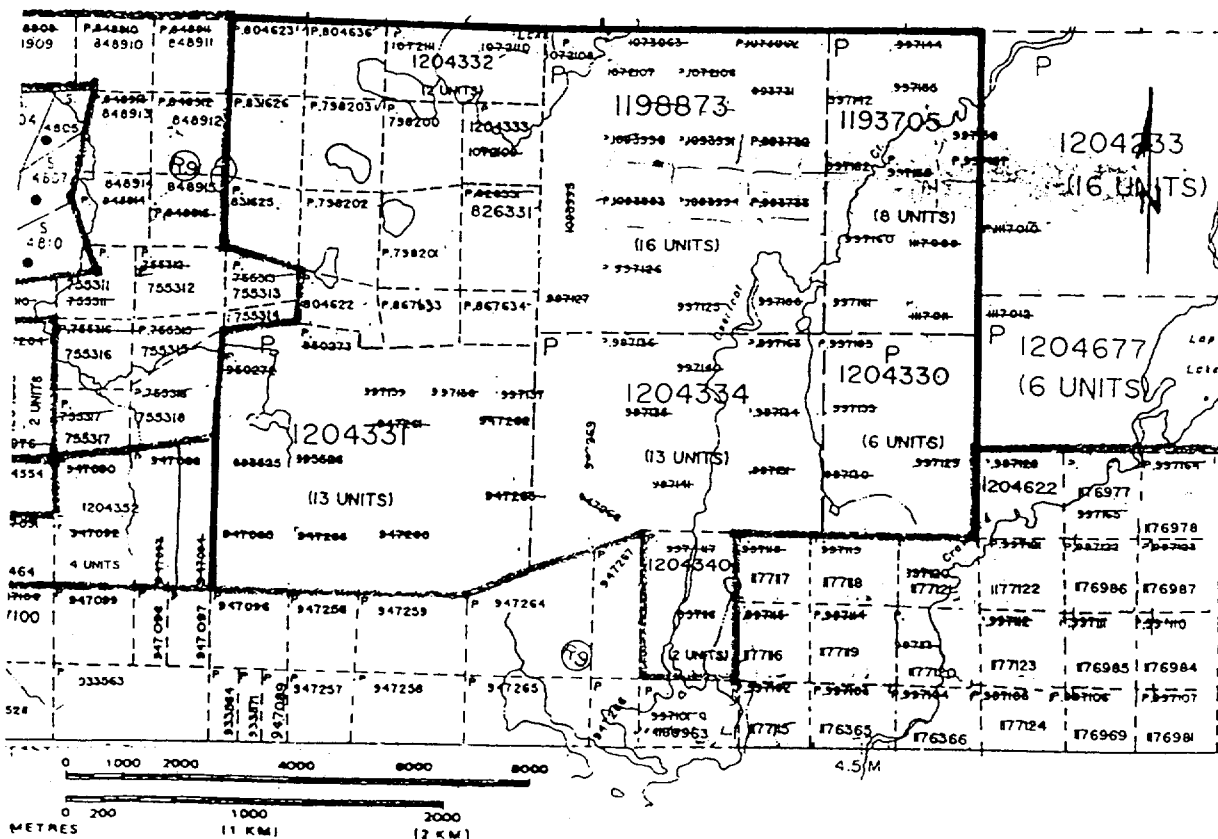


Figure 1; Sewell-1-96 Property (Sewell Claim Map in Part, Reduced)

3.0 Past Exploration

Past exploration in the area dates back as early as 1903 when Iron Formation was reported in the Groundhog River (west of the property, Reeves Twp.). A gold occurrence was reported in 1915. Subsequent to 1950, other deposits than gold attracted explorationists. Iron, copper, nickel, zinc, antimony, and asbestos occurrences, deposits, and prospects have been explored.

1916 - Lamport-Lumbers Property

Diamond Drilling of the original showing by Card Lake Copper in 1972, intersected a mineralized vein in tuff which contained minor antimony values over 15'. Other sections of 2 holes were assayed but no results are recorded in the files. Gold was discovered in quartz veins cutting sheared mafic volcanic rock in Reeves Township. Various amounts of pyrite, pyrrhotite, and chalcopyrite are reported in quartz stock works associated with shear zones. On the original claims a well defined faulted zone is largely filled with irregular masses of quartz. The vein material mixed with country rock reaches a width of 50'. Associated with the quartz are pyrite, pyrrhotite and chalcopyrite. The vein has been cleared and stripped for a half mile.

1947 - Fawcett Property

A gold occurrence located 800 meters west of Sewell Lake was discovered. A quartz vein within mafic volcanic rock was trenched and drilled without significant results.

1946-47 - Mining Corporation Of Canada

This property lies one mile east from the southeast corner of the Sewell-1-96 Property. The assessment file (T.162), shows logs of ten holes that were put down from 1945 to 1947 (holes 5, 6, 7 and A to G). There are also logs of five additional holes put down in 1946 (holes 1, 2, 3, 4 and 8). These five holes were coarsely logged describing syenite intersections predominantly with some gabbroic intersections. Mineralization is described as follows; white quartz with more than 10% chalcopyrite and pyrite and visible gold noted, no assays are available. The other logs of holes 5, 6, 7 along with A to G, are well detailed. Some assays are available showing up to .115 oz/per ton. All of the holes were put down predominantly in diorite, some syenite and greenstones. Minor mineralization occurred within quartz veins. Chlorite and epidote alteration is also described in the logs.

1957 - Canadian Johns - Mansville Mines Ltd.

A geological mapping program resulted in a map showing mafic, amphibolitized gabbros and altered metavolcanics (available data in assessment file T-647). Mineralization was reported as follows; (1) minor chalcopyrite and pyrite in vuggy quartz veins, (2) disseminated pyrite in phyllite zones in medium grained quartzites, (3) excess magnetite in amphibolitized coarse massive flows and gabbroic intrusive rocks. This work covers an area on the west part of the Sewell-1-96 Property.

1964 - La Pierre Drilling

In the general area of the area discussed, L. LaPierre drilled four holes for a total of 1255. Three of the holes are south of Cross Over Lake and the fourth is 500' east of Sewell Lake. All holes intersected mafic metavolcanics and minor felsite and Rhyolite, Sewell quartz veins encountered contained minor pyrite and trace of chalcopyrite.

Geology Survey, ODM 1967 -

A geological mapping program was initiated by the ODM in 1967, when Dr. V.G. Milne and assistants, mapped the township of Sewell along with other adjoining townships. The survey resulted in a preliminary map which also compiles past exploration from the assessment files as follows; T.145 (Burke, Dk, 1935), T.162 (DDH Logs), T.187, T.527, T.157, T.622, and T. 622 found at the Resident Geologist Office, Timmins, ON.

1971 - Card Lake Copper Mines Ltd.

This past exploration adjoins west with the main zone consisting of antimony and copper sulfides in a possible altered tuffaceous sequence (assessment file T44). This resume is neglected and must be expanded. Assessment File T-44 shows 3 holes drilled, in (8B shows) yeilding abundance of Iron Formation although outside present exploration claim.

1972 - Geological Report 97, ODM

A report by V.G. Milne describing the geology, structure, and mineral deposits of four townships, Reeves, Sewell, Penhorwood, and Kenogaming; an area of 288 square miles located in the District of Sudbury about 40 miles southwest of Timmins.

1972 - Card Lake Copper Mines Ltd.

In 1972, Card Lake put down six shallow winkie holes of which two were collared on claim 798202 (formerly 313446). The two prospect holes 72-SW-1 and 72-SW-2, described significant intersections of green carbonate and quartz veins, much of which was auriferous, (Arthur Wright Property, file T44).

1974 - Card Lake Copper Mines Ltd.

In 1974, Card Lake again drilled the Arthur Wright Property. The first of three holes (G-1-74), drilled on present claim 798202 (formerly 313446) yielded continual diorite with many multiple short quartz intersections. No assays are available. Two other holes G-2-74 and G-3-74, were put down on present claim 831625 (formerly 313450). Hole G-2-74, intersected continuous diorite with again many significant mineralized quartz sections. The hole was stopped in quartzose diorite at 334 feet. Hole G-3-74, was collared in mafic tuff and at 67.5 feet intersected quartz diorite with considerable concentration of thin quartz veins, except for some minor interbeds the hole was in quartz diorite till the end of the hole, (491 feet).

1982 - Goldfields

In 1982, Goldfields did line cutting, VLF, magnetic surveys on a parcel of ground which covered part of the Sewell-1-96 Property along the western boundary.

1986 - New Texmont Mines

In 1986, New Texmont Mines drilled several parallel holes facing east proximate to the main (Tremblay) showing almost entirely in massive diorite. Innumerable narrow quartz veins mineralized with scattered pyrite were encountered. No assay results or sample intersections are recorded on the drill logs.

1987 - 88 Goldrock Resources & Glen Auden Resources J.V.

A 427 claim property (near 6850 hectares) spread over Kenogaming, Reeves, Sewell, and Penhorwood Townships was explored (File T-2722). An extensive exploration program comprised of line cutting, magnetic surveys, induced polarization surveys, geological survey, stripping, and trenching took place.

An abundance of assay results are available. There are three significant gold assays presented which are located on present claims 798200, 831625, and 804622 as follows;

| | |
|----------------|--------|
| 798200.04 oz / | ton Au |
| 831625.45 oz / | ton Au |
| 804622.11 oz / | ton Au |

These results were apparently obtained from grab samples over stripped areas.

1988 - American Barrick Resource Corp.

American Barrick apparently optioned the afore mentioned 427 claim property and initiated diamond drilling. Three holes are known to be located on the Sewell-1-96 Property, claim 798200. The 50m, 65m, and 78m holes all intersected mafic rocks. The logs for SR89-1 and SR89-2 describe basalt and foliated basalt intersections and fault planes. DDH SR-3 describes a near 11 m mineralized zone comprised of hematized, sericitized, silicified mafic volcanics (51.15 m to 62.25 m). The only assay worth reporting was taken in hole ST89-1 which returned 870 ppb (36.9m to 37.9m) and 710 ppb (42.7m to 43.7m) within a foliated basalt.

1989 - Airborne Survey

The ODM in conjunction with the OGS released an airborne survey in 1990, which was flown by Geotrex Ltd. The aero-magnetics and aero-electromagnetics are plotted on Map 81371, North Swayze - Montcalm Area, covering the property being reported on. Three of the NS flight paths show aero EM input anomalies near and along the access road. Two of these six anomalies have a 7 to 8 channel response. The first of the two shows a 10 semen conductance and plots near line 2000E/1700S, and the second anomaly, also with a conductance of 10 plots near line 1600E/400S. A third significant input response (5 to 6 channel) has a conductance of 13 and plots south of the baseline near line 2000E. The three weaker anomalies plot within the same vicinity, but show no conductance.

1994 Hemlo Gold Mines Inc.

Hemlo optioned a parcel of land adjoining south of the Sewell-1-96 Property from Glen Auden Resources and Canadian Golden Dragon. A press release in 1995 said that DDH 94-13 intersected a vein which returned 21,000 ppb Au. It is said that if an intersection with greater than 10% mineralization (pyrite-pyrrhotite) along ultramafic-mafic contact should occur then there is a good chance of a gold occurrence.

3.1 Previous Work Summary

| | |
|---------------------------------|--|
| 1916 - Lamport-Lumbers Property | Prospecting in the pick and shovel era. Exploration extended to the limits of the mode that was de riquer for the day. |
| 1947 - Fawcett Property | Further drilling suspended due to failure of tracing of vein by La Pierre Drilling. |
| 1946-47 Mining Corporation | Diamond drilling suspended eventually As intersections petered out. |
| 1957 - Canadian Johns-Mansville | Very good geological map and nice informative report, but lacks ultrabasic exposures that Mansville was seeking. |
| 1967 - ODM Geological Map | ODM geological map - well done, but with such a generous area detail must be sacrificed. |
| 1971 - Card Lake Copper Mines | Some work on the original antimony discovery suffered from lack of funds and dearth of antimony. |

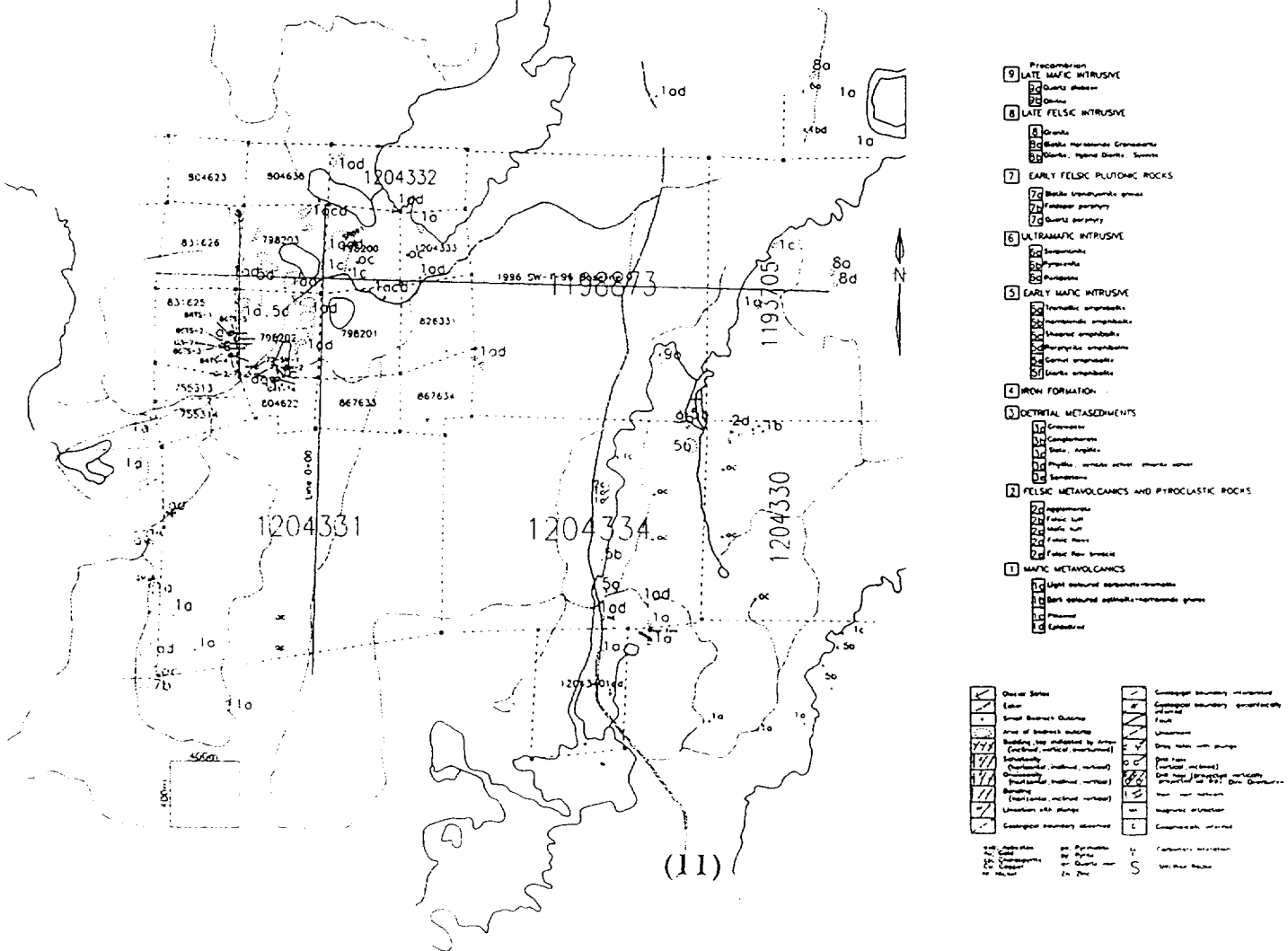
| | |
|-------------------------------|---|
| 1972 - Card Lake Copper Mines | Drill unable to carry on to intersect anything more significant. Winkee drill, an excellent tool where overburden is shallow. Again, project suffered from lack of funds. |
| 1974 - Card Lake Copper Mines | Generous with drill footage in a good area, but inadequate geophysical preparation. McPhar vertical loop can't do much to detect quartz veins, nor can the magnetometer, no matter how sensitive. |
| 1982 - Goldfields | Did some preliminary work with mag and VLF, apparently without any motivation for the project. Perhaps they were testing instruments or staff. |
| 1986 - New Texmont Mines | A parallel sequence of holes with aligned collars. All holes in diorite intrusive. Difficult to define their actual target. Project done without adequate geophysical preparation. Possibly trying to duplicate an Orafino-Swayze type gold deposit. No assays available. |
| 1988 - American Barrick | As part of more regional program drilled 3 holes east of 3 unnamed ponds in contorted greenstone. Very careful detailed core logging and systematic assaying revealing continual trace gold assays. |

1989 - Airborne Survey

Overall prevailing structure is revealed as north east to southwest. The stratigraphy however, as surmised from past varied exploration procedure, has been ascertained to be essentially southeast to northwest.

4.0 GEOLOGY

Figure 2; ODM, 1967 Geology by Dr V G Milne.



(11)

4.1 Economic Geology

The prime target in this general area is a concentration of gold. This would be structurally controlled accompanied by quartz carbonate. Significant gold could be in a primary or subsidiary shear or fault or tight fold. The problem then would be possibly to determine the sequence of dynamic events. For example, was the emplacement pre or post main fault? Thus, the initial task is outline as many of the structural features as possible with the geophysical surveys so that the drilling of holes be positioned to intersect these main structures. If gold were present did the main faults act as channel ways for the gold or did they occur later and displace the gold? Preliminary holes would be positioned to intersect major structures and information from them may be a key to the minor structures which could contain gold.

From previous drilling in the general area it has been displayed that fractures or fold segments will be the better targets. This has been ascertained from the nature of peridotite granite contacts in the area in which the peridotite has been dynamically induced. The nature of the granite as observed has been strongly influenced by previous dynamic controls as distinct from an igneous intrusive uninfluenced by pre-existing structure. In summary, this premise will be pursued using geophysical survey results which may detect folding or faulting in overburden masked bedrock. A facet of this reasoning would be pre-existing voids later filled with ultrabasic rock or with quartz. Late stage residues would migrate to these openings. This process although contrary to the usual tenants of geological thought will be of priority in this selection of drill targets.

Gold may be present in subsidiary features such as acid porphyry dykes or as syngeneic gold, e.g. as in Iron Formation.

Trace gold and isolated intersections of good grade have been encountered but provided little incentive for extensive continuing exploration at the time. Thus, the comments on previous work has been generated.

4.2 Regional Geology

In the general area a wide belt of metavolcanic and metasedimentary units trend southwest. Mafic to intermediate flows metamorphosed to greenschist facies, are cut by intrusive trondhjemitic gneisses and granodiorite throughout the belt. The meta volcanics are mainly metamorphosed andesites and basalts. At the contacts with the intrusives, the metavolcanics are hornblendic fine to medium grained and transformed to schists and gneisses.

Within this volcanic complex are some mafic and lapilli tuffs and agglomerates, intermediate felsic flows and minor tuffaceous sediments. Quite distant from the area of interest but adjacent to the above complex are a thick band of detrital meta sediments. The material within the meta sediments are derived from metavolcanic rock and hypabyssal felsic intrusive rocks.

Certain areas of extensive cherty Iron Formation are present and smaller bands are sporadically developed, intercalated within the volcanic complex.

From the most extensive work in the area, key structural information is lacking and even the foliation direction is difficult to determine. Stratigraphic information seemed insoluble according to Milne who did the most detailed work. Later work indicates stratigraphy is at least 45° from the southwest trend of the overall structure.

The general foliation has been established as southwest. From detail on the Nat River Iron Formation which lies at the boundary of the mafic metavolcanics, a major fold plunges northwest and trends east west. The plunge attitudes in small scale folds and primary liveations are northwest. Plunges of folds in Sewell are between 40° and 60°. Iron Formations, important because of structural indications support the northwest plunge. Faults of variable displacement deviate from a north trend to same direction partially east and west thereof. Attitudes of jointing are of little relevance to this study.

4.3 Property Geology

A contorted mix of basalt and amphibolitized basic volcanics rock occupies most of the map area with dioritic intrusions sporadically invading the basalt. There are local intercalations of tuff and tuffaceous sediment. In some local area where diorite invades the country rock the tuff has been transformed to fuchsitic green carbonate.

Interbeds of Iron Formation are present within the area. It is theorized that in general where contortion was intense, finer grained basalt has been transformed to chlorite schist and the more coarse phases of the basalt recrystallized to amphibolite. The usual accessories such as carbonate, epidote, magnetite are extensively developed.

The diorite detected widely in some drill holes appears to represent the shallow cap of a larger injection with a myriad of tension fractures now filled with quartz carbonate. Although peridotites of various form and dimension are wide spread in the general area, none have been detected on the immediate property. Intrusions of quartz feldspar porphyry have been sporadically reported in drill holes.

The Iron Formation which occurs randomly seems largely neglected by past workers and has been in many cases undetected.

Many faults with a wide range of intensity have been detected by mapping drilling and inferred from the geophysical results.

Folding is abundant and intense but no mapping has been done at a scale that would illustrate the folding except some limited results from the geophysical survey.

5.0 GEOPHYSICAL AGENDA

5.1 Line Cutting

The most recent exploration by Sewell Mining Corp. began in July, 1996. M. C. Exploration Services Inc. line cutting crews established a 0 + 00/0 +00 point on claim 798200. The start point was situated just south of an EW bush road between two small lakes (south of Sewell Lake). The baseline was orientated EW from this point and extends from 1000 m W to 3000 m E. Three tie lines parallel to the baseline were cut at 800N, 1000S, and 2000S. Cross-lines were cut at a 100 m interval near the main showings (NE part of the property) and at a 200 m interval over the remaining property area. The Sewell 1-96 Grid comprises 93.8 km of cut lines, picketed at a 25 m interval.

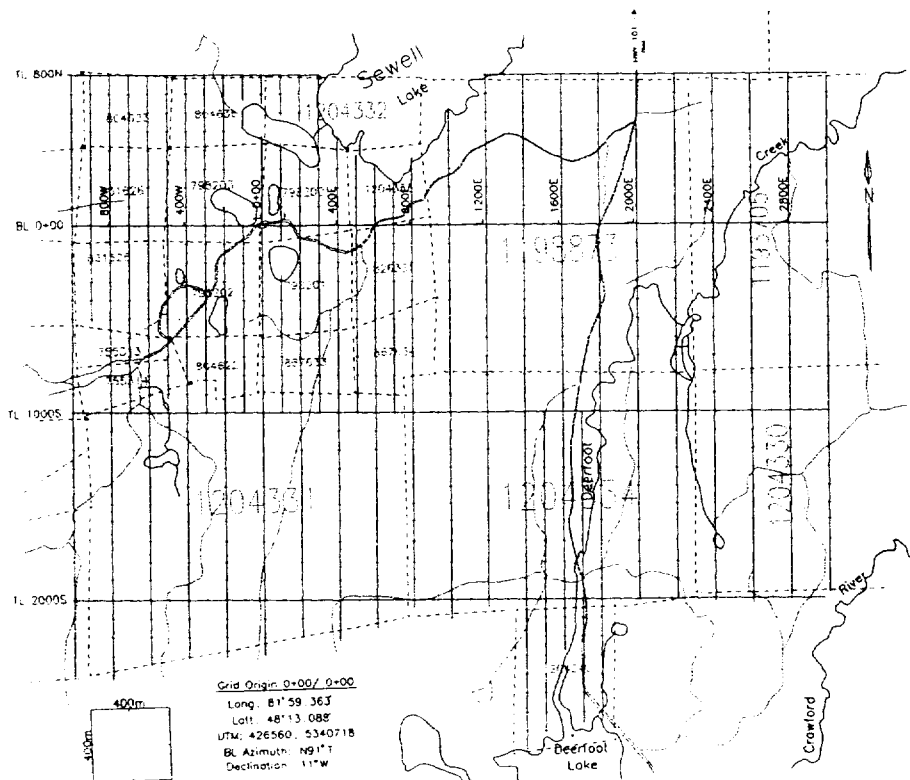


Figure 3 - Selected Sewell - 1 - 96 Grid

5.2 Total Field Magnetic Survey

5.2.1 Procedure

MCX geophysical crews read the total field magnetic survey in July-August, 1996 with the GSM-19, Terra-Plus Overhauser magnetometers. Operators, Dennis Crowley, Don Caron, and Matthew Stewart read all of the grid lines at a 12.5 m interval tallying 7447 readings. The data was down loaded to PC daily. The diurnal drift was monitored from the common Mahoney Grid Location, tie line 6500N/9075E, near the HWY 101 and #144 intersections. A reference field of 58375 nT was used. This base station location is used by MCX to level all grids in the West Porcupine area. The data was then processed using Geosoft to produce the final map. Refer to the addendum for equipment specifications and survey theory.

5.2.2 Results

The total field results on Plan 2 range from 57000 nT to 65048 nT, and has a mean of 58497 nT. This background infers a predominant underlay of basic rocks. The distorted and sporadic overall contour results are problematical. It is a result of several factors as follows; broad line spacings, multiple geological strikes, and the dilution of magnetite in the mafic rocks cut, to the alteration products near and along shear zones. Gathered information infers that the highest magnetic susceptibilities on the property are a result of underlying Iron Formation, ranging from 1000 to 1600 nT above background. The next highest susceptibilities are a result of underlying diabase dikes, 800 to 1000 nT high, third in line are the magnetite rich basalts. There is another problematic situation when attempting to correlate the magnetics with the geology in the area of low magnetic susceptibility bisecting the grid between lines 800E to 2400E trending west of north.

postulated that the shear zones in this area have disipated the magnetite in the underlying mafic rocks. When producing a shadow from the NE, a predominant lineament bisects the grid trending NW-SE. It perhaps explains the unexpected west of north trend of the Iron Formation southwest of Sewell Lake. When shadowing the total field results from the SE, several north of east lineaments appear. The most prominent one bisects the grid between the tie line 1000S and tie line 2000S most obvious from line 200W to line 1800E, and then continuous north of baseline beyond grid east on line 3000E near 300N. Another NE trending lineament just north of the baseline (obvious between lines 600W and 400W) is perhaps responsible for the horseshoe response of high susceptibilities. The predominant mag lows seen on line 2000E/1700S and line 1800E/1100S to 1500S are probably due to the presence of massive sulphides. The IP survey and aero EM anomalies do not refute this postulation.

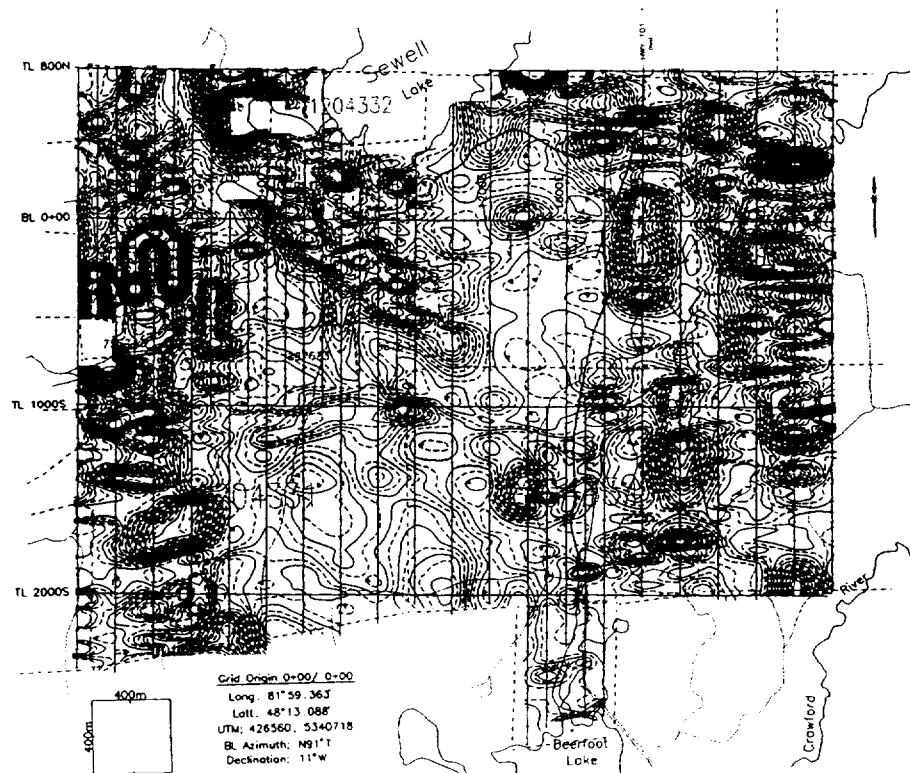


Figure 4; 1996 TFM Results (1: 40,000 scale), 50nT Contour Interval.

5.3 Induced Polarization Survey

5.3.1 Procedure

The crews used the Scintrex TSQ-3 (3000W) fixed generator in conjunction with the Androtex TDR-6 (six dipole) receiver to read the 55.85 km of induced polarization survey. Twenty (NS) lines at 200 m spacings were read with the Pole Dipole Array with a 50 m dipole, recording n1 to n6. The survey started with the infinity located north of the grid inducing current southerly. It was believed that the biasing effects (on the first sections starting from the west) were due to the underlying geology either striking or/ dipping north. Therefore, the infinity electrodes were put south (inducing current northerly) to attempt smoother (pantleg) results. Refer to IP survey statistics for infinity electrode positions. Crews achieved near 1 ampere of current (Ig) for the entire job producing good signal. The decay curves which are available in the data files prove good deliverance. Refer to the addendum for equipment specifications and some survey theory.

5.3.3 Results

The IP survey results are presented on sections along with a plan map (Plan 3, pocket) showing contoured resistivities for n1 with chargeability anomaly axis. The plotted apparent resistivities are in ohm's/50 m, and the total chargeability in mV/V. The changes in geological trend must be considered when delineating/interpreting the sections. For simplification the plan map of the IP survey will be discussed. It can be said that the high resistivities predominantly map the felsic rocks while the low resistivities map the mafic volcanics. It appears that the extrusive volcanics can be identified by moderate resistivities. The NS gathering of contours postulates that there is a fold near the central part of the grid. A SW trend of IP effects from line 0 to line 1000 E (300N to 500S) occurs in conjunction with a high mag.

A drill hole in this vicinity along with grab samples has proven this zone to be basalts with intercalations of Iron Formation. The high resistivities between baseline 0 and tie line 1000S at the west limit delineates the dioritic rocks intersected in the past. The low EW trending resistivity from 500 to 600S infers an interruption in the diorite with a good IP anomaly at 600S line 600W. A good IP effect occurs at the SW corner but its origin is unknown at this time. A near NS trend of good IP anomalies centrally located on the grid postulates concentrations of massive sulfides with/without graphite. A narrow trend of IP anomalies just south of tie line 1000S between lines 200W and 800E occurs in conjunction with a mag high; probable Iron Formation with an EW strike. At the east limit, line 3000E/400S textbook IP anomaly extends westerly up to line 2400E. A weaker, narrower IP effect trends parallel north of it. The origin is unknown. Another EW trend of IP anomalies at the NE corner coarsely follows a high mag. Perhaps Iron Formation is responsible for this effect. The EW trend of weak IP anomalies between tie lines 1000S and 2000S from line 200W to line 800E postulates disseminated sulfides along a probable EW fault. The sporadic IP anomalies at the SE corner are problematical while the good chargeability on line 2600E just south of tie line 1000S is of interest. This anomaly occurs west of a mag high.

5.3.4 Induced Polarization Survey Statistics

Client: Sewell Mining Corp.

Project: Sewell-1-96, Sewell Township.

Array: Pole Dipole, A= 50m

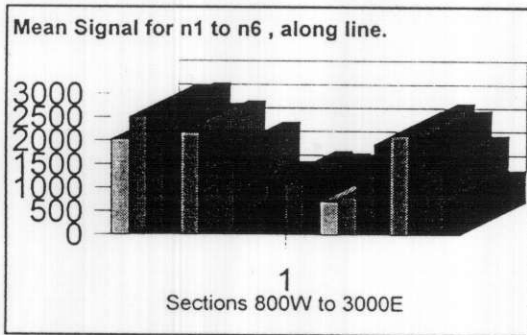
Instruments: Scintrexc TSQ-3, 3Kw Tx & Androtex TDR-6 Time Domain Rx

Operator: D Collin

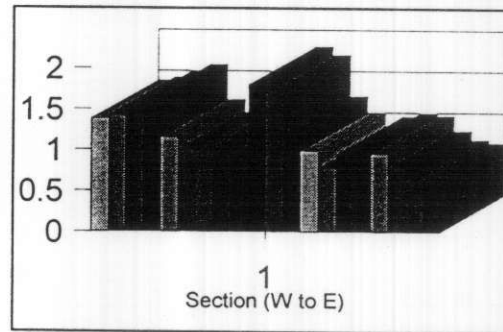
Survey Period: Sept. & Oct, 1996.

TABLE 2

| Section | S Limit | N Limit | Length | Traverse | Date | Infinity | Min Vp | Mx Vp | Avg Vp | Min Ig | Max Ig | Avg Ig | File |
|--------------------|---------|---------|--------------|---------------|-------------|-------------|--------------|--------------|---------------|--------------|--------------|-------------|--------|
| L 800W | -2400 | 800 | 3200 | S to N | Sep 14 | 400W/1300N | 32 | 21570 | 2025 | 0.21 | 2.23 | 1.38 | 1SW8W |
| L600W | -2350 | 800 | 3150 | N to S | Sep 12 | " | 102 | 26960 | 2507 | 0.31 | 2.73 | 1.42 | 1SW6W |
| L400W | -2300 | 800 | 3100 | S to N | Sep 11 | " | 34 | 20940 | 2532 | 0.14 | 2.4 | 1.5 | 1SW4W |
| L200W | -2300 | 100 | 2400 | N to S | Sep 11 | 300W/1100N | 111 | 16620 | 2105 | 0.38 | 2.56 | 1.58 | 1SW2W |
| L 0W | -2000 | 450 | 2450 | N to S | Sep 16 | " | 62 | 20130 | 2159 | 0.45 | 2.41 | 1.15 | 1SW0W |
| L 200E | -2150 | 250 | 2400 | S to N | Sep 16 | " | 76 | 6160 | 847 | 0.26 | 2.05 | 1 | 1SW2E |
| L 400E | -1300 | 450 | 1750 | N to S | Sep 17 | " | 62.6 | 20090 | 1709 | 0.145 | 1.98 | 1 | 1SW4E |
| L 600E | -2100 | 300 | 2400 | N to S | Sep 21 | 1000E/600N | 39 | 12500 | 875 | 0.23 | 2.42 | 1 | 1SW6E |
| L 800E | -2050 | 350 | 2400 | S to N | Sep 22 | " | 44 | 4283 | 564 | 0.1 | 3.08 | 0.92 | 1SW8E |
| L1000E | -2100 | 650 | 2750 | N to S | Sep 25 | 1400E/1200N | 29 | 9240 | 1091 | 0.21 | 2.5 | 1.8 | 1SW10E |
| L1200E | -2050 | 800 | 2850 | S to N | Sep 27 | " | 127 | 5144 | 1055 | 0.28 | 2.48 | 1.7 | 1SW12E |
| L1400E | -2700 | 800 | 3500 | N to S | Sep 28 | " | 40 | 7280 | 1023 | 0.21 | 2.44 | 1.2 | 1SW14E |
| L1600E | -2250 | 750 | 3000 | S to N | Sep 29 | 1900E/1300N | 15 | 9780 | 696 | 0.21 | 2.08 | 0.99 | 1SW16E |
| L1800E | -2650 | 800 | 3450 | N to S | Oct 2 | " | 16 | 10780 | 778 | 0.11 | 1.86 | 0.78 | 1SW18E |
| L2000E | -2000 | 800 | 2800 | S to N | Oct 10 | 1800E/2800S | 7 | 10980 | 1096 | 0.24 | 2 | 0.95 | 1SW20E |
| L2200E | -2250 | 800 | 3050 | S to N | Oct 10 | " | 86 | 20850 | 1936 | 0.04 | 1.75 | 0.99 | 1SW22E |
| L2400E | -2000 | 800 | 2800 | S to N | Oct 11 | " | 63 | 17700 | 2105 | 0.2 | 1.78 | 0.96 | 1SW24E |
| L2600E | -2000 | 800 | 2800 | N to S | Oct 12 | 2400E/2200S | 26 | 17910 | 1956 | 0.24 | 1.6 | 0.78 | 1SW26E |
| L2800E | -2000 | 800 | 2800 | S to N | Oct 13 | 2400E/2400S | 66 | 11400 | 1420 | 0.21 | 0.96 | 0.67 | 1SW28E |
| L3000E | -2000 | 800 | 2800 | N to S | Oct 13 | " | 77 | 4885 | 693 | 0.2 | 1.05 | 0.63 | 1SW30E |
| 20 SECTIONS | | | 55850 | meters | read | | 55.73 | 13760 | 1458.6 | 0.219 | 2.118 | 1.12 | |



Mean Signal Quality, Vp (milliVolts)



Mean Induced Current, Ig (Amperes)

The resulting signal quality is the mean Primary Voltage read on each line at the Receiver. This signal is dependent upon the resistance of the ground which the Induced Current travels through.

Figure 5; IP Survey, Chargeability Contours @ 1mV/V for nI Apparent

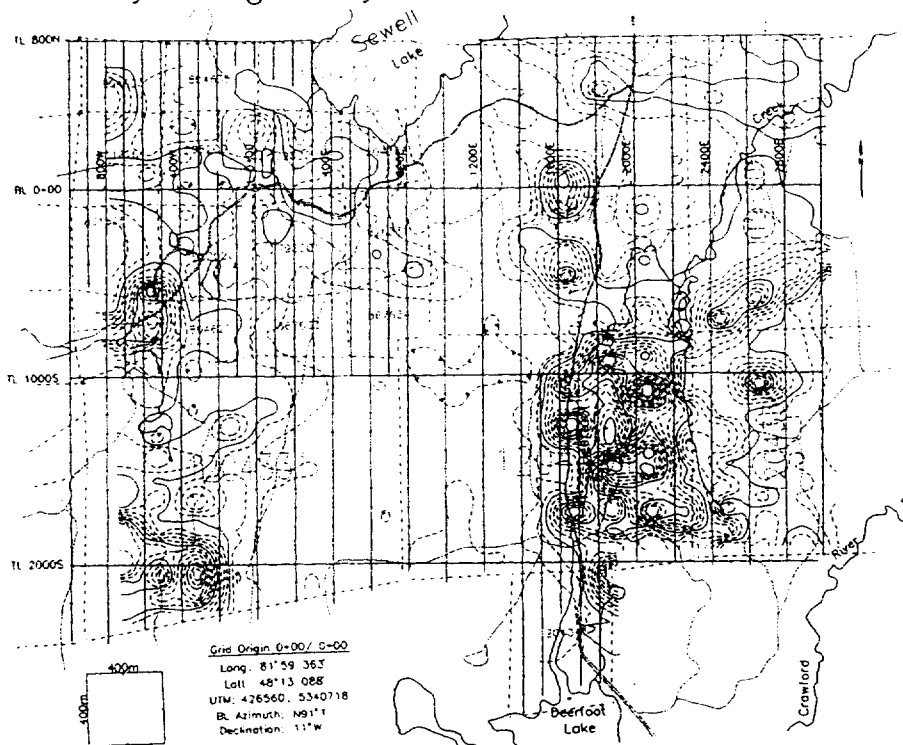
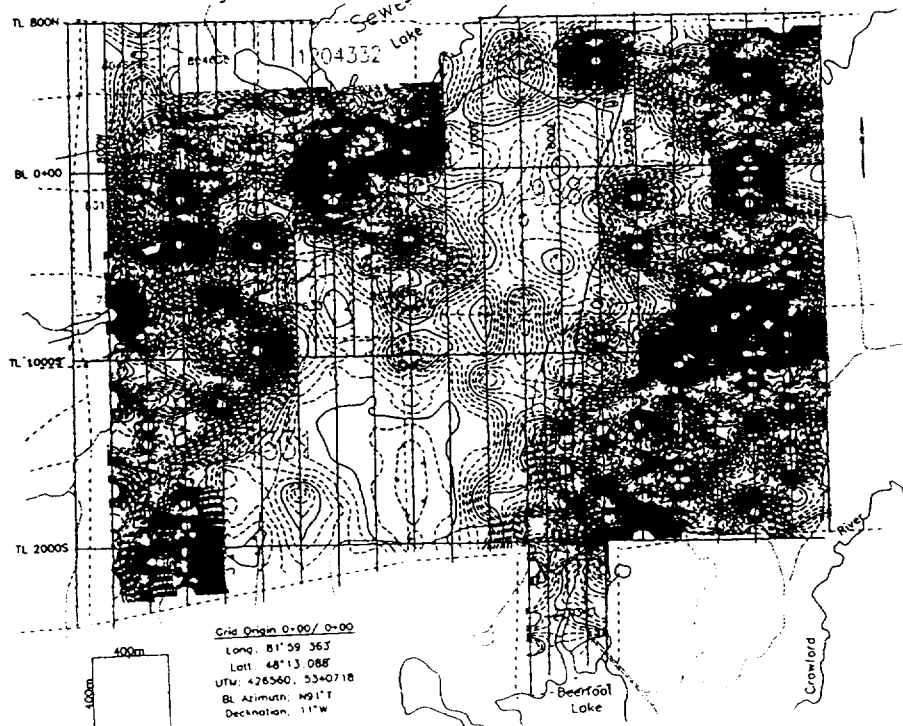


Figure 6; IP Survey, Resistivity Contours @ 50 ohm/meters



6.0 Recommendations

A tentative (1050) meter diamond drill program is recommended as a phase I group in six (6) locations on the property. Tentatively thirteen (13) holes will be collared at the six (6) locations.

- Area A Co-ordinates Four (4) holes to intersect the green carbonate diorite contact.
- Area B Co-ordinates Two (2) holes to test a lensing mag high with an extension of high chargeability to the west.
- Area C Co-ordinates Two (2) holes to explore a linear feature outlined by the magnetometer and accentuated by the shadow plot.
- Area D Co-ordinates Two (2) holes to test a zone of high chargeability and NS fault on L1800E at 1450S.
- Area E Co-Ordinates A hole to test an appendage of the property at the south extremity of the group with a high chargeability and HLEM Axis on L3900E at 450S of tie line 2000S.
- Area F Co-ordinates Three (3) holes to intersect Iron Formation over its maximum extent within the area stripped by Barrick; yet is undocumented. Minor gold reported by Glen Auden.

Area G (Tremblay Showing) Information on the area is as follows;

There is a large amount of uncoordinated data. There is a quantity of sampling by professionals in a hit and run manner. Scant good values appear in a sea of trace values for gold. Geological and assay sketches were probably never made. Informations from present owners indicate original trenches with some Au values were buried by the stripping operations of the Gold rock Glen Auden option. The stripped area was examined recently and channel samples were taken of the principal veins. The minute veins with wide carbonate margins occur in tension fractures in massive diorite. The geological situation is quite clear and no further work is recommended. In summation, the fractures which are narrow but persistent result from the deterioration of feldspar in the diorite during dynamic events producing a late fraction of ankeritic carbonate with a core of meager quartz with rare fine pyrite that was injected along the tension fractures.

Proposed Diamond Drill holes in summary

| | | |
|--------|----------------------------|--------------------|
| Area A | 4 holes of 150 meters each | 600 meters |
| Area B | 2 holes of 100 meters each | 200 meters |
| Area C | 2 holes of 175 meters each | 350 meters |
| Area D | 2 holes of 125 meters each | 250 meters |
| Area E | 1 hole of 200 meters | 200 meters |
| Area F | 2 holes of 125 meters each | <u>250 meters</u> |
| | | <u>1850 meters</u> |

6.1 Proposed 1997 Exploration Budget

1040m of diamond drilling @ \$50.00 /per= \$ 52,000.00

Mob. & Demob. of drill= \$ 2,000.00

Project Geologist= \$ 3,500.00

Project Management= \$ 14,500.00

Core Assays= \$ 4,000.00

Sub-Total= \$ 76,000.00

GST= \$ 5,320.00

TOTAL= \$ 81320.00 +/- 10% Contingency.

Feb 22, 97.

Respectfully Submitted;



R J Daigle

7.0 Certification

I, Richard J Daigle residing at 1115 Maclean Drive, Unit 15, in the city of Timmins, ON, certify;

- 1.0 This is my 17th year of practice in mining exploration.
- 2.0 I am registered with the Ontario Association of Certified Technologist.
- 3.0 I have been employed by MC Exploration Services Inc since 1992 and presently have the job title **Geophysical Evaluator/ Manager Of Operations.**
- 4.0 Accomplished geophysical contracts (IP, HLEM, TFM, SP) and property assessments in Eastern Canada, 1987 to 1992.
- 5.0 Accomplished geophysical contracts in northeastern ON, 1985-87.
- 6.0 Geophysicist Assistant/ Senior Technician for Kidd Creek Mines under the supervision of Mr D Londry, 1981- 85.
- 7.0 Experienced Max-Min (HLEM) surveys/ interpretations under the supervision of MR J Betz, 1979- 81.
- 8.0 Received Electronic Technologist Certificate in 1979.
- 9.0 **I have no direct interest in the property reported on.**

Date: Feb 23, 97

Timmins, ON.



Richard J Daigle

8.0 Equipment Specifications

GEM Systems Advanced Magnetometers

GSM-19 V 4.0

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

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

1.0 Instrument Description

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

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

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

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

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

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

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

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

2.0 Instrument Specifications

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

Induced Polarization

Androtex TDR-6; The TDR-6 induced polarization receiver is a highly cost-effective instrument for the detailed measurements of IP effects and apparent resistivity phenomenon. Up to six dipoles can be measured simultaneously, thus increasing production. A wide input voltage range, up to 30V, simplifies surveys over the narrow shallow conductors of large resistivity contrast. Input signal indicators are provided for each dipole. All data are displayed on a 2x16 character display LCD module and any selected parameters can be monitored on a separate analogue meter for noise evaluation during the stacking/averaging. Although the TDR-6 receiver is automatic it allows full control and communications with the operator at all times during measurements. Since the input signal synchronizes the receiver at each cycle, the transmitter timing stability is not critical and any standard time domain transmitter can be used. Data are stored in the internal memory with a capacity of up to 2700 readings (450 stations). The data format is directly compatible with Geosoft without the necessity of an instrument conversion program.

Features

Wide input signal range Automatic self-potential cancellation
Stacking/averaging of Vp and M for high measurement accuracy in noisy environments High rejection of power line interference Continuity resistance test Switch selectable delay and integration time Multiwindow chargeability measurements Digital output for data logger Six channel input provided Compatible with standard time domain transmitters Alpha-numeric LCD display Audio indicator for automatic SP compensation Portable

Specifications

| | |
|--------------------------|--|
| Dipole | n1 to n6 simultaneously |
| Input Impedance | 10 megohm |
| Input Voltage (Vp) | range: 100 V to 30 Volts (automatic), accuracy: .25%, resolution: 10 V. |
| Self Potential (SP) | range: 2V, accuracy: 1%, Automatic compensation 1 |
| Chargeability (M) | range: 300mV/V, accuracy: .25%, resolution: .1mV/V |
| Automatic Stacking | 2 to 32 cycles |
| Delay Time | programmable |
| Integration Time | programmable for each gate (10 gates) |
| Total Chargeability Time | During integration time of all gates |
| Synchronization Signal | programmable from channel 1 to 6 |
| Filtering | power lines: dual notch 60/180Hz or 50/150Hz, 100dB, other: Anti-alias, RF and spike rejection. |
| Internal Test | Vp= 1V, M= 30mV/V |
| Ground resistance test | 0 to 200 Kohm |
| Transmitting Time | 1, 2, 4 and 8 sec pulse duration, ON/OFF. |
| Digital Display | Two line 16 alphanumeric LCD. |
| Analogue Meters | Six-monitoring input signal and course resistance testing. |
| Controls | Push button reset, toggle start-stop, rotary Rs-in-test, rotary (data scroll) display, rotary (data scroll) Dipole, keypad 16 key 4x4. |
| Memory Capacity | 2700 readings, 450 stations (n1 to n6). |
| Data Output | serial I/O RS-232 (programmable baud rate), Geosoft compatible output format. |
| Temperature Range | Operating: -30 to +50 C, storage -40 to +60 C. |
| Power Supply | Four 1.5V D cells. |
| Dimensions | 31x16x29 cm |
| Weight | 6.5 kg (14.3lbs) |

Scintrex TSQ-3;The Motor-Generator set consists of a reliable Briggs and Stratton four stroke engine, coupled to a brushless permanent magnet alternator. The transmitter design employs solid-state components both for power switching and control circuits. Output waveforms and frequencies are selectable; square wave continuous for frequency domain and square wave interrupted for time domain. The programmer is crystal controlled for high stability. While care still must be taken when working with high voltages, the TSQ-3 features overload, underload and thermal protection for maximum safety. Stabilization circuitry ensures that the output current (I_g) is automatically controlled to within $\pm 1\%$ for up to 20% external load or $\pm 10\%$ input voltage variations. Voltage, current and circuit resistance are presented on a LED digital display. The system functions as follows; The motor turn turns the generator (alternator) which produces 800Hz, three phase, 230VAC. This energy is transformed upwards according to a front panel voltage setting in a large transformer housed in the TSQ-3. The resulting AC is then rectified is a rectifier bridge. Commutator switches then control the DC voltage output according to the waveform and frequency selected.

Specifications

| | |
|----------------------------|---|
| _ Output Power | 3000 VA maximum |
| _ Output Voltages | 300,400,500,600,750,900,1050,1200,1350 & 1500V |
| _ Output Current | 10 amperes maximum |
| | Output Current Stability Automatic controlled to within $\pm 1\%$ for up to 20% external load variation or up to $\pm 10\%$ input voltage variation. |
| _ Stabilization Protection | (Over-range) High Voltage shuts off automatically if the control range exceeds 20%. |
| _ Digital Display | Light emitting diodes permit display up to 1999 with variable decimal point; switch selectable to read input voltage, output current, external circuit resistance, dual current range, switch selectable. |
| _ Current Rdg Resolution | 10mA on coarse range (1-10A) and 1mA on fine range (0-2A). |
| Time Domain Cycle | t:t:t:t; ON:OFF:ON:OFF:automatic |
| _ Polarity Change | Each 2t, automatic. |
| _ Pulse Duration | Standard t= 1,2,,4,8,16 and 32 seconds, optional |
| _ Stability | Crystal controlled to better than $\pm 1\%$ with external clock option better than 20ppm over operating temperature range. |
| _ Efficiency | .78 |
| _ Operating Temperature | Range; -30_C to +50_C |
| _ Overload Protection | Automatic shut-off at 3000VA. |
| _ Underload Protection | Automatic shut-off at current below 85mA. |
| _ Thermal Protection | Automatic shut-off at internal temp. of 85_C. |
| _ Dimensions | 350cm x 530cm x 320cm (transmitter). |
| _ Motor | Briggs and Stratton, four stroke 8HP. |
| _ Alternator | Permanent magnet type, 800Hz, three phase 230VAC at full load. |
| _ Output Power | 3000 VA maximum. |
| _ Dimensions | 520cm x 715cm x 560cm (generator assembly). |
| _ Weight | Transmitter;25.0kg, Generator Assembly 72.5kg. |

Output; DC interrupted squarewave.

9.0 Survey Theory

IP Method

The phenomena of Induced Polarization (IP) was reported as early as 1920 by Schlumberger. The IP survey technique allows a variety of arrays (which all have advantages and disadvantages) and reads two separate elements;(1)The chargeability or IP effect (M) and Apparent Resistivity. The IP technique is useful for detecting sulphide bodies and is also useful as a structural mapping tool. The IP effect is the measurement of the residual voltage in rocks that remains after the interception of a primary voltage. It includes many types of dipolar charge distributions set up by the passage of current through consolidated or unconsolidated rocks. Among the causes are concentration polarization and electrokinetic effects in rocks containing electronic conductors such as metallic sulphides and graphite. The term overvoltage applies to secondary voltages set up by a current in the earth which decays when it is interrupted. These secondary effects are measure by a receiver via potential electrodes. The current flow is actually maintained by charged ions in the solutions. The IP effect is created when this ionic current flow is converted to electronic current flow at the surface of metallic minerals (or some clays, and platy silicates). The IP method is generally used for prospecting low grade (or disseminated) sulphide ores where metallic particles, sulfides in particular, give an anomalous response. Barren rock (with certain exceptions) gives a low response. In practice, IP is measured in one or two ways;(1) In a pure form, a steady current of some seconds (nominally 2 seconds) is passed and abruptly interrupted. The slowly decaying transient voltage existing in the ground are measured after interruption. This is known as the time domain method. The factor V_s/V_p is the integrated product for a specified time, and several readings are averaged (suppressing noise and coupling effects). The resultant chargeability, M is essentially an unitless value but it is usually represented in mV/V. The second method entails a comparison of the apparent resistivity using sinusoidal alternating currents of 2 frequencies within the normal range of 0.1 to 10.0 cps.. The factor used to represent the IP effect by this frequency domain method is the percent frequency effect (PFE) and is defined by $(R_1-R_2)/R_1 \times 100\%$ where R1 and R2 are the apparent resistivities at the low and high frequencies.

Use and Limitations

The effective depth of penetration of any IP survey is a function of the resistivity of the surface layer('s) with respect to the resistivity of the lower layer. All arrays have different effects from this resistivity contrast, some are less affected than others. When the surface layer is 0.01 of the lower layer, the effective penetration is very poor hence the term masking. Masking occurs most often in areas of thick clay cover. The size of the target therefore becomes important when detection is desirous under a conductive surface layer. The frequency domain methods are the most adversely affected by masking as inductive coupling can be much greater than the response.

Standard Definitions of Chargeability

The IP parameter, chargeability (M) varies with time. For practical reasons the entire decay curve is not sampled. Instead the secondary voltage is sampled one or more times at various intervals. Because the secondary voltage is received at extremely low levels in many prospecting situations, measurements of its amplitude at any given time is extremely susceptible to noise. Therefore, the secondary voltage is usually integrated for a period of time called a gate. Thus, if the noise has a zero mean, the integration will tend to cancel the noise. The Newmount M Factor is a standard time domain IP parameter. The gate delay, of 80 mSeconds (used by the TDR-6) was chosen to allow time for normal electromagnetic effects and capacitive coupling effects between the transmitter and receiver to attenuate so that the secondary voltage consists only of the IP decay voltage.

The TDR-6 total integration time of 1580 milliSeconds (gate) is divided into ten individual gates. The time-constant of the IP dispersion curve, Cole-Cole dispersion (W H Pelton, 1977), obtained from the ten individual gates (windows) is directly related to the physical size of the metallic particles. This data is available at the clients request since all of the obtained field data is archived (downloaded) to computer.

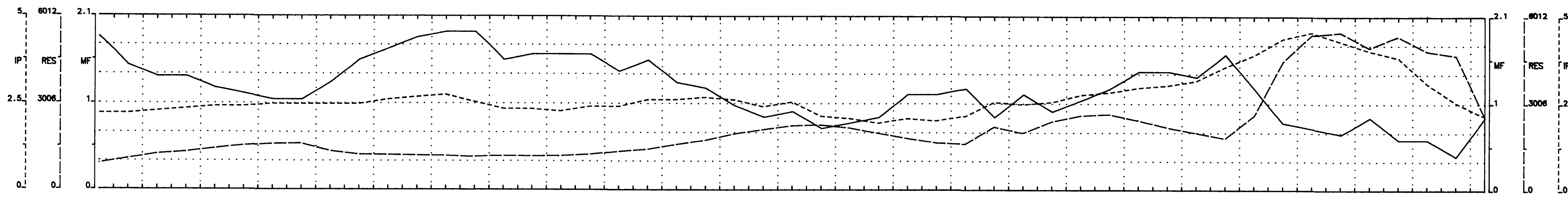
Magnetic Survey

Theory;

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

Method;

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

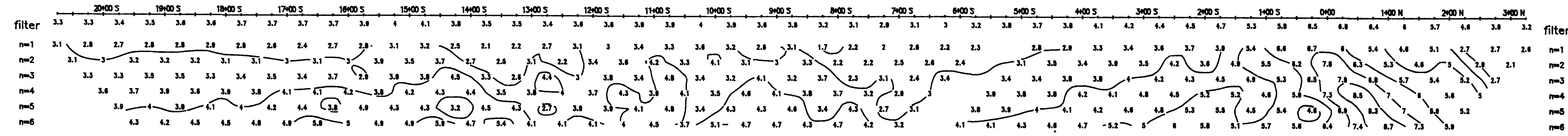


Topo

Topo

Interpretation

Interpretation

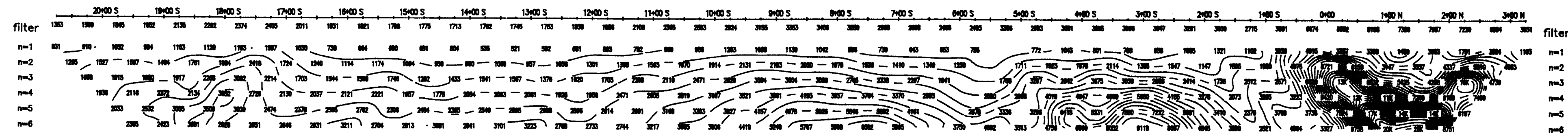


Chargeability
mV/V

Chargeability
mV/V

Interpretation

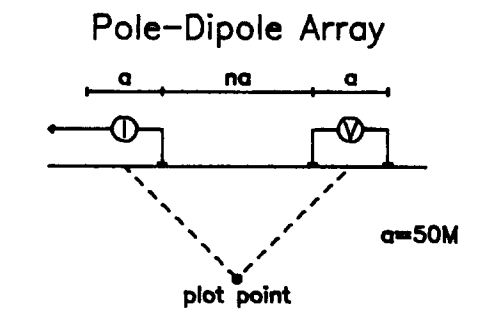
Interpretation



Resistivity
ohm/meters

Resistivity
ohm/meters

L- 200E



Filter
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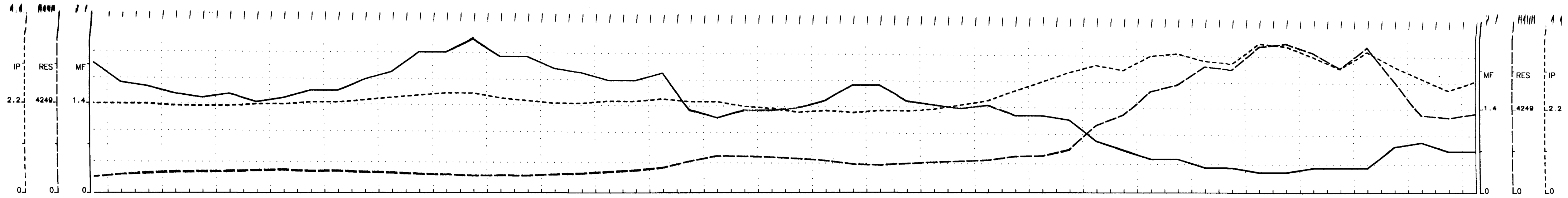
Cont. Intervals Profiles
Resistivity ; 500 ohm/meter
Chargeability ; 1.0 mV/V
Metal Factor ; 1 %

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

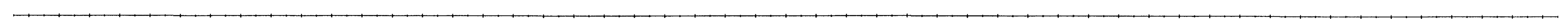
INTERPRETATION

Scale 1:5000
50 0 50 100 150 200 250 300
(meters)

Sewell Mining Corp.
Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.



Topo

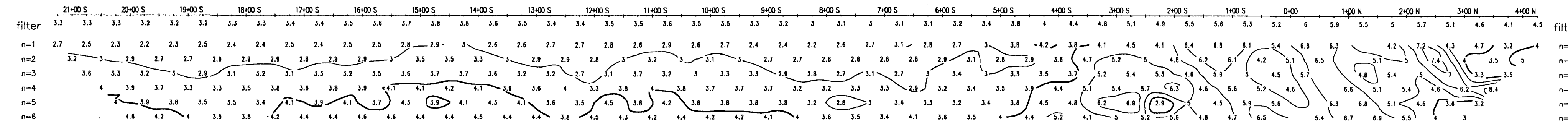


Topo

Interpretation



Chargeability
mV/V



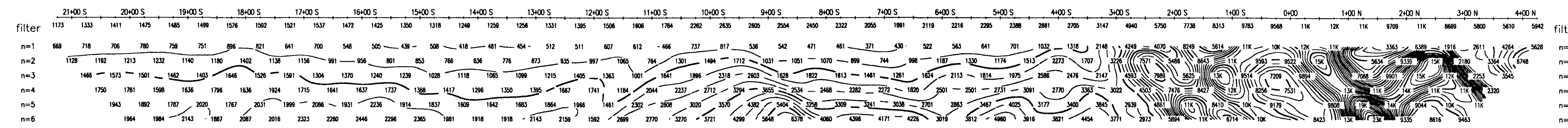
filter

Chargeability
mV/V

Interpretation



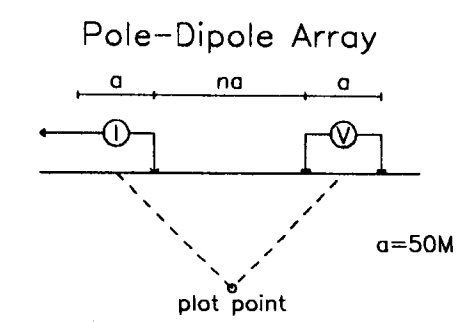
Resistivity
ohm/meters



filter

Resistivity
ohm/meters

L- 400E



Filter
*
**

Cont. Intervals Profiles
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - -
Metal Factor ; 1 % - - - - -

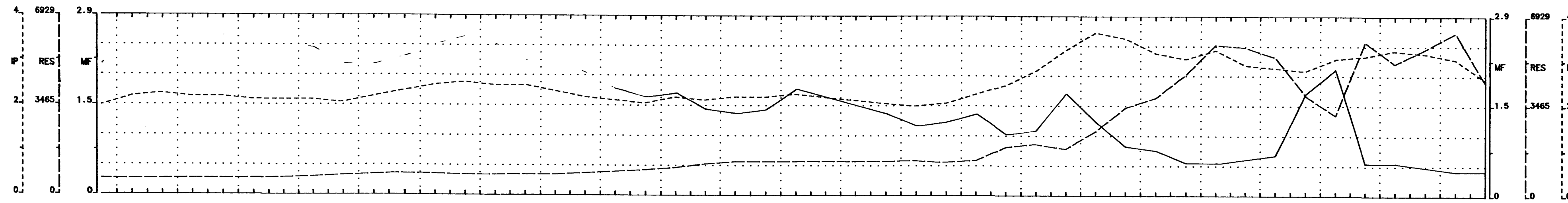
INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
Moderately Low Effect
Moderately High Effect
High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

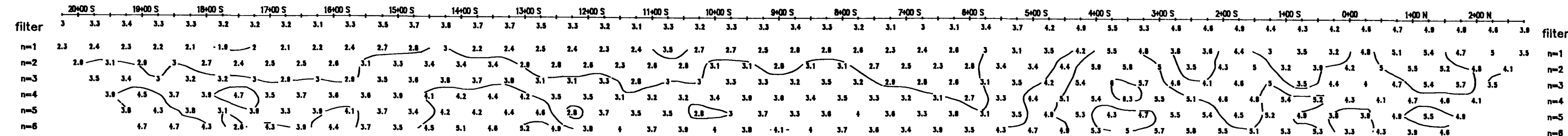
Scale 1:5000
0 50 100 150 200 250 300
(meters)

Sewell Mining Corp.
Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.



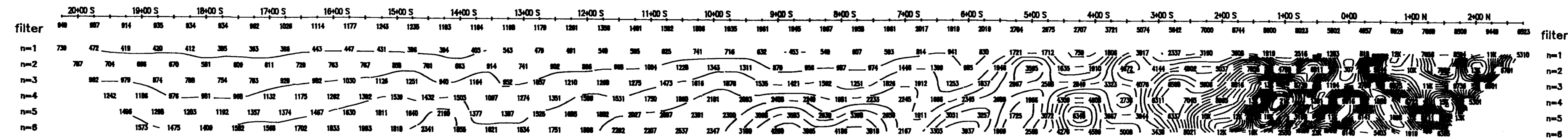
Topo

Interpretation



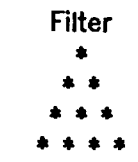
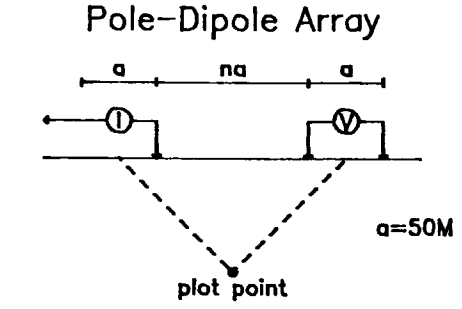
Chargeability
mV/V

Interpretation



Resistivity
ohm/meters

L- 600E



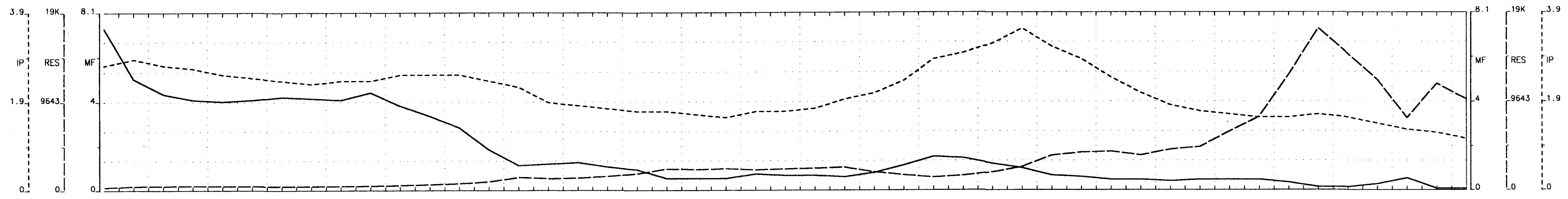
Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - -
 Metal Factor ; 1 % -----

INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Intergration Time, 80mS Delay.
 MT= (80+80+80+80+160+160+160+320+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION
 [White Box] Low Effect
 Poorly Chargeable mV/V, IP effect
 Low Apparent Resistivity, rho
 [Light Gray Box] Moderately Low Effect
 [Medium Gray Box] Moderately High Effect
 [Dark Gray Box] High Effect
 Good Chargeability mV/V, IP effect
 High Apparent Resistivity, rho

Scale 1:5000
 50 0 50 100 150 200 250 300
 (meters)

Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.

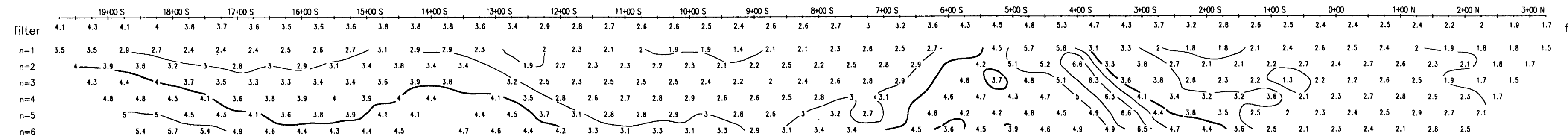


Topo

Topo

Interpretation

Interpretation

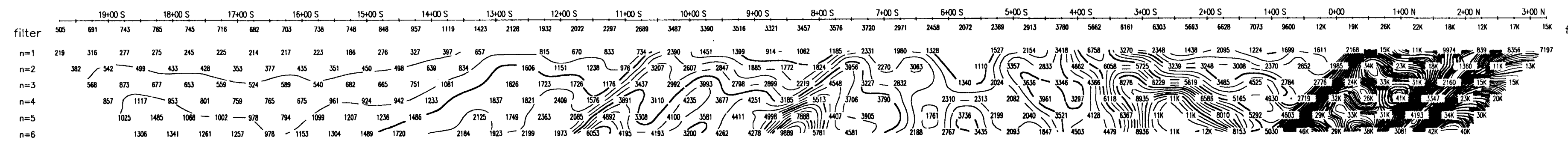


Chargeability
mV/V

Chargeability
mV/V

Interpretation

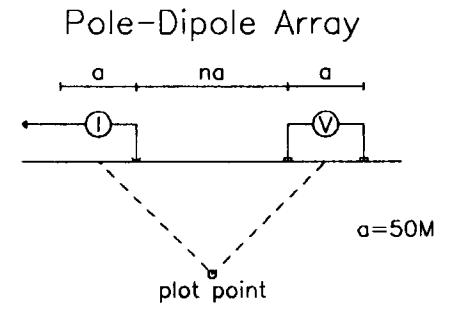
Interpretation



Resistivity
ohm/meters

Resistivity
ohm/meters

L- 800E

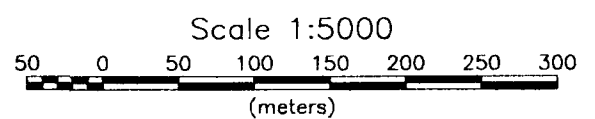


Filter
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Cont. Intervals Profiles
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - -
Metal Factor ; 1 % -----

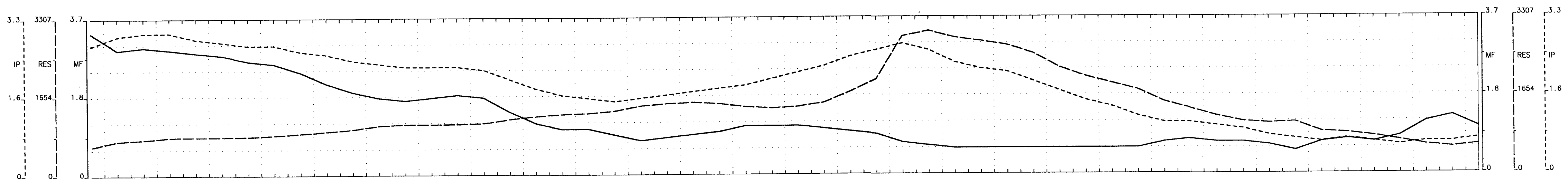
INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION



Sewell Mining Corp.

Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.



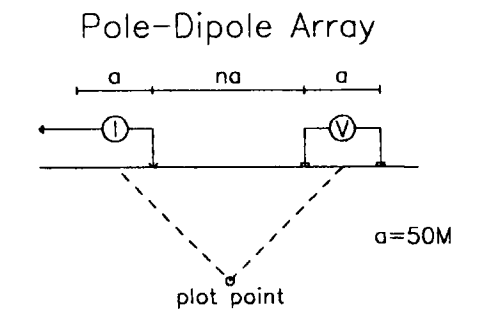
Topo

Topo

Interpretation

Interpretation

L-1000E



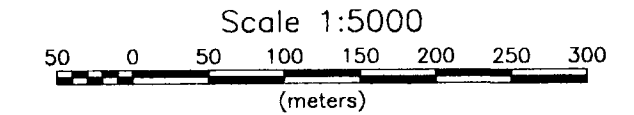
Filter
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Cont. Intervals Profiles
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - -
Metal Factor ; 1 % - - -

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Integration Time, 80mS Delay.
MT = (80+80+80+80+160+160+320+320) mSec
Scintex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

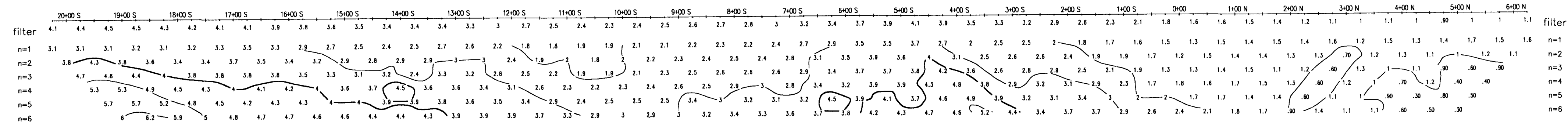
INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



Sewell Mining Corp.

Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.

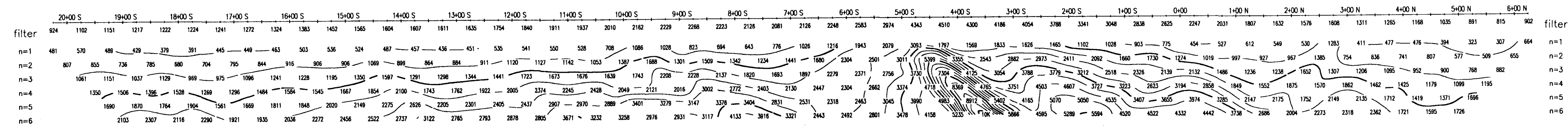


Chargeability
mV/V

Chargeability
mV/V

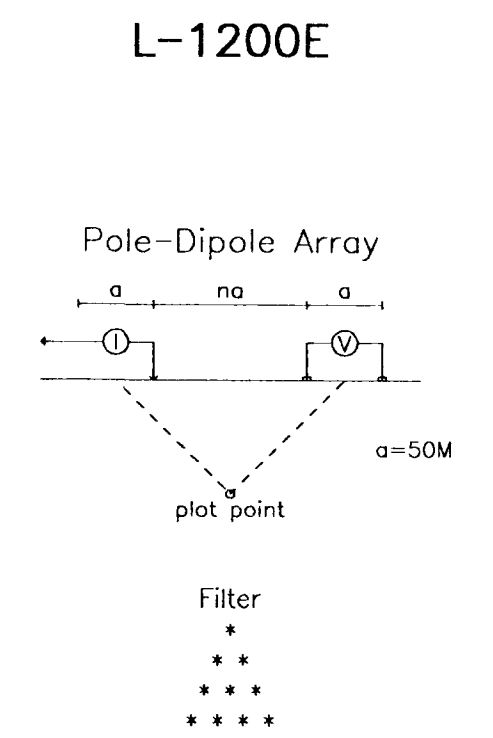
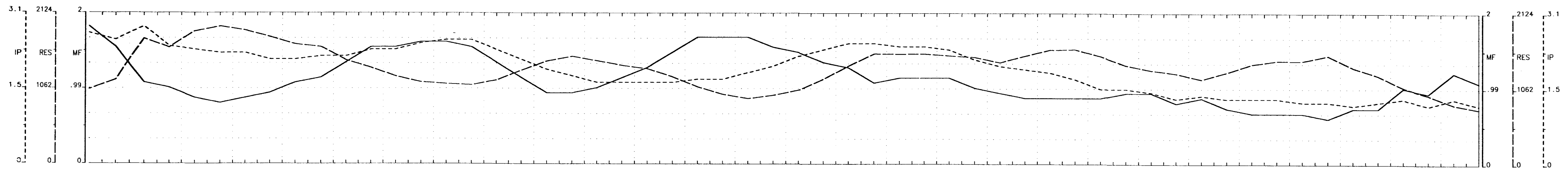
Interpretation

Interpretation



Resistivity
ohm/meters

Resistivity
ohm/meters

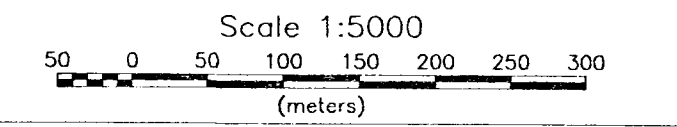


Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - -
 Metal Factor ; 1 % - - - - -

INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Intergration Time, 80mS Delay.
 MT = (80+80+80+80+160+160+160+320+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

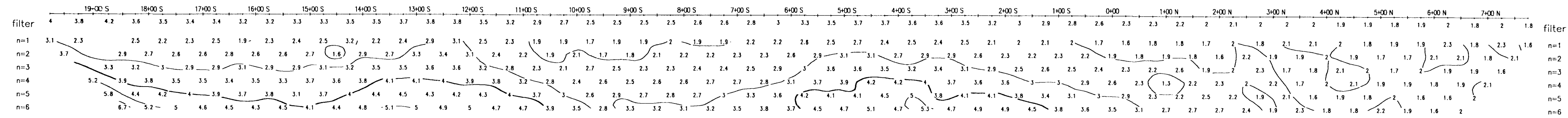
- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.

Topo
 Interpretation

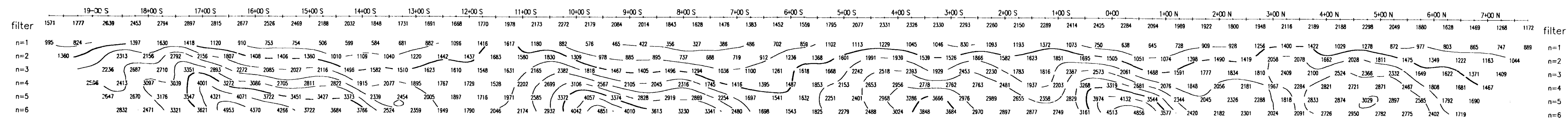
Topo
 Interpretation



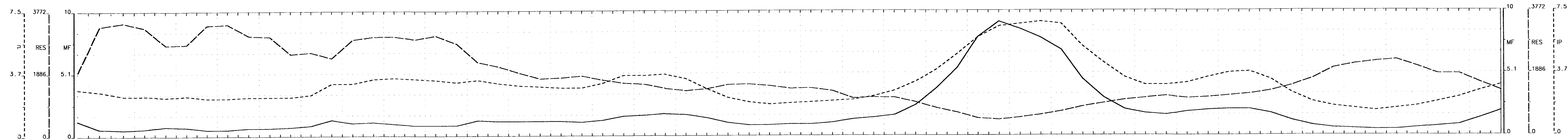
Chargeability
mV/V

Topo
 Interpretation

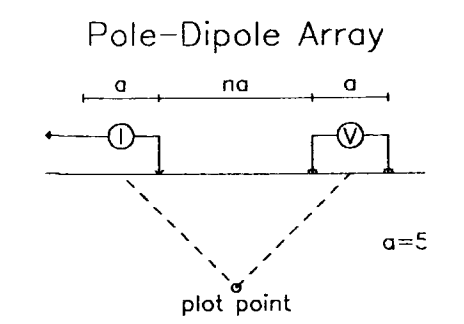
Topo
 Interpretation



Resistivity
ohm/meters



L-1400E



Filter
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Topo

Interpretation

Cont. Intervals Profile
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - -
Metal Factor ; 1 % - - -

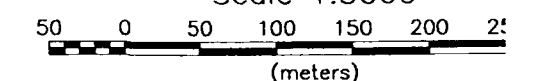
INSTRUMENTS

Androtex TDR6, Time Domain Recei
1760mSec Total Integration Time, 80r
MT = (80+80+80+80+160+160+160+320+320)
Scintrex TSQ-3 Transm
8Second Total Duty Cycle, 100 duty cycle

INTERPRET

- Chargeable mV/V, IP
- Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
- Good Chargeability mV/V, IP
- High Apparent Resistivity, rho

Scale 1:5000



Sewell Mining Corp.

Induced Polarization Sur
Sewell-1-96
Sewell Township, NTS: 42-

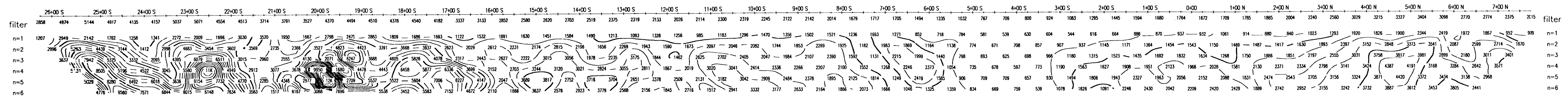
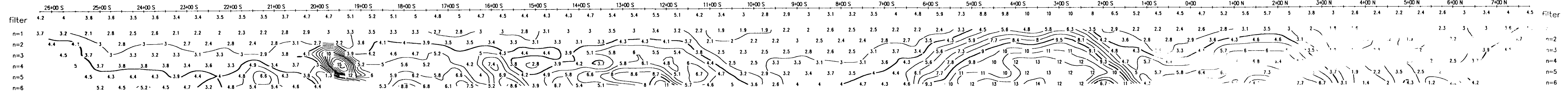
Porcupine Mining Divisic
M. C. Exploration Services Inc. Au

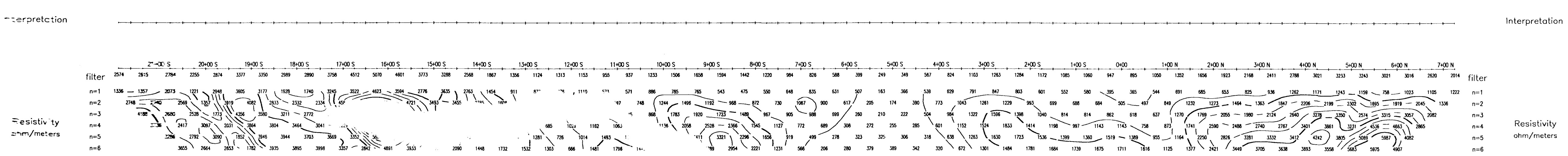
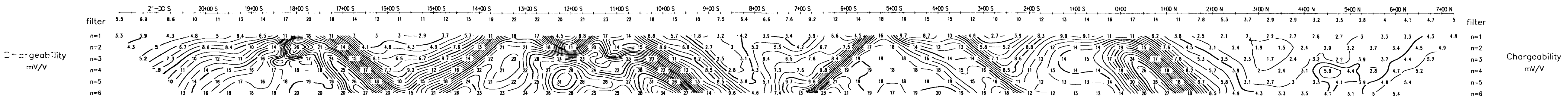
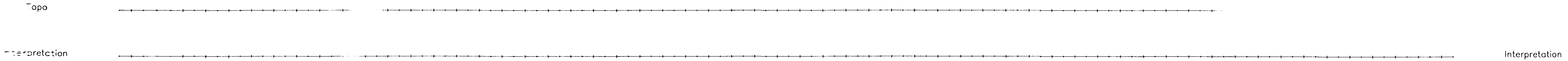
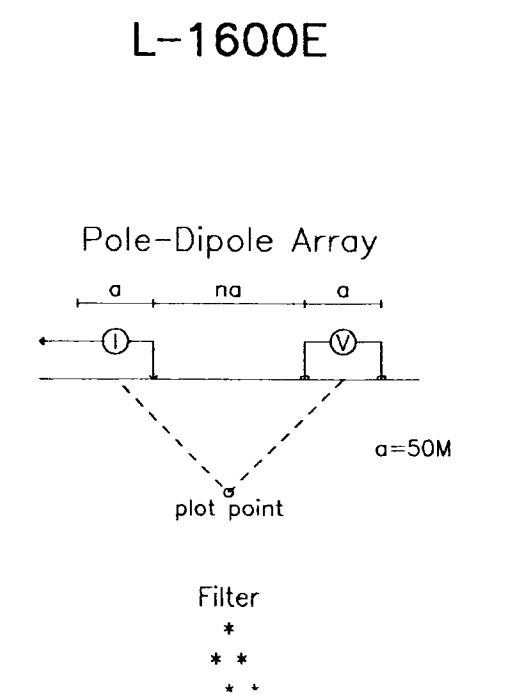
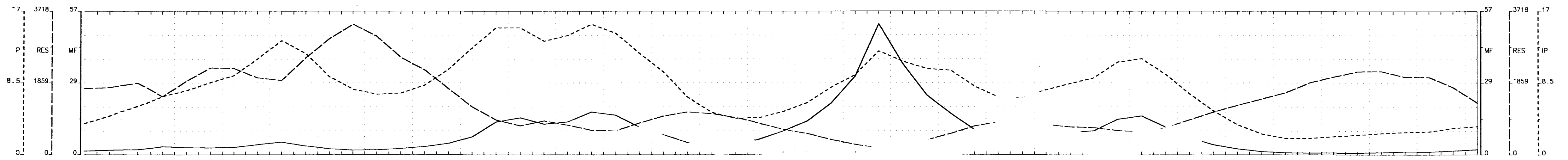
Interpretation

Chargeability
mV/V

Interpretation

Resistivity
ohm/meters



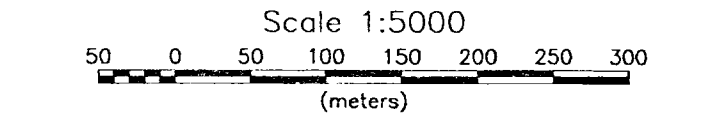


Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - -
 Metal Factor ; 1% - - - - -

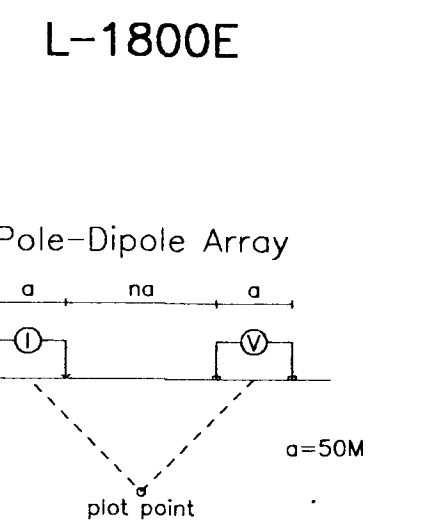
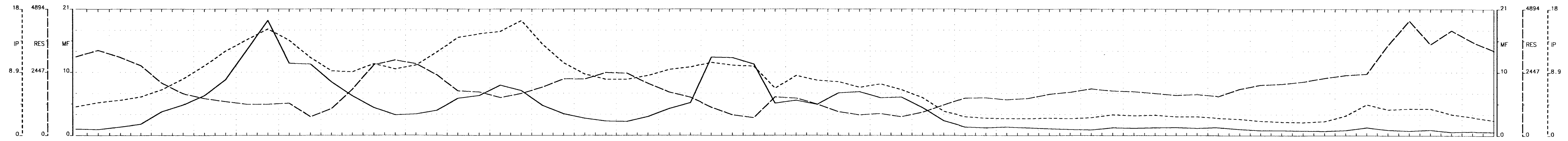
INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Intergration Time, 80mS Delay.
 MT= (80+80+80+80+160+160+160+320+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.



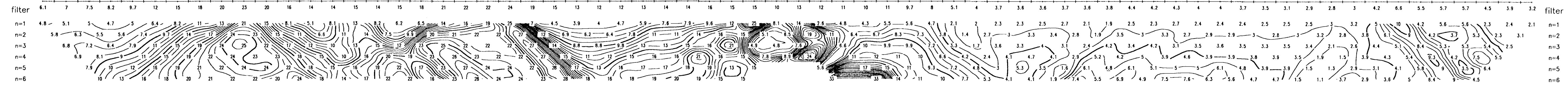
Topo

Topo

Interpretation

Interpretation

Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - - -
 Metal Factor ; 1 % -----



Chargeability mV/V

Chargeability mV/V

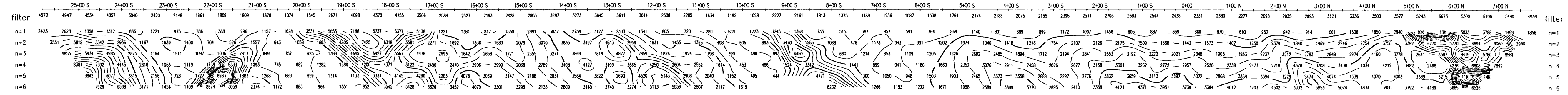
INSTRUMENTS
 Androtec TDR6, Time Domain Receiver
 1760mSec Total Integration Time, 80mS Del
 MT= (80+80+80+80+160+160+160+320+320+320)
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time

Interpretation

Interpretation

INTERPRETATION

- Low Effect
 Poorly Chargeable mV/V, IP effect
 Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
 Good Chargeability mV/V, IP effect
 High Apparent Resistivity, rho

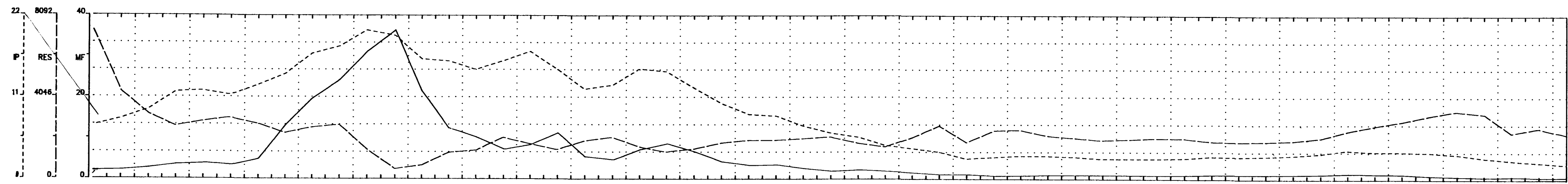


Resistivity ohm/meters

Resistivity ohm/meters

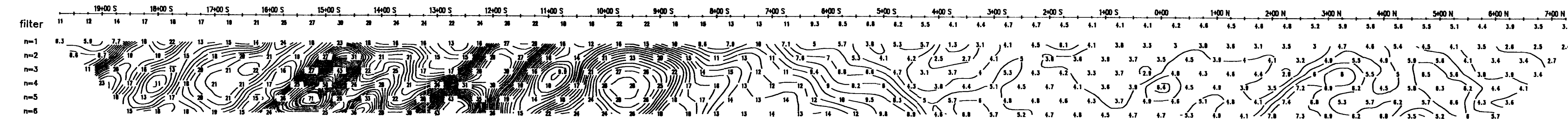
Scale 1:5000
 50 0 50 100 150 200 250 300
 (meters)

Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ S
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 19



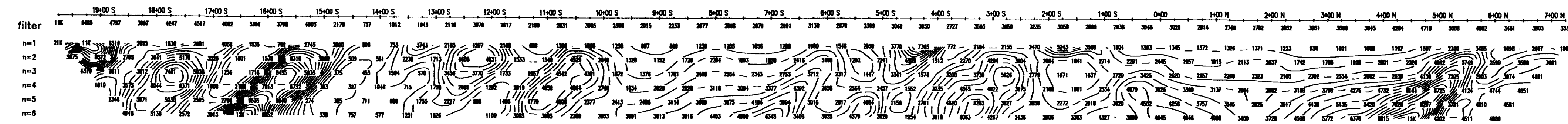
Topo

Interpretation



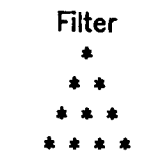
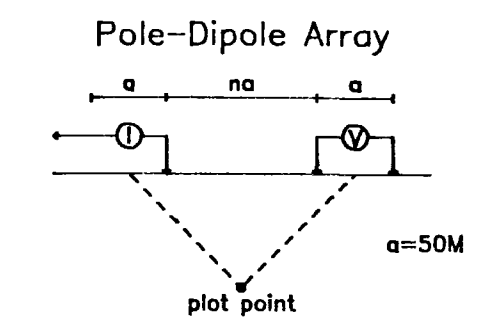
Chargeability
mV/V

Interpretation



Resistivity
ohm/meters

L-2000E



Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - - -
 Metal Factor ; 1 % - - - - -

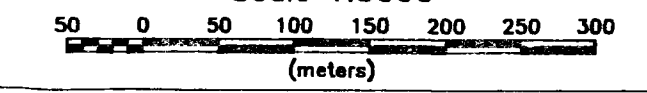
INSTRUMENTS

Androtex TDR6, Time Domain Receiver
 1760mSec Total Intergration Time, 80mS Delay.
 MT= (80+80+80+80+160+160+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

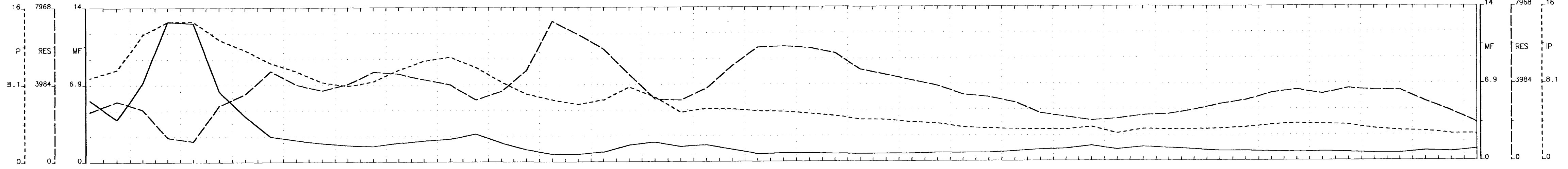
Scale 1:5000



Sewell Mining Corp.

Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.



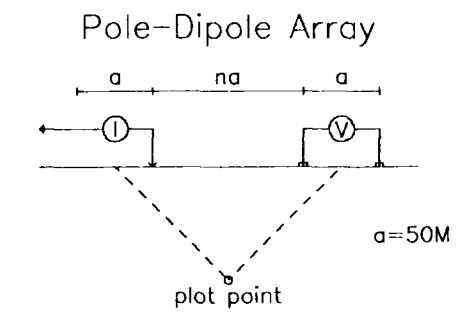
Topo

Topo

Interpretation

Interpretation

L-2200E



Filter
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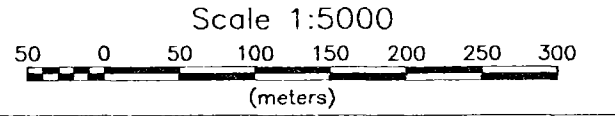
Cont. Intervals Profiles
Resistivity ; 500 ohm/meter - - - - -
Chargeability ; 1.0 mV/V - - - - -
Metal Factor ; 1 % - - - - -

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Integration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

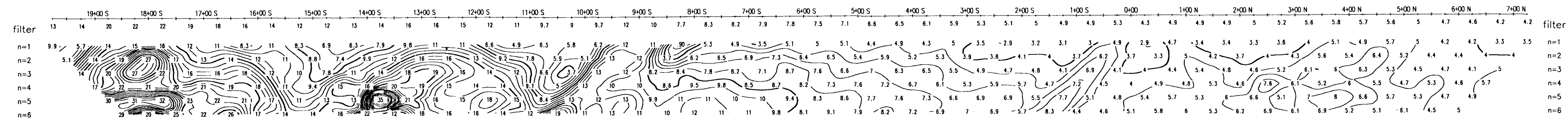
- Low Effect
Poorly Chargeable, mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability, mV/V, IP effect
High Apparent Resistivity, rho



Sewell Mining Corp.

Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.

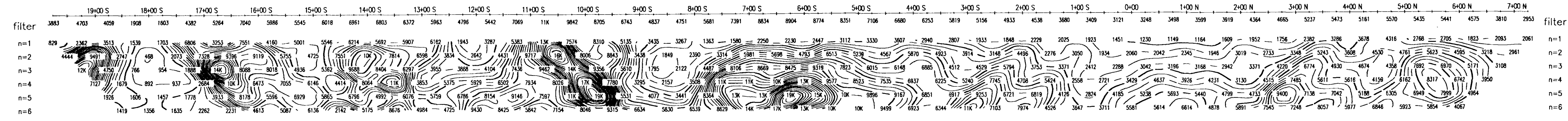


Chargeability
mV/V

Chargeability
mV/V

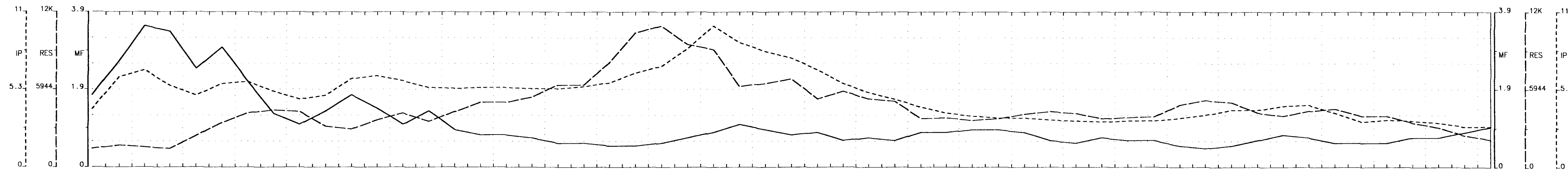
Interpretation

Interpretation



Resistivity
ohm-meters

Resistivity
ohm-meters



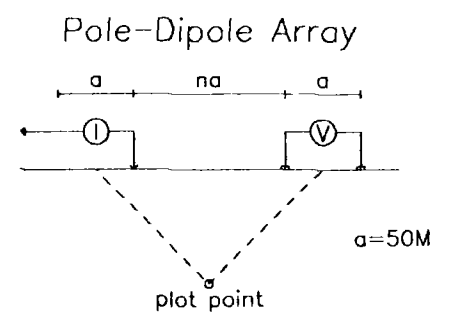
Topo

Topo

Interpretation

Interpretation

L-2400E



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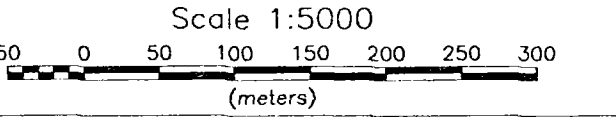
| | | |
|---------------|-----------------|-----------|
| | Cont. Intervals | Profiles |
| Resistivity | ; 500 ohm/meter | ----- |
| Chargeability | ; 1.0 mV/V | - - - - - |
| Metal Factor | ; 1 % | ----- |

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
 1760mSec Total Integration Time, 80mS Delay.
 MT= (80+80+80+80+160+160+160+320+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



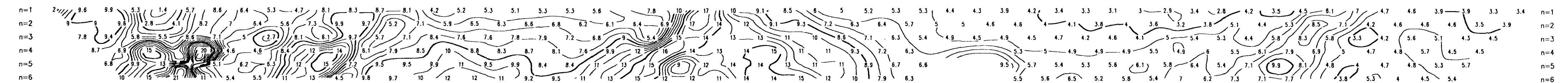
Sewell Mining Corp.

Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.

filter 5.9 9.2 9.9 8.3 7.3 8.5 8.7 7.7 6.9 7.3 9 9.3 8.8 8.1 8 8.1 8.1 8 8.2 8.6 9.6 10 12 14 13 12 11 9.9 8.5 7.6 6.9 6.1 5.5 5.2 5 5 4.8 4.7 4.6 4.7 4.7 5 5.3 5.8 5.8 6.2 6.3 5.5 4.6 4.8 4.7 4.5 4.1 4.1

Chargeability
mV/V

Chargeability
mV/V



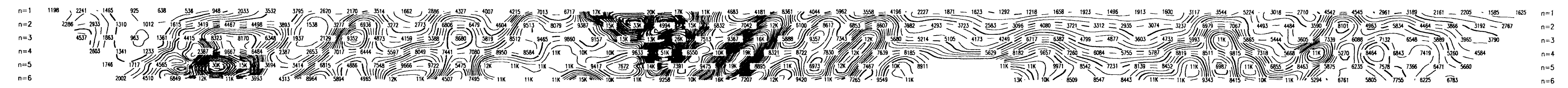
Interpretation

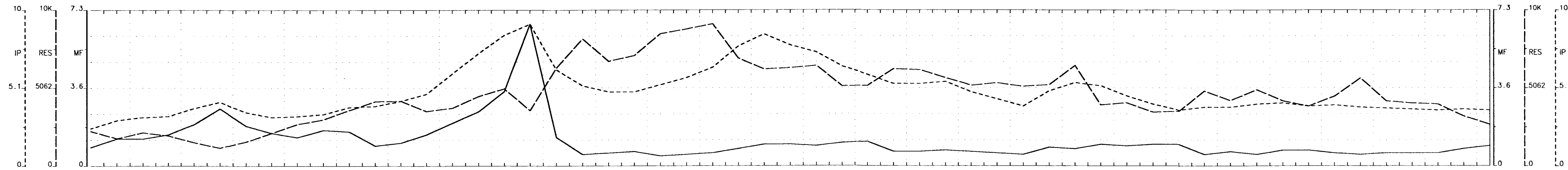
Interpretation

filter 2117 2499 2303 2117 3566 5084 6201 6516 6358 4660 4335 5405 6182 5238 6332 7416 7411 8029 9427 9422 12K 15K 16K 14K 13K 9256 9585 10K 7818 8661 7836 7530 5563 5632 5364 5536 6075 6362 6157 5544 5681 5763 7119 7652 7406 6211 5854 6366 6657 5848 5841 5080 4527 3842 3135

Resistivity
ohm/meters

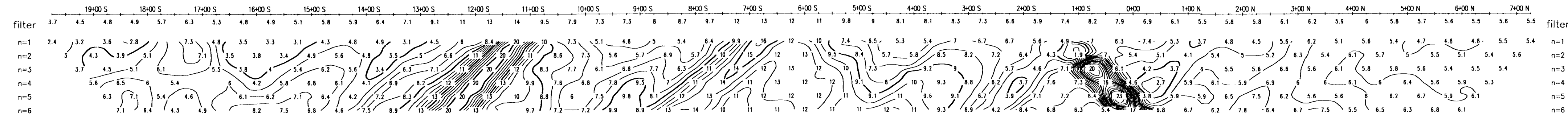
Resistivity
ohm/meters





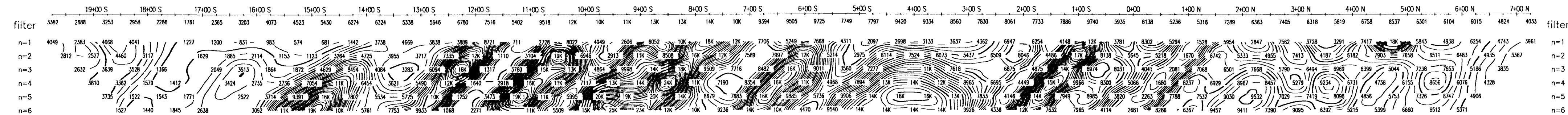
Topo

Interpretation



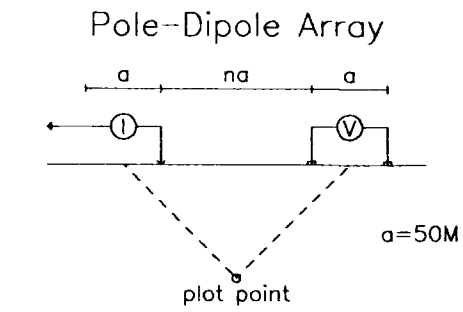
Chargeability
mV/V

Interpretation



Resistivity
ohm/meters

L-2600E

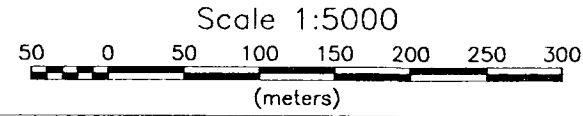


Filter
*
**

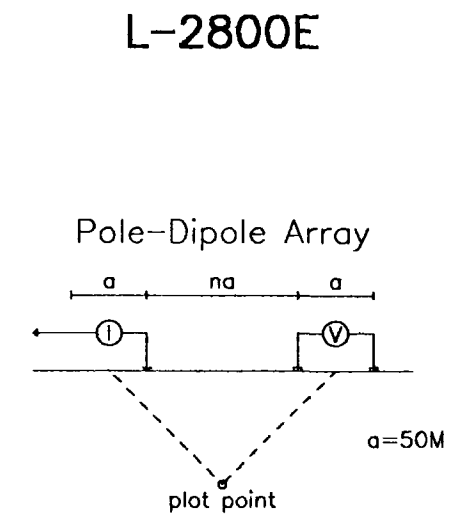
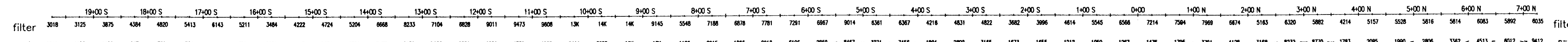
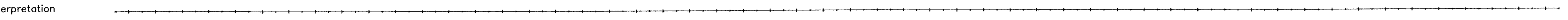
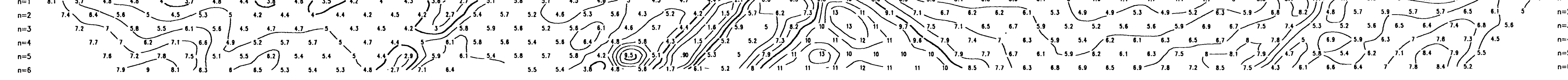
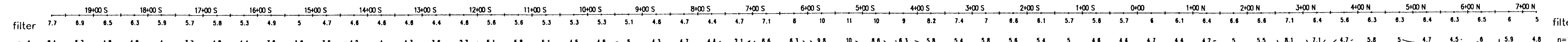
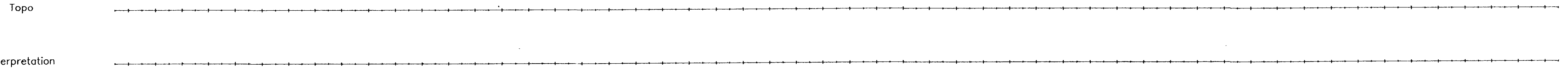
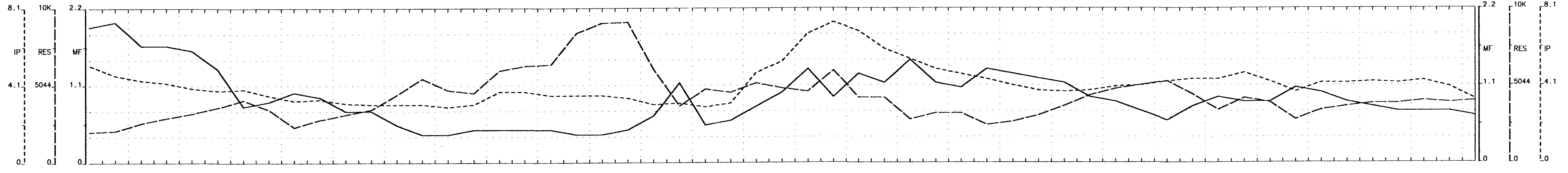
Cont. Intervals Profiles
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - - -
Metal Factor ; 1 % - - - - -

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION



Sewell Mining Corp.
Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.



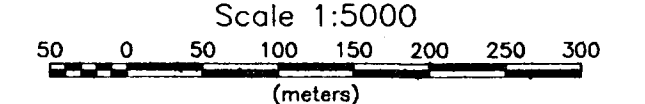
Filter
*
**

Cont. Intervals Profiles
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - - -
Metal Factor ; 1 % -----

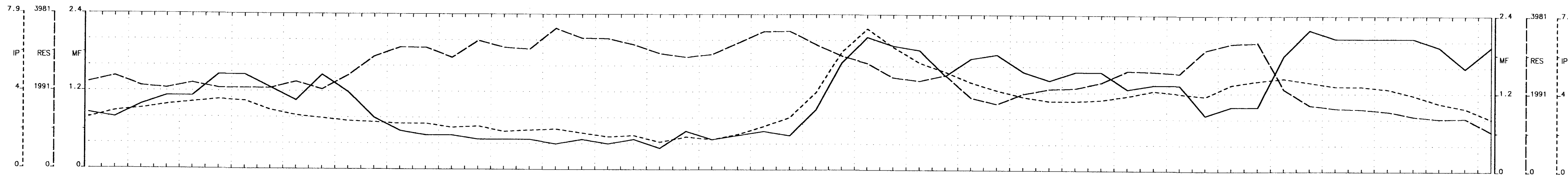
INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Integration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



Sewell Mining Corp.
Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.

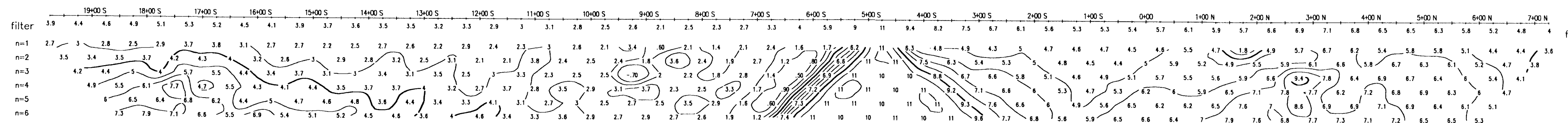


Topo

Topo

Interpretation

Interpretation

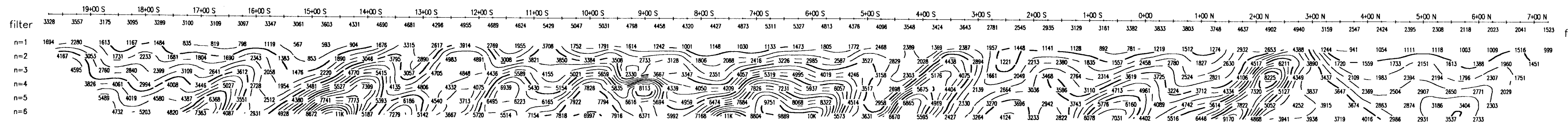


Chargeability
mV/V

Chargeability
mV/V

Interpretation

Interpretation

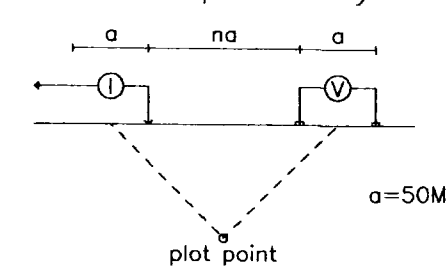


Resistivity
ohm/meters

Resistivity
ohm/meters

L-3000E

Pole-Dipole Array



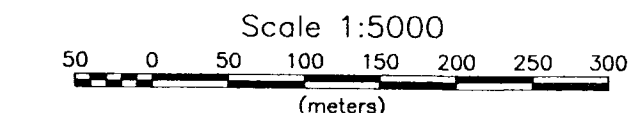
Filter
*
**

Cont. Intervals Profiles
Resistivity ; 500 ohm/meter - - - - -
Chargeability ; 1.0 mV/V - - - - -
Metal Factor ; 1 % - - - - -

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

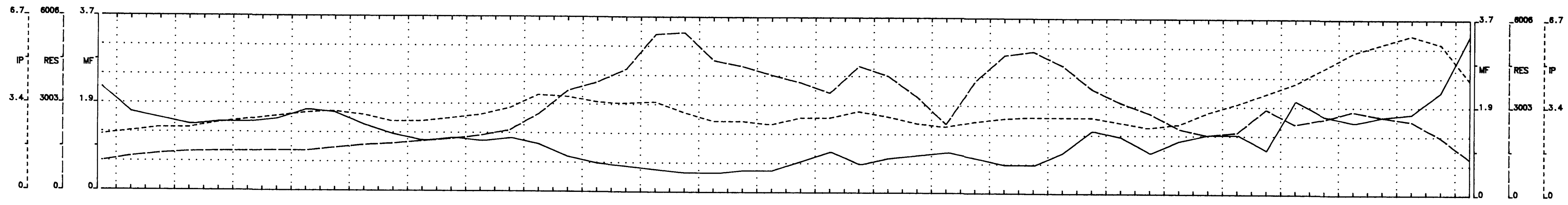
INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



Sewell Mining Corp.

Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.



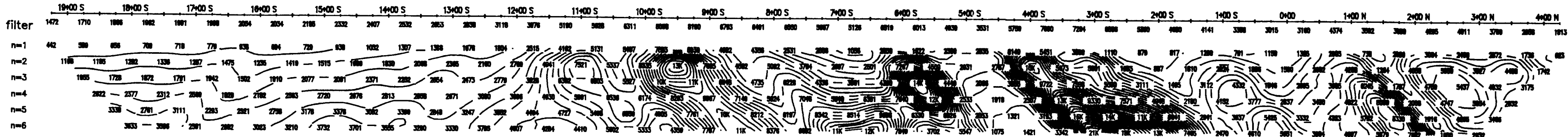
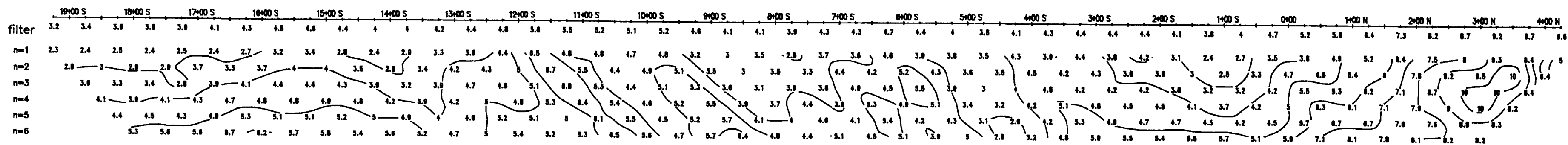
Topo

Interpretation

Chargeability
mV/V

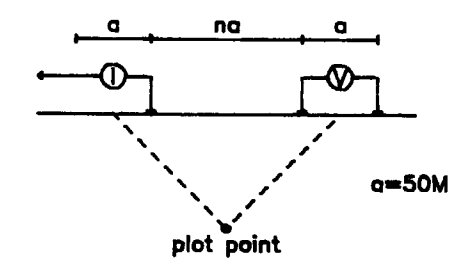
Interpretation

Resistivity
ohm/meters

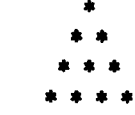


L- 00W

Pole-Dipole Array



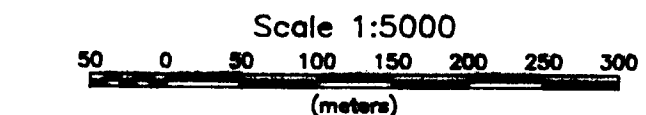
Filter



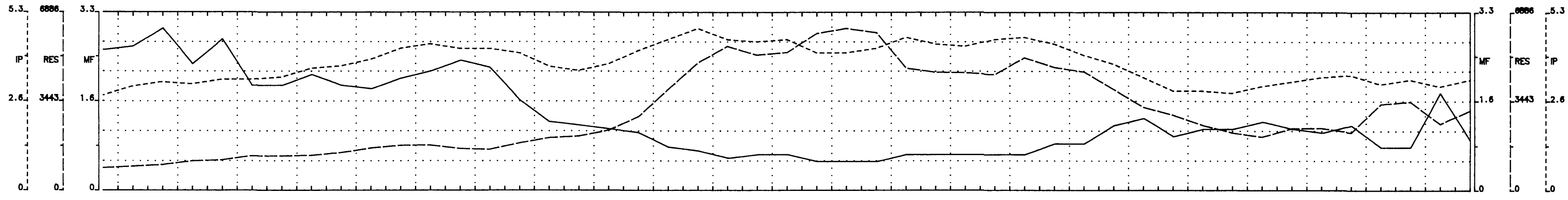
Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - - -
 Metal Factor ; 1% - - - - -

INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Integration Time, 80mS Delay.
 MT = (80+80+80+80+160+160+160+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION
 [White box] Low Effect
 [Light gray box] Poorly Chargeable mV/V, IP effect
 [Medium gray box] Low Apparent Resistivity, rho
 [Dark gray box] Moderately Low Effect
 [Black box] Moderately High Effect
 [White box] High Effect
 [Light gray box] Good Chargeability mV/V, IP effect
 [Medium gray box] High Apparent Resistivity, rho



Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.

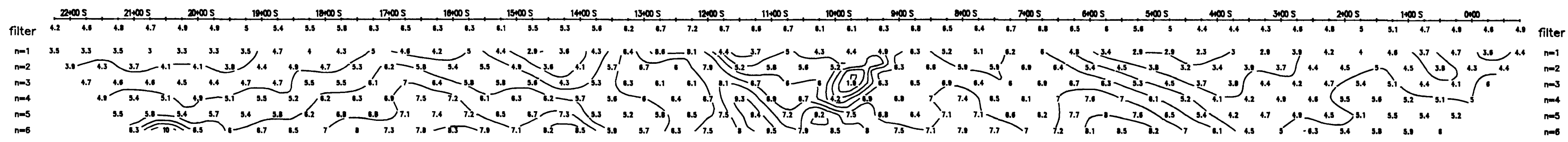


Topo

Topo

Interpretation

Interpretation

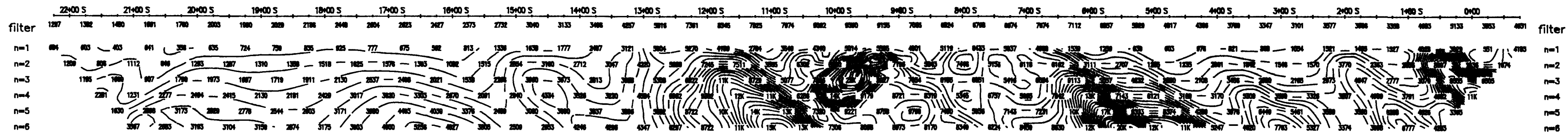


Chargeability
mV/V

Chargeability
mV/V

Interpretation

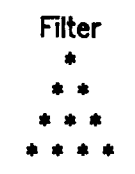
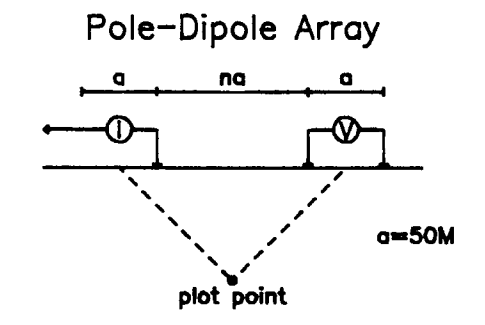
Interpretation



Resistivity
ohm/meters

Resistivity
ohm/meters

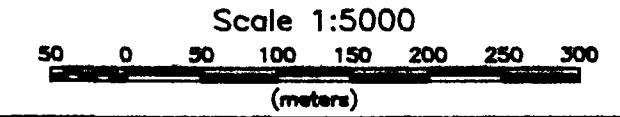
L- 200W



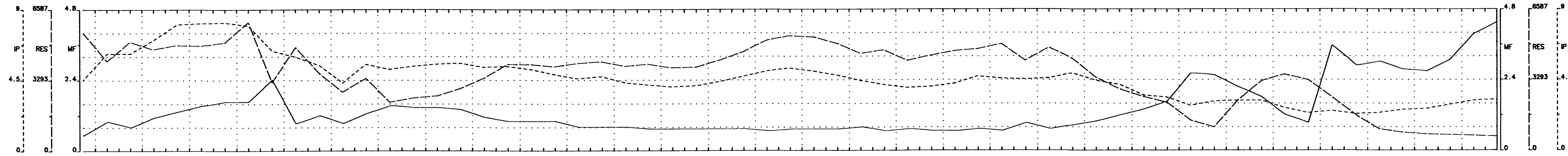
Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - - -
 Metal Factor ; 1 % - - - - -

INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Intergration Time, 80mS Delay.
 MT= (80+80+80+80+160+160+160+320+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION
 [] Low Effect
 Poorly Chargeable mV/V, IP effect
 Low Apparent Resistivity, rho
 [] Moderately Low Effect
 [] Moderately High Effect
 [] High Effect
 Good Chargeability mV/V, IP effect
 High Apparent Resistivity, rho



Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.

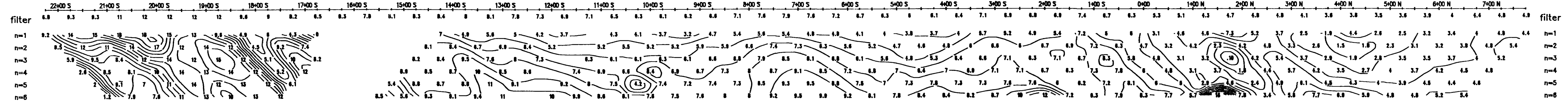


Topo

Topo

Interpretation

Interpretation

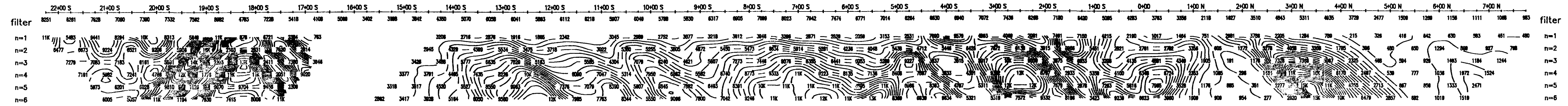


Chargeability
mV/V

Chargeability
mV/V

Interpretation

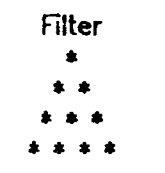
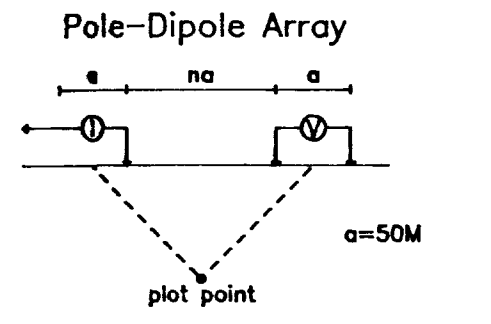
Interpretation



Resistivity
ohm/meters

Resistivity
ohm/meters

L- 400W



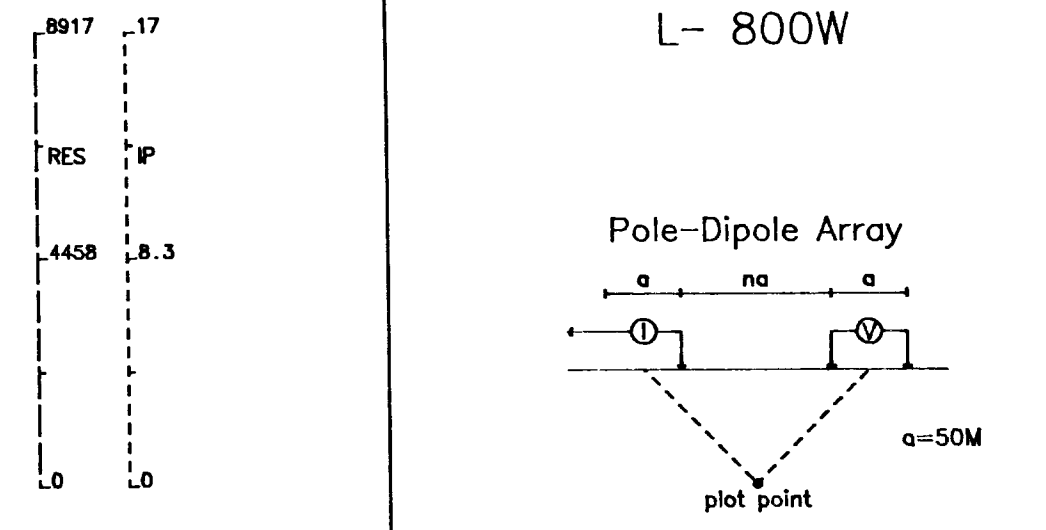
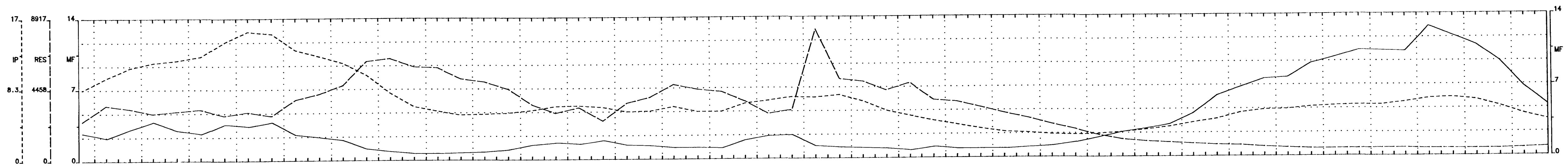
Cont. Intervals Profiles
 Resistivity ; 500 ohm/meter ---
 Chargeability ; 1.0 mV/V - - -
 Metal Factor ; 1 % - - - - -

INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Integration Time, 80mS Delay.
 MT= (80+80+80+30+160+160+320+320) mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION
 [] Low Effect
 [] Poorly Chargeable mV/V, IP effect
 [] Low Apparent Resistivity, rho
 [] Moderately Low Effect
 [] Moderately High Effect
 [] High Effect
 [] Good Chargeability mV/V, IP effect
 [] High Apparent Resistivity, rho

Scale 1:5000
 50 0 50 100 150 200 250 300
 (meters)

Sewell Mining Corp.
 Induced Polarization Survey
 Sewell-1-96
 Sewell Township, NTS: 42- A/ SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Aug 1996.



Topo

Topo

Interpretation

Interpretation

Filter
*
**

Cont. Intervals Profiles
Resistivity ; 500 ohm/meter ---
Chargeability ; 1.0 mV/V - - -
Metal Factor ; 1 % - - - -

Chargeability
mV/V

Chargeability
mV/V

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

Interpretation

Interpretation

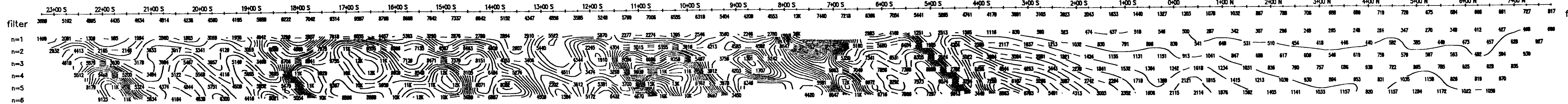
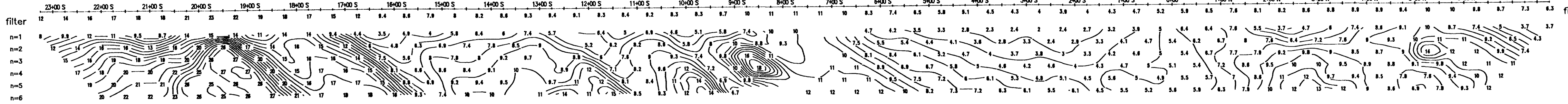
INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho



Resistivity
ohm/meters

Resistivity
ohm/meters

Scale 1:5000
50 0 50 100 150 200 250 300
(meters)

Sewell Mining Corp.
Induced Polarization Survey
Sewell-1-96
Sewell Township, NTS: 42- A/ SW
Porcupine Mining Division
M. C. Exploration Services Inc. Aug 1996.



Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

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

| |
|---|
| Transaction Number (office use) <i>W. 9760.00194</i> |
| Assessment Files Research Imaging |

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, the information is a public record. This information will be used to identify the work and correspond with the mining land holder. Questions about this form should be directed to the Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake I



42A04NW0071 2.17497 SEWELL

2.17497

Instructions:

900 min, use form 0240.

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

| | |
|---|---|
| Name <i>MIKE CARON</i> | Client Number <i>116051</i> |
| Address <i>P.O. Box 362 Porcupine ON P0N-1C0</i> | Telephone Number <i>705-235-8660</i> |
| | Fax Number <i>705-235-8038</i> |
| Name | Client Number |
| Address | Telephone Number |
| | Fax Number |

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

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

| | |
|--|---|
| Work Type <i>LINECUTTING - MAG SURVEY - I.P SURVEY</i> | Office Use |
| | Commodity |
| | Total \$ Value of Work Claimed <i>\$ 99,943.00</i> |
| Dates Work Performed From <i>1 07</i> Day Month Year <i>96</i> To <i>22 02</i> Day Month Year <i>97</i> | NTS Reference |
| Global Positioning System Data (if available) | Mining Division <i>Porcupine</i> |
| Township/Area <i>SEWELL</i> | Resident Geologist District <i>Timmins</i> |
| M or G-Plan Number | |

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

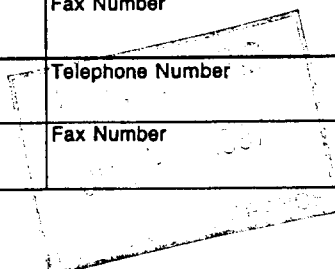
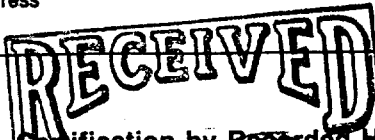
3. Person or companies who prepared the technical report (Attach a list if necessary)

| | |
|---|---|
| Name <i>M.C EXPLORATION SERVICES INC.</i> | Telephone Number <i>705-235-8660</i> |
| Address <i>P.O. Box 362 Porcupine ON P0N-1C0</i> | Fax Number <i>705-235-8038</i> |
| Name | Telephone Number |
| Address | Fax Number |
| Name | Telephone Number |
| Address | Fax Number |

4. Certification by Recorded Holder or Agent

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

| | |
|---|---|
| Signature of Recorded Holder or Agent <i>[Signature]</i> | Date <i>MARCH 11/97</i> |
| Agent's Address | Telephone Number <i>705-235-8660</i> |
| | Fax Number <i>235-8038</i> |

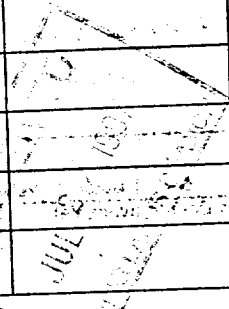


the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

| Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map. | Number of Claim Units. For other mining land, list hectares. | Value of work performed on this claim or other mining land. | Value of work applied to this claim. | Value of work assigned to other mining claims. | Bank. Value of work to be distributed at a future date. |
|---|--|---|--------------------------------------|--|---|
| eg TB 7827 | 16 ha | \$26,825 | N/A | \$24,000 | \$2,825 |
| eg 1234567 | 12 | 0 | \$24,000 | 0 | 0 |
| eg 1234568 | 2 | \$8,892 | \$4,000 | 0 | \$4,892 |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| Column Totals | | | | | |

SEE ATTACH

2.12.97



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

Signature of Recorded Holder or Agent Authorized in Writing: [Signature] Date: MARCH 11/97

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

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

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

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

For Office Use Only
 Received Stamp
RECEIVED
 MAR 12 1997
 PORCUPINE MINING DIVISION

Deemed Approved Date: JUNE 10/97
 Date Approved: _____
 Date Notification Sent: _____
 Total Value of Credit Approved: _____
 Approved for Recording by Mining Recorder (Signature): _____

U. 9/16/00/194

| Work Report Number for Applying Reserve | Claim Number (see Note 2) | Number of Claim Units |
|---|---------------------------|-----------------------|
| | P-7982001 | 1 ✓ |
| | P-7982001 | 1 ✓ |
| | P-7982021 | 1 ✓ |
| | P-7982031 | 1 ✓ |
| | P-8046221 | 1 ✓ |
| | P-8046231 | 1 ✓ |
| | P-8046361 | 1 ✓ |
| | P-8266331 | 1 ✓ |
| | P-8316251 | 1 ✓ |
| | P-8316261 | 1 ✓ |
| | P-8676331 | 1 ✓ |
| | P-8676341 | 1 ✓ |
| | P-11937051 | 8 ✓ |
| | P-11988731 | 16 ✓ |
| | P-12043301 | 6 ✓ |
| | P-12043311 | 13 ✓ |
| | P-12043321 | 22 ✓ |

| Value of Assessment Work Done on this Claim | Value Applied to this Claim |
|---|-----------------------------|
| \$1,998.00 | \$2000.00 |
| \$3,004.00 | \$2000.00 |
| \$2,150.00 | \$2000.00 |
| \$2,564.00 | \$2000.00 |
| \$970.00 | \$2000.00 |
| \$2,098.00 | \$2000.00 |
| \$1,940.00 | \$2000.00 |
| \$1,914.00 | \$2000.00 |
| \$1,998.00 | \$2000.00 |
| \$2,570.00 | \$2000.00 |
| \$1,662.00 | \$2000.00 |
| \$1,552.00 | \$2000.00 |
| \$10,041.00 | \$9600.00 |
| \$17,770.00 | \$19,200.00 |
| \$7,926.00 | \$7,200.00 |
| \$17,675.00 | \$15,600.00 |
| \$821.00 | \$3,200.00 |

| Value Assigned from this Claim | Reserve: Work to be Claimed at a Future Date |
|--------------------------------|--|
| 0 | |
| \$1004.00 | |
| \$150.00 | |
| \$564.00 | |
| 0 | |
| \$98.00 | |
| 0 | |
| 0 | |
| 0 | |
| \$570.00 | |
| 0 | |
| 0 | |
| \$441.00 | |
| 0 | |
| \$726.00 | |
| \$2,075.00 | |
| 0 | |

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

- Credits are to be cut back starting with the claim listed last, working backwards.
- Credits are to be cut back equally over all claims contained in this report of work.
- Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

Signature _____ Date _____

| Work Report Number for Applying Reserve | Claim Number (see Note 2) | Number of Claim Units |
|---|---------------------------|-----------------------|
| | P-12043331 | 1 ✓ |
| | P-12043341 | 13 ✓ |
| | P-12043401 | 2 ✓ |
| Total Number | | 20 (73 units) |

| Value of Assessment of Work Done on this Claim | Value Applied to this Claim |
|--|-----------------------------|
| \$1,332.00 | \$2000.00 |
| \$17,132.00 | \$15,600.00 |
| \$2,826.00 | \$3,200.00 |
| Total Value Work | Total Value |
| \$99,943.00 | \$97,600.00 |

| Value Assigned from this Claim | Reserve: Work to be Claimed at a Future Date |
|--------------------------------|--|
| \$ | |
| \$1,189.00 | \$343.00 |
| 2.17497 | |
| Total Assigned | Total Reserve |
| \$6817.00 | \$343.00 |

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

- Credits are to be cut back starting with the claim listed last, working backwards.
- Credits are to be cut back equally over all claims contained in this report of work.
- Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

| | | |
|---|-----------|------|
| I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed. | Signature | Date |
|---|-----------|------|

U. 7166 (01/97)

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

| Work Type | Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small> | Cost Per Unit of work | Total Cost |
|--|---|-----------------------|--------------------|
| LINECUTTING | 93.2 km | \$300.00/km | \$27,960.00 |
| MAG SURVEY | 93.2 km | \$120.00/km | \$11,184.00 |
| IP SURVEY | 55.3 km | \$1,100.00 | \$60,830.00 |
| Associated Costs (e.g. supplies, mobilization and demobilization). | | | |
| Transportation Costs | | | |
| | | 2.17497 | |
| Food and Lodging Costs | | | |
| Total Value of Assessment Work | | | \$99,974.00 |

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK $\times 0.50 =$ Total \$ value of worked claimed.

Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, MIKE CARON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as Recorded Holder I am authorized (recorded holder, agent, or state company position with signing authority) to make this certification.

Signature: [Signature] Date: March 11/97

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines



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

Telephone: (888) 415-9846
Fax: (705) 670-5863

August 6, 1997

MICHEL GEORGE CARON
99 BRUCE P.O. BOX 362
SOUTH PORCUPINE, Ontario
P0N-1C0

Dear Sir or Madam:

Submission Number: 2.17497

Status

Subject: Transaction Number(s): W9760.00194 Deemed Approval

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

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

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

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Blair Kite".

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

Work Report Assessment Results

Submission Number: 2.17497

Date Correspondence Sent: August 06, 1997

Assessor: Steve Beneteau

| Transaction Number | First Claim Number | Township(s) / Area(s) | Status | Approval Date |
|---------------------------|---------------------------|------------------------------|-----------------|----------------------|
| W9760.00194 | 798200 | SEWELL | Deemed Approval | June 10, 1997 |

Section:

14 Geophysical IP
14 Geophysical MAG

Correspondence to:

Resident Geologist
South Porcupine, ON

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

MICHEL GEORGE CARON
SOUTH PORCUPINE, Ontario

Assessment Files Library
Sudbury, ON

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

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

| Disposition | Order No. | Date | Disposition | File | |
|-------------|--------------------------|---------|-------------|-----------|--------|
| | 4571 | W 30/77 | 113777 | S.R.O. | 135748 |
| | 4043/70 | W 3/78 | 101478 | S.R. M.R. | 18543 |
| | SEC 43/70 | W 10/78 | 411178 | S.R.O. | 25748 |
| | DUMP ATTENUATION ZONE KA | | | | |
| | SEC 36/80 | A 46/83 | 141943 | S.R. M.R. | |

(A) NOT OPEN FOR STAKING BONA VIDE APPLICATION UNDER PUBLIC LANDS ACT PENDING 21/01/87

(F) THIS TWP SUBJECT TO FORESTRY ACTIVITY IN 1995 TWP AREAS DESIGNATED EXACTLY AS SUBMITTED BY MNR TIMMINS.

— SURFACE AND MINING RIGHTS WITHDRAWN FROM PROSPECTING —
 — STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 DATED 96-NOV-18 AT 12:47 P.M. ORDER NO. O-P-31/96 NER (EXCLUDING P-724554)

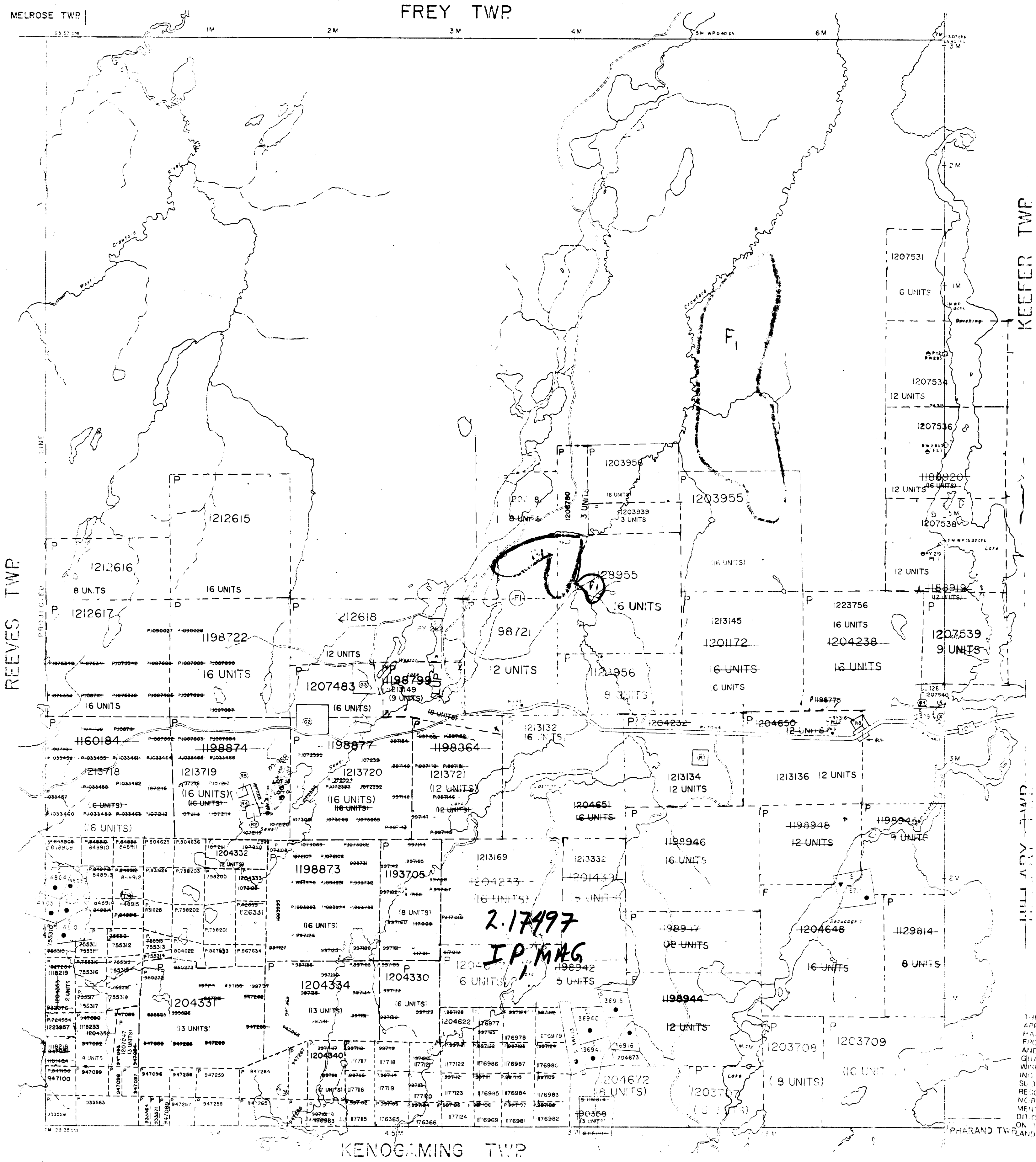
(1) FACE AND MINING RIGHTS RE OPENED FOR PROSPECTING STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 DATED 96-NOV-18 AT 13:00 P.M. ORDER NO. O-P-34/96 NER (EXCLUDING P-724554)

(2) SURFACE AND MINING RIGHTS RE OPENED FOR PROSPECTING STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 DATED 96-NOV-20 AT 13:00 P.M. ORDER NO. O-P-34/96 NER (EXCLUDING P-724554)

(3) THIS ORDER COMES INTO EFFECT ON DEC. 9, 1996 AT 8:00 A.M.

SAND AND GRAVEL

- (2) M.T.C. PIT 1577
- (3) M.T.C. PIT 341 FILE 135748
- (3) M.T.C. PIT 1578



LEGEND

- HIGHWAY AND ROUTE NO.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---------------------------------|--------|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " SURFACE RIGHTS ONLY | ○ |
| " MINING RIGHTS ONLY | ◐ |
| LEASE, SURFACE & MINING RIGHTS | ◑ |
| " SURFACE RIGHTS ONLY | ◒ |
| " MINING RIGHTS ONLY | ◓ |
| LICENCE OF OCCUPATION | ◔ |
| ORDER-IN-COUNCIL | ○ |
| RESERVATION | ◕ |
| CANCELLED | ◖ |
| SAND & GRAVEL | ◗ |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1978, CHAP. 300, SEC. 83, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

FEET: 0 1000 2000 4000 6000 8000

METRES: 0 200 1000 2000

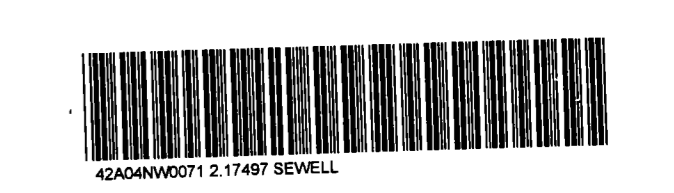
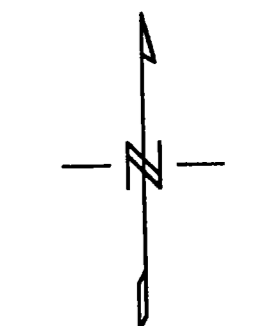
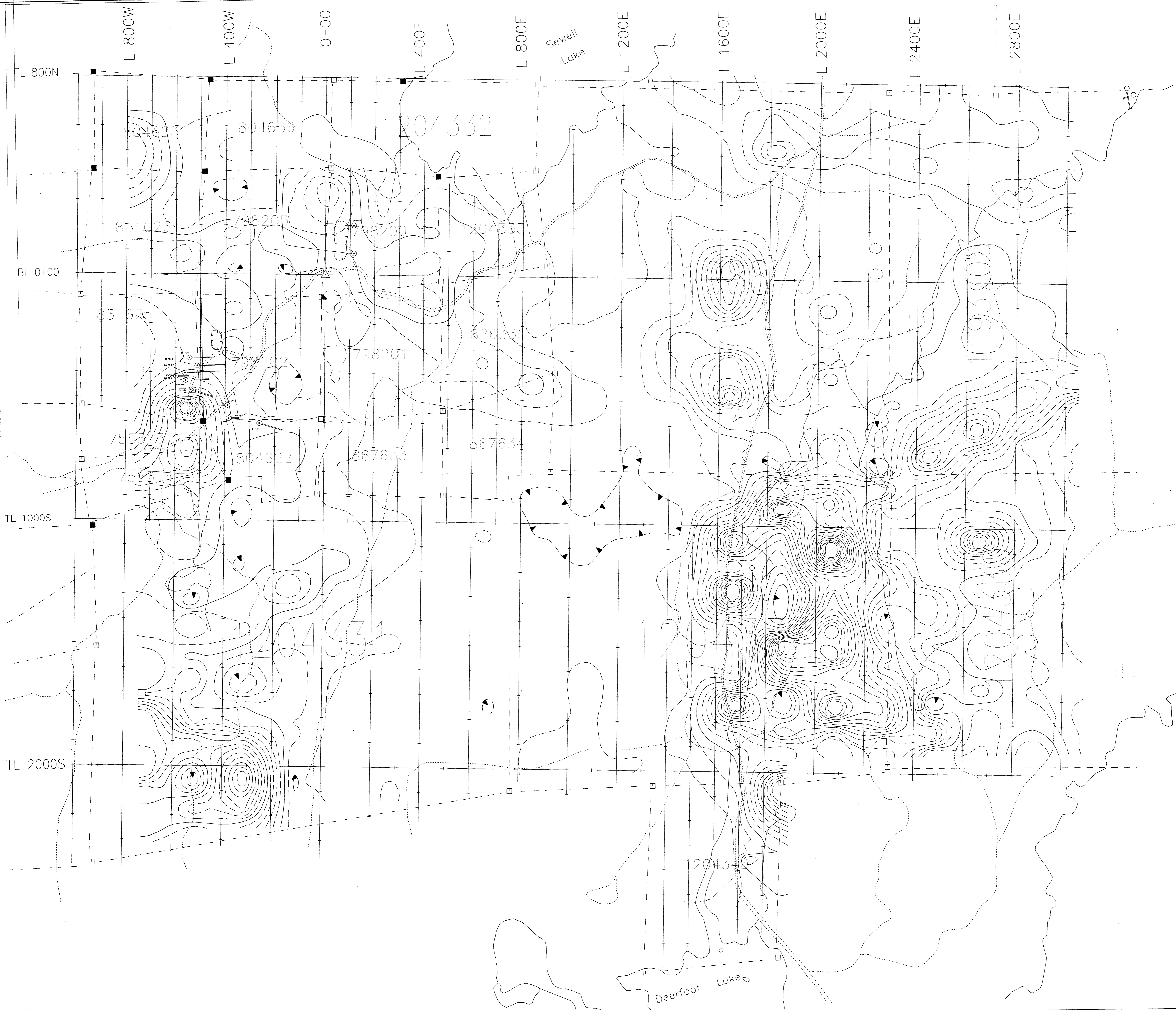
L.U.P. LAND USE PERMIT ON FILE.

TOWNSHIP
SEWELL
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
SIJDBURY

Ministry of Natural Resources
 Land Management Branch
 Ontario

Date MARCH, 1985
 Number **G-3247**



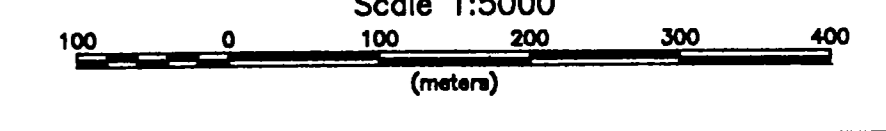


2.17497

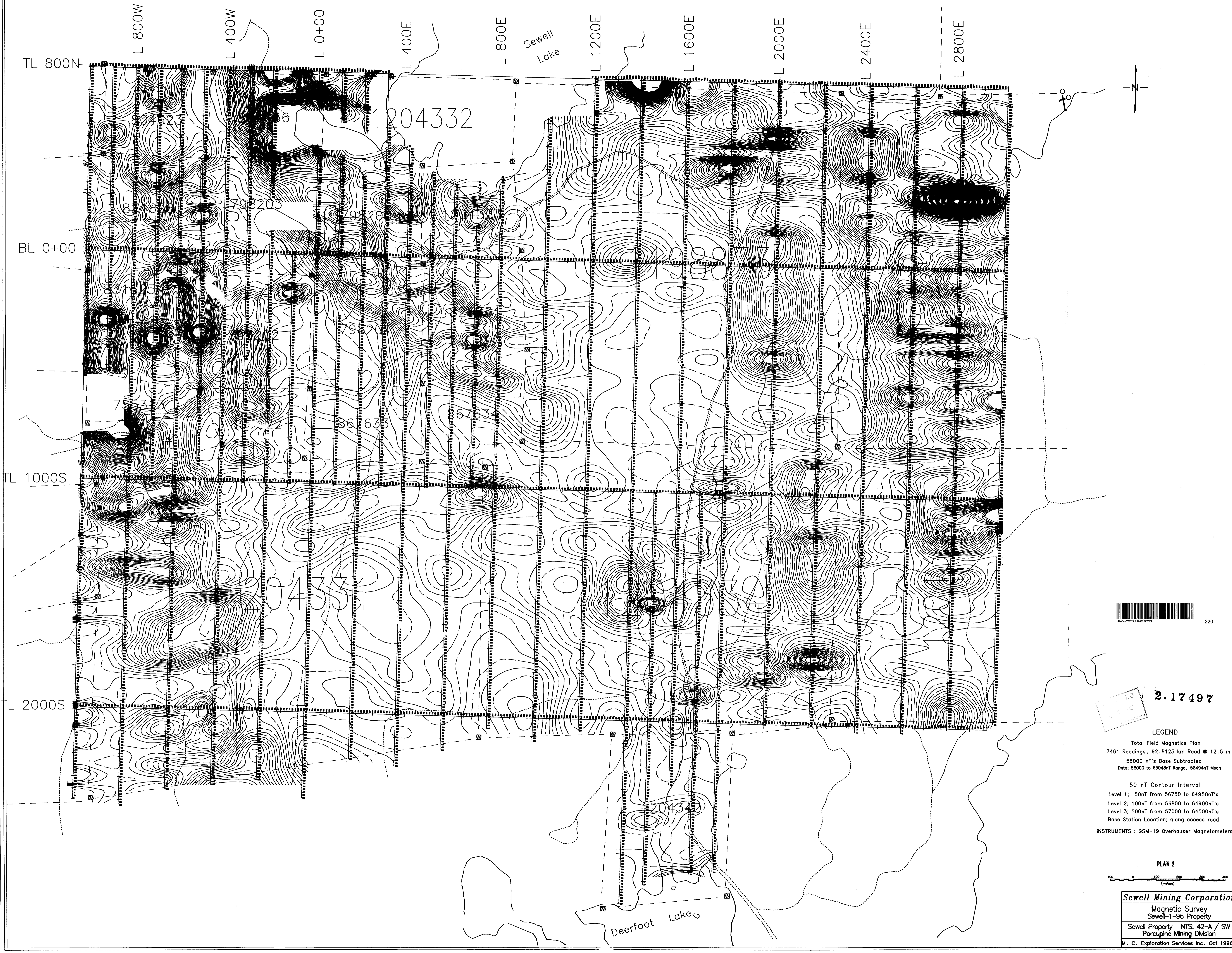
LEGEND
POLE DIPOLE ARRAY
Apparent Chargeability Plan
n1 Level, A= 50m

INSTRUMENTS
Scintrex TSQ-3 Transmitter
8 Second Ttl Duty Cycle
2 Second ON/OFF Time
Androtex TDR-B Receiver
50mSec Time Delay
1720mSec Total Intergration Time
MT=(80+80+80+80+120+120+120+120+160+160+160)mSec's

PLAN 3



Sewell Mining Corporation
Induced Polarization Survey
Sewell-1-96 Property
Sewell Property NTS: 42-A / SW
Porcupine Mining Division
M. C. Exploration Services Inc. Oct 1996



TL 800N

L 800W

L 400W

L 0+00

L 400E

L 800E

Sewell Lake

L 1200E

L 1600E

L 2000E

L 2400E

L 2800E

BL 0+00

L 1000S

L 2000S

1204332

1204334

1204330

Deerfoot Lakes



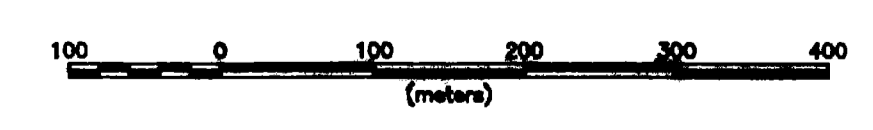
220

2.17497

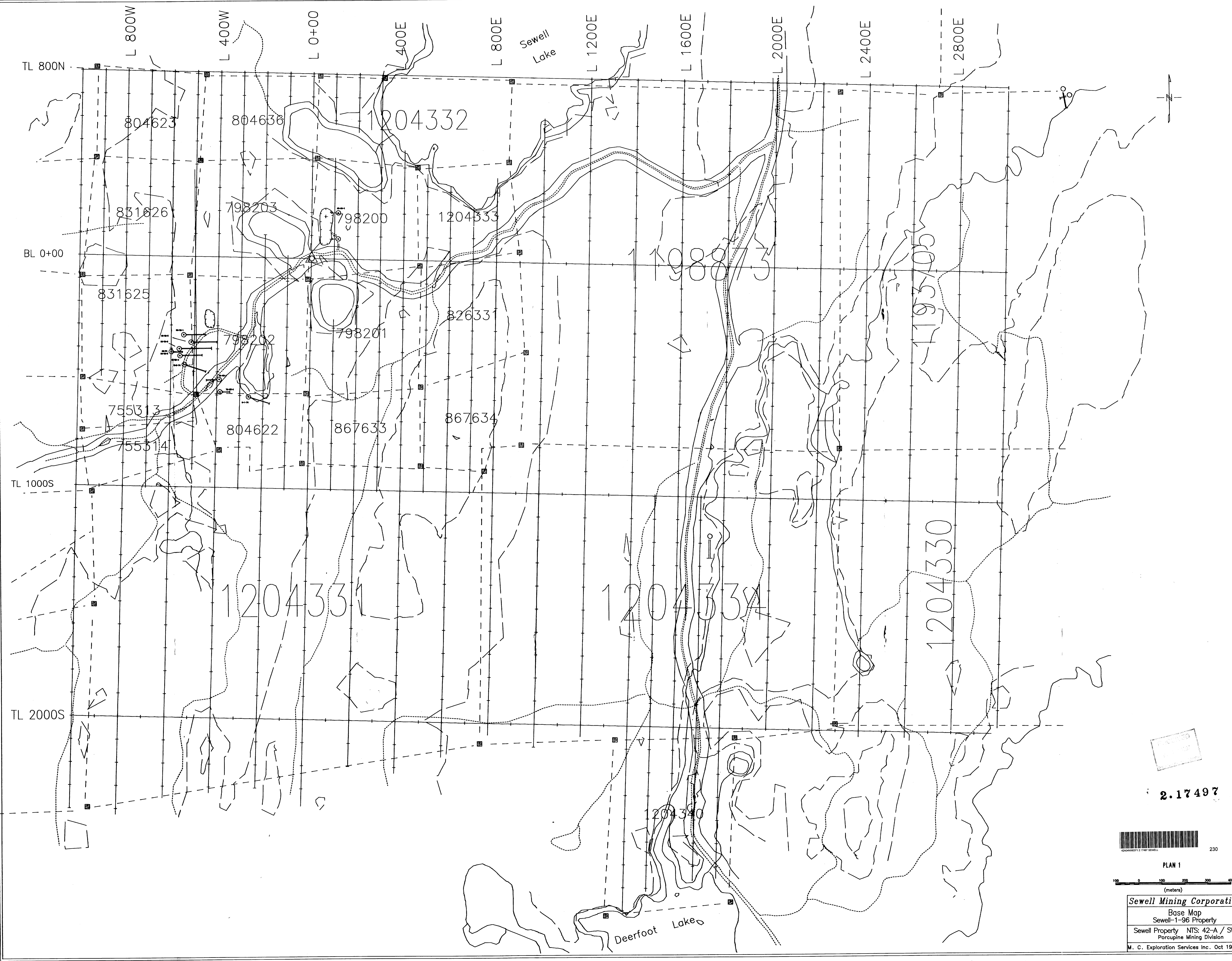
LEGEND

Total Field Magnetism Plan
 7461 Readings, 92.8125 km Read @ 12.5 m
 58000 nT's Base Subtracted
 Data: 56000 to 65048nT Range, 58494nT Mean
 50 nT Contour Interval
 Level 1; 50nT from 56750 to 64950nT's
 Level 2; 100nT from 56800 to 64900nT's
 Level 3; 500nT from 57000 to 64500nT's
 Base Station Location; along access road
 INSTRUMENTS : GSM-19 Overhauser Magnetometers

PLAN 2

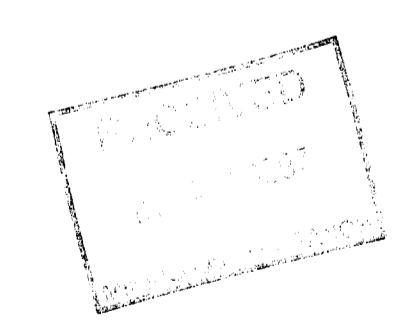


Sewell Mining Corporation
 Magnetic Survey
 Sewell-1-96 Property
 Sewell Property NTS: 42-A / SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Oct. 1996.



Sewell Lake

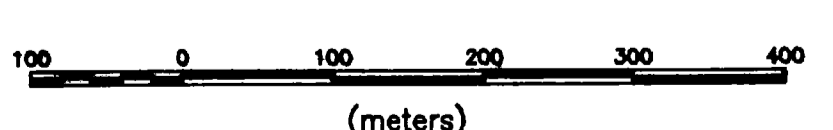
Deerfoot Lake



2.17497



PLAN 1



(meters)

Sewell Mining Corporation
 Base Map
 Sewell-1-96 Property
 Sewell Property NTS: 42-A / SW
 Porcupine Mining Division
 M. C. Exploration Services Inc. Oct 1996