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Churchill Diamond CORPORATION

Revised 2017 Work Report on the Eric Lake Property, NW Ontario.

NTS 42C/13

Bounded by UTM coordinates (NAD 83 Zone 16):

579220 & 582020 East; 5413620 & 5416020 North

By: Kevin R. Kivi, P.Geo.

7 December 2017

KIVI Geoscience Inc.
1100 Memorial Ave., PMB 363, Thunder Bay ON P7B 4A3 CANADA
Office: Phone: (807) 285-1251 Fax: (807) 285-1252 Cell: (807) 624-6156
Email: kivik@shawcable.com

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Introduction

Rudolf Wahl holds 100% interest in the Eric Lake Property located in Black River Area (G-0580), Thunder Bay Mining District, Ontario. Eric Lake is currently under option to Churchill Diamond Corporation, who conducted the work reported herein.

The Eric Lake Property is located about 250 km east of Thunder Bay, on Highway 614 which extends between Highway 17 and Manitouwadge. The property is accessible by truck, then ATV/Snowmobile or on foot.

The Eric Lake property consists of three claims (36 units) staked to cover a prominent magnetic high anomaly identified during prior work but never drill tested. This magnetic anomaly could be the geophysical response of a kimberlite.

This report describes 2016 and 2017 work that includes line cutting, ground magnetic and VLF geophysical surveys, cutting an access trail, and diamond drilling. Work was completed by Churchill Diamond Corp, under direct supervision of Kevin Kivi, P.Geo., of KIVI Geoscience Inc., from Thunder Bay, ON.

Location and Access

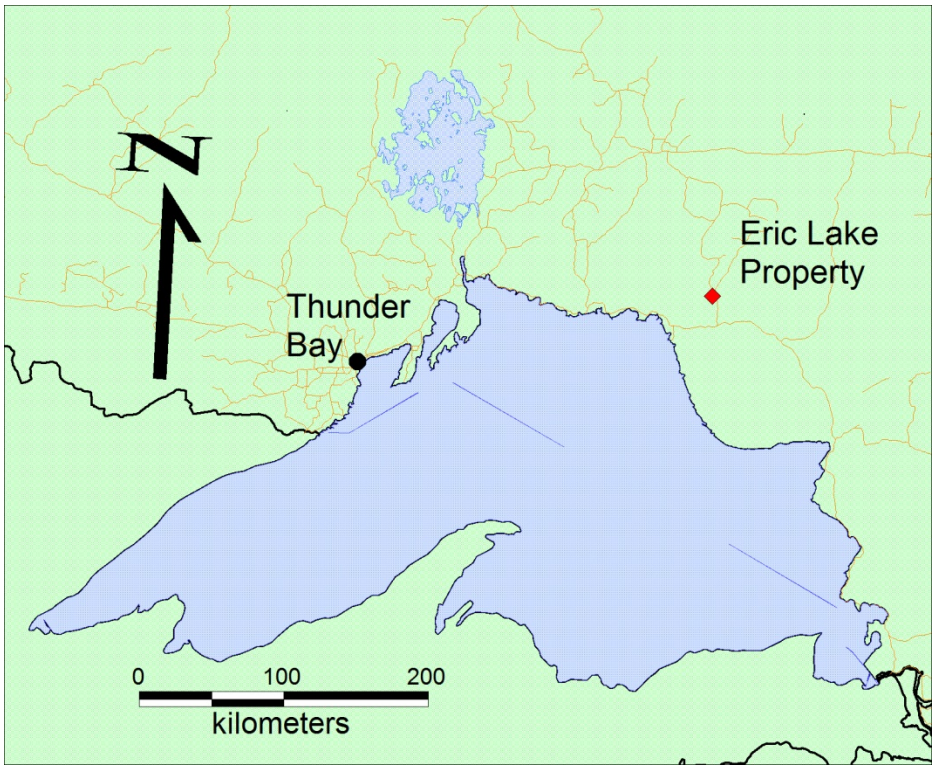

Figure 1. Location Map of Eric Lake Lake Property.

The Eric Lake Property is located Black River Area (G-0580), Thunder Bay Mining District, Ontario. Highway 614 crosses the property about 32 km north of the Highway 17 junction, or 25 km south of Manitouwadge.

Manitouwadge is the closest full-service community with a hotel, restaurants, fuel and supplies. Marathon is located SW of the property, and White River to the SE. All surrounding towns have workers of all trades to support exploration and mining.

Access to Eric Lake Property from Manitouwadge is south on Highway 614 for 25 kilometers to Swede Road, then south for 5.8 km to a spur on the east side for truck parking. An ATV trail extends east to the D-001 grid and 16ER01 drill collar.

Figure 2. Parking area on Swede Road, ATV trail is 75m south on the east side of the clearing.

Property

Rudolf Wahl holds 100% interest in the Eric Lake Property which consists of claims 4263458, 4263460, and 4263467 which combined total 36 units and occur in Black River Area (G-0580), Thunder Bay Mining Division (Table 1 and Figure 4).

The Eric Lake Property is under option to Churchill Diamond Corporation (CLT # 413087). All claims were in good standing at the time of this report.

Table 1: Claim List of Eric Lake Property (MNDM Website, February 24, 2017).

THUNDER BAY Mining Division - 206079 – RUDOLF WAHL

Township / Area	Claim Number	Recording Date	Claim Due Date	Status	Percent Option	Work Required
BLACK RIVER AREA	4263458	2013-Mar-08	2017-Mar-08	A	100%	$6,400
BLACK RIVER AREA	4263460	2013-Mar-08	2017-Mar-08	A	100%	$4,800
BLACK RIVER AREA	4263467	2013-May-13	2018-May-13	A	100%	$3,200

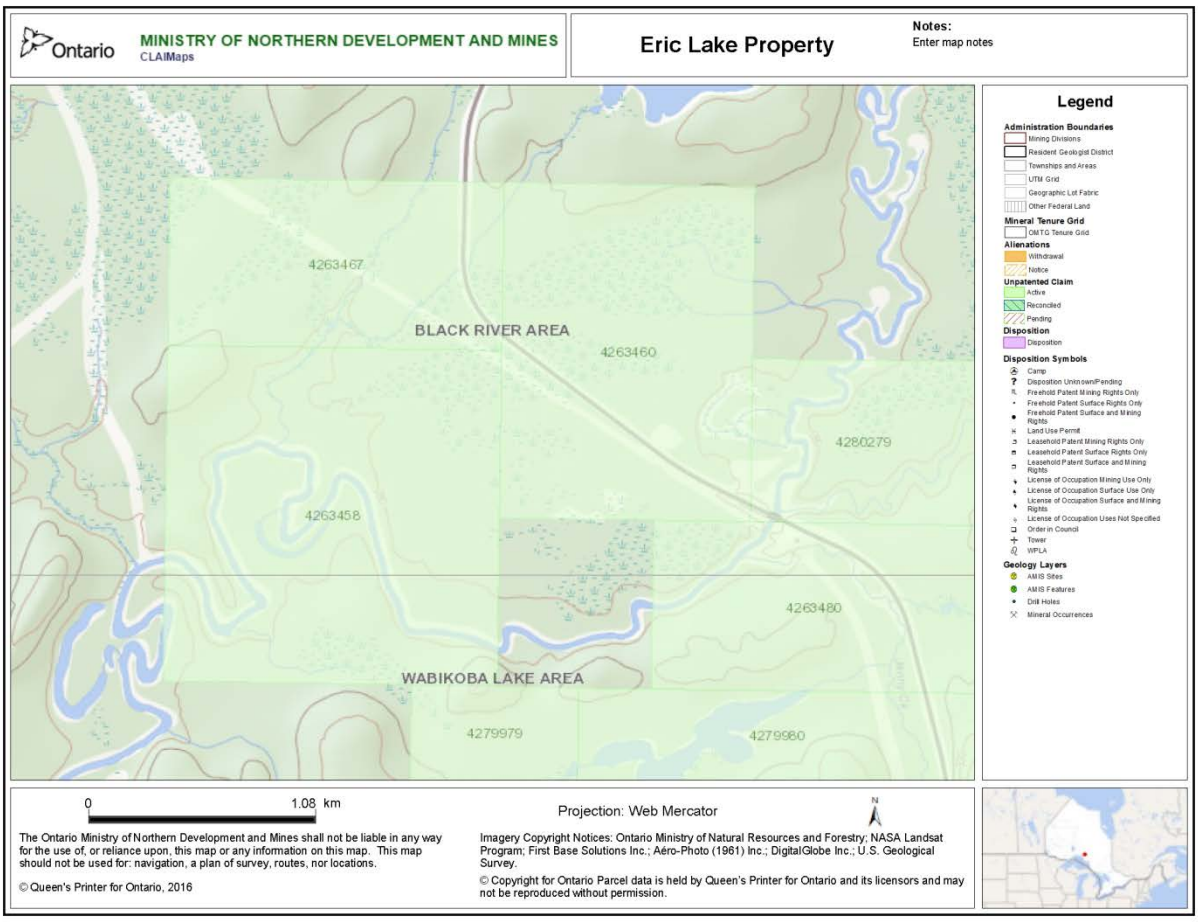

Figure 3: Eric Lake Property, CLAIMapsIV Website, February 24, 2017.

Previous Work

Mineral exploration south of Manitouwadge includes work by prospectors, exploration companies and their subcontractors, and government agencies.

The GSC and ODM dataset shows aeromagnetic data generated in the 1960s by joint surveys conducted by the Geological Survey of Canada and the Ontario Department of Mines. Original data in analogue format were published in 1"=1 mile maps that reveal major structures and many positive anomalies amongst widespread negatively polarized diabase sills.

2002 SouthernEra Resources Ltd, under JV with Sparton Resources Ltd., and Freewest Resources Canada Inc explored four 9-unit claims located in Gertrude Tp., Barehead Lake Area, Spooner Tp., and Welsh Tp. In Sault Ste Marie and Thunder Bay Mining Divisions for kimberlite pipes, blows and dikes. The program targeted pipe-like anomalies selected from regional

airborne geophysical surveys. Work included line cutting, prospecting, mapping and ground magnetics. Some anomalies were explained, others not.

2003 SouthernEra Resources Ltd, under JV with Sparton Resources Ltd., and Freewest Resources Canada Inc explored five 9-unit claims located in Back River Area, Olga Lake and McGraw Lake (Thunder Bay Mining Division) for kimberlite pipes, blows and dikes. The program targeted pipe-like anomalies selected from regional airborne geophysical surveys. Work included line cutting, prospecting, mapping and ground magnetics, ground HLEM, till sampling for KIMs, EMP analysis of suspected KIMs, and ICP analyses. One of the targets, D-001 is the anomaly that is the subject of this report.

2014 Rudolf Wahl and Frederick Lowndes completed 36 man-days of prospecting and sampling along the old railway, on traverses and using canoe. The emphasis was to locate significant mineralization, kimberlite or lamproite. The pair prospected a 300m diameter bullseye magnetic anomaly area but could not explain it. Rare outcrops of granite and granitic gneiss were encountered in other parts of the property. Most of the property is covered with thick, calcareous till, overburden, or swamp. 15 rock samples were collected and submitted for Au assay. Two samples returned > 300ppb Au.

2016 Rudolf Wahl and Frederick Lowndes completed 52 man-days of prospecting and sampling. 25 rock samples were collected and 23 samples submitted for Au assay, which did not return any significant results.

Property Geology

The Archean Superior Province is the mining heartland of Canada, with mining camps that include the Abitibi, Hemlo, and Red Lake. To the south the Proterozoic Sudbury structure is one of the world's largest nickel mining regions. The Superior Province forms the core of North America, and is surrounded by provinces of Paleoproterozoic age. Despite compressional re-activation and large scale rotation, the Craton has escaped ductile deformation. The Superior Province has been tectonically stable since 2.6 Ga.

The Superior Province is a collage of small continental fragments which consists of elongated East-West granite-greenstone terranes interspersed with metasedimentary belts. This architecture is a result of accretion of island arcs and sedimentary prisms onto an older continent. The property lies near the boundary of Quetico and Wawa Subprovinces.

The Quetico Subprovince consists of greywacke and derived migmatite and granite cut by plutonic suites. The Wawa Subprovince begun with 2.89 Hawk assemblage, then 2.775Ga Hemlo-Back river, 2.745 Ga Wawa and 2.72 Ga Greenwater and Manitouwadge assemblages.

Proterozoic dyke swarms transect the Superior Province, each with a dominant orientation best seen in regional magnetic maps.

The property is situated just south of the border between the Quetico Subprovince and Wawa Subprovince. The metasedimentary-migmatitic rocks of the Quetico Subprovince structurally overly the granite-greenstone terrane of Wawa Subprovince which dominate the property area.

Locally, the Schreiber-Hemlo greenstone belt consists of the Heron Bay assemblage to the north and Hemlo-Black river assemblage to the south. The terranes are divided from one another by the Lake Superior-Hemlo fault zone. To the west the Port Coldwell Complex separates the Heron Bay/Hemlo/Back River assemblages from the Schreiber assemblage, and the belt truncates at the Kapuskasing uplift to the east.

The Hemlo-Back River assemblage consists of mafic to intermediate volcanics in the west and felsic volcanics and related sedimentary rocks to the east closer to Hemlo. Felsic lithologies include pyroclastic and epiclastic rocks, massive flows, hypabyssal intrusions, tuff, and lapilli tuff. Within the volcanics and volcanoclastic rocks are mafic rocks that include gabbro, diorite, anorthositic gabbro, and anorthosite and ultramafic rocks that include peridotite, pyroxenite, hornblendite and dunite. Locally ultramafics contain talc, serpentine and carbonate alteration.

Granitoid rocks of the area vary through granodiorite-granite-tonalite compositions that range from undeformed massive units to foliated and gneissic rocks. The Black-Pic batholith is foliated to gneissic tonalite to granodiorite, and later intrusives including the Gowan pluton and Fourbay Lake Pluton are granodiorite.

Proterozoic mafic intrusives that cut older plutonic and metavolcanic rocks include gabbro, diabase, and granophyre in dike swarms that are oriented north, northwest and northeast and are most evident on regional magnetic maps. The Port Coldwell Alkali intrusive is 1109 Ma and consists of quartz syenite, granite, nepheline syenite, gabbro, diabase, and extrusive phases.

Quaternary Geology

Rugged terrain characterizes much of the Marathon-Manitouwadge area. Surficial materials in the Hemlo region are highly variable in extent and thickness. Thick glacial deposits are present in the Back River Area, and up to 100m of drift has been measured at White Lake.

Calcareous sandy till is locally divided into two facies: an upper loose buff-grey, subcompact and commonly sub-stratified till; and underlying dark-grey, stone poor massive and extremely dense calcareous till. In some areas the exotic calcareous till was capped by stony, sandy and loose till containing locally derived rocks.

In the area between Hemlo and White Lake a large 15 km x 15 km area of thick calcareous till occupies an area south of a prominent E-W outcrop ridge with 200m local relief. Calcareous till is also located in small deposits on the lee side of major outcrop knobs.

Glaciofluvial deposits which include glacial outwash deposits along major river valleys like the Pic River and Black River valley.

Glaciolacustrine deposits were mapped over the Eric Lake property. The most extensive deposits in the Back River area are a series of upward thinning varves capped by 6-7m of fine-grained laminated sands which may be in part fluvial or deltaic (Geddes, 1984).

The property has minimal outcrop and is dominated by sandy till that slopes to the southeast into a drainage system. Prior till sampling for KIMs returned one low-chrome chromite, and geochemistry of > 10% CaO.

Calcareous till is considered an impediment to drift prospecting and geochemical surveys.

Deposit Type and Mineralization

Exploration is targeting kimberlitic or lamproitic intrusive rocks with diamonds. In the Marathon and White River area are diamond-bearing olivine melnoite, kimberlite, alnöite, and para-lamproite occurrences. Olivine lamprophyre and other alkaline rocks also occur.

Target D-001 is a circular magnetic high of 1200 nT, that 300 metres in diameter. A multiple magnetic peak suggests variation within the body and a steep dip to the south. This type of magnetic response is a common response of kimberlite pipes in other parts of the Superior Craton.

2016 Line-cutting and Ground Magnetometer Survey

Work at Eric Lake commenced with a line-cutting program, which was designed to re-cut and widen the 2.4 km of north-south lines previously cut by SouthernEra in 2003, and also cut a 1km drill trail and drill pad. The lines were easily found in the mature stand of spruce and pine in the area of anomaly D-001. The grid consists of four north-south oriented cut lines, each between 509 and 659 meters long.

Two line-cutters travelled daily from Marathon, and used an ATV for access and chain saws to cut the lines and trail during the period Oct 2-26, 2016. Geophysical surveys conducted on the lines include ground magnetics and VLF. VLF and MAG surveys were completed Dec 10 & 11, 2016. A total of 2306 m of grid lines were cut and surveyed. VLF was conducted on every line, and MAG surveys were conducted twice on every line.

Ground magnetics was completed using a Geometrics G-859 Cesium Vapor Magnetometer (rover), with Geometrics G856AX Proton Procession (base station).

Specifications for each instrument are provided below:

G–859 Mineral Mag™ SPECIFICATIONS

Operating Principle: Self-oscillating split-beam Cesium Vapor (non-radioactive Cs133) with automatic hemisphere switching.

Operating Range: 17,000 nT to 100,000 nT

Operating Zones: For highest signal-to-noise ratio, the sensor long axis should be oriented at 45°, ±30to the earth's field but operation will continue through 45°, ±35°. Sensor is automatic hemisphere switching.

Sensitivity Statistics: 90% of all reading will fall within the following Peak-to-Peak envelopes:

0.03 nT at 0.2 sec cycle rate
0.02 nT at 0.5 sec cycle rate
0.01 nT at 1.0 sec cycle rate

Noise: < 0.008 nT/√Hz-RMS

Novatel Smart Antenna™ Specifications:

- Code and carrier phase tacking with 5 Hz Position, velocity, time output or 10 Hz raw data output
- SBAS capable and designed for harsh environments
- RS-232 compatible interface

GPS L1 Product Performance

Position Accuracy: Single point L1 <5 m CEP, WAAS L1 <1.5m CEP
Measurement Precision: L1 C/A Code 75 cm RMS, L1 Carrier Phase 1 cm RMS
Data Rates: Measurements 10 Hz, Position 5 Hz
Time to First Fix: Cold Start 120 s
Warm Start 45 s
Hot Start 15 s
Signal Reacquisition: <1 s typical

G-856AX Proton Magnetometer Specifications:

Resolution: 0.1 nT
Accuracy : 0.5 nT
Clock: Julian date, accuracy 5 sec per month.
Tuning: Auto or manual, range 20,000 to 90,000 nT
Gradient Tolerance: 1000 nT/meter
Cycle time: 3 sec to 999 sec standard or manually selected as fast as 1.5 sec cycle time.
Read: Manual, or auto cycle for base station use.
Memory: 5700 field or 12500 base station readings
Display: Six digit display of field/time, three digit auxiliary display of line number, day
Digital Output: RS-232, 9600 baud.
Input: Will accept external cycle command.
Physical: Console: 7 x 10.5 x 3.5 inches, (18 x 27 x 9 cm) 6 lbs (2.7 kg)
Sensor: 3.5 x 5 inches (9 x 13 cm) 4 lbs (1.8 kg
Environmental:Meets specifications within 0° to 40°C (32° to 105°F)
Will operate satisfactorily from -20° to 50°C (-40 to 122°F)
Power: 9 each 1.5 “D” Cells or Gel Cell
Standard Accessories:
Sensor, Staff, Chest Harness, Two sets of batteries, RS-232 cable, Operations manual, Applications manual, MagMap96 software
Options: Gradiometer attachment. External Power/sensor cable, External power/RS-232/sensor cable, rechargeable battery and charger set.

The rover was set to collect magnetic data at 5Hz, and onboard Novotel CDGPS collected sub-meter accurate location data at 1Hz, and the base station was set to collect a reading every 15 seconds.

The magnetometer survey was conducted by Kevin R. Kivi. P.Geo. and Frederick Lowndes on December 10 and 11, 2016 using the following equipment:

Snowmobiles: Arctic Cat Bearcat and Skidoo.

Base Station: Geometrics 856-AX operating at 1 reading every 15 seconds.
Location: 16 U 579766E 5415344N (NAD83)

Rover: Geometrics Model G-859 Mineral Mag™, portable cesium vapour magnetometer with integrated Novatel Smart Antenna™ for sub-meter positioning.

Base Station data was downloaded to MagMap2000 then filtered and smoothed.

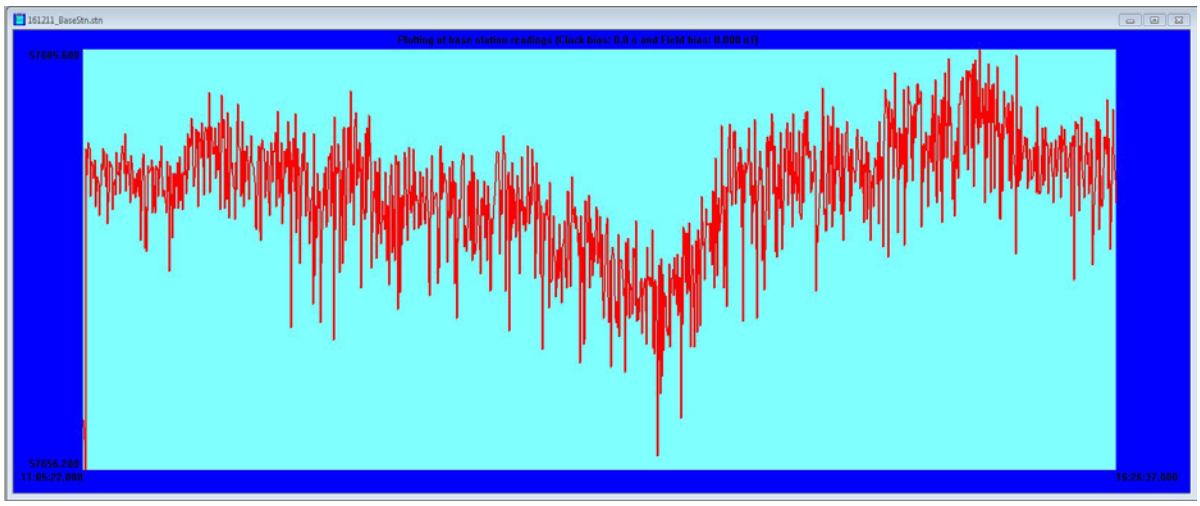

Figure 5. Base station data collected on December 11, 2016.

Figure 4. Base Station setup at Eric Lake on December 11, 2016.

Data processing was conducted using Geometrics MagMap2000 which transfers raw magnetometer readings and base station readings to PC, corrects position errors, transients, and time-varying errors (diurnal), generates a GPS track plot with adjustable smoothing and independent point editing, and repositions and linearly interprets and formats corrected data into X, Y, Z or Latitude/Longitude ASCII columnar values for use with Surfer or Geosoft geophysical software.

The grid was surveyed twice. During the first survey the rover magnetometer sensor was poorly oriented which lead to significant noise and signal drop-outs. After consultation with a geophysicist, sensor position was rotated perpendicular to the direction of travel, and readings on the second survey were robust. Unfortunately, the GPS signal was scattered for the first two lines likely due to thick forest cover, so only the two eastern lines had both GPS and magnetometer data when the instrument was dumped.

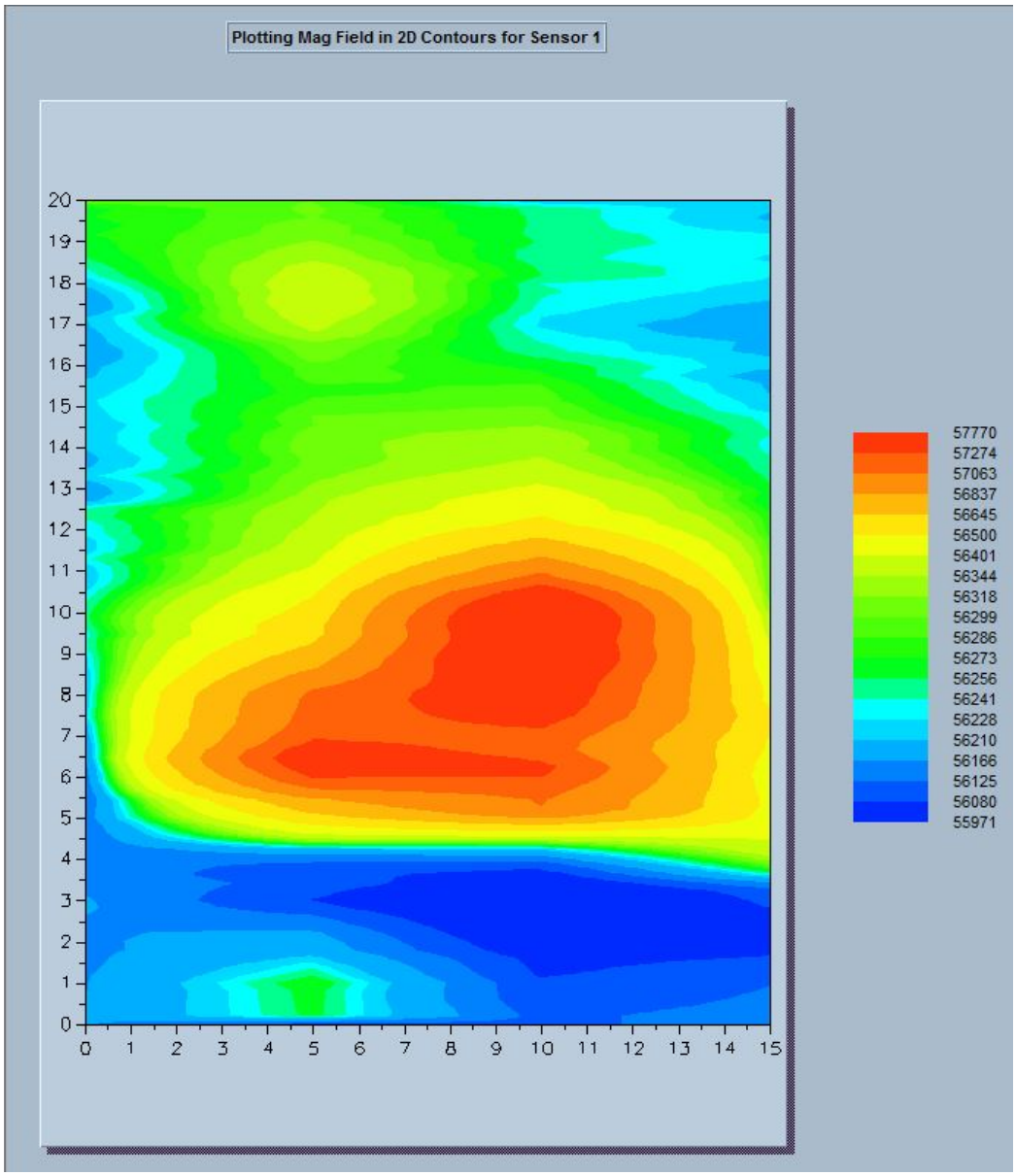

Figure 6. Magnetic anomaly D-001, contoured in nanoteslas.

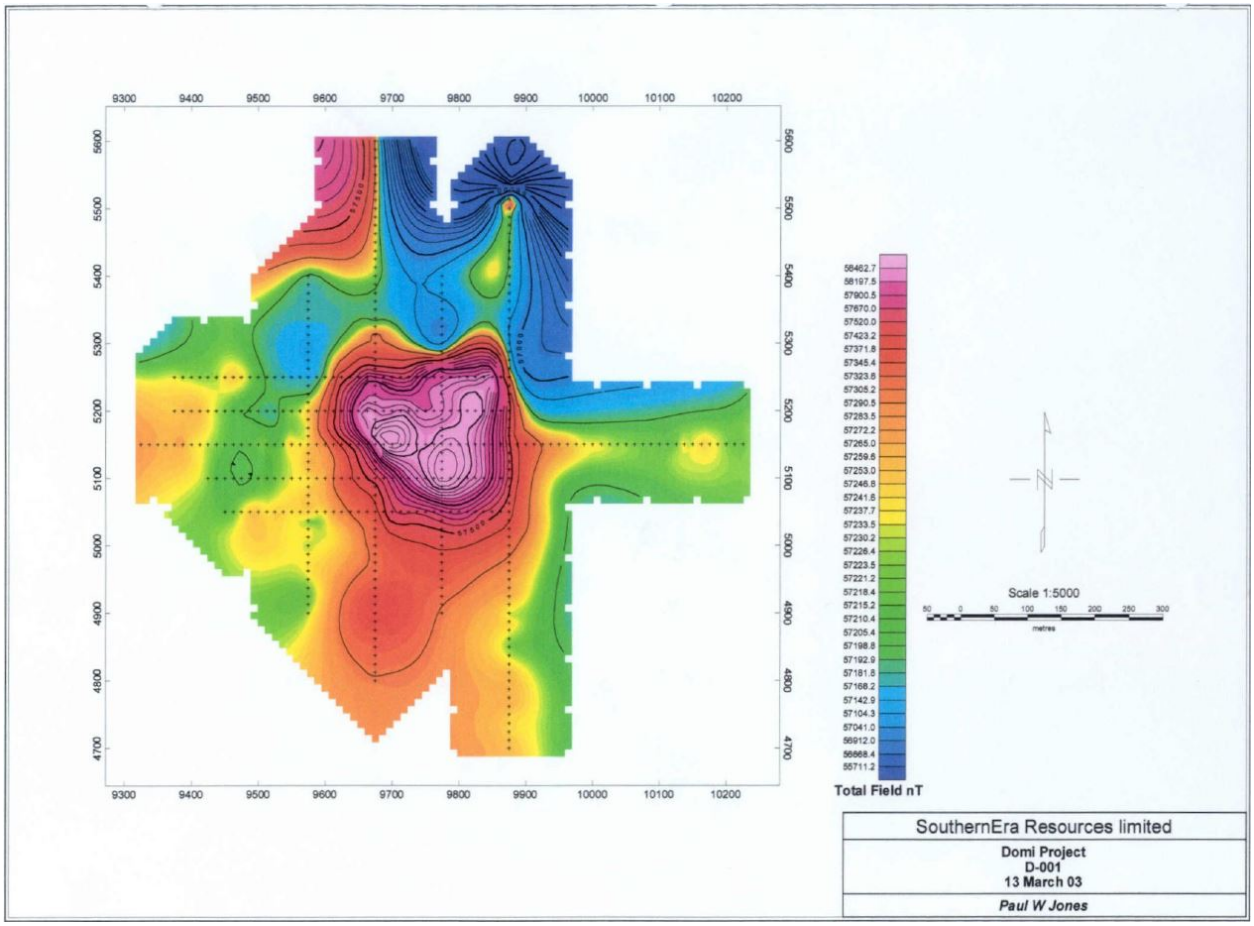

Figure 7. 2003 SouthernEra Ground magnetic survey of Anomaly D-001 (Jones, 2003).

The current survey (Figure 6) compares favorably with the 2003 survey completed SouthernEra total field magnetic survey (Figure 7). Only north-south lines were surveyed in 2016, whereas in 2003 five close-spaced east-west lines were also cut and surveyed.

The current survey was conducted to ensure the proposed drill hole is positioned accurately, and not to improve on the magnetic anomaly completed by SouthernEra which was conducted in two line orientations, with tighter line spacing on E-W lines.

The GPS-Magnetometer rover collected over 4,200 readings on two lines displayed in Figure 8. Some magnetometer readings are plotted, and relative magnetic intensity is presented by colour (lowest reading are blue, highest are red). Inclined drill hole 17ER-01 tested magnetic high responses south of the collar.

MagMap2000 exports an XYZ file in Geosoft format, which with minor reprocessing can be read using Encom Discover, which operates within GIS software MapInfo. Discover's "Surfaces" menu provides several tools to create colour plots in GIS.

The eastern survey lines are GPS located and transferred to GIS, which enables accurate positioning of the collar for planned drilling on the strongest part of anomaly D-001. This likely corresponds with the strongest lobe in the southern part of D-001 in the 2003 SouthernEra survey, and will likely exit the magnetic body for a south contact pierce point.

If kimberlite, Churchill has the option to spin the drill to pick up the eastern contact and then drill north.

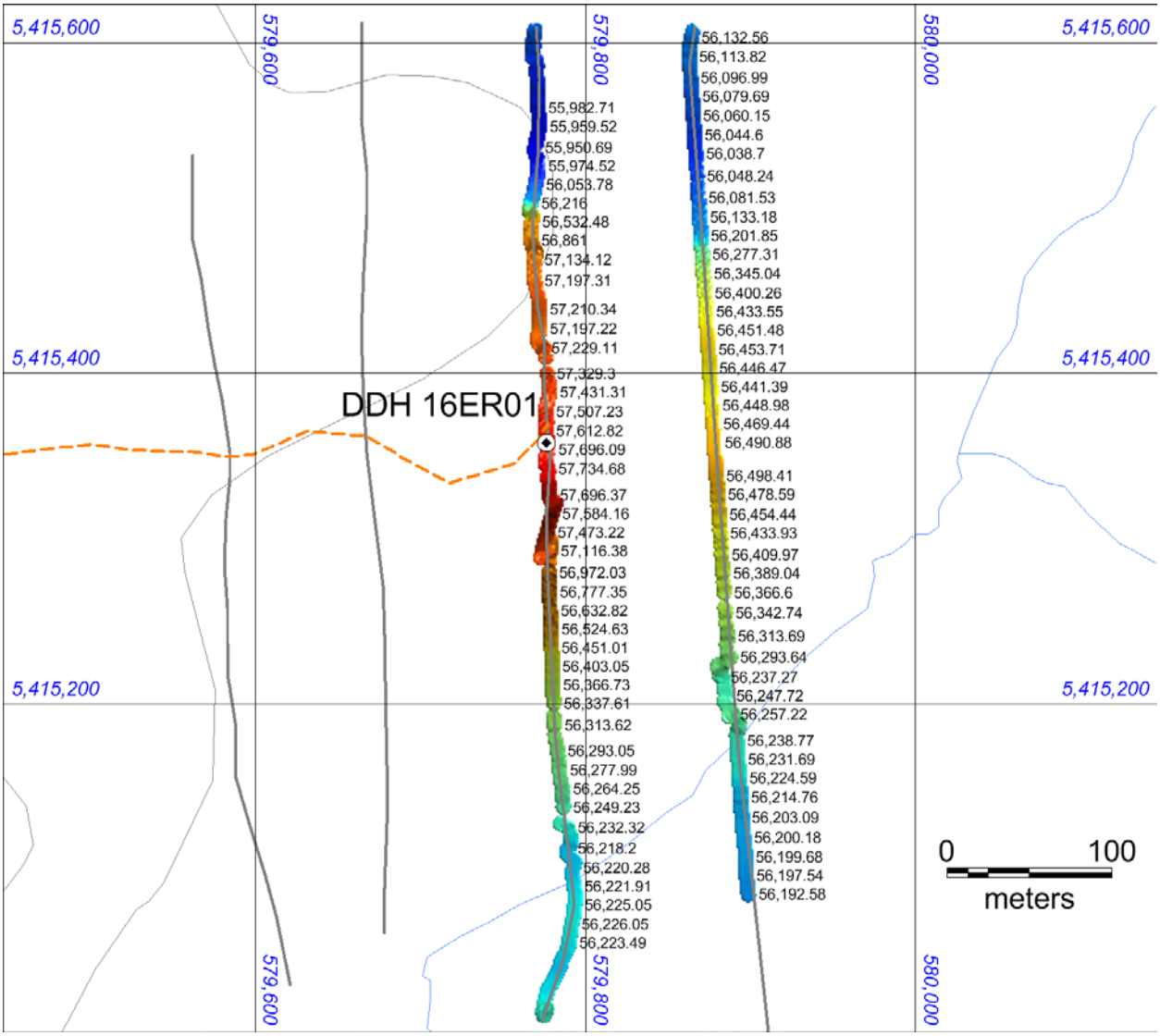

Figure 8. Total Field Magnetics on GPS lines, with DDH Collar 16ER01 Location.

2016 VLF Survey

Churchill also conducted a VLF geophysical survey on the D-001 grid.

VLF uses navigation signals as a primary energy source to locate conductors. The receiver measures the dip angle and vertical quadrature of the resultant electromagnetic field at each station. VLF can detect weak conductors and has moderate to great depth penetration. Conductive overburden greatly diminishes its capability.

A Geonics EM-16 was employed to measure the In-phase and Quadrature components of the EM field. The survey used VLF transmitter NAA at Cutler, MD., U.S.A. (17.8kHZ) as a source.

Geonics EM-16 Specifications:

Measured Quantity - In-phase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field (Tangent of the tilt angle and ellipticity).

Sensitivity - In-phase : +- 150%

Resolution Output - Nulling by audio tone. In-phase indication from mechanical inclinometer and quad-phase from graduated dial.

Operating Frequency - 17.8 kHZ radio band.

Operating Controls - On/Off switch, battery test push button, station selector switch, audio volume control, quadrature dial and inclinometer.

Power Supply - 6 Duracell 'AA' batteries

Dimensions - 42 x 14 x 9cm

Weight - Instrument: 1.6kg

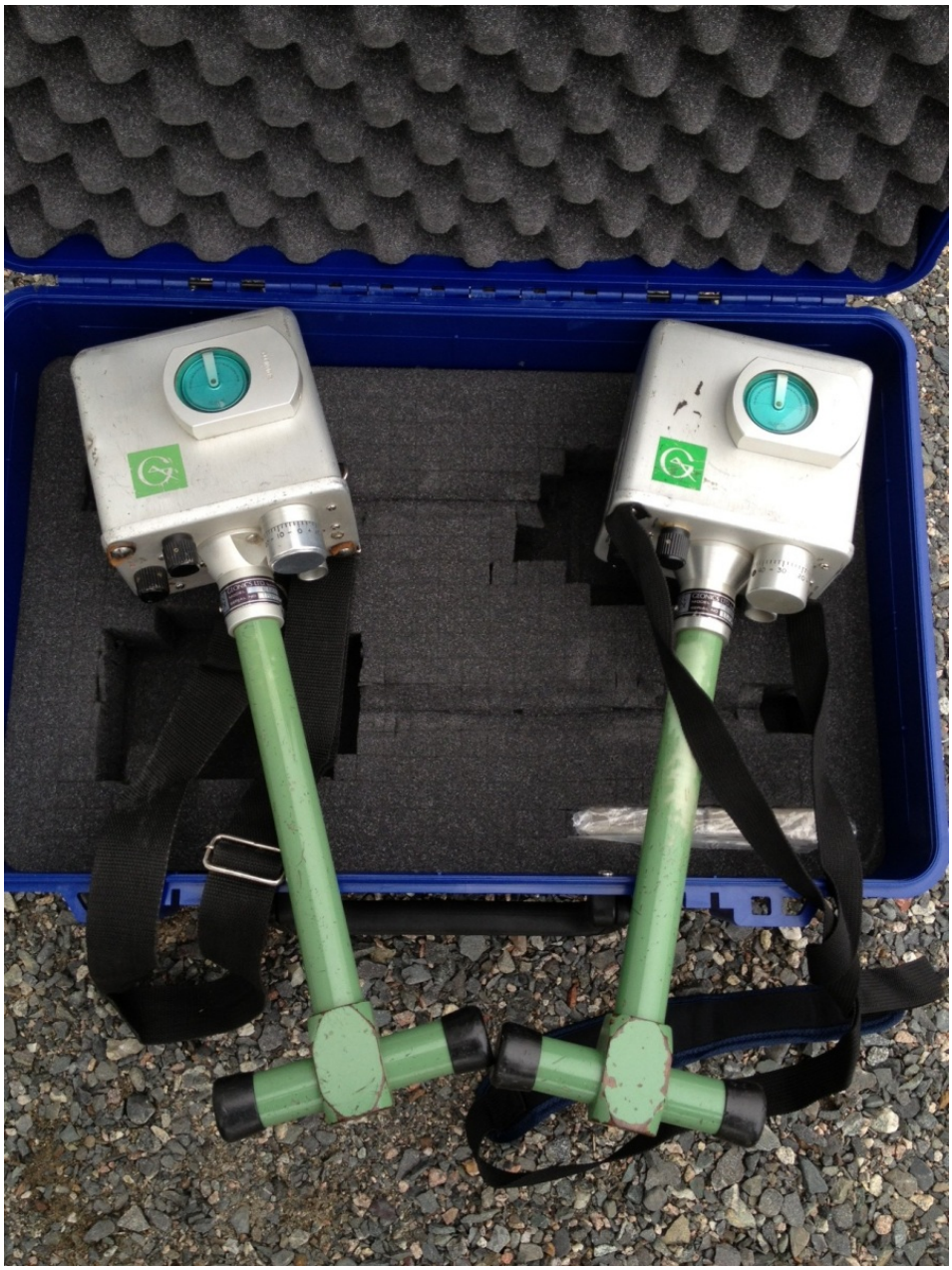

Figure 9: Geonics EM-16 VLF Instruments used at Eric Lake.

The grid consists of four lines oriented at 360 degrees azimuth at 100 metre spacing. Measurements were collected at 25 meter stations that were located using a Garmin GPS. A total of 99 stations were read on the D-001 grid.

The operator marked a GPS waypoint at each station, faced north, then operated the EM-16 measuring in-phase (percent slope of the dip angles) and quadrature. The operator then recorded waypoint number, dip and quadrature in a notebook.

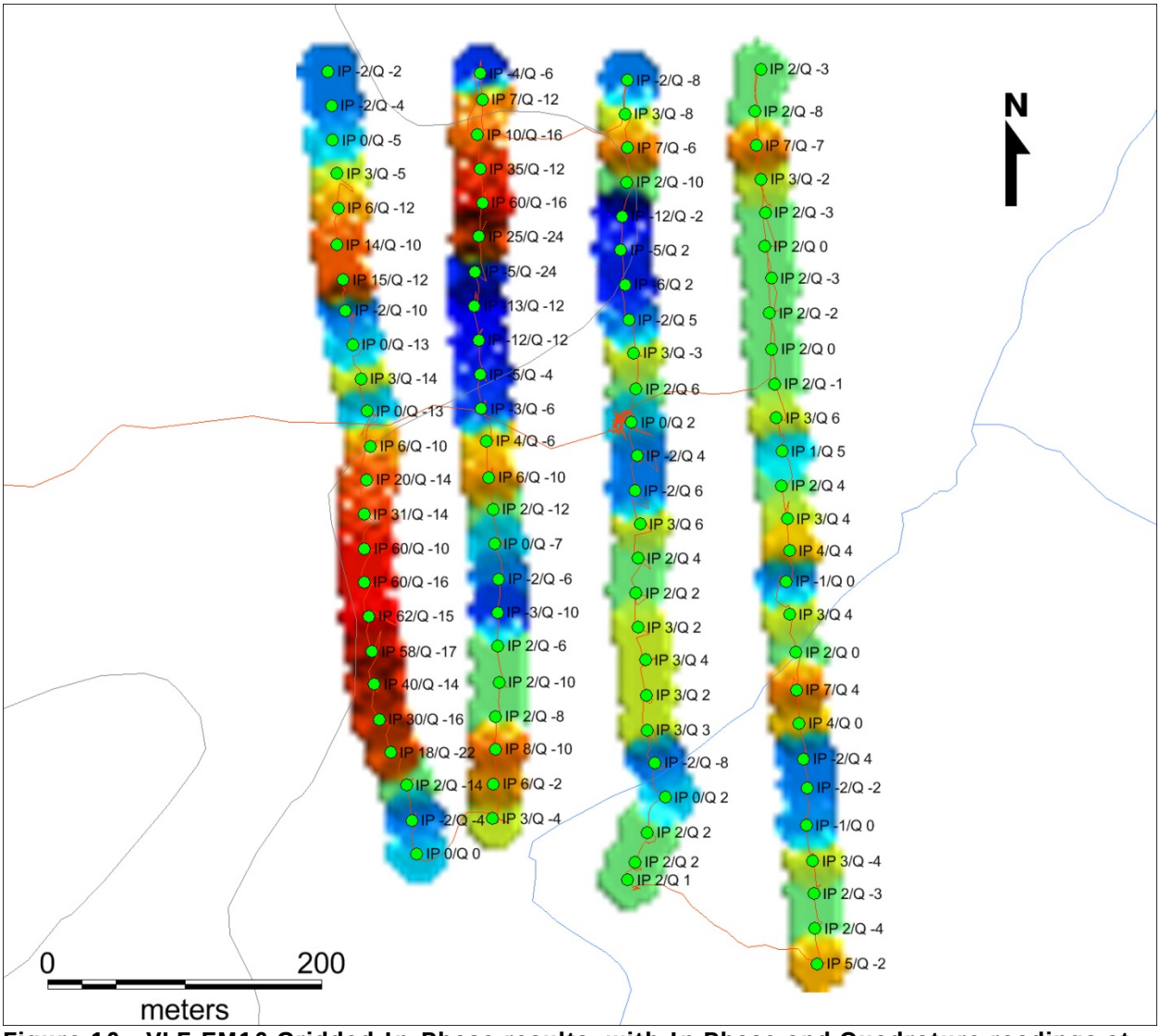

Figure 10: VLF-EM16 Gridded In-Phase results, with In Phase and Quadrature readings at each station.

Later GPS data was downloaded, saved as a *.csv text file, converted to an excel workbook, and data from the field book was input to Excel. Conductor axes (crossovers) are identified where the dip angle crosses from negative to positive.

Raw In-Phase measurements, when gridded using Encom Discover software with MapInfo GIS shows a strong crossover on the western line 1E which passes west of and outside magnetic anomaly D-001.

There are no significant cross-overs on L2E and L3E in the area of magnetic anomaly D-001, but a weak crossover along the northern ends of each line.

All conductors are outside the magnetic anomaly, and are probably associated with conductive layers in host rock lithologies of the magnetic body, which is likely an intrusive.

KHFFILT Processing of EM-16 Data:

The KHFFILT program, written by Markku Pirttijarvi (University of Oulu, Finland) was used to perform Karous-Hjelt and Fraser filtering of geophysical VLF (very-low-frequency) data. In VLF method two orthogonal components of the magnetic field are measured, and normally the tilt angle and ellipticity of the vertical magnetic polarization ellipse are derived. Real (in-phase) and imaginary (quadrature) components are used in KHFFILT program. These components are based on the tilt angle and ellipticity as: Re= tan(a)x100 % and Im= ex100 %.

Data from each VLF line was input to text file, and then uploaded to KHFFILT.exe to generate the following plots, which are useful to help interpret the D-001 Eric Lake VLF survey.

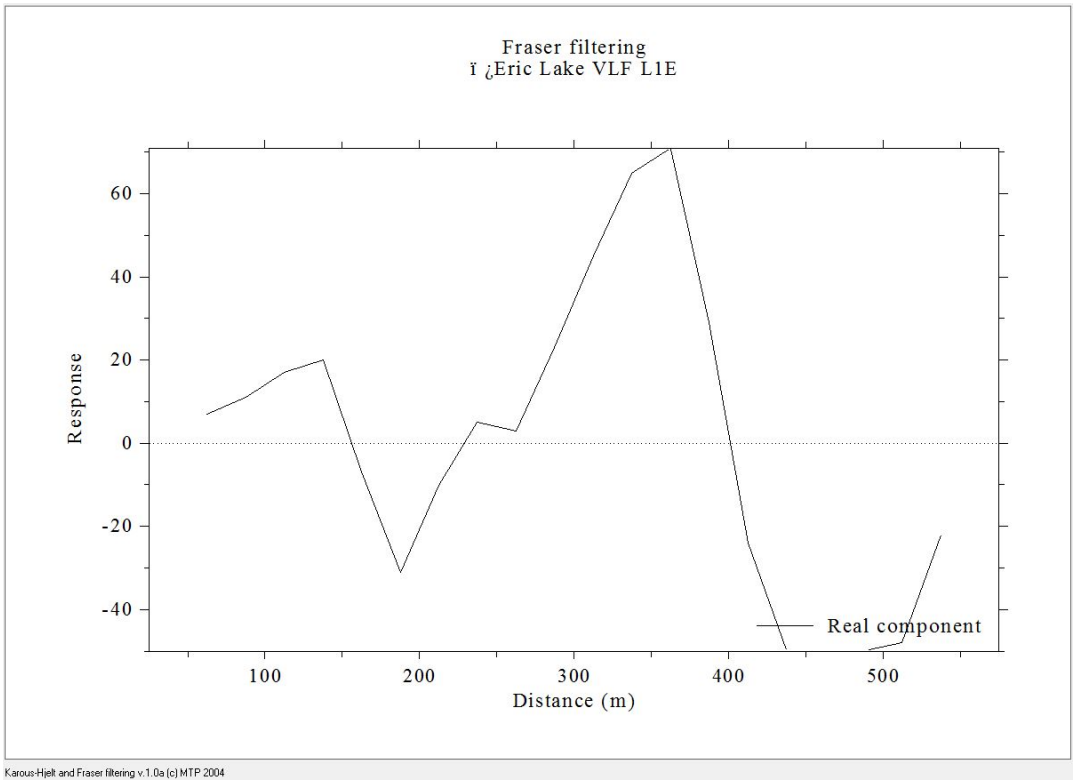

Figure 11: Line 1E VLF Fraser Filter shows crossover at 400m S.

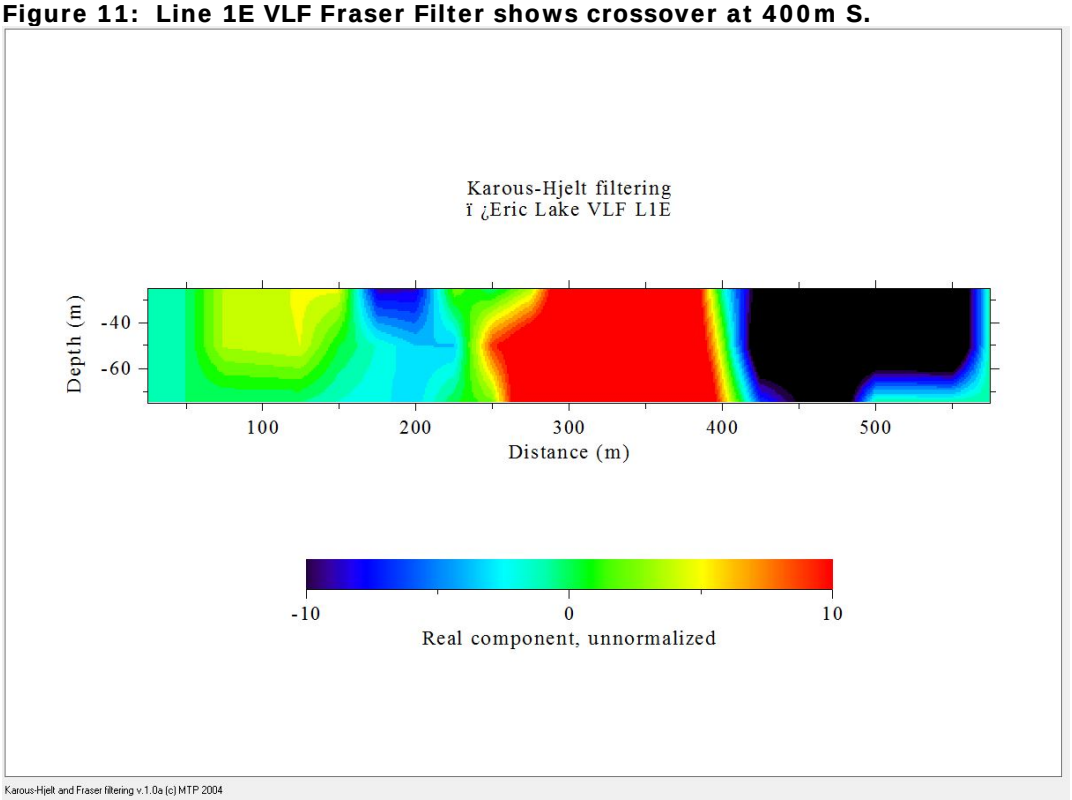

Figure 12: Line 1E VLF Karous-Hjelt shows conductor axis at 400m S.

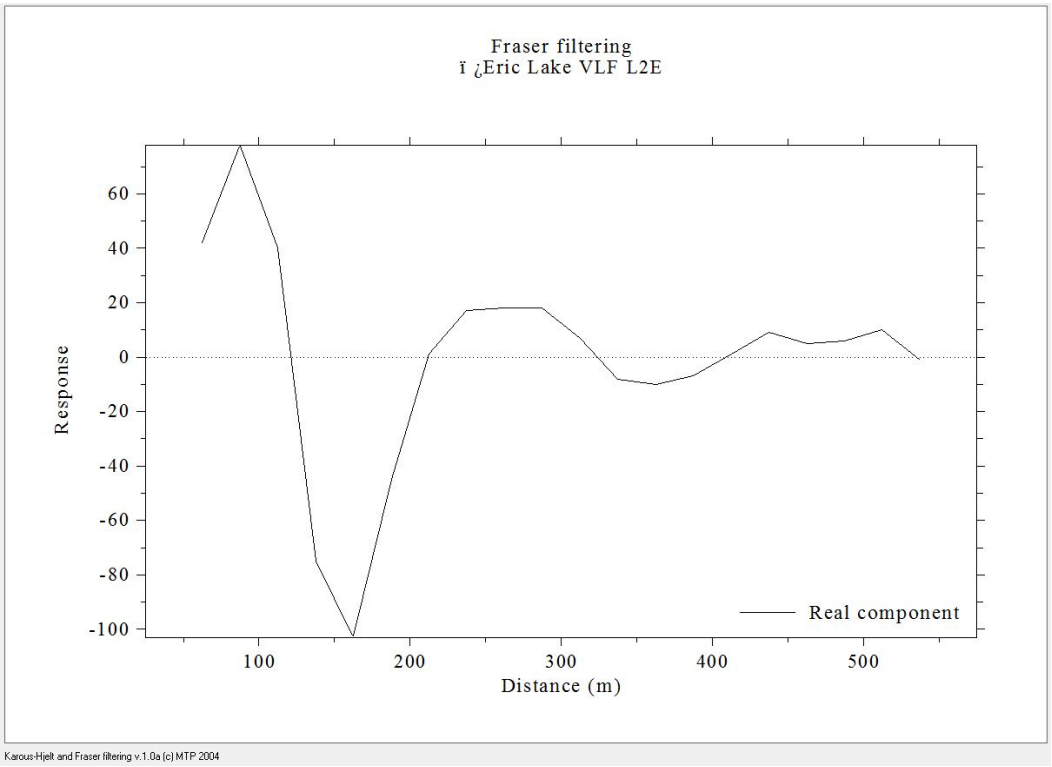

Figure 13: Line 2E VLF Fraser Filter shows crossover at 125m S.

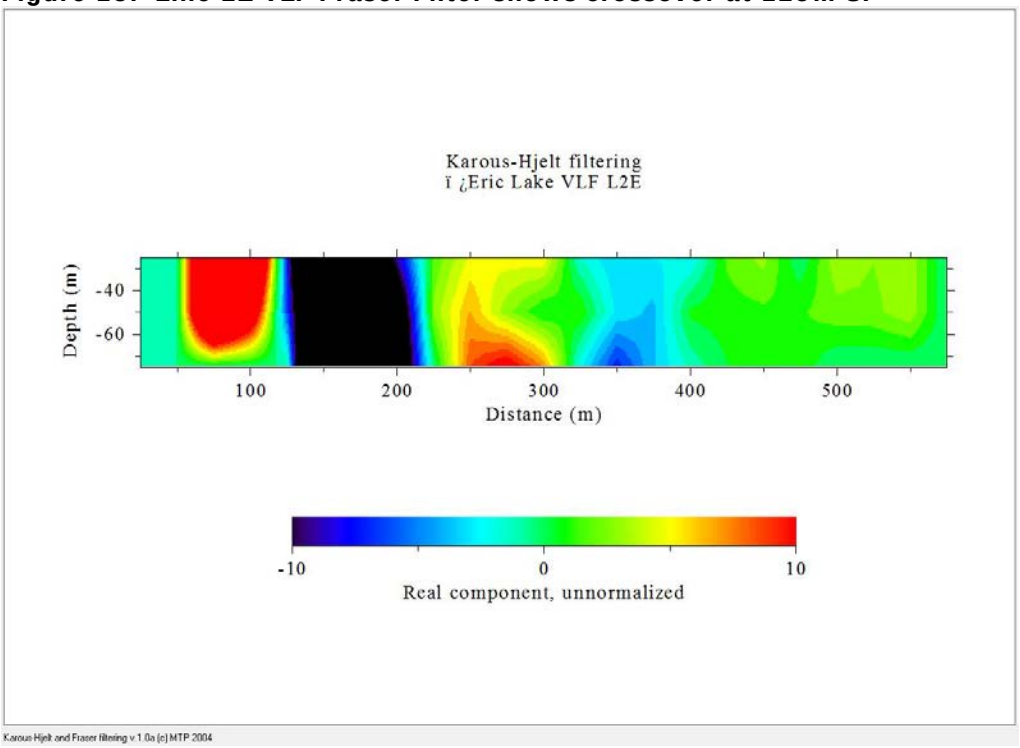

Figure 14: Line 2E VLF Karous-Hjelt shows conductor axis at 125m S.

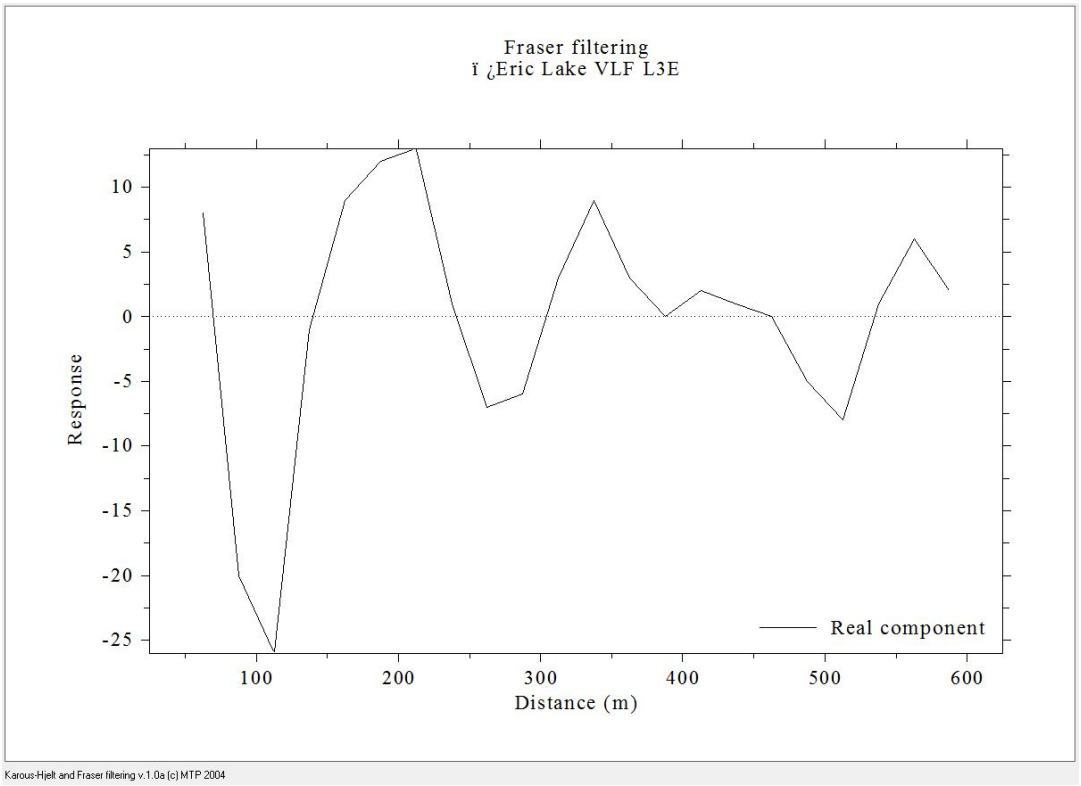

Figure 15: Line 3E VLF Fraser Filter shows no significant crossovers.

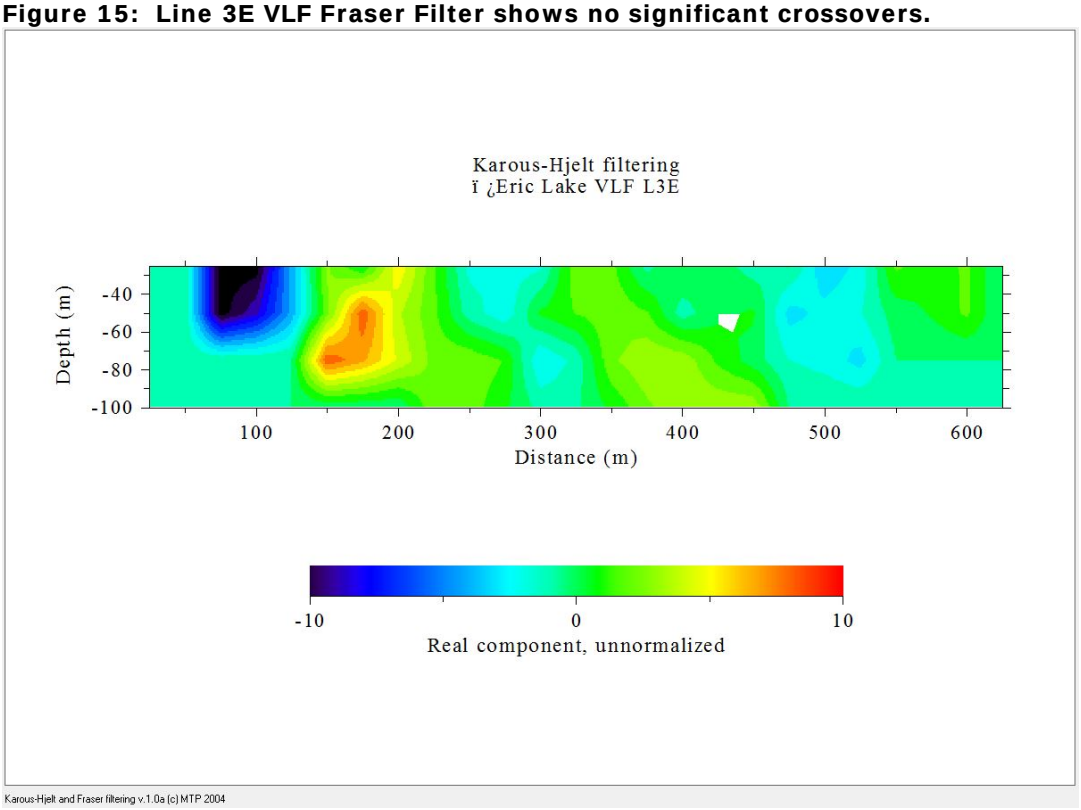

Figure 16: Line 3E VLF Karous-Hjelt shows no significant conductors.

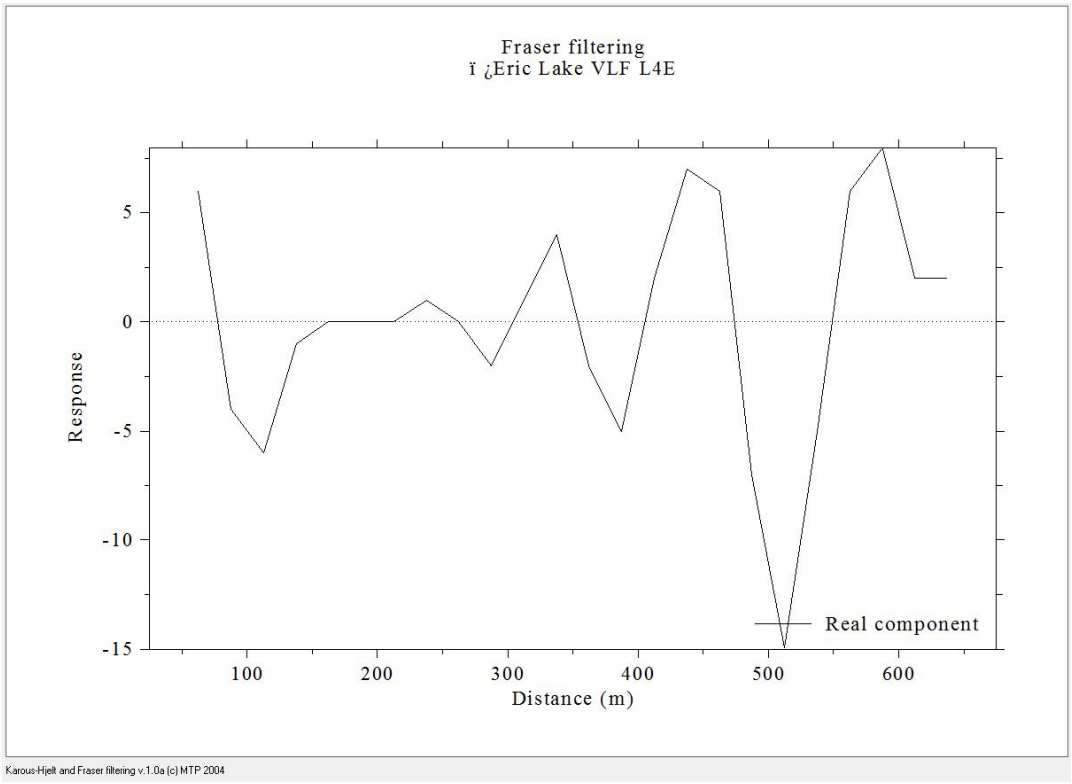

Figure 17: Line 4E VLF Fraser Filter shows no significant crossovers.

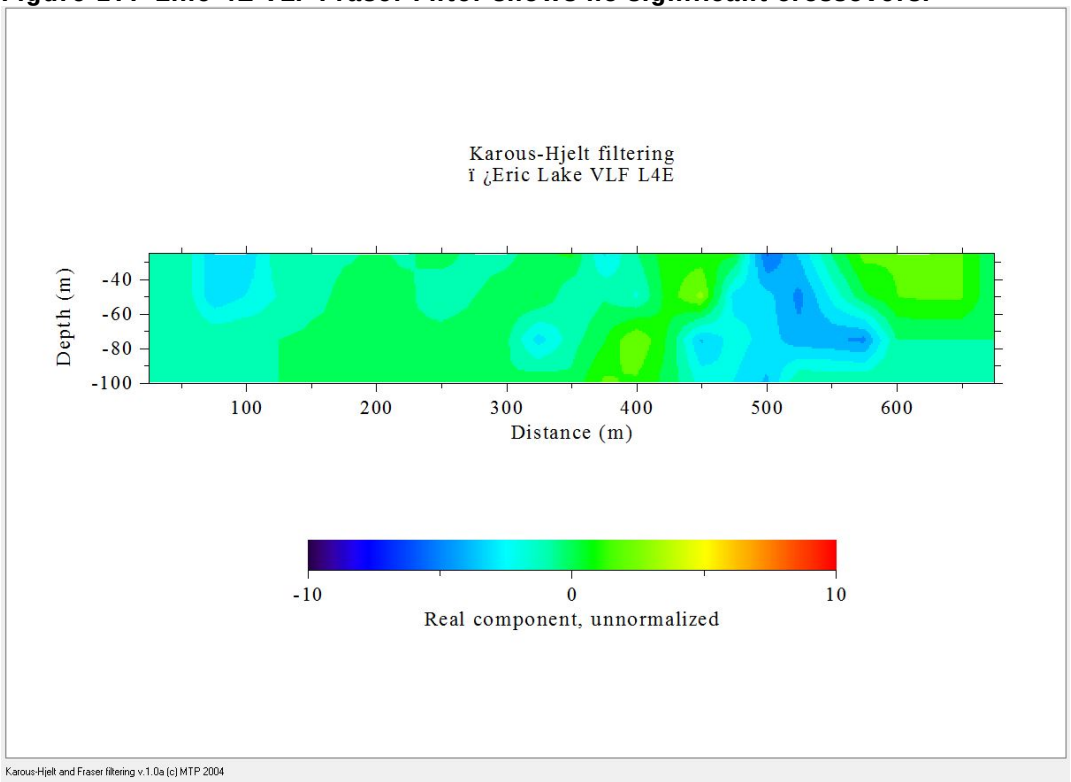

Figure 18: Line 4E VLF Karous-Hjelt shows no significant conductors.

2016 Diamond Drilling

Richard Lavoie, of Val-d'Or Quebec was contracted to complete a NQ drill hole to test anomaly D-001 and the drill program was supervised by the author. The drill was a home-made rig with a Cat diesel powerpack mounted on the deck of a Nodwell which moves the drill from one site to the next. The drill is situated so workers can drill from the rear of the Nodwell under a tarp. This configuration allowed for a simple, low-cost mobilization to the property.

Drill mobilization occurred December 22-23, 2016. The drill followed an ATV trail and was positioned on the collar, and then crews returned home for a short Christmas break.

Figure 19. Lavoie home-built Nodwell mounted diamond drill on 16ER01 collar site.

Crews returned to Manitouwadge and commenced drilling on December 28, 2016 expecting completion of the program in a couple days. Frozen waterlines stopped progress after a few meters of casing was set in overburden. Drillers

pulled the casing to avoid it freezing in, the overburden collapsed and hole **16ER-01A** was lost at 15m depth. A drill log is provided in Appendix 1.

The drill contractor hoped to pump water 120m without a coil stove but extreme cold did not allow unheated water to get to the drill for long. When a gasoline-powered water pump failed December 31, the waterline froze the third time and drillers departed for Quebec to find an electric water pump, electric generator, and propane coil stove.

Crews returned to Manitouwadge on January 11, 2017 during an extreme cold snap with temperatures below -30°C. After two days, equipment was running and drillers set casing quickly through some 15m of silt but encountered boulders that created grief, breakdowns, and delays. When a submersible pump became lodged in the casing, it fell down the hole just as the pipe containing it reached surface. Drillers tried to fish the expensive pump from the bottom of the hole but failed when overburden caved on top of the pump. Hole **16ER01B** was abandoned at 15m, and the 1-meter long stainless steel pump remained at the bottom of the hole.

The next hole, possibly set too close to the earlier hole followed the old hole down and eventually drilled through the submersible pump, which damaged the shoe bit and may have contributed to breaking off the casing. The shoe bit and a couple lengths of casing remained at the bottom and Hole **16ER01C** was lost at 21m depth. A drill log is provided in Appendix 1.

The drill crew was sent home as the project was over-budget with three holes had been lost in overburden and no core. The exploration permit soon expired and the project was suspended until a new exploration permit was granted.

Churchill provided notice to MNDM that drilling would resume on May 9, 2017, and that the program was expected to take a week to complete.

Drillers returned to Manitouwadge on May 9 and cased a fourth hole and were successful at setting the casing in bedrock at 20m depth. Coring commenced with good core recovery, and hole **16ER01D** was completed on May 12. Drill core was logged on May 16 in Thunder Bay.

In total four core drill holes were completed with combined total length of 122m.

Drill core was later returned to the property vendor, Rudy Wahl, who stored the core in Marathon.

Figure 20 shows the location of field work at Eric Lake relative to the claim boundaries of claim 4263467, Black River Area. (UTM NAD83 Zone 16).

The drill holes are within a couple meters of one another, and therefore are not suitable for plotting on a scale map like Figure 20. Drill hole details are is provided in drill logs in the appendix of this assessment work submission.

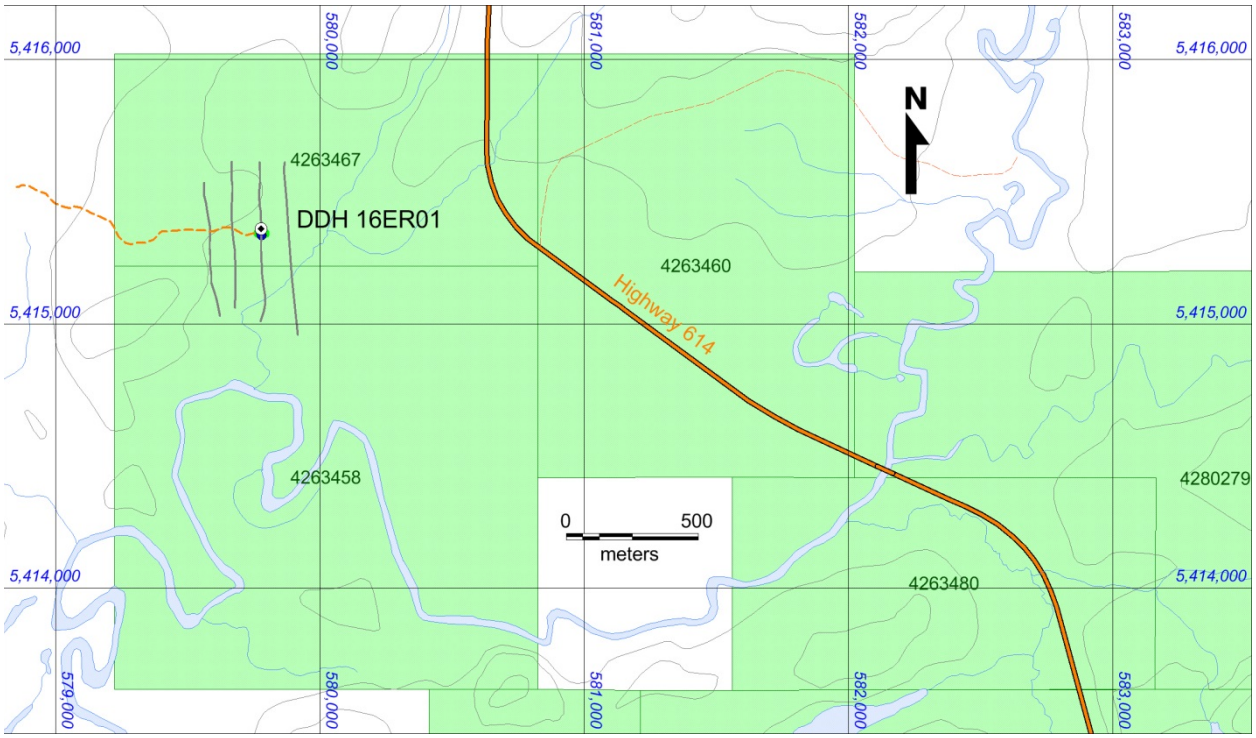

Figure 20. Trail, cut lines and drill hole collar location on mining claims and topography.

Figure 21 is a vertical cross section of core hole 6ER01D, looking west (270° Azimuth), with northings along X-axis and elevation (m) along Y-axis. The plane of this cross section is Easting 579740.86E (NAD 83, Zone 17). The cross section was generated using Geotic mining software.

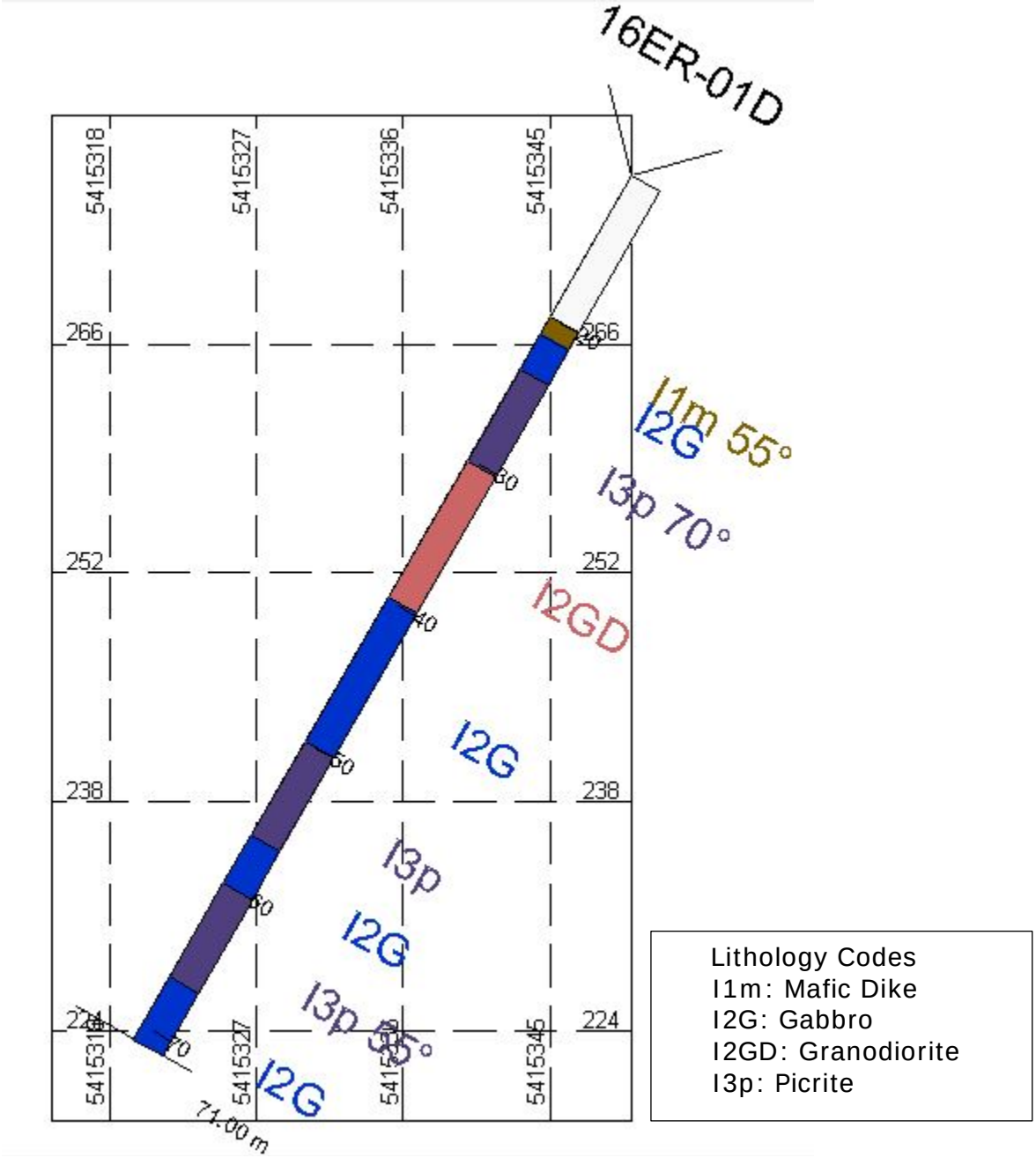

Figure 21. Vertical cross section of core hole 16ER-01D, looking west, all units in meters.

Personnel

The current exploration work program was conducted by the people listed in Table 2.

K. Kivi, P.Geo. and drill contractors stayed at the Select Inn in Manitouwadge during the drill program, and ate at local restaurants. Other workers are local people, and commuted daily from home. Mike Wesley and Mario Fortin are First Nation workers.

Table 2: Exploration Personnel

	Field Days	Office Days – data processing and report
Kevin Kivi, P.Geo., Thunder Bay ON	24	7
Richard Lavoie, Driller Val-d'Or, QC	28	
Mario Fortin, Drill Helper Val-d'Or, QC	28	
Frederick Lowndes Marathon ON	Cut Lines and trail 17 Drill Support 2 Geophysics 2	
Mike Wesley Marathon, ON	Cut Lines and trail 17 Drill Support 2	
Tyler Rayner Marathon, ON	Drill support 2	

Conclusions and Recommendations

Workers were able to re-cut SouthernEra's 2003 D-001 grid, and ground magnetic surveys completed by Churchill Diamonds verified the location of the anomaly, allowing the company to spot a drill hole on the strongest response.

The VLF survey conducted found a strong conductor west of Magnetic Anomaly D-001, and a weak cross-over north of the magnetic body. The lack of conductors within the magnetic anomaly is considered positive, as most kimberlites are weak conductors at best.

Diamond drilling intersected strongly magnetic mafic and ultramafic dikes, mineralized with magnetite which explained magnetic anomaly D-001. Kimberlitic rock was not encountered so sampling core for diamonds was not required.

Drill core was returned to vendor Rudy Wahl, who has stored the core in Marathon, ON.

Two First Nation citizens worked at Eric Lake, which is not unusual for mineral exploration companies working in Northern Ontario. This data is relevant to the JEAP program as the Ontario government provided additional funding for First Nation employment.

Churchill Diamond Corp subsequently dropped its option at Eric Lake.

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Geology Ontario website: **http://www.geologyontario.mndm.gov.on.ca/**

Ontario Mining Lands Website: **http://www.geologyontario.mndm.gov.on.ca/**

Certificate of Author

Kevin Robert Kivi, P.Geo.
KIVI Geoscience Inc.
1100 Memorial Ave., Suite 363, Thunder Bay ON P7B 4A3
Phone (807) 285-1251 Fax (807) 285-1252
Email: kivik@shawcable.com

I Kevin Robert Kivi, P.Geo., (P.Geol. in NWT) am a Professional Geoscientist, employed by KIVI Geoscience Inc., of Thunder Bay, Ontario.

I am:

- a practising member of the Association of Professional Geoscientists of Ontario (APGO), Registration 0326;
- a member of the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories (NAPEGG), Registration L821;
- a member of the Association of Professional Engineers and Geoscientists of the Province of Manitoba (APEGM), Registration 25680.
- A member of the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS), Registration #13687.

I graduated from Lakehead University, Thunder Bay with a Bachelor of Science Geology (4 year programme) in 1983, and I have practiced in my profession continuously since 1983. Since 1983 I have been involved in:

- gold exploration with Ovaltex Inc. along the Cadillac Break in Rouyn and Val D'Or, Quebec in winters of 1984, 1985 and 1986, and between 1986-1988 in NW Ontario.
- diamond exploration with BP Resources Inc – Selco Division in Ontario, Quebec, Manitoba and NWT in summers of 1984, 1985 and 1988;
- gold and base metals exploration in NW Ontario with Rio Algom Exploration between 1988 and 1992.
- diamond exploration with Kennecott Canada Exploration between 1992-1994 at Lac De Gras, NWT, Diamond Laboratory Manager between 1995-2000 in Thunder Bay, Ontario, diamond exploration 2000-2004 in Wawa in Archean lamprophyric volcaniclastic rocks and Group 2 kimberlites, March-June 2004, Exploration Manager at Diavik Diamond Mines Ltd, Lac De Gras, NT.
- 2004 to present: Geological consultant specializing in diamond, gold and base metal exploration. Current clients include Northern Exposures Ltd, Churchill Diamonds Corp, RT Minerals Corp, and Orebot Inc.

I continue to work as a geological consultant for Churchill Diamond Corp. in 2017.

Dated at Thunder Bay, ON, CANADA this 7th day of December, 2017.

KIVI Geoscience Inc.

Per: "Kevin Kivi" (signed)

Kevin R. Kivi, P.Geo., President

Churchill Diamonds

DDH: 16ER-01A

		Claims title:	4263467	Section:	
		Township:	Black River Area	Level:	
		Range:		Work place:	Eric Lake
Contractor:	R, Lavoie	Lot:			
Author:	K. Kivi	Start date:	28/12/2016	Description date:	16/05/2017
		End date:	04/01/2017		

Collar

Azimuth:	180.00°
Dip:	-60.00°
Length:	15.00

UTM	
East	579775.00
North	5415357.00
Elevation	285.00

Number of samples:	0
Number of QAQC samples:	0
Total sampled length:	0.00

Description:

Core size: BTW Cemented: No Stored: No

		Description
0.00	15.00	MT Overburden Casing - sand, Hole lost when casing pulled out, waterline froze.

Churchill Diamonds

DDH: 16ER-01B

Claims title:	4263467	Section:			
Township:	Black River Area	Level:			
Range:		Work place:			
Lot:					
Start date:	04/01/2017	Description date:	16/05/2017		
End date:	05/01/2017				

Contractor: R. Lavoie
Author: K. Kivi

Collar

Azimuth: 180.00°
Dip: -65.00°
Length: 15.00

	UTM
East	579775.00
North	5415356.00
Elevation	285.00

Number of samples: 0
Number of QAQC samples: 0
Total sampled length: 0.00

Description:

Core size: BTW | Cemented: No | Stored: No

		Description
0.00	10.00	MT Overburden New casing started 1m ahead of prior setup, submersible pump lowered into prior casing that was making water. Pump now stuck in casing, generator broken, demob. Hole abandoned. 1.3 boxes of casing blocks: foliated gabbro and mafic dikes, drilled metal - perhaps submersible pump from adjacent hole, All NQ2.

Churchill Diamonds

DDH: 16ER-01C

Contractor: R. Lavoie
Author: K. Kivi

Claims title: 4263467
Township: Black River Area
Range:
Lot:
Start date: 12/01/2017
End date: 16/01/2017

Section:
Level:
Work place:
Description date: 16/05/2017

Collar

Azimuth: 180.00°
Dip: -65.00°
Length: 21.00

	UTM
East	579775.00
North	5415355.00
Elevation	285.00

Number of samples: 0
Number of QAQC samples: 0
Total sampled length: 0.00

Description:

Core size: BTW | Cemented: No | Stored: No

		Description
0.00	21.00	MT Overburden Dropped submersible pump in hole, fishing fails, drill thru pump, fuel issues, battery flat, casing to 65 feet then broke chain drive in head, fix chain, casing broke at 70 feet. Pulled - no spare casing bit. Hole abandoned, demob until spring. Casing recovered: Foliated granodiorite blocks, 15cm picrite block.

Churchill Diamonds

DDH: 16ER-01D

		Claims title:	4263467	Section:	
		Township:	Black River Area	Level:	
		Range:		Work place:	Eric Lake - Core stored wi...
Contractor:	R. Lavoie	Lot:			
Author:	K. Kivi	Start date:	07/05/2017	Description date:	16/05/2017
		End date:	11/05/2017		

Collar

Azimuth:	180.00°
Dip:	-60.00°
Length:	71.00

UTM	
East	579776.00
North	5415355.00
Elevation	285.00

Number of samples:	0
Number of QAQC samples:	0
Total sampled length:	0.00

Description:

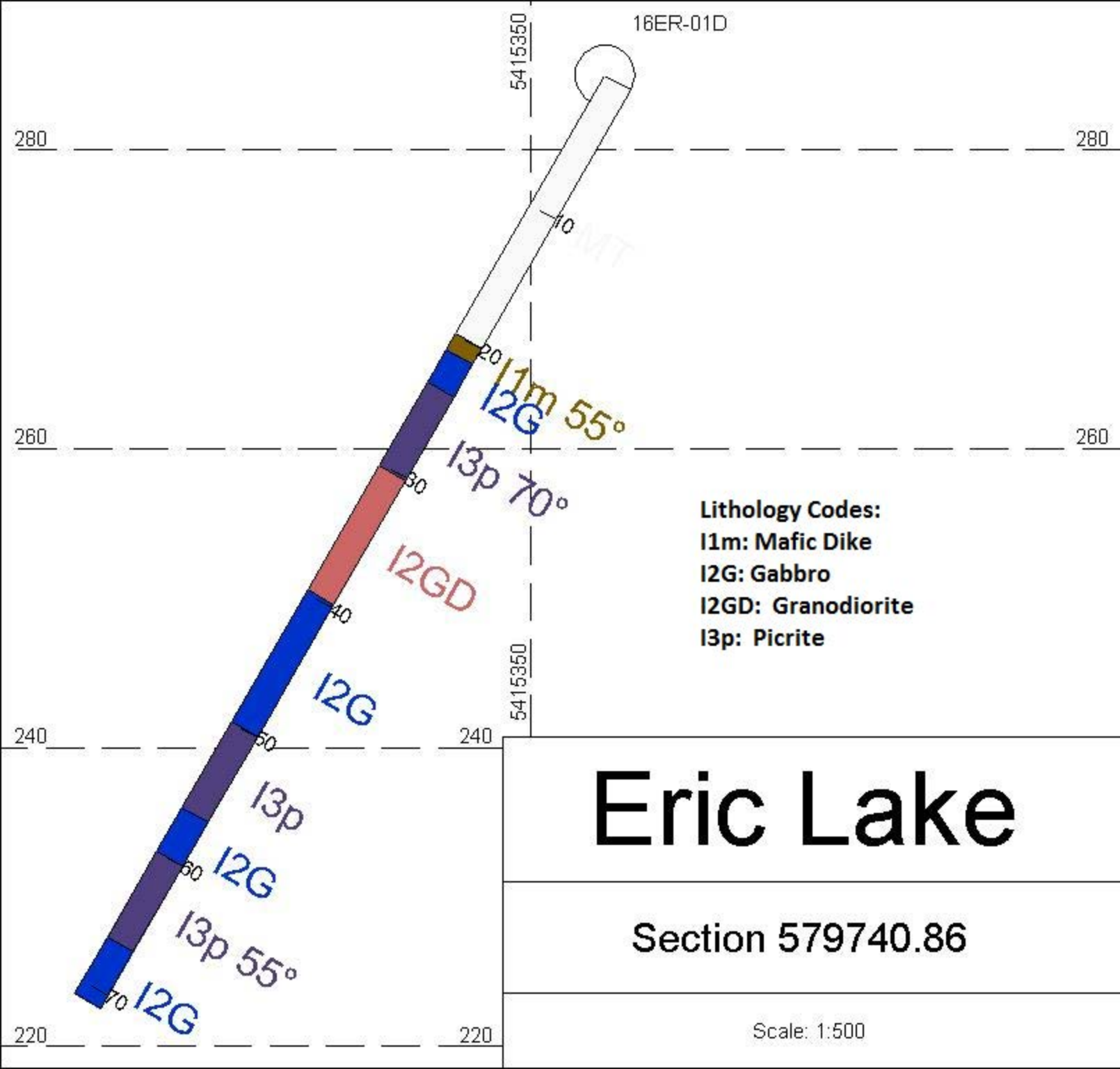
Core size: BTW | Cemented: No | Stored: Yes

		Description
0.00	20.00	MT
		Overburden
		Sand and boulders near bedrock
20.00	21.20	I1m
		Mafic Dike 55°
		Fine grained grey diorite dike, blocky lower contact sharp at 55 C/A
21.20	23.70	I2G
		Gabbro
		Fine grained grey with 40% 3 and 5 mm amphiboles, 20% fine grained dark xenoliths, green, partially assimilated and magnetic, core very blocky.
23.70	30.20	I3p
		Picrite 70°
		Fine grained dark grey ultramafic dike, with 5% 1mm disseminated magnetite, talcose fractures, locally 70 to core axis, minor fault gouge at 65 C/A
27.30	27.50	FAI
		Fault 65°
		20cm fault zone, blocky chloritic, talcose feel
28.00	28.40	I2G
		Gabbro
		gabbro phase or inclusion
28.40	30.20	I3p
		Picrite 65°
		Magnetic ultramafic dike, dark grey to black, fine grained with irregular lower contact
30.20	39.80	I2GD
		Granodiorite
		Medium to coarse grained, weakly foliated, grey and locally pinkish, with zones of K-spar alteration with felsic dikelets
30.20	32.40	BO; Chl
		Biotite; Chlorite
		Dark green chlorite biotite altered zone with 2 cm coarse amphiboles and plagioclase
32.40	39.00	K
		Potassic
		Weak foliation at 40 C/A, and blotchy pink K-spar zones with aplite stringer dikes, blocky from 36.6-37m
39.00	39.80	I1m

			Description
			Mafic Dike 50°
			FIne grained grey intermediate composition dike, very blocky
39.80	50.00	I2G	
			Gabbro
			Coarse grained dark grey and white, igneous rock that consists of 40% 8mm amphibole and 60% plagioclase matrix
41.20	42.60	I1m	
			Mafic Dike
			Fine grained, grey intermediate dike, very blocky, vague contacts, chlorite clots
43.00	43.90	I1m	
			Mafic Dike
			as above, blocky, vague contacts
44.20	44.35	I1m	
			Mafic Dike 45°
			Mafic dike as above
47.30	50.00	I1m	
			Mafic Dike
			Mafic dike with gabbro xenoliths, about 50/50 dike/host, non-magnetic
50.00	56.60	I3p	
			Picrite
			Dark grey to black, aphanitic, ultramafic dike with soapy feel, strongly magnetic with sharp 50 contact, host gabbro is biotite altered near contact
52.20	53.00	I2G	
			Gabbro
			Gabbro xenolith, coarse grained gabbro intrusive, cooked near lower contact with loss of ferromagnesian minerals
54.50	55.30	I3p	
			Picrite
			Blocky picrite, likely a fault zone
54.50	55.30	FAI	
			Fault
			likely a fault zone
56.60	60.00	I2G	
			Gabbro
			Gabbro with mafic dikes, coarse grained gabbro with 50% grey mafic dikes which are cut by narrow aphanitic picrite dikes which are talcose

			Description
			and strongly magnetic
57.01	58.10	I1m	
			Mafic Dike
			Grey aphanitic, at 57.8 10cm picrite dike at 50 C/A
58.70	58.80	I3p	
			Picrite
			10cm picrite dike, irregular contacts
59.30	59.50	BRE	
			Breccia
			Blocky zone
60.00	66.60	I3p	
			Picrite 55°
			Black aphanitic picrite dike, with upper 45 contact and lower 70 C/A contact, strongly magnetic, soapy feel, lower contact sharp at 55 C/A
62.10	62.70	I2G	
			Gabbro
			Gabbro xenolith, coarse grained gabbro with 4-12 cm altered margins of magnetic soapstone
66.60	71.00	I2G	
			Gabbro
			Gabbro and Mafic dikes, Coarse grained massive gabbro, intrusive texture, 4-6mm crystals with 50% grey fine grained mafic dikes which are irregular and have random contacts. Minor picrite dikes are magnetic
67.40	67.90	I1m	
			Mafic Dike 60°
			hydrous fractures with mica and biotite
68.60	71.00	I1m; I3p	
			Mafic Dike; Picrite
			Composite dike of mafic and picrite, complex zone with fragmental look. Contains gabbro xenolith with pinkish alteration

5,416,000
580,000
581,000
582,000
583,000
5,416,000
4263467
DDH 16ER01
4263460
Highway 614
N
5,415,000
5,415,000
4263458
0
500
meters
4280279
5,414,000
4263480
5,414,000
579,000
580,000
581,000
582,000
583,000


16ER-01D
5415350
280
260
240
220
10
20
30
40
50
60
70
I1m
I2G
55°
I3p
70°
I2GD
I2G
I3p
I2G
I3p
55°
I2G
Lithology Codes:
I1m: Mafic Dike
I2G: Gabbro
I2GD: Granodiorite
I3p: Picrite
Eric Lake
Section 579740.86
Scale: 1:500

Portable Cesium Vapor Magnetometer

Model G−859 Mineral Mag™

A Professional Magnetic Mapping System

For Minerals, Petroleum and Geologic Survey

- **Excellent Performance** Low Noise/High Sensitivity, best in the industry – 0.008nT/√Hz RMS – and world wide operation
- **Very Fast** – Log mag and GPS at up to 5 samples per second for economic large area surveys at high sample density
- **Integrated GPS/Backpack** – Includes non-magnetic backpack and Novatel™ WAAS / EGNOS ready GPS
- **Low AC Field Interference –** Best in the industry for rejecting AC power line grid noise (50/60 Hz)
- **Easy-to-use** – Simple setup and rapid in-field map generation with free MagMap2000™ software
- **Reliability –** Our Cesium sensors *never* need calibration or factory realignment. Designed for extreme ruggedness and reliability.
- **Designed for large surveys Mining/Oil/Gas** – This versatile tool is specially designed for large area surveys with 8 hr data storage capacity and two 6 hr battery packs

This new low-cost Cesium vapor magnetometer system offers the mining/oil/gas survey companies the best total field magnetic survey tool available. Based on our industry standard G-858 MagMapper system , the G-859 incorporates all of the reliability and proven performance in a lightweight survey package with integrated WAAS/EGNOS enabled Novatel™ GPS.

OPERATION

The G−859 Mining Mag uses a graphical interface to make survey design and data acquisition quick and efficient. A "Simple" or “Mapped” Mode uses line numbers and known staked reference points to define the map parameters. Or the user may use the integrated Novatel Smart Antenna™ GPS for mapping positions automatically. Position information may come from an external GPS, from regularly spaced fiducial marks input by the operator or both. At any time, the user may switch to “profile” mode to observe the last 5 data lines as stacked profiles.

Data is collected in up to 5 separate survey files and transferred via high speed RS−232 data link (or USB with converter) to a computer for further analysis and map generation. The full featured graphical data editing program MagMap2000 is provided to allow repositioning, realignment, GPS smoothing, data filtering and interpolation of the data. After editing, the data is formatted in either Surfer for Windows or Geosoft formats for further plotting and analysis.

Magnetic Anomaly Map
Airborne vs. Land Based Cesium

Most magnetic surveys for minerals, oil, and natural gas are initially conducted as airborne surveys. Geometrics supplies a complete magnetometer product line for this purpose and can also offer integrated gamma ray and EM airborne survey hardware and software systems.

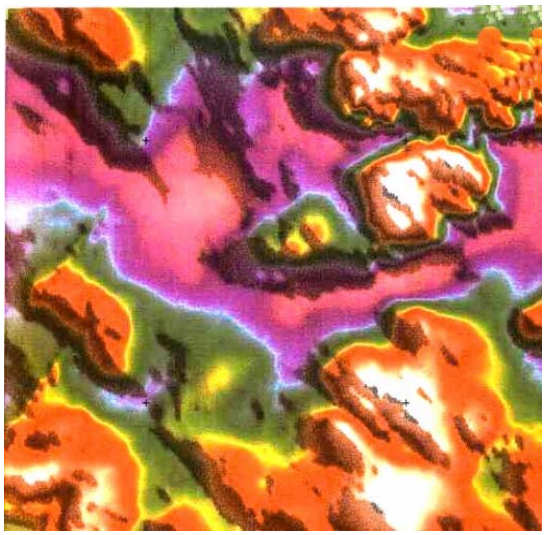
After interesting aeromagnetic anomalies are identified follow-up ground surveys are often performed using portable high performance land magnetometers. The purpose of these land surveys is to provide higher resolution magnetic field data and, ultimately, better information about the geologic structures it reveals.

The map on the left shows an area of approximately 1.5Km by 1.5Km and was produced from data collected from an airborne survey. The aircraft height was 70m and the line spacing 120m. The sample interval was 0.2s or approximately 14m with a grid cell size of 20m.

The map on the right is was obtained from a ground survey of the same 1.5Km by 1.5Km area as shown above but this data was acquired using a portable cesium magnetometer with its backpack-mounted sensor positioned at a height of 3 m. The line spacing was 20m and the sample interval 1m. The grid cell size is 5m.

The land data offers significantly greater anomaly definition and improved resolution compared to the airborne presentation. Individual structures such as lithologic contacts, drainage channels, and alteration zones are evident. In addition, the land data reveals a NW-SE trending structural grain not seen in the airborne data. This detailed information can be used to focus geologic mapping, sampling, and drilling programs for greater efficiency. Most importantly, these high resolution land based data also provide the basis for high resolution numerical interpretation that will better reveal the subsurface structures.

This data was collected in the Goonumbla region of Australia, provided courtesy of North Exploration Ltd.



SPEED AND EFFICIENCY

G−859 data acquisition offers either continuous (automatic) or discrete station recording. Data quality is uniformly high and lower costs are inherent for most projects due to the high sampling rate of the instrument in continuous mode. This allows the operator to survey an area at a fast pace, covering as much as 10 times more area in a given time period than other magnetometers.

RELIABLE, RUGGED & LOW COST DESIGN

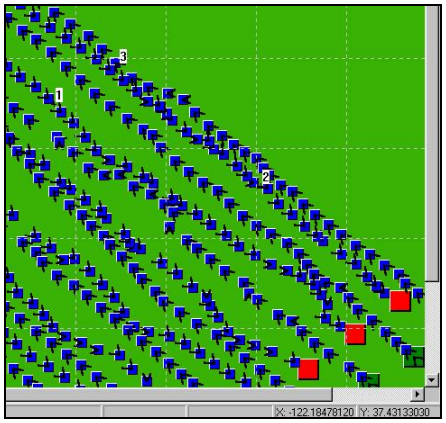
In addition to its speed and sensitivity, the G-859 is also reliable, economical, and easy to use. Electrical connectors on the G-859’s sensor have been eliminated in order to increase reliability and reduce setup time. The G-859’s internal firmware has been streamlined to include those features important for mining exploration. We are so confident in the improved design of the G−859 that it comes with **2 Year Warranty**! As for economy - Contact Geometrics for a quotation today! You’ll be pleasantly surprised.

APPLICATIONS

The concentration of magnetic minerals often varies with geological formation or chemical alteration and can indicate hydrocarbon bearing structures or economic mineral deposits. A primary application of the G−859 Mineral Magr™ is surveying for minerals and oil/gas exploration programs. The G-859 is an excellent instrument for use in academic research and education. and can also be used for local environmental studies such as mapping waste sites, locating buried metal drums and storage tanks buried pipelines, well-heads and other sizable ferrous structures.

DIGITAL QUALITY

The G−859 system produces raw data of the highest quality. Data is digitally recorded in compressed form in high capacity RAM and later transferred to a computer for permanent storage and processing. Sensitivity, resolution and recording rate of the cesium magnetometer are user selectable as well as mapped survey grid coordinates or GPS position data. *The system is ruggedly packaged for extreme field conditions*. Data storage is sufficient to record 8 hours of data at the maximum rate of 5 Hz. Battery life is approximately 8 hours powering both the Magnetometer and Novatel Smart Antenna™ GPS.

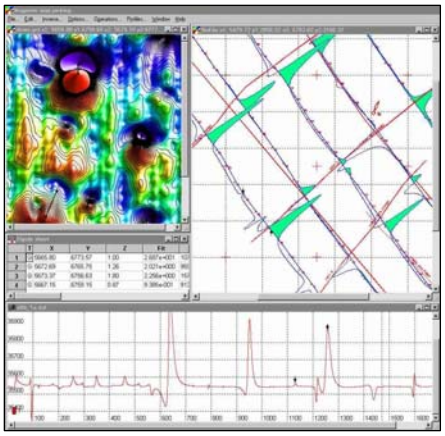


MagMap2000 GPS Track Plot

BASIC SOFTWARE

A basic software package MagMap2000 is supplied as an integral part of the G−859 system and provides:

- Transfer of the raw magnetometer, base station and other survey data to the client PC
- Standard corrections for position errors, transients, and time varying errors (diurnal)
- GPS track plot with adjustable smoothing and independent point editing
- Repositioning, linear interpolation and format of corrected data into X, Y, Z or Latitude/Longitude ASCII columnar values for use with Surfer for Windows, Geosoft or other client supplied contouring programs.
- Conversion of GPS to UTM coordinate system using a selected Datum.



In addition to the standard MagMap2000 download and editing software, Geometrics is pleased to offer MagPick™, a full featured potential field analysis package with excellent profile and contour map generation capability.

G-859 and GPS Re-Usable Shipping Case with foam padding and transport wheels

MagPick™ can perform source body inversion, reduction to the pole, upward continuation and a variety of other transforms and gradient extractions. We are also pleased to offer a Windows™ version of CSAZII™, a world total field map, field inclination and sensor orientation program for performing surveys worldwide in any survey direction. MagMap2000, MagPick™ and CSAZII™ are available on our website for free download. Manuals for these programs are supplied as internal documents in PDF format.

NOVATEL SMART ANTENNA™

Accurate data positions are as important as accurate magnetic field measurements and Geometrics is pleased to include the Novatel Smart Antenna™ as an integral part of the G-859 system. This small light-weight, all-in-one GPS Antenna and electronics package is WAAS/EGNOS ready for <1.5m positioning.

Novatel GPS Antenna/receiver

The Smart Antenna™ systems is installed on Geometrics non-magnetic back pack and carefully screened and degaussed for minimum magnetic interference.

The Smart Antenna™ is designed to be quickly assembled and installed on the backpack, with special mounting studs and a cable wiring harness for data and power distribution. The storage case allows the main components to be stored as a unit providing minimum assembly at the job site. The storage case is a rugged reusable fiberglass and aluminum travel case with handles and wheels for easy transport.

G–859 Mineral Mag™ SPECIFICATIONS

MAGNETOMETER / ELECTRONICS

Operating Principle: Self-oscillating split-beam Cesium Vapor (non-radioactive Cs_{133}) with automatic hemisphere switching.

Operating Range: 17,000 nT to 100,000 nT

Operating Zones: For highest signal-to-noise ratio, the sensor long axis should be oriented at 45°, ±30to the earth's field but operation will continue through 45°, ±35°. Sensor is automatic hemisphere switching.

Sensitivity Statistics: 90% of all reading will fall within the following Peak-to-Peak envelopes:

0.03 nT at 0.2 sec cycle rate
0.02 nT at 0.5 sec cycle rate
0.01 nT at 1.0 sec cycle rate

Noise: < 0.008 nT/√Hz-RMS

Heading Error: < 1.5 nT including backpack and GPS

Gradient Tolerance: > 500 nT /inch (>20,000 nT/ meter)

Temperature Drift: < 0.05 nT per °C

Cycle Rate: Variable from 0.2 sec to 1 hr in 0.1 sec steps or by external trigger.

Data Storage: Non-volatile RAM with capacity for 8 to 12 hrs of magnetometer, time, event marks, field notes and XYZ or GPS locations.

Audio Output:

1. Audio tone of field variation; pitch and volume adjustable. (Search mode)
2. Audio pulse each 1 second (Pace metronome).
3. Alarm for loss of signal, low battery or quality control setting exceeded.

Data Output: Three wire RS-232 standard serial port, optional continuous real time transmittal of data via RS-232 to PC. Total memory output transfer time less than 5 min. at 115,200 baud.

Visual Output: 320 x 200 graphic liquid-crystal display, daylight visible with selectable outputs for:

1. Data display: Up to 5 stacked profiles, real time or review mode. Survey grid showing boundaries and position.
2. All system set-up functions, e.g., memory status, data transfer, sample time.
3. All Survey set-up functions, e.g., survey profile number and direction, station number or GPS data transfer protocol, line number.
4. Survey monitoring functions, e.g. total field, noise level, profile number x or xy coordinates.

Internal Clock: Resolution of 0.1 sec, drift: < 1 sec/day

Battery Life:

1. 24 VDC rechargeable gel cell, 6 hrs for Mag w GPS. Magnetic effect less than 1.5 nT (γ) at 4 ft
2. Internal backup battery for clock and non-volatile RAM.

Software: Supplied as part of the basic system and including functions for:

Operating Software:

1. Survey Modes:
   a. Search survey
   b. Simple survey
   c. Map survey, station or continuous
   d. Base station
2. Data acquisition/display:
   a. Acquire and store data and survey functions.
   b. Display profiles, total field to 0.1 nT resolution, survey / map parameters and diagnostics.

Post-acquisition Software: MagMap2000 software for installation on customer's computer.

1. Data transfer and corrections:
   a. Transfer of data from the field Magnetometer GPS, or Base station to PC.
   b. Diurnal correction using base station data.
   c. Processing the corrected data into ASCII values of X-Y-Z.
2. Data Processing functions include spike editing, spline filtering, repositioning of X, Y, Z or GPS Lat/Long, conversion to UTM coordinates, profile and contour map plotting..

MECHANICAL

Sensor: 2-3/8" dia., 6-3/4" long, 12 oz. (6cm x 15 cm, 340 grams)

Backpack: Backpack for Magnetometer, 9.5 lb (4.3 kg). Includes Nylon chest harness with all cables attached (1 kg to 1.3 kg)

Battery: 3" H, 5" W, 8" L, 3.5 lbs (8 cm x 13 cm x 20 cm, 1.6 kg) belt-mounted, attaches to harness.

Console: 6" W, 3" H, 11?"L, 3.5 lbs. (15 cm x 8 cm x 28cm, 1.6 kg), attaches to battery belt and harness. Magnetic effect less than 1 nT at 4 ft

ENVIRONMENTAL

Operating Temperature: -25°C to +50°C (-13°F to + 122°F)

Storage Temperature: -35°C to + 60°C (-30°F to + 140°F)

Water Tight: Weatherproof in driving rain

Shock: Survive a 3 ft drop onto a hard surface

WARRANTY: 2 YEARS on G-859 and sensor, one year on accessories

Novatel Smart Antenna™ Specs:

- Code and carrier phase tacking with 5 Hz Position, velocity, time output or 10 Hz raw data output
- SBAS capable and designed for harsh environments
- RS-232 compatible interface

Hardware Specs:

Size and Weight	115mm dia x 90mm height, Weight: 575 g
Input Voltage:	+9 to +36 VDC
Power Consumption:	1.4W (typical)
Com Ports:	2 RS-232 at up to 19,200 baud
Operating Temperature:	-30°C to +75° C

GPS L1 Product Performance

Position Accuracy:	Single point L1	<5 m CEP
	WAAS L1	<1.5m CEP
Measurement Precision:	L1 C/A Code	75 cm RMS
	L1 Carrier Phase	1 cm RMS
Data Rates:	Measurements	10 Hz
	Position	5 Hz
Time to First Fix:	Cold Start	120 s
	Warm Start	45 s
	Hot Start	15 s
Signal Reacquisition:		<1 s typical

GEOMETRICS, INC. 2190 Fortune Drive, San Jose, CA 95131, USA. V1.2 3-03-05
408-954-0522 • Email: sales@mail.geometrics.com

GEOMETRICS, Europe Manor Farm Cottage, Galley Lane, Great Brickhill, Bucks, England MK17 9AB
44-1525-261874 • Email: chris@georentals.co.uk

GEOMETRICS, China Laurel Industrial Company Inc., Beijing Office, Room 2509-2511 Full Link Plaza #18 Chaoyangmenwai Dajie, Chaoyang District, Beijing, China 100020
10-6588-1126 • Fax 10-6588-1162 •Email: jeanchen@laurelindustrial.com

Portable Proton Magnetometer
Model G-856AX

- **0.1 nT resolution and sensitivity Designed for ease of use by non-skilled personnel**
- **Digital memory - 12,500 readings**
- **Manual data recall, or down load to a PC**
- **Versatile, total field, gradiometer or base station use**
- **Rugged weatherproof construction.**

G-856AX Electronic/Battery Console

The G-856 provides a reliable, low cost solution for a variety of magnetic search and mapping applications. Single key stroke operation means the G-856AX can be operated by non-technical field personnel or used in teaching environments. The G-856AX uses the established proton precession method, allowing accurate measurements to be made with virtually no dependence upon variables such as sensor orientation, temperature, or location. The unit provides a repeatable absolute total field magnetic reading, traceable to the National Bureau of Standards, unlike other magnetic field measurement processes which measure only a single component of the field.


G-856AX Arctic Survey

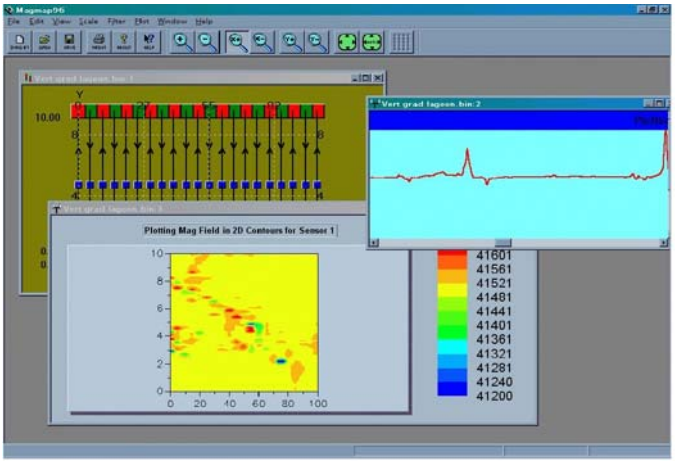
Applications:

The G-865AX is ideal for mapping geological structures, for mineral exploration, magnetic search for industrial, environmental or archaeological targets. The optional gradiometer attachment gives greater resolution and noise immunity for conducting searches in industrial or high cultural noise environments. Simple operation, large digital data storage capability, and the inclusion of MagMap2000 data transfer and editing software provides a system well suited for both teaching and survey applications.

The automated cycling option with long sensor cable and external power connection allows use of the G-856AX as a Basestation unit for the measurement of diurnal changes in the earth's magnetic field. Diurnal correction data is then downloaded by MagMap2000 and can be applied to other 856, 858 or 822/823 Airborne data.

Superior Data Editing Software.

MagMap2000 allows rapid download of the data from the G-856AX to a PC. Data can be diurnally corrected, profile lines and positions displayed and edited, noisy readings filtered and QC plots of profiles, 2D contour and 3D surface plots made. Data can be exported to Surfer, Geosoft or MagPick (free from Geometrics) for more sophisticated final maps and analysis. The software requires Windows 98, NT or XP operating system.



MagMap2000 Display Screen

A thoroughly well proven design (over 2,600 units sold), excellent performance and the lowest price professional system are key features of the G-856AX. Combined with the ease of use, user friendly download/editing software, and readily available commercial contouring programs, the G-856AX represents a complete magnetic surveying package generating high quality data for budget conscious users.

G-856AX Desert Survey in Tibet

Specifications:

Resolution: 0.1 nT
Accuracy : 0.5 nT
Clock: Julian date, accuracy 5 sec per month.
Tuning: Auto or manual, range 20,000 to 90,000 nT
Gradient Tolerance: 1000 nT/meter
Cycle time: 3 sec to 999 sec standard , can be manually selected as fast as 1.5 sec cycle time.
Read: Manual, or auto cycle for base station use.
Memory: 5700 field or 12500 base station readings
Display: Six digit display of field/time, three digit auxiliary display of line number, day
Digital Output: RS-232, 9600 baud.
Input: Will accept external cycle command.
Physical: Console: 7 x 10.5 x 3.5 inches, (18 x 27 x 9 cm) 6 lbs (2.7 kg) Sensor: 3.5 x 5 inches (9 x 13 cm) 4 lbs (1.8 kg **Environmenta**l: Meets specifications within 0° to 40°C (32° to 105°F) Will operate satisfactorily from -20° to 50°C (-4^0 to 122°F)
Power: 9 each 1.5 “D” Cells or Gel Cell
Standard Accessories: Sensor, Staff, Chest Harness, Two sets of batteries, RS-232 cable, Operations manual, Applications manual, MagMap96 software
Options: Gradiometer attachment. External Power/sensor cable, External power/RS-232/sensor cable, rechargeable battery and charger set.

For More information contact:

Geometrics, Inc.

2190 Fortune Drive
San Jose, CA 95131
Tel:408-954-0522
Fax:408-954-0902
sales@mail.geometrics.com