Quantec Geoscience Inc.

Geophysical Survey Interpretation Report

Regarding the
FIXED LOOP TRANSIENT ELECTROMAGNETIC PROFILING SURVEYS
over the VEINLODE PROPERTY,
in South Lorrain Twp., ON
on behalf of GILEAD MINERAL CORP.,
Toronto, ON

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1. INTRODUCTION

- **QCI Project No:** C-473
- **Client Name:** GILEAD MINERAL CORPORATION
- **Client Address:** 705-401 Queen's Quay West
  Toronto ON
  M5V 2Y2
- **Project Name:** Veinlode Property
- **Survey Period:** December 7TH to 22ND, 1999
- **Survey Type:** Fixed-Loop Transient Electromagnetic Profiling Surveys

**Survey Objectives:**

a) To detect and delineate bedrock conductors associated with potential high grade Cobalt-type, Ag-mineralized vein system, within 0 – 500 ft depths, using the Fixed In-Loop/Off-Loop profiling technique.

b) To provide possible pseudo 2D/3D resistivity images of the subsurface geoelectric section, by applying 1D layered earth inversions to the In-loop vertical component data.

- **Report Type:** Summary Interpretation Report, suitable for assessment

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1 Note, Borehole TEM surveys were also initially planned but subsequently abandoned due to complete blockage of 4 of 5 drill holes which were located in field (7/12 and 8/12/2000)
2.1 LOCATION

- **General Area:** Silver Center mining camp
- **Township:** South Lorrain Twp.
- **Province:** Ontario
- **Country:** Canada
- **Nearest Settlement:** Cobalt, ON
- **Nearest Highway:** Hwy. 567
- **NTS Map Reference:** 31M/5

*Figure 1: General Location of the Veinlode Property*
2.2 ACCESS

- **Base of Operations:** Maiden Bay Lodge, North Cobalt ON
- **Mode of Access to Properties:** From lodge, via 4WD vehicle, by travelling 10km west back to hwy 567 to the Silver Center abandoned mine camp and grid area.
- **Mode of Access to Grid lines:** Tracked vehicle and on-foot

2.3 SURVEY GRIDS

- **Coordinate Reference System:** Local exploration grids (Non UTM referenced)
- **Established:** Prior to survey execution by Gilead Mineral Corp.
- **Method of Chaining:** Imperial, Slope-Distance
- **Line Directions:** N-358° (Grid N-S lines)
- **Line Separation:** 100 ft
- **Station Interval:** 50 ft

2.4 SURVEY CLAIMS

- **Claims Covered by Survey:** T34601, T40521, T44411, and T43338 (see plan map – Appendix F)
3. SURVEY WORK

3.1 GENERALITIES

- **Survey Dates:** December 7th to 22nd, 1999
- **Survey Period:** 12 days
- **Survey Days (read time):** 6 days
- **Organize/Mob Days:** 4 days
- **Number of Loops Read:** 2
- **Total Survey Coverage:** 9.43 line-miles (49,800 ft – including 1400 ft repeated)

<table>
<thead>
<tr>
<th>LOOP #</th>
<th>LINE</th>
<th>START</th>
<th>END</th>
<th>TOTAL (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop 1</td>
<td>400W</td>
<td>400N</td>
<td>600S</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>400W</td>
<td>400N</td>
<td>600S</td>
<td>1000</td>
</tr>
<tr>
<td>Loop 2</td>
<td>300W</td>
<td>1400N</td>
<td>1600S</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>300W</td>
<td>1400N</td>
<td>1600S</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>200W</td>
<td>1400N</td>
<td>1600S</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>100W</td>
<td>1400N</td>
<td>1600S</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>000E</td>
<td>1400N</td>
<td>1600S</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>100E</td>
<td>1400N</td>
<td>1600S</td>
<td>3000</td>
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<td>3000</td>
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<td>1600S</td>
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<td>1400N</td>
<td>1600S</td>
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<td>Loop 3</td>
<td>300W</td>
<td>800S</td>
<td>400N</td>
<td>1000</td>
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<td>300W</td>
<td>1400N</td>
<td>2400N</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>200W</td>
<td>600S</td>
<td>2400N</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>100W</td>
<td>600S</td>
<td>2400N</td>
<td>3000</td>
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<tr>
<td></td>
<td>000E</td>
<td>600S</td>
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<tr>
<td></td>
<td>100E</td>
<td>600S</td>
<td>2400N</td>
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<td>600S</td>
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<td>2400N</td>
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<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>48,400</td>
</tr>
</tbody>
</table>

*Table 1: Surface TEM Coverage at Veinlode Property*

3.2 SPECIFICATIONS

- **Method:** Transient Electromagnetic
- **Technique:** Profiling
- **Configuration:** Surface Fixed In/Off-Loop Profiling
- **Output Power Stage:** Low Power (2.8 kW)
- **Dimension:** 3D (X, Y and Z components)
3.3 PERSONNEL

- **Project Supervisors:** Sherwood Coulson, Porcupine, ON
- **Field Project Manager:** David Eastcott, Porcupine, ON
- **Geophysical Technician:** Don McLaren, North Bay, ON
  Roch Michaud, North Bay, ON
  Joshua McLaren, Notre-Dame-du-Nord, QC

3.4 INSTRUMENTATION

- **Receiver:** Geonics Digital Protem (time-domain / 3 channels @ 20 time gates + primary pulse - see Appendix C)
- **Receiver Coils:** Geonics 3D-3 (X-Y-Z @ 200m²) Surface Induction Coil (dBXYZ/dt).
- **Transmitter:** Geonics EM-37 (24-160VOUT / 3-7.5-30Hz @ 50% duty cycle)
- **Power Supply:** Geonics GPU 2000, with Honda 5.5HP & Geonics Georator alternator (2.8kVA @ 400Hz)

3.5 PARAMETERS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse repetition frequency</td>
<td>30Hz</td>
</tr>
<tr>
<td>Gain</td>
<td>2-6</td>
</tr>
<tr>
<td>Integration number</td>
<td>10 sec</td>
</tr>
<tr>
<td>Loop Sizes</td>
<td>1000ft x 1500ft</td>
</tr>
<tr>
<td>Current (Amps)</td>
<td>12.5 amps</td>
</tr>
<tr>
<td>Turn-off time (µs)</td>
<td>180 µs</td>
</tr>
<tr>
<td>Gate position</td>
<td>80-6136 µs (see Appendix C)</td>
</tr>
<tr>
<td>Synchronization mode</td>
<td>Crystal</td>
</tr>
</tbody>
</table>

*Table II: System Parameters for Surface TEM Surveys*

- **Coil Conventions:**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>COIL ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>Positive Up</td>
</tr>
<tr>
<td>X</td>
<td>Positive Grid North</td>
</tr>
<tr>
<td>Y</td>
<td>Positive West</td>
</tr>
</tbody>
</table>

*Table III: Coil Conventions for Surface TEM Survey*

- **Measurements:** gated time-derivative (dB/dt) of transient secondary EMF (mV/Off-time decay) and primary pulse (mV / On-time ramp)
• **Data Reduction:** nanoVolt/Ampere metre squared\(^2\) (using Geonics Datem\(^TM\))

### 3.6 Measurement Accuracy and Repeatability

- **Number of Repeats per Station:** 0-1
- **Number of Repeats per Day:** 3-5
- **Number of Repeats per Grid:** 4-10
- **Average Repeatability at Channel 1 and 20:** 1-5% in early channels
- **Worst Repeatability at Channel 1 and 20:** up to 0.5 nV/Am\(^2\) (estimated)

### 3.7 Data Presentation

#### Profiles:

<table>
<thead>
<tr>
<th>Profile Format</th>
<th>4-Axis (see Fig. 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Profiles</td>
<td>72</td>
</tr>
<tr>
<td>Horizontal Map Scale:</td>
<td>1:4800</td>
</tr>
<tr>
<td>Vertical Profile Scales:</td>
<td>Varies to best display data for each component (see profiles in Appendix G)</td>
</tr>
<tr>
<td>Components Profiled:</td>
<td>3D survey: Total Field, X, Y and Z</td>
</tr>
</tbody>
</table>

*Table IV: Surface TEM Profile Specifications.*

#### Plan Map:

<table>
<thead>
<tr>
<th>Plan Map Types:</th>
<th>Posted/Contoured Total TEM Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Contoured:</td>
<td>5</td>
</tr>
<tr>
<td># of TEM Plan Maps:</td>
<td>1</td>
</tr>
<tr>
<td>Map Scale:</td>
<td>1:2400</td>
</tr>
<tr>
<td>Grid Cell Size:</td>
<td>20ft</td>
</tr>
<tr>
<td>Gridding Method:</td>
<td>Bi-directional</td>
</tr>
<tr>
<td>Contouring Method:</td>
<td>Linear</td>
</tr>
<tr>
<td>Contour Interval:</td>
<td>1, 5, 20 nanoVolt/A*m(^2)</td>
</tr>
</tbody>
</table>

*Table V: Plan Map Specifications for Surface TEM Survey.*

\(^2\) Equivalent to Crone units of nanotesla per second, normalized to a unit current

\(^3\) TF = SQRT \((\text{dB}_x/\text{dt})^2 + (\text{dB}_y/\text{dt})^2 + (\text{dB}_z/\text{dt})^2\), using Quantec Geoparse\(^TM\)
Figure 2: 4-Axis Surface TEM Profile Format.

- **Digital Data:** Daily raw files and processed data (Geosoft .XYZ format) on 3.5 inch HD (1.44 Mbytes) diskettes

  a) raw data dump files, according to acquisition date (DDMMYY.RAW, e.g., 210299.raw)

  Geonics Digital Protem format (refer to Protem manual)

  b) reduced XYZ ASCII data files, according to line number and component

    (i.e., 11900ek.xyz where, k=component – Z, X, Y or T for Total Field).

  Column 1: N-S Line/E-W Station number
  Column 2: E-W Station/N-S Line number
  Column 3: Primary pulse (millivolts)
  Column 4: Channel 1 secondary rate of decay of TEM field (nanoVolt/ampere*m²)
  Column 5: Channel 2

  Column 23: Channel 20 secondary rate of decay of TEM field (nanoVolt/ampere m²)
4.1 OVERVIEW

The surface Fixed-Loop transient EM surveys over the Veinlode property were designed to detect small (<100ft) to moderate sized (50-300ft) conductive bodies associated with possible Cobalt-type, vein-hosted silver mineralization. The geologic targets are situated either along structures paralleling the main NS Hammerstrom Fault, which roughly coincides with L0+00E (see survey map - Appendix F), and/or, more importantly, along east-westerly cross structures which have historically favoured high grade silver deposits, such as those found further east, in the main Silver Center mine camp. Although the model mainly favours deposits which are in close spatial association with the shallow west-dipping Nipissing diabase (believed to be up to 800ft deep, below the subcropping Archean volcanics), the TEM surveys have been designed, using high resolution (50x100ft grid) sampling and multiple reciprocal loop sources/field orientations, in order to energize the widest variety of target geometries and sizes possible, from surface to >800ft depths – with the depth of resolution/detection approximately proportional to the target size.

The survey area is generally sparsely overburden covered, with abundant outcrops - except for a swamp to the northwest and along drainages. The survey area is mainly underlain by subvertically dipping, Keewatin mafic to intermediate volcanic rocks (ref. Gilead Veinlode Historic Geology. 1:1200 scale topographic and geologic map base - P273/C473 file). Shallow dipping (15-20°S) Cobalt sediments, known to host spurious anomalous chargeabilities, due to uneconomic stratigraphic sulphides and hematite (JM Legault, QIP, pers. comm., 1999), also outcrop along an EW contact in the southern limits of the survey area – south of ø 800S. Narrow intrusive dykes are also noted on surface and particularly in drill-holes.

The key structural trends/vein systems are mainly recognized by narrow linear topographic lows (R. Skerries, Gilead, pers. comm., 01/00) – including a) the ESE Ramardo No. 2 Vein (65°N dip), b) the ENE Keeley No. 16 Vein (87°SE dip), c) the inferred NNE Keeley Extension Vein, and d) the NS Hammerstrom Fault, which occurs along a shallow draw, nearly paralleling LOE, and dips at 77 degrees eastward. Other fault zones which subparallel both the EW and NS known structures have also been identified on the property – and other unmapped veins are also suspected (IBID). The primary exploration targets are the intersections of the cross-cutting veins with the main Hammerstrom Fault, particularly along the so-called “productive” zone, up to 400ft above the Nipissing/Keewatin contact, which lies buried at roughly 900ft depths below the survey area.

The complete extent of exploration on the property is not fully known to the authors, however at least 5 drill holes occur on the property – in fact, as previously stated (pg. 3) these holes were initially targeted for borehole TEM logging, prior to the surface TEM work, but were found to be blocked. Geophysically, the only survey previously undertaken on the property, known to the authors, is the most recent induced polarization and resistivity survey, using the Gradient-Realsection™ array, by Quantec Geoscience Inc., between Jan. 14-22, 2000 (ref. QGI report P273, 02/2000). This survey identifies a cross-cutting network of chargeability axes which appear to define favourable mineralized veins which either extend from or cross-cut the north-southerly Hammerstrom Fault – also defined as a NS geoelectric discontinuity. A sub-horizontal structure is also defined, in section, which correlates with the Nipissing diabase.

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4 Realsection™ is a registered trademark of Quantec Geoscience Ltd.
4.2 SURVEY RESULTS AND DISCUSSION

The Fixed-Loop transient electromagnetic survey results obtained at Veinlode are of a low background field level and uncharacteristically poor signal-to-noise. These results are consistent with a highly resistive bedrock, without appreciable overburden cover, but, more significantly, also point to a lack of conductivity relating to possible mineralized orebodies of significance on the property.

For example, total measured secondary EM fields rarely exceed 30 nanovolts/Am² in the earliest time gates (<20nV/Am² avg.) and rapidly decay to values less than 0.1 nV/Am² in the latest time-channels⁵ – levels which are below the normal instrumental noise rating and which therefore explain the erratic nature of the profiles and decays obtained. In fact, as shown in all TEM profiles obtained, increasing EM noise levels are visible in all data beyond channel 5-8 – particularly in the horizontal components, which, unfortunately are most sensitive to both bedrock conductors and spurious EM noise (i.e., due to distant electro-atmospheric activity and man-made culture). The effects of the transmit loop source are also clearly visible in these data. Indeed, as a result of the low background fields, resistivity imaging of the vertical field data was unsuccessful. Moreover, analyses of the data would seem to indicate that no coherent late-channel signatures attributable to vortex-current induced, anomalous secondary fields are discernable, beyond early times (channels 1-10) for wavelengths exceeding 100-300 ft. As a result, only lower quality conductor axes are distinguished in the data, falling in the low to moderate range which would not be classified, under normal circumstances, as exploration targets of significance – using target surface area (anomaly wavelengths >100-300ft) and conductivity-thickness (decay constants > 15-20channels) typically used as evaluation criteria.

In spite of these results, the early channel contour plan presented nevertheless clearly defines NNW trending, profile paralleling anomalous feature which extends across the survey area, from L300W -2400N to L100W-1600S – multiple, paralleling features are suggested, by their alternating character. These zones would lie within the footwall rocks and nearly conform with the Hammerstrom Fault – possibly suggesting weak mineralization along the key structural trends but more likely increased porosity along the fault zone and/or due to the overburden fill in the near surface. Unfortunately, the weak time-constants associated with these features rule out the presence of significant conductivity relating to massive to stringer mineralization, in significant amounts. Based on these results, these north-southerly zones are not suitable drill-targets.

Also visible in these data are east-westerly cross-cutting anomalies which parallel the trends of interest but are nevertheless predominantly of limited strike-length (<100-200ft), of narrow width / wavelength and weak time-constant. While some of these also correlate with IP axes discerned in the previous survey (ref. QIP report P273, 01/2000), other similar features do not – in fact, the strongest responses, which are associated with loop edges, as shown, relate to near-surface subhorizontal conductors coinciding with topographic lows and are most likely caused by conductive overburden. All valid signatures are consistent with low conductivity and small surface area lineaments – such as clay-rich veins and fault fractures, but also ascribable to conductive overburden – and all that remain are single-station or single channel anomalies which are ascribed to noise. As a result, no conductor axes have been interpreted in these results.

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⁵ Note, these values compare against early time-channel values in the 10k nV/Am² range and late-time data in the 1-10 nV/Am² range typically obtained in Archean volcanics hosting massive sulphide targets.
4.3 Conclusion and Recommendations

Despite the high level of detail and inherent high resolution of the present TEM surveys, these have failed to identify conductive anomalies of sufficient interest to recommend for targeting and subsequent drill-testing. Although weakly conductive trends have been discerned which possibly coincide with the Hammerstrom Fault and its splays, their low conductances also preclude these from being recommended for drill-testing. Overall, the low TEM field strengths and absence of coherent, late-channel features of interest suggest a high bedrock resistivity and lack of stringer to massive, interconnected mineralization. Bearing in mind that TEM survey detectability is limited by size versus depth of burial considerations, we nevertheless conclude that no resolvable massive to stringer sulphide zones of significance occur on the property, within a depth range roughly equal to their size/area.

Additional TEM surveying, in spite of its relatively low cost, is not warranted, particularly given the lack of success of the unusually high resolution of the present application. Furthermore, due to the larger loop sizes required to obtain sufficiently measurable TEM fields for imaging, the likelihood of their resulting in lower resolution also precludes the comparatively lower cost moving-loop sounding surveys from being recommended. Based on these results, therefore, we recommend that more diagnostic surveys be implemented on the property, such as induced polarization — particularly the deep penetration Gradient-Realsection array, due to its high resolution, its ability to detect disseminated sulphide in weak amounts, and its cross-sectional imaging capability for both chargeability and resistivity. Subsequent drillholes should nevertheless be surveyed using borehole transient electromagnetics, in order to establish the size and geometry of possible massively mineralized intersections, or to detect other zones lying within a +150m radius. Borehole physical property work may also prove useful in cross-correlating geology in regional drill-holes. More efficient EM ground conductivity surveys could be envisaged to map out shallow, narrow vein systems in a rapid reconnaissance mode. Finally, detailed ground magnetics, using high resolution technologies such as optically pumped gradiometry, surveyed using narrowly spaced (<50-100ft), cross-cutting grid networks, may prove useful in tying in the TDIP, ground EM conductivity and geologic evidence at a detailed geologic scale.

RESPECTFULLY SUBMITTED

Jean M Legault
Senior Geophysicist

Sherwood Coulson
Senior Geophysicist

David Eastcott
Project Manager
Technical Services

Porcupine ON

C473 – May, 2000

Quanteck
Statement of Qualifications

I, Jean M Legault, hereby declare that:

1. I am a staff geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec Geoscience Ltd., of Waterdown, Ontario.

2. I am a graduate of Queen's University, at Kingston, ON, in 1982, with an Honours Bachelor of Applied Science Degree in Geological Engineering (Geophysics Option) and studied applied geophysics at the post-graduate level at Ecole Polytechnique, Montreal QC, in the Minerals Engineering Department, from 1982 to 1985.

3. I have practiced my profession in Canada, the United States and South America since graduation.


5. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of GILEAD MINERAL CORPORATION.

6. I have reviewed the geophysical results, assisted in their interpretation and authored the present report. The maps created and statements made by me in this report accurately represent the information given to me at the time of its preparation.

Porcupine, Ontario
May, 2000

Jean M Legault, P.Eng.
Director
Quantec Technical Services
Statement of Qualifications

I, Sherwood T. Coulson, hereby declare that:

1. I am a consulting geophysicist with residence in Porcupine, Ontario and am presently employed in this capacity with Quantec Consulting Inc. of Porcupine, Ontario.

2. I am a graduate of Cambrian College, Sudbury, Ontario in 1974 with an Honours Diploma in Geophysical Engineering Technology.

3. I have practiced my profession in Europe and North America continuously since graduation.

4. I am a member of the Canadian Society of Exploration Geophysicists and the Prospectors and Developers Association.

5. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of Gilead Mineral Corporation.

6. I oversaw the survey design and field acquisition, and validated the survey results. The statements made by me in this report represent my best opinion and judgment based on the information available to me at the time of the writing of this report.

Porcupine, Ontario
May, 2000

Sherwood Coulson
Senior Geophysicist
Quantec Geoscience Inc.
Statement of Qualifications

I, David Eastcott, hereby declare that:

1. I am a staff geophysical operator with residence in Porcupine, Ontario and am presently employed in this capacity with Quantec Geoscience Ltd. of Porcupine, Ontario.

2. I have practiced my profession continuously since January of 1996.

3. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of Gilead Mineral Corporation.

4. I am the project manager for the survey, and am responsible for the data acquisition and validation of the survey results. I am the technical writer of the report and am responsible for the compilation and final map creation. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Porcupine, Ontario
May, 2000

David Eastcott.
Project Manager
Quantec Geoscience Inc.
Survey Procedures and General Theory

TEM Surface and Borehole Surveys

TEM profiling is conducted on lines either adjacent to (Off-Loop mode) or surrounded by (In-Loop mode) a large fixed rectangular transmit loop. Current is passed through the loop which following the Turn-Off, produces a primary magnetic field (H) both inside and outside (Figure B1). This primary field induces a vortex current pattern, which energizes conductors and which in turn create their own secondary magnetic field (Bs). The rate of change of the decaying secondary magnetic flux (dBs/dt) is measured as the vertical (Hz), in-line horizontal (Hx) and/or cross line horizontal (Hy) vector components on surface using an air-core sensor coil. These measurements of the TEM decay (20 log-time slices) are taken during the "Off-Time", using a 30 cycle/sec, base repetition rate.

In keeping with the industry standard, the primary field is always considered positive up inside the loop and negative down outside. Similarly, for secondary EM fields, the receiver coil is oriented positive vertical up for the Hz component. The convention for In-Loop surveys, has the in-line component, Hx oriented either positive east (for grid EW lines) or north (for grid NS lines). The Off-Loop survey convention differs, with the receiver coil orientation for Hx pointing positive away from the transmit loop (for EW or NS lines). Finally, the sign convention in all cases, has the Hy component pointing positive orthogonal to the left of the Hx, according to the right-hand-rule.

![Primary Field Sign Convention](image)

The borehole survey is particularly useful to determine the geometrical relationship between a conductor or a complex swarm of conductors around the drill hole. Of particular importance is its application in cases where the drilling is believed to have missed the target of interest. A 3-D borehole survey can effectively determine the direction and distance from the drill hole to the conductor by measuring two orthogonal secondary field components in addition to the axial component. Additionally, conductors located below the end of a drill hole, which either may be too deep and/or have gone previously undetected from surface, may be discovered during the course of a borehole survey.

The probe is manually lowered down the borehole at the end of a cable and, at successive depths, measurements of three (3-D) orthogonal components of the TEM field (Hx, Hy, Hz) are individually obtained in succession by electronically switching the sensor coils in the borehole antenna through the use of a relay/switching system from surface, via the borehole-cable shield. As the probe is free to rotate on its vertical axis, a correction is later applied to the 3-D data in order to rotate the components into their respective coordinate axes.
Figure B2: Loop Configuration and Polarity Conventions for 3-D Borehole Surveys

The secondary fields induced decay at a rate proportional to the conductivity-thickness and are then measured and profiled by the borehole sensor-probe.

a) $H_z$ is positive up along the axis of borehole,
b) $H_x$ is positive perpendicular to the borehole axis and pointing upward, in a vertical plane, in the direction of the azimuth of the hole,
c) $H_y$ is positive 90° counterclockwise to $H_x$ and horizontal, according to the right-hand rule.

At the end of each survey day, the stored data are transferred to a microcomputer using PROTEM and edited and viewed using DATEM (both programs written by Geonics). From there the data is corrected for the turn-off time, loop area, system gain and current, converted from millivolts to nanoVolts per ampere meter squared or nanoVolts per meter squared and Geosoft formatted XYZ files created using GEOPARSE written by Quantec. The data are then transferred to disk for storage and processing. Report quality field plots are generated on site, using a 24-pin printer in order to monitor the data characteristics and to provide a preliminary interpretation capability.

The following equations govern the transient EM response for buried plate-like conductive bodies:

**Target Response to Transmitter Current Waveform:**

$$emf = \frac{1}{\tau} e^{-t/\tau}$$

*where:* $t$ = fixed time

$e$ = exponential decay

$\tau$ = time constant of conductor

---

The time constant of the response is alternatively defined as the slope of the lin-log decay curve (Geonics) or, more exactly, as the time channel where the amplitude of the decay collapses to 37% (1/e) of its maximum value. Both \( \tau \) and the analogous decay strength (i.e., the number of anomalous channels above background), are commonly used as indicators of conductor quality. This relationship between decay-strength and the conductivity-thickness can easily be demonstrated in the following equation for a vertically dipping conductive sheet:

\[
\tau = \frac{\sigma \mu h}{\pi^2} \text{ for a thin plate}
\]

where \( \sigma \) = conductivity of target, \( \mu \) = magnetic susceptibility, \( t \) = thickness of plate, \( h \) = vertical extension of plate

thereby giving, for an infinite vertical sheet:

\[
\sigma t = \frac{\pi^2}{\mu h} \tau \approx \frac{\tau}{0.31} \text{ mhos / metre (siemens)}
\]

From these equations and relationships, it therefore becomes obvious of the common use of the anomaly strength of decay as a simple, rule-of-thumb indicator of the relative conductivity-thickness product for TEM surveys.

In addition, the total secondary field is calculated using the three components (Hx, Hy and Hz) in the following formula

\[
H_{tot} = \sqrt{Hx^2 + Hy^2 + Hz^2} \text{ nanoVolt / Am}^2.
\]
APPENDIX C

Instrument Specifications

GEONICS LIMITED

EM-37 Transmitter
Technical Specifications

Current Waveform: bipolar square wave.

Repetition Rate: 3Hz, 7.5Hz or 30Hz in countries using 60Hz power line frequency; 2.5Hz, 6.25Hz or 25Hz in countries using 50Hz power line frequency; all six base frequencies are switch selectable.

Turn-off Time (t): fast linear turn-off maximum of 450 μsec. at 30 amps into a 300x600 meter loop. Decreases proportionally with current and the root of the loop area to a maximum of 20 μsec. Actual value of t read on front panel meter.

Transmitter Loop: any dimensions from 40x40 meters to 300x600 meters maximum at 30 amps. Larger dimensions at reduced current. Transmitter output voltage switch adjustable for smaller loops. Value of loop resistance read from front panel meter; resistance must be greater than 1 ohm on lowest setting to prevent overload.

Protection: circuit breaker protection against input over voltage; instantaneous solid state protection against output short circuit; automatically resets on removal of short circuit. Input voltage output voltage and current indicated on front panel meter.

Output voltage: 24 to 160 volts (zero to peak) maximum

Output power: 2800 watt maximum

Motor generator: 5 HP Honda gasoline engine coupled to a 120 volt, three phase, 400 Hz alternator. Approximately 8 hours continuous operation from built-in fuel tank.

Component Dimensions and Weights

Transmitter Console: 20 by 42 by 32 cm, 20 kg

GPU: 44 by 32 by 21 cm, 65 kg

C473 – May, 2000
APPENDIX C

Instrument Specifications

GEONICS LIMITED

Digital Protem Ground Transient Electromagnetic System
Technical Specifications

Receiver

Measured Quantity: Time rate of decay of magnetic flux along 3 axes

Sensors:
1. (L.F.): Air-cored coil of bandwidth 60 kHz; 100 cm diameter
2. (H.F.): Air-cored coil of bandwidth 850 kHz; 100 cm diameter
3. (3D-3): Three orthogonal component sensor; simultaneous operation
4. (3D-1): Three orthogonal component sensor; sequential operation

Time channels: 20 geometrically spaced time gates for each base frequency gives range from 6 μsec to 800 msec.

Repetition Rate: 0.3 Hz, 0.75, 3, 7.5, 30, 75 or 285 Hz for 60 Hz power-line networks

Synchronization: (switch selectable):
(1) reference cable
(2) high stability (oven controlled) quartz crystals.

Integration time: 2, 4, 8, 15, 30, 60, 120, 240 sec.

Calibration: Internal self calibration
External Q coil calibration (optional)

Keyboards: Two 3 x 4 matrix sealed key pads with positive tactile feedback

Gain: Automatic or manual control

Dynamic Range: 23 bits (132 dB)

Display Quantity:
(1) Table of time rate of decay of magnetic flux (dB/dt)
(2) Curve of rate of decay of magnetic flux (dB/dt)
(3) Table of apparent resistivity (ρ_a)
(4) Curve of apparent resistivity (ρ_a)
(5) Profile of dB/dt
(6) Real time noise monitor
(7) Calibration curve
(8) Data acquisition statistics (real time)

Storage: Solid state memory with capacity for over 3000 data sets

Display: 8 lines by 40 character (240 x 64 dot) graphic LCD

Data Transfer: Standard RS-232 communications port.

C473 – May, 2000
Processor: CMOS 68HC000 8 MHz CPU
Receiver Battery: 12 volts rechargeable battery for 8 hours continuous operation, 6 hours in XTAL mode
Receiver Size: 34 x 38 x 27 cm
Receiver Weight: 15 kg
Operating Temp.: -40°C to +50°C
Transmitters: (1) Geonics TEM47
(2) Geonics TEM57
(3) Geonics TEM37

### Gate Locations

<table>
<thead>
<tr>
<th>GATE</th>
<th>285/237.5 Hz</th>
<th>75/62.5 Hz</th>
<th>30/25 Hz</th>
<th>GATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.000</td>
<td>6.813</td>
<td>1.625</td>
<td>32.00</td>
</tr>
<tr>
<td>2</td>
<td>7.625</td>
<td>8.688</td>
<td>2.125</td>
<td>38.50</td>
</tr>
<tr>
<td>3</td>
<td>9.750</td>
<td>11.13</td>
<td>2.750</td>
<td>47.00</td>
</tr>
<tr>
<td>4</td>
<td>12.50</td>
<td>14.19</td>
<td>3.375</td>
<td>58.00</td>
</tr>
<tr>
<td>5</td>
<td>15.88</td>
<td>18.07</td>
<td>4.375</td>
<td>71.5</td>
</tr>
<tr>
<td>6</td>
<td>20.25</td>
<td>23.06</td>
<td>5.625</td>
<td>89.00</td>
</tr>
<tr>
<td>7</td>
<td>25.88</td>
<td>29.44</td>
<td>7.125</td>
<td>111.5</td>
</tr>
<tr>
<td>8</td>
<td>33.00</td>
<td>37.56</td>
<td>9.125</td>
<td>140.0</td>
</tr>
<tr>
<td>9</td>
<td>42.13</td>
<td>47.94</td>
<td>11.63</td>
<td>176.5</td>
</tr>
<tr>
<td>10</td>
<td>53.75</td>
<td>61.13</td>
<td>14.75</td>
<td>223.0</td>
</tr>
<tr>
<td>11</td>
<td>68.50</td>
<td>77.94</td>
<td>18.88</td>
<td>292.0</td>
</tr>
<tr>
<td>12</td>
<td>87.38</td>
<td>99.38</td>
<td>24.00</td>
<td>357.5</td>
</tr>
<tr>
<td>13</td>
<td>111.4</td>
<td>126.7</td>
<td>30.63</td>
<td>453.5</td>
</tr>
<tr>
<td>14</td>
<td>151.7**</td>
<td>166.4</td>
<td>29.38</td>
<td>576.0</td>
</tr>
<tr>
<td>15</td>
<td>181.1</td>
<td>206.0</td>
<td>49.88</td>
<td>732.5</td>
</tr>
<tr>
<td>16</td>
<td>231.0</td>
<td>262.8</td>
<td>62.63</td>
<td>932.0</td>
</tr>
<tr>
<td>17</td>
<td>294.6</td>
<td>335.2</td>
<td>81.25</td>
<td>1187</td>
</tr>
<tr>
<td>18</td>
<td>375.9</td>
<td>427.7</td>
<td>103.6</td>
<td>1512</td>
</tr>
<tr>
<td>19</td>
<td>479.5</td>
<td>545.6</td>
<td>132.1</td>
<td>1926</td>
</tr>
<tr>
<td>20</td>
<td>611.6</td>
<td>695.9</td>
<td>168.5</td>
<td>2455</td>
</tr>
<tr>
<td>21*</td>
<td>780.1</td>
<td>881.6</td>
<td>205.1</td>
<td>3129</td>
</tr>
</tbody>
</table>

* End of Gate 20
** A Gap of 9.7 µsec exists between Gate 13 and Gate 14 in the micro-frequency range

This Table applies to both synchronization modes regardless of which of TEM37, TEM47 and TEM57 transmitters is used, provided that correct Tx model is selected in Header (2.4).

Note: 7.5/6.25 and 0.75/0.625 Hz proportional to 75/62.5 Hz
3/2.5 and 0.3/0.25 Hz proportional to 30/25 Hz

C473 – May, 2000
# Production Summary

## VEINLODE PROPERTY

### 3D BOREHOLE & SURFACE TEM SURVEYS

<table>
<thead>
<tr>
<th>DATE</th>
<th>DESCRIPTION</th>
<th>HOLE</th>
<th>START (m)</th>
<th>END (m)</th>
<th>TOTAL (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-Dec</td>
<td>Kevin Blackshaw, Don MacLaren mob to Veinlode Property to dummy holes. Locate 4 of 5 drill holes but unable to get to within 1km of holes with truck due to beaver pond. Will have to return with ATV to access holes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-Dec</td>
<td>Mob to Veinlode Property with ATV to dummy holes. All holes blocked, lose 250 m of cable and dummy probe due to blockage in hole 5A. Return to Timmins awaiting completion of grid lines for surface survey. ATV Charge. Charge for lost cable and dummy probe.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-Dec</td>
<td>Mob Timmins to Maiden Bay late afternoon after completion of work for other client.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-Dec</td>
<td>Lay loop 2, 1000x1500ft. Melting and rainy conditions all day. Bush extremely thick and terrain very rugged. Necessary to use ATV to access grid. (2 men) ATV Charge.</td>
<td>LO+00E</td>
<td>1400N</td>
<td>1600S</td>
<td>3,000</td>
</tr>
<tr>
<td>15-Dec</td>
<td>Start TEM surface survey on Loop 2 reading 50ft stations and 100ft lines. Slow going due to slippery wet conditions on rugged terrain. Rain most of day. Third man mobilizes to Maiden Bay. ATV Charge.</td>
<td>1+00W</td>
<td>1600S</td>
<td>1400N</td>
<td>3,000</td>
</tr>
<tr>
<td>16-Dec</td>
<td>Two men survey Loop 2 while 3rd man lays wire for Loop 3. Rainy conditions most of day. ATV Charge.</td>
<td>3+00W</td>
<td>1600S</td>
<td>1400N</td>
<td>3,000</td>
</tr>
<tr>
<td>17-Dec</td>
<td>Continue survey, Loop 2. Third man laying wire for other loops. Weather cold. ATV Charge.</td>
<td>1+00E</td>
<td>1400N</td>
<td>1600S</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2+00E</td>
<td>1600S</td>
<td>1400N</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3+00E</td>
<td>000N</td>
<td>1400N</td>
<td>1,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4+00E</td>
<td>1400N</td>
<td>000N</td>
<td>1,400</td>
</tr>
<tr>
<td>Date</td>
<td>Description</td>
<td>ATV Charge</td>
<td>4+00E</td>
<td>000N</td>
<td>1600S</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>18-Dec</td>
<td>Complete survey Loop 2. Change to Loop 3 and continue reading. Travel to Timmins to pickup 2nd receiver to insure completion before Xmas.</td>
<td></td>
<td>4+00E</td>
<td>000N</td>
<td>1600S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3+00E</td>
<td>1600S</td>
<td>000N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3+00E</td>
<td>600N</td>
<td>2400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4+00E</td>
<td>2400N</td>
<td>000N</td>
</tr>
<tr>
<td>19-Dec</td>
<td>Survey Loop 3, 2 Receivers. Additional charge for 4th man and 2nd receiver.</td>
<td>ATV Charge</td>
<td>3+00W</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2+00W</td>
<td>600S</td>
<td>2400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3+00W</td>
<td>1400N</td>
<td>2400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1+00W</td>
<td>000N</td>
<td>2400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0+00E</td>
<td>600S</td>
<td>2400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1+00E</td>
<td>600S</td>
<td>2400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2+00E</td>
<td>600S</td>
<td>2400N</td>
</tr>
<tr>
<td>20-Dec</td>
<td>Generator breakdown during warmup. Unable to obtain necessary parts in New Liskeard. Replacements sent from Timmins. Pick up late night.</td>
<td>ATV Charge</td>
<td>1+00W</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4+00E</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4+00E</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3+00E</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td>21-Dec</td>
<td>Repeat north part of L100W due to crystal drift the day before and complete southern portions of L100W and L400W. Move loops and read 2 lines on Loop 1. Receive instructions to shut down survey.</td>
<td>ATV Charge</td>
<td>1+00W</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4+00E</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4+00E</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3+00E</td>
<td>600S</td>
<td>400N</td>
</tr>
<tr>
<td>22-Dec</td>
<td>Retrieve loops and equipment and demob to Timmins.</td>
<td>ATV Charge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C473 – May, 2000
Operator comments

The surveys proceeded relatively smoothly and without incidence. In spite of the long integration times and remoteness of the survey area, the results are unusually noisy, particularly in late-channels – due to the high bedrock resistivities and resulting weak signal strengths.

Woody Coulson
Geophysicist, QCI
Pers. comm. 12/99
List of Maps

- **LPTEM Surface Profiles**: Multi-Channel 4-Axis Profile Plots: (time rate of decay of the secondary electromagnetic field, 3D: Total Field, X, Y and Z components, 30 Hz, 1:4800 scale, nanoVolts per ampere-metre)

<table>
<thead>
<tr>
<th>LOOP</th>
<th>LINES</th>
<th>Number of Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop 1</td>
<td>400W</td>
<td>4</td>
</tr>
<tr>
<td>Loop 2</td>
<td>300W</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>200W</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>100W</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>000E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>100E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>200E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>300E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>400E</td>
<td>4</td>
</tr>
<tr>
<td>Loop 3</td>
<td>300W</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>200W</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>100W</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>000E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>100E</td>
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<tr>
<td></td>
<td>200E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>300E</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>400E</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>18 lines</td>
<td>72 profiles</td>
</tr>
</tbody>
</table>

- **Plan Maps**: Contoured/Posted Plan of Total TEM Field (Channel 5) and Interpretation Plan, onto topographic/geologic basemap, at 1:2400 scale

<table>
<thead>
<tr>
<th>No</th>
<th>DESCRIPTION</th>
<th>DRAWING NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total TEM field (ch. 5) for Loops 1, 2 and 3</td>
<td>C473-FLTEM-PLAN-TF-5</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>1 map</td>
</tr>
</tbody>
</table>
APPENDIX G

Profiles and Plan
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 1600S-600S - L1200E-L300W
Transmitter Current: 12.1 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp²
Receiver Coil Orientation: Hz - positive up
Hy - positive north
Hx - positive west
Survey Date: 21 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200nH2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DWG. NO.: C473-4AXIS-TF-3+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 1600S-600E - L1200E-L300W
Transmitter Current: 12.1 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp-2
Receiver Coil Orientation: Hz = positive up
                        Hx = positive north
                        Hy = positive west

Survey Date: 21 Dec 99
Instrumentation: Rx = Digital Protek (3x20 Channels)
                & Geonics 3D Coil (3x200m2)
                Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXIS-X-3+00E
Line 3+00E – Z Component
Loop 1
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:
30 Hz (50% duty cycle)
Tx Loop Size:
1500 x 1000
Tx Loop Location:
1600S-600S – L1200E-L300W
Transmitter Current:
12.1 Amps
Transmitter Turn-Off Time:
180 us
Station Interval:
50 feet
Profile Units:
nanoVolt/Ampere
Receiver Coils Orientation:
Hz – positive up
Hx – positive north
Hy – positive west

Survey Date:
21 Dec 99
Instrumentation:
Rx = Digital Protein (3x20 Channels)
Geonics 3D Coil (3x200m+2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DWG. NO.: C473-4AXIS-Z-3+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 1600S-600S - L1200E-L300W
Transmitter Current: 12.1 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Am2
Receiver Coil Orientation: Hz - positive up
Hy - positive west

Survey Date: 21 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXIS-Y-3+00E
**GILEAD MINERAL CORP.**
**VEINLODE PROJECT**
South Lorrain Twp., ON

**LPTEM IN-LOOP PROFILING SURVEY**

Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 1600S-600S - L1200E-L300W
Transmitter Current: 12.1 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amm2
Receiver Coil Orientation: Hz = positive up

Survey Date: 21 Dec 99

Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200mm2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

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**Line 4+00E - Total Field**

**Loop 1**

Scale 1:4800

Surveyed Area Processed by:
QUANTEC CONSULTING INC.

DWG. NO. C473-4AXIS-TF-4+00E
Line 4+00E – X Component
Loop 1

Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 1600S-600S - L1200E-L300W
Transmitter Current: 12.1 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/A/m^2
Receiver Coil Orientation: Hz – positive up
Hy – positive west

Survey Date: 21 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXIS-X-4+00E
**Line 4+00E – Z Component**

**Loop 1**

**Scale 1:4800**

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**GILEAD MINERAL CORP.**
VEINLODE PROJECT
South Lorrain Twp., ON

**LPTEM IN-LOOP PROFILING SURVEY**
Secondary Electromagnetic Field (dB/dt)

- **Transmitter Frequency:** 30 Hz (50% duty cycle)
- **Tx Loop Size:** 1500 x 1000
- **Tx Loop Location:** 1600S-600S - L1200E-L300W
- **Transmitter Current:** 12.1 Amps
- **Transmitter Turn-Off Time:** 180 us
- **Station Interval:** 50 feet
- **Profile Units:** nanoVolt/Amm2
- **Receiver Coil Orientation:** Hz – positive up
- **Hy – positive west

**Survey Date:** 21 Dec 99

**Instrumentation:**
- **Rx = Digital Protem (3x20 Channels)**
- **& Geonics 3D Coil (3x200m2)**
- **Tx = Geonics EM-37 (2.8 kW)**

**Surveyed & Processed by:**
QUANTEC CONSULTING INC.

*DWG. NO.: C473-4 AXIS-Z-4+00E*
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 1600E-600S - L1200E-L300W
Transmitter Current: 12.1 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Am^2
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 21 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200mm2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXIS-Y-4+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFLING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp2
Receiver Coil Orientation: Hz - positive up
Hy - positive north

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protein (3x20 Channels)
& Geonics 3D Coil (3x200mV)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AM5-IF-3+00W
Line 3+00W - X Component
Loop 2
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1600 x 1000
Tx Loop Location: 4500N-6000S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp-ft
Receiver Coil Orientation: Hz - positive up
Hy - positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200+1)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXS-X-3+00W
Line 3+00W – Z Component
Loop 2
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVott/Atrrrt?
Receiver Coil Orientation: Hz = positive up
Hy = positive west
Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
& Geonics EM-37 (2.8 kW)

Measured & Processed by QUANTEC CONSULTING INC.

DWS. NO. C473-44X1S-2-3+00W
Line 3+00W – Y Component
Loop 2
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON
LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1000 x 1000
Tx Loop Location: 400N-600S - 1200E-1300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/A+nT'2
Receiver Coil Orientation:
Hz = positive north
Hy = positive west

Survey Date: 15 Dec 99
Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-37 (2.5 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No.: C473-8AX15-Y-3+00W
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanovolt/Amp per meter
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geometrics 3D Coil (3x200um)
Tx = Geometrics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No. C473-4A/XS-2+00W
Line 2+00W - Y Component
Loop 2

Scale 1:4800

0
0.0
0.25
-0.25

Chs 6-10
Chs 16-20

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics EM-37 (3x200nM2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Dwg. No. C473-4MXS-Y-2+00W
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: mGals/km
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Hx = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 30 Cal (3x200mcent)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by: QUANTEC CONSULTING INC.
Dwg. No.: C473-4AXIS-Z-1+00W
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D coil (3x200m2)
Tx = Geonics H13 (0.5 kHz)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
G412.02-40159-Y-1+00W
Line 0+00E - Total Field

Loop 2
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: 0.01 to 0.02
Receiver Coil Orientation: Hx = positive north, Hy = positive east
Survey Date: 15 Dec 99

Instrumentation: Rx = Digital Protein (3x20 Channels)
& GeoMag 30 Call (3x200mHz)
Tx = Geonics EM-37 (2.8 MHz)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Line 04+00E - X Component
Loop 2
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

- Transmitter Frequency: 30 Hz (50% duty cycle)
- Tx Loop Size: 1500 x 1000
- Tx Loop Location: 400N-600S - L1300E-L300W
- Transmitter Current: 12 Amps
- Transmitter Turn-Off Time: 180 us
- Station Interval: 50 feet
- Profile Units: mrad/kV/m²
- Receiver Coil Orientation: Hz = positive up, Hx = positive north, Hy = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
- Geonics 30 Coil (3x2000m²)
- Geonics EM-37 (2.8 kW)

Surveyed & Processed by
QUANTEC CONSULTING INC.
Dwg. No. C473-4AXIS-X-04+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L300E-L1200W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: millivolt/m
Receiver Coil Orientation:
- Hz = positive up
- Hy = positive north
- Hx = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3 x 20 Channels)
& Geonics 30 Cal (3 x 200m/2)
Tx = Geonics EM-37 (2 x 1000)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DWG. NO. C473-4AXIS-Z-0+00E
Line 0+00E – Y Component
Loop 2
Scale 1:4800
Scale 1:4800

GILEAD MINERAL CORP.
VEINILODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 4000-6005 – L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanovolts/m
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Hz = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 30 Col (3x200m2)
Tx = Geonics EM-37 (0.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (90% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12.6 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Atrn^2
Receiver Coil Orientation: Hz - positive up
Hy - positive north
Hx - positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protek (360 Channels)
& Georich 3D Coil (3x200m^2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Dwg. No. C473-4AXIS-TF-1+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600E - L200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/Anti-2 Hz - positive up
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m^2)
Tx = Geonics (4x-37 (2, 6 kW)

Surveyed & Processed By: QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600E - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVort/Awrri
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200mm)
Tx = Geonics EM-37 (2.8 kHz)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
**GILEAD MINERAL CORP.**

**VEINLODE PROJECT**

South Lorrain Twp., ON

**LPTEM IN-LOOP PROFILING SURVEY**

**Secondary Electromagnetic Field (dB/dt)***

- **Transmitter Frequency:** 30 Hz (50% duty cycle)
- **Tx Loop Size:** 1500 x 1000
- **Tx Loop Location:** 430N-630S - L1300E-L300W
- **Transmitter Current:** 12 Amps
- **Transmitter Turn-Off Time:** 180 us
- **Station Interval:** 50 feet
- **Profile Units:** Hz - positive up
- **Rx coil Orientation:** Hz = positive up
- **Hy - positive west
Surveyed & Processed by:**

**QUANTEC CONSULTING INC.**

Dwg. No. C473-4AXS-Y-1+00E.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorraine Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanovolt/meter
Receiver Coil Orientation:
Hx - positive north
Hy - positive east

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels) & Geonics 3D Cal (3x20nr2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DWG. NO. C473-4AXS-TR-2+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Proton (3x10 Channels)
& Geonics 3D Coin (3x100m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No. C473-4605-X-2+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400W-600E - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/second
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Hx = positive west

Survey Date: 15 Dec 99
Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 30 Coil (3x200mV)
Tx = Geonics Rx-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Line 2+00E - Z Component
Loop 2
Scale 1:4800

MINERAL CQRP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400W-600E - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/second
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Hx = positive west

Survey Date: 15 Dec 99
Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 30 Coil (3x200mV)
Tx = Geonics Rx-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

MINERAL CQRP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400W-600E - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanoVolt/second
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Hx = positive west

Survey Date: 15 Dec 99
Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 30 Coil (3x200mV)
Tx = Geonics Rx-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanovolt/foot
Receiver Coil Orientation: Hz - positive up
Hy - positive west
Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (5x200m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Line 3+00E - Total Field
Loop 2

Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorraine Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/µt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-000E - 1300E-1300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanovolt/Amp2
Receiver Coil Orientation: Hz - positive up
Hy - positive north
Hx - positive west
Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Series EM-37 (2.8 kW)

Surveyed & Processed by: QUANTEC CONSULTING INC.
DVG. NO. C473-4AXIS-TF-3+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Intertest: 50 feet
Profile Units: nanotesla, meters
Receiver Coil Orientation: Hz - positive up
Hy - positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protek (3x20 Channels)
& Geonics 3D Cal (5x2000m²)
Tx = Geonics EIR-37 (0.8 MHz)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Line 3+00E - X Component
Loop 2
Scale 1:4800
(Feet)
Line 3+00E - Y Component
Loop 2

Survey Date: 15 Dec 99
Surveyed & Processed by:
QUANTEC CONSULTING INC.

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (90% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Currents: 12 Amps
Transmitter Turn-Off Time: 180 usec
Station Interval: 50 feet
Profile Units: nanoVot/Hertz
Receiver Coil Orientation: Hz - positive north
Hy - positive west

Surveyed: Quanteq Consultinc INC.
Dwg. No. C473-4AX1S-Y-3+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)
Transmitter Frequency: 10 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Anps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: nanovolt/ampere
Receiver Coil Orientation: Hz - positive up
Hy - positive west
Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (4x200nr2)
Tx = Geonics EM-57 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWC QC, C473-4AXIS-TF-4+00E
Line 4+00E - X Component
Loop 2

Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-600S - L1200E-L300W
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: mV/m
Receiver Coil Orientation:
Hx - positive up
Hy - positive north
Hz - positive west

Survey Date: 15 Dec 99
Instrumentation:
Rx = Digital Proton (3x20 Channels)
& Geonics 2D Coil (3x200m)
Tx = Geonics EM-37 (2.5 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: L300E-L300N
Transmitter Current: 12 Amps
Transmitter Turn-Off Time: 180 us
Station Interval: 50 feet
Profile Units: {n} - positive north
Hz - positive up
Hz - positive west

Survey Date: 15 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics EM-37 (2.8 kW)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DGW. NO. C473-A005-Z-4+00E
Line 4+00E – Y Component
Loop 2
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPITEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

- Transmitter Frequency: 30 Hz (50% duty cycle)
- Tx Loop Size: 1500 x 1000
- Tx Loop Location: 400N-600S - L1200W
- Transmitter Current: 12 Amps
- Transmitter Turn-Off Time: 180 us
- Station Interval: 50 feet
- Profile Units: nanoTesla/Amp
- Receiver Coil Orientation: Hz = positive up, Hx = positive north, Hy = positive west
- Survey Date: 15 Dec 99
- Instrumentation: Rx = Digital Protem (3x20 Channels)
  a Geonics 30 Coil (3x200mHz)
  a = Geonics EM-37 (2.8 kHz)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No. C473-4400E-Y-4+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1300E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/m (nV/m)
Receiver Coil Orientation:
Hx - positive north
Hy - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DWG. NO. C473-4AXS-X-3+00W
Line 3+00W – Z Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

- Transmitter Frequency: 30 Hz (50% duty cycle)
- Tx Loop Size: 1500 x 1000
- Tx Loop Location: 400N-1400N – L1200E-L300W
- Transmitter Current: 12.5 Amps
- Transmitter Turn-Off Time: 190 µs
- Station Interval: 50 feet
- Profile Units: mV/m/100 feet
- Receiver Coil Orientation: Hz = positive up
- Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (5x200m2)
Tx = Geonics EM-37 (2.8 kW)

Quanted Consulting Inc.
WG No. C473-44/V/W-2-3+00W
Line 3+00W - Y Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amperes
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Vm^2
Receiver Coil Orientation: Hz = positive up, Hy = positive north

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Proton (3x20 Channels)
& Geonics 3D Cali (3x200m^2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Dwg. No. C473-4AX-S-Y+3+00W
Line 2+00W – Total Field
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N – L400E-L300W
Transmitter Current: 17.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amperes
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Proteus (3x20 Channels)
& Geonics 3D Coil (3x20 coils)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXS-TF-2+00W
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanovolt/perm2
Receiver Coil Orientation: Hz - positive up
Hy - positive north
Hx - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coi (3x200m²)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:
30 Hz (507. duty cycle)

Tx Loop Size:
1500 x 1000

Tx Loop Location:
400N-1400W – L1200E-L300W

Transmitter Current:
12.5 Amps

Transmitter Turn-Off Time:
190 us

Station Interval:
50 feet

Profile Units:
nanoVort/Feet

Receiver Coil Orientation:
Hz – positive up
Hx – positive east
Hy – positive west

Survey Date:
18 Dec 99

Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200 mm2)
Tr = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Line 2+00W – Y Component
Loop 3
Scale 1:4800

Sun/earth S

Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON
LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp2
Receiver Coil Orientation:
***x*** - positive up
***y*** - positive west
Survey Date: 18 Dec 99
Instrumentation:
Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200mm2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DSG. NO. C473-4AXIS-TF-1+00W
Line 1+00W - X Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanolot/Am2
Receiver Coil Orientation:
Hx - positive up
Hy - positive north
Hz - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (1500m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXIS-X-1+00W
Line 1+00W – Z Component
Loop 3

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N – L1200E-L3000W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Intervals: 50 feet
Profile Units: nanovolt/Amp*m
Receiver Coil Orientation: Hz – positive up
     Hx – positive north
     Hy – positive west
Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
                Hx = Geonics 3D Coil (3x200m^2)
                Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Drawn by: C473-4AXS-Z-1+00W
Line 1+00W – Y Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N – L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVHol/Anmp
Receiver Coil Orientation: Hz = positive up
Hy = positive north

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x210mm)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4KX-Y+00W
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (30% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N, 1300E-1500W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: mV/m
Receiver Coil Orientation: Hz - positive up
Hy - positive east
Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (5x200mV)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

Dwg. No.: C475-4AXIS-X-0+00E
Line 0+00E - Z Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N - L1200E - L300N
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 µs
Station Interval: 50 feet
Profile Units: nanoV/amp/µm²
Receiver Coil Orientation: Hz = positive up, Hx = positive north, Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m²)
Tx = Geonics EM-37 (2.5 kV)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

- Transmitter Frequency: 30 Hz (50/50 duty cycle)
- Transmitter Current: 12.5 Amps
- Transmitter Turn-Off Time: 190 us
- Station Interval: 50 feet
- Profile Units: nanovolt/Am²
- Receiver Coil Orientation:
  - Hz - positive up
  - Hx - positive north
  - Hy - positive west
- Survey Date: 18 Dec 99
- Instrumentation:
  - Rx = Digital Protem (3x20 Channels)
  - & Geonics 3D Coil (3x200nV/m²)
  - Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed By:
QUANTEC CONSULTING INC.

Dwg. No.: C473-44XX-2-Y-0+0E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Survey Date: 18 Dec 99

Instrumentation: Rx = Digital Pratem (3x20 Channels)
& Geonics 30 Coil (3x200m²)
Tx = Geonics EM 32 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1203E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: Hz — positive up
Receiver Cal Orientation: Hz — positive up
Hy — positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geometrics 30 Coil (3x200m²)
Tx = Geometrics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No. (475-4010-F-7-1-00E)
Line 1+00E - Z Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dE/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amperes
Receiver Coil Orientation: Hz - positive up
Hy - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Geonics 30 Coil (3x200nT)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by: QUANTEC CONSULTING INC.
Line 1+00E – Y Component
Loop 3

Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N – L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/m
Receiver Coil Orientation:

Survey Date: 18 Dec 99
Instrumentation:

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Line 2+00E - Total Field
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON
LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoV/m
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Repeat (3x20 Channels)
& Geonics 3D Coil (3x200mm²)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DRAWN & CHECKED BY:
DWG. NO. C473-4AXIS-TF-2+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L120OE-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp2
Receiver Coil Orientation: Hz - positive up
Hy - positive north
Hx - positive west

Survey Date: 13 Dec 99
Instrumentation: Rx = Digital Protein (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-57 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Line 2+00E - Z Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanovolt/m
Receiver Coil Orientation: Hz - positive up
Hy - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No. C473-4AXIS-Z-2+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300N
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Intervals: 50 feet
Profile Units: milliVolt/nanoAmps
Receiver Coil Orientation:
Hz = positive up
Hx = positive north
Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protein (3x20 Channels)
& Geonics 3D Coils (3x200m2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DWG. NO. C473-4AXS-Y-2+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp/2
Receiver Coil Orientation: Hz = positive up
Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geometrics 3D Coil (3x200m)
Tx = Geometrics EM-37 (2.8 kW)

Surveyed & Processed by: QUANTEC CONSULTING INC.
Dwg. No. C473-4AX5-1F-3+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON
LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)
Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 400N-1400N - 1:1000 to 1:3000
Transmitter Current: 30 A
Transmitter Turn-Off Time: 190 ms
Station Interval: 50 feet
Profile Units: mV/m
Receiver Coil Orientation: Hz = positive up
Hy = positive north
Hx = positive west
Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Geomax (3x20 Channels)
& Geonics 3D Coil (3x200m2)
Tx = Geonics EM-37 (0.4 kW)
Surveyed & Processed by
QUANTEC CONSULTING INC.
Dwg. No.: C473-4405-X-3+00E
Line 3+00E – Z Component
Loop 3

Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Transmitter Loop Size: 1500 x 1000
Transmitter Loop Location: 400N-1400N - 1220E-1300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanoVolt/Amp*2
Receiver Coil Orientation: Hz - positive up
Hy - positive north
Hx - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital proton (3x20 Channels)
& Geonics 3D coil (3x200nr2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.

DWG. NO. C473-4AXIS-Z-3+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanovolt/amp/feet
Receiver Coil Orientation: Hx - positive up
Hy - positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics EM-37 (3x200 Channels)
Tx = Geonics EM-37 (2.4 KW)

Line 3+00E - Y Component
Loop 3
Scale 1:4800
(feet)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
Dwg. No. C473-4AWS-Y-3+00E
Line 4+00E – Total Field
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L12QOE - L300W
Transmitter Current: 12.5 Amperes
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nanovolts/Ampere
Receiver Coil Orientation: Hz – positive up

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
& Geonics 3D Coil (3x200mm2)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by QUANTEC CONSULTING INC.
DRAW NO.: C473-4AXS-7F-4+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-3000W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: X = positive north
Hy = positive west

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protein (3x20 Channels)
Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by: QUANTEC CONSULTING INC.

Dwg. No.: C473-4AXIS-X-4+00E
Line 4+00E - Z Component
Loop 3
Scale 1:4800

GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N – L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 us
Station Interval: 50 feet
Profile Units: nV/Am
Receiver Coil Orientation: Hz - positive up
Hy - positive north

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Protem (3x20 Channels)
G = Geonics 3D Coil (3x200m²)
Tx = Geonics EM 37 (2.8 kV)

Surveyed & Processed by: QUANTEC CONSULTING INC.
DMG. NO. C473-46XIS-2-4+00E
GILEAD MINERAL CORP.
VEINLODE PROJECT
South Lorrain Twp., ON

LPTEM IN-LOOP PROFILING SURVEY
Secondary Electromagnetic Field (dB/dt)

Survey Date: 18 Dec 99
Instrumentation: Rx = Digital Profem (3x20 Channels)
& Geonics 3D Coil (3x200mA)
Tx = Geonics EM-57 (2.8 kW)

Surveyed & Processed by:
QUANTEC CONSULTING INC.
DGW. NO. C473-4AXS-Y-4+00E

Transmitter Frequency: 30 Hz (50% duty cycle)
Tx Loop Size: 1500 x 1000
Tx Loop Location: 400N-1400N - L1200E-L300W
Transmitter Current: 12.5 Amps
Transmitter Turn-Off Time: 190 usec
Station Interval: 50 feet
Profile Units: nanoVolts/Amp*2
Receiver Coil Orientation: Hz - positive up
Hy - positive west

Line 4+00E – Y Component
Loop 3
Scale 1:4800
(1000)
(500)
(250)
(0)
(250)
(500)
(1000)
(2000)

GIL -10.
Declaration of Assessment Work
Performed on Mining Land
Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Client Number</th>
<th>Address</th>
<th>Telephone Number</th>
<th>Fax Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank Palmay</td>
<td>179076 (Palmay)</td>
<td>c/o Veinlode Silver Mines Ltd 600-200 Burrard Street</td>
<td>416-630-1208 (Palmay)</td>
<td>604-667-1117 (Veinlode)</td>
</tr>
<tr>
<td>John R. Moses</td>
<td>173133</td>
<td>705 - 401 Queen's Quay West</td>
<td>416-345-8849</td>
<td>same</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Work Type</th>
<th>Date Work From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface TEM survey, linecutting</td>
<td>1 11 1999</td>
<td>31 5 2000</td>
</tr>
</tbody>
</table>

Global Positioning System Data (if available)

- Township/Area: South Lorrain
- M or G-Plan Number: G-3448

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)

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Telephone Number</th>
<th>Fax Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantec Geoscience Inc.</td>
<td>101 King St., PO Box 580 Porcupine ON, PON 1CD</td>
<td>705-235-2166</td>
<td>705-235-2255</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Certification by Recorded Holder or Agent

I, ___________________________, 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: ___________________________

Date: ___________ 2000
### Mining Claim Number

<table>
<thead>
<tr>
<th>Mining Claim Number</th>
<th>Number of Claim Units. For other mining land, list hectares.</th>
<th>Value of work Performed on this claim or other Mining land</th>
<th>Value of work applied to this claim.</th>
<th>Value of work assigned to other mining claims.</th>
<th>Bank. Value of work to be distributed at a future date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 T 34601 Parcel 4977 LT (old ML 102717)</td>
<td>12.6 ha  (40%)</td>
<td>0</td>
<td>4800</td>
<td>3780</td>
<td></td>
</tr>
<tr>
<td>2 T 40521 Parcel 5690 LT (old ML 102858)</td>
<td>16.6 ha  (46%)</td>
<td>0</td>
<td>4800</td>
<td>5066</td>
<td></td>
</tr>
<tr>
<td>3 CLM 111 Parcel 4623 LT (T 444111 old ML 100791)</td>
<td>18.6 ha  (7%)</td>
<td>0</td>
<td>1502</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 T 43338 Parcel 4621 LT (old ML 100789)</td>
<td>18 ha  (7%)</td>
<td>0</td>
<td>1502</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 L 1225439</td>
<td>6</td>
<td>2400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 L 1225440</td>
<td>6</td>
<td>2400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 L 1225441</td>
<td>3</td>
<td>1200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 L 1225442</td>
<td>9</td>
<td>3600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Column Totals</strong></td>
<td><strong>24</strong></td>
<td><strong>21450</strong></td>
<td><strong>9600</strong></td>
<td><strong>9600</strong></td>
<td><strong>11850</strong></td>
</tr>
</tbody>
</table>

I, __________________________, Rainer Skeries (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 Recording Date

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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

<table>
<thead>
<tr>
<th>Deemed Approved Date</th>
<th>Date Notification Sent</th>
<th>Date Approved</th>
<th>Total Value of Credit Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/97</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved for Recording by Mining Recorder (Signature)
**Statement of Costs for Assessment Credit**

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, this 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 a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

<table>
<thead>
<tr>
<th>Work Type</th>
<th>Units of work</th>
<th>Cost Per Unit of work</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surface TEM survey</strong></td>
<td>2 survey days (2 man crew)</td>
<td>1350</td>
<td>2700</td>
</tr>
<tr>
<td></td>
<td>5 survey days (3 man crew)</td>
<td>1600</td>
<td>8000</td>
</tr>
<tr>
<td></td>
<td>1 survey day (4 man crew)</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td><strong>Report</strong></td>
<td>1 report</td>
<td>650</td>
<td>650</td>
</tr>
<tr>
<td><strong>Linecutting</strong></td>
<td>10 km some survey control</td>
<td>450</td>
<td>4500</td>
</tr>
<tr>
<td><strong>Consulting/maps</strong></td>
<td>4 mandays</td>
<td>300</td>
<td>1200</td>
</tr>
</tbody>
</table>

**Associated Costs (e.g. supplies, mobilization and demobilization).**

<table>
<thead>
<tr>
<th><strong>Transportation Costs</strong></th>
<th><strong>Food and Lodging Costs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATV charge</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>2400</td>
</tr>
</tbody>
</table>

**Total Value of Assessment Work**

![21450](21450)

**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:

\[
\text{TOTAL VALUE OF ASSESSMENT WORK} \times 0.50 = \text{Total } \$	ext{ of worked claimed.}
\]

**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., ___________, 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 ___________.

(please print full name)

I am authorized to make this certification.

(Recorded holder/agent, of company position with signing authority)

0212 (03/97)
July 11, 2000

FRANK PALMAY
45 WESTGATE BOULEVARD
DOWNSVIEW, Ontario
M3H-1N8

Dear Sir or Madam:

Subject: Transaction Number(s):
W0080.00244 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. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

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 BRUCE GATES by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,

Steve B. Beneteau
Acting Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 15051
Copy for: Assessment Library
<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>First Claim Number</th>
<th>Township(s) / Area(s)</th>
<th>Status</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>W0080.00244</td>
<td>T34601</td>
<td>SOUTH LORRAIN</td>
<td>Approval</td>
<td>July 11, 2000</td>
</tr>
</tbody>
</table>

**Section:**
14 Geophysical IP

**Correspondence to:**
Resident Geologist  
Kirkland Lake, ON

Assessment Files Library  
Sudbury, ON

**Recorded Holder(s) and/or Agent(s):**
Rainer Skeries  
TIMMINS, ONTARIO, CANADA

FRANK PALMAY  
DOWNSVIEW, Ontario

JOHN ROSS MOSES  
PORT CARLING, Ontario