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Assessment Report

On

Claim 4273448 - SANDRA BRECCIA

Norberg Township

Sault Ste. Marie Mining Division
District of Algoma
N.T.S: 41N/01

VLF EM-16 Surveying

Prepared by: Shaun Parent

Claim Holder

December 14, 2017

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Executive Summary:

The Sandra Breccia property (claim 4273448) is located in the Sault Ste. Marie Mining Division, approximately 65 kilometers north of Sault Ste. Marie, Ontario. The property consists of 4-16 hectare claim units.

A VLF EM-16 Survey program was carried out in May 2016. 10 VLF traverse lines were surveyed using a VLF EM-16 unit and a handheld Garmin GPS-60C. 1 transmitter station (NAA- Cutler-Maine) was read at each station.

The objective of the VLF Em-16 Survey was to determine if the weak magnetic anomaly east of the East Breccia deposit represented a possible mineralized Breccia Pipe. There are three known mineralized breccia pipes located to the west of Claim 4273448. The Breton Breccia contains an estimated 40 million tons of 0.3-0.4% Copper. The West Breccia has a resource of 223,000 tons of 0.75% copper, while the East Breccia contains a historical resource of 125 million tons of 0.13% copper. The West Breccia and the East breccia deposits have associated high airborne magnetic responses.

This Assessment report describes the findings and results of the VLF EM-16 survey utilizing the new VLF 2DMF processing software of which the author of this report has contributed to development

Highlights:

- Ground Follow up of the VLF Em-16 survey in 2016 discovered several new sites carrying copper-malachite-pyrite mineralization.
- This new Breccia discovery has been named the “SANDRA BRECCIA”.
- The VLF EM-16 survey outlined conductors that could be the mineralized zones near the tops of a breccia pipe.
- The new mineralization discovered on claim 4273448 is similar to that of other breccia pipes in the area.

Location and Access

Claim 4273448 is located in the mining District of Sault Ste. Marie.

The Claim group is located near the West boundary of Norberg Township. The property is located approximately 65 km. north of the city of Sault Ste. Marie, Ontario.

The claims are located on NTS Maps 41N/1. The Mining claims are found on Norberg Plan G-3120. (See Figures 1, 2 & 3)

Access to the property can be accomplished by a 2 wheel drive vehicle along the Carp River road. Winter access is by snow machine only, unless logging is taking place in the immediate vicinity of claims and along the East Breccia Access road.

- Drive north from Sault Ste. Marie on Highway 17 for approximately 40 minutes to the junction of the highway 538 to the Batchawana Bay.
- Continue north on Highway 17 for 200 meters to the Carp River Road.
- Follow the Carp River Road for 20 kilometers until you reach the bypass to Mile 67 Road.
- Turn right and continue on the main road. When you come to a T intersection turn left and then go 50 meters. Turn right, and follow this road which will enter the claim after 200 meters.

Claim Block

The claim number covered by the VLF-Em-16 survey is 4266871. The claim consists of 4-16 Hectare claim units. (See Figure-2)

Figure 1 General Location Map

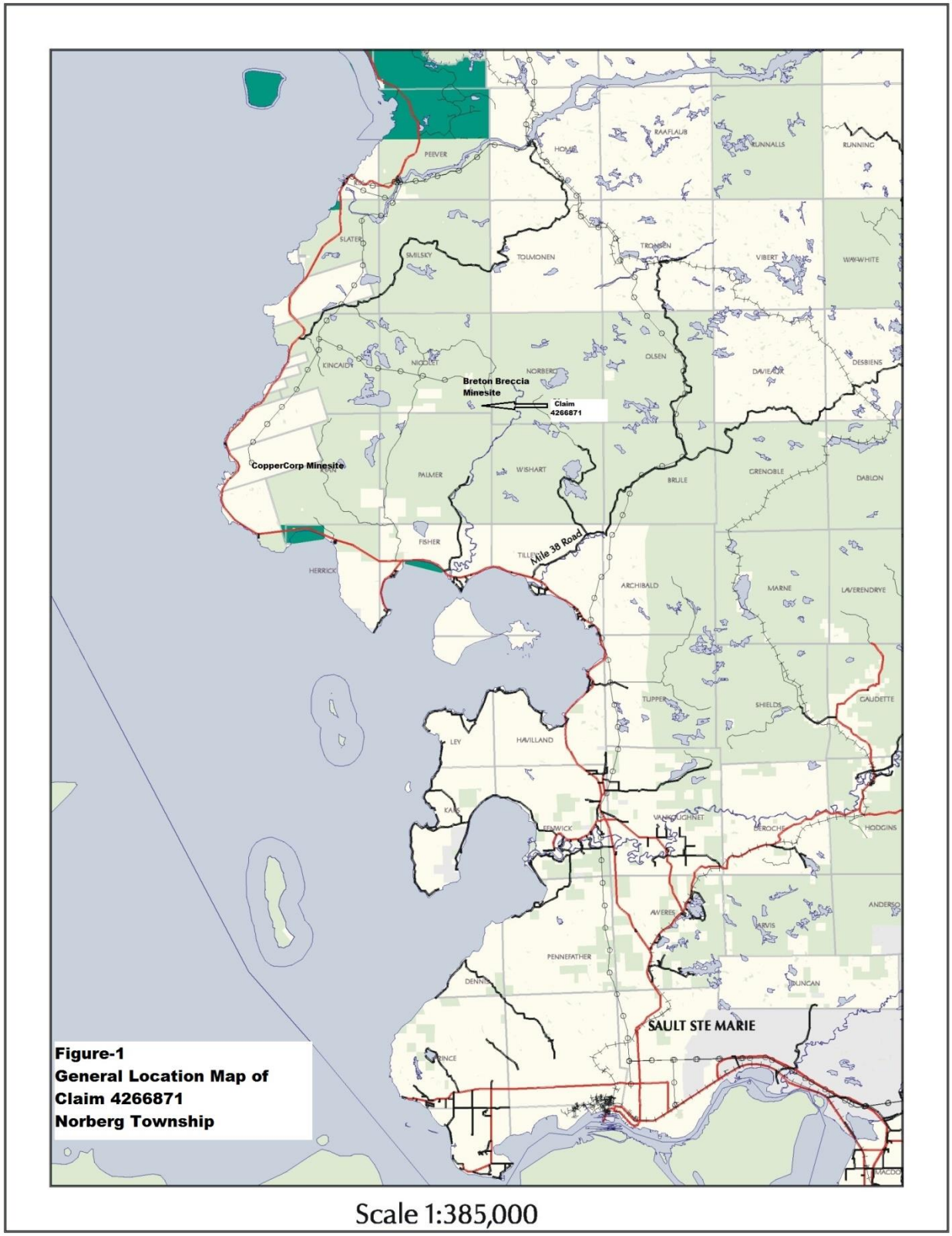


Figure 2 Location Map of Claim

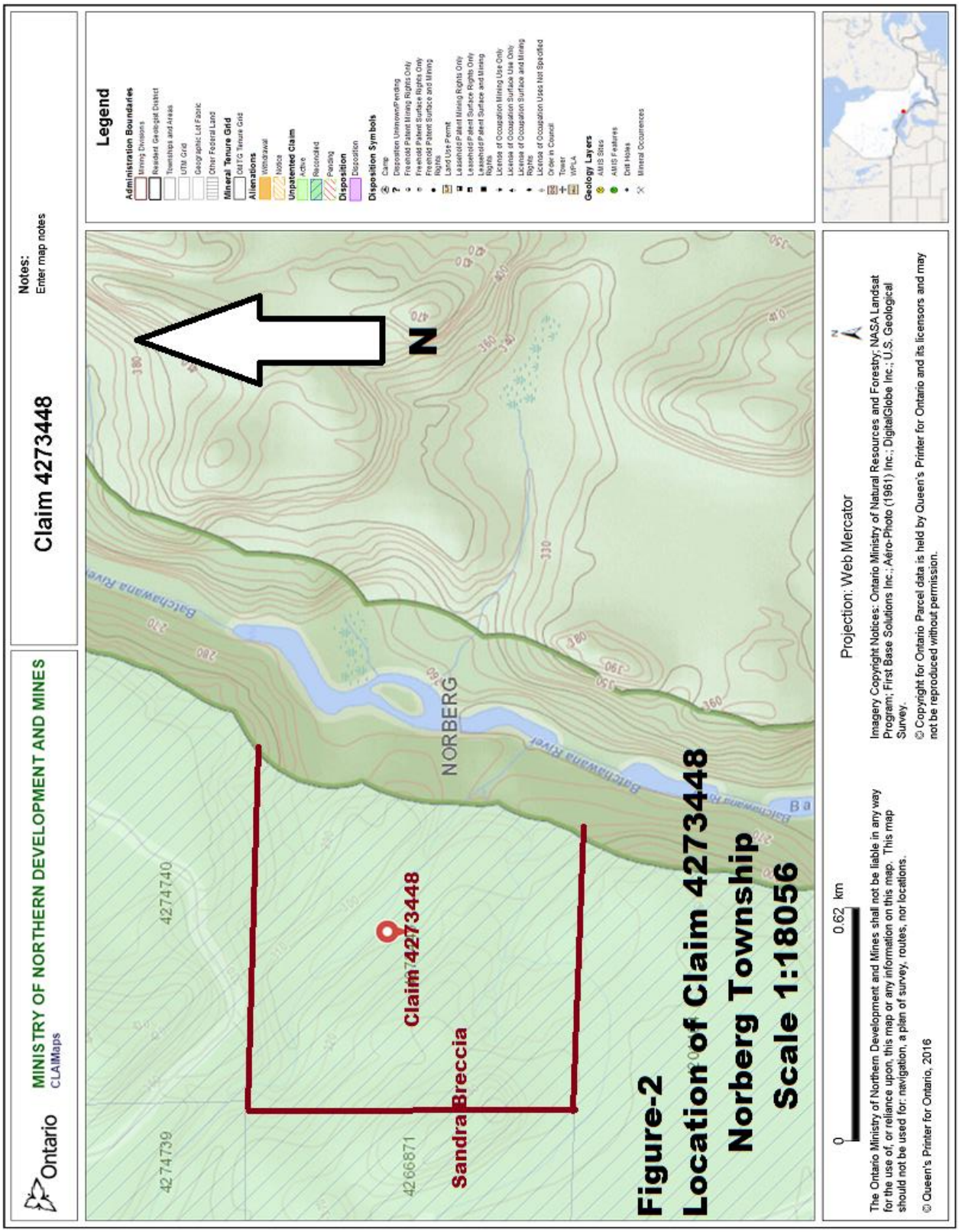
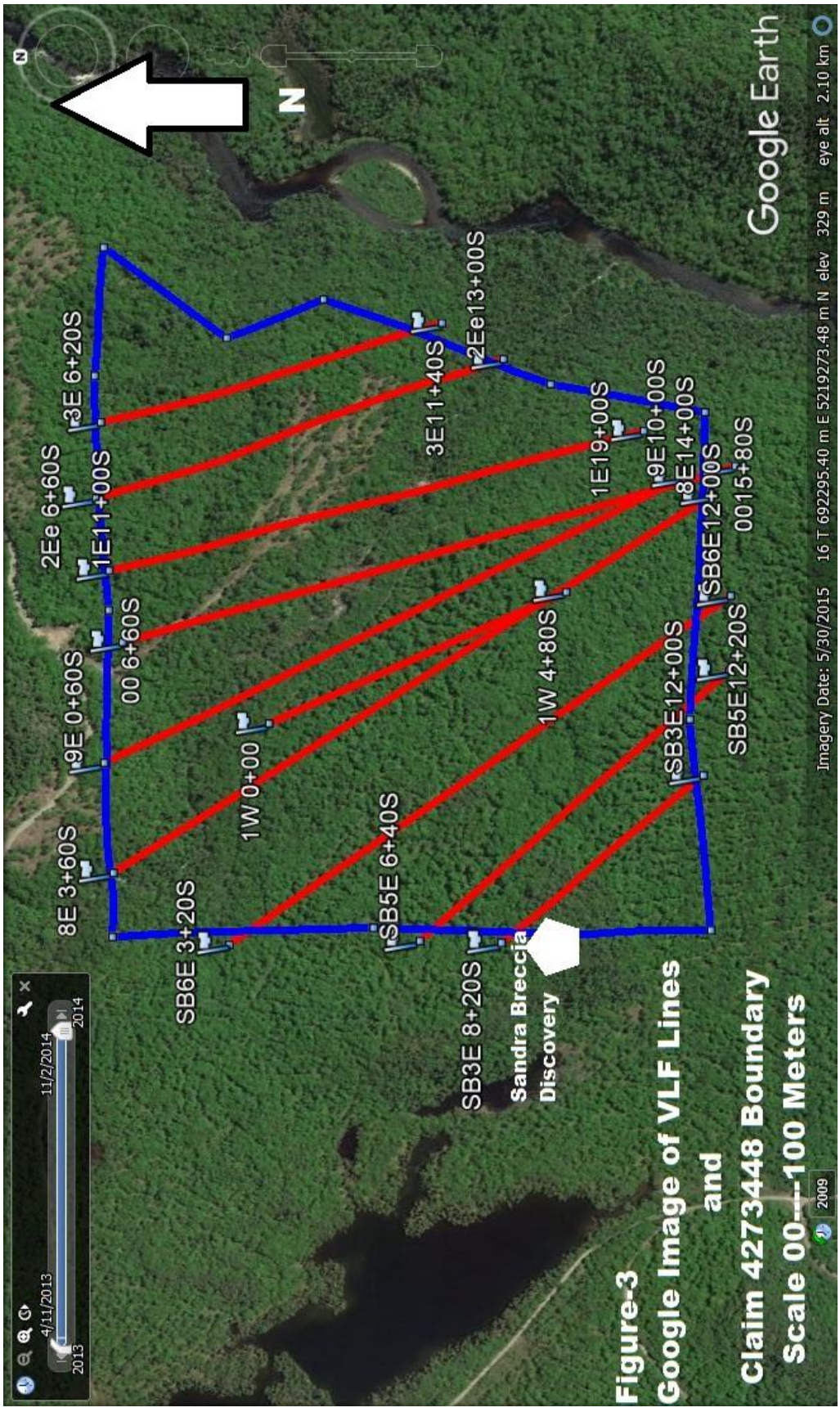


Figure 3 Google Image of VLF Lines & Boundary



Personnel

The VLF EM-16 and GPS field navigator responsible for the collection and processing of raw data with the VLF2DMF Software was Shaun Parent.

Work Performed

The VLF EM-16 survey consisted of running 10 VLF traverse Lines totaling 7.16 km.

The VLF survey lines were chosen to best cover the complete 4273448 Claim as in Figure-3.

All VLF lines were aligned to cover the eastern extension of the Sandra Breccia covered by claim 4266871 magnetic anomaly and are shown on a Google earth image. A total of 7.16 km of VLF surveying was carried out on Claim 4273448.

The VLF lines were completed while using a handheld Garmin 60-CSX GPS. Each VLF station was located based on its azimuth and distance from the start of the survey line. Transmitter station NAA was read using a Geonics VLF- Em16 serial number 0236 at each line station. The following parameters were used throughout the survey.

Table 1 VLF Lines Surveyed

Line Number	Azimuth	Surveyed Stations	Line Length Meters
SB3E	137	8+20S to 12+00S	380
SB5E	141	6+40S to 12+20S	590
SB6E	146	3+20S to 12+00S	880
8E	152	3+60S to 14+00S	1040
1W	158	0+0S to 4+80S	480
9E	153	0+60S to 9+80S	920
00	160	6+60S to 15+80S	920
1E	172	11+00S to 19+00S	800
2Ee	164	6+60S to 13+00S	640
3E	164	6+20S to 11+40S	520

VLF Data Collection:

VLF Em-16 Receiver # 236

VLF Transmitter: NAA Cutler, Maine (24.0 Khz)
Only data collected for transmitter NAA, Cutler, Maine has been processed for this report.

VLF survey direction: See Table 1- Line Azimuth Facing down line.

Parameters of Measurement: In-phase and Quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (Tangent of tilt angle and ellipticity). TX transmitter NAA was to the East

The VLF Field data was collected as follows on each surveyed line.

Each station was saved using the Handheld Garmin 60CSX Handheld GPS Unit

- VLF data for Station NAA was recorded in a notebook as In-Phase and Quadrature corresponding to the line and station. See example in Table 2.
- The handheld Garmin Field data was downloaded onto the Garmin map source program where line information could be viewed relative to local features such as claim lines and roads.
- The Garmin field data and raw VLF notes were then combined and compiled onto an excel spreadsheet which was then entered into the VLF2DMF Processing software.

Table 2 Example of VLF Field Data Collection

Line SB3E	NAA – In Phase	NAA - Quadrature
0+00	12	-7
0+20E	14	-9
0+40E	16	-10

VLF Data Processing:

Data was processed using VLF2DMF Software and interpretation and modelling were completed. Profiles of survey lines and plan maps of combined data can be found at the end of this report.

1) Plan Map of Lines Surveyed (Figure-3)

2) Raw VLF Profiles for Transmitter NAA

The Raw data collected in the field is plotted showing the In-Phase component as a red dashed line and the quadrature component as a blue dashed line. In-Phase inflections and cross overs are usually plus to minus, while Quadrature responses are negative to positive.

3) Fraser Filter Profiles for Transmitter NAA

The data processing technique commonly referred to as the Fraser Filter was applied to the raw data. This filter transforms In-Phase cross overs and inflections into positive peaks, while Quadrature responses are negative to positive giving a negative peak anomaly when the Fraser Filter is applied.

4) Fraser Filtered Plan Maps NAA In-Phase and NAA Quadrature (Figures 4 & 5)

The VLF2DMF software uses the Fraser filtered profiled data and produces contoured results on a plan map. Positive peaks in the In-Phase Component are shown as orange and negative peaks in the Quadrature component are shown on the plan maps as blue to dark blue. The intensity of the response is measured on the scale bar to the right of the plan maps.

Figure 4 TX NAA Fraser Filter In-Phase Values

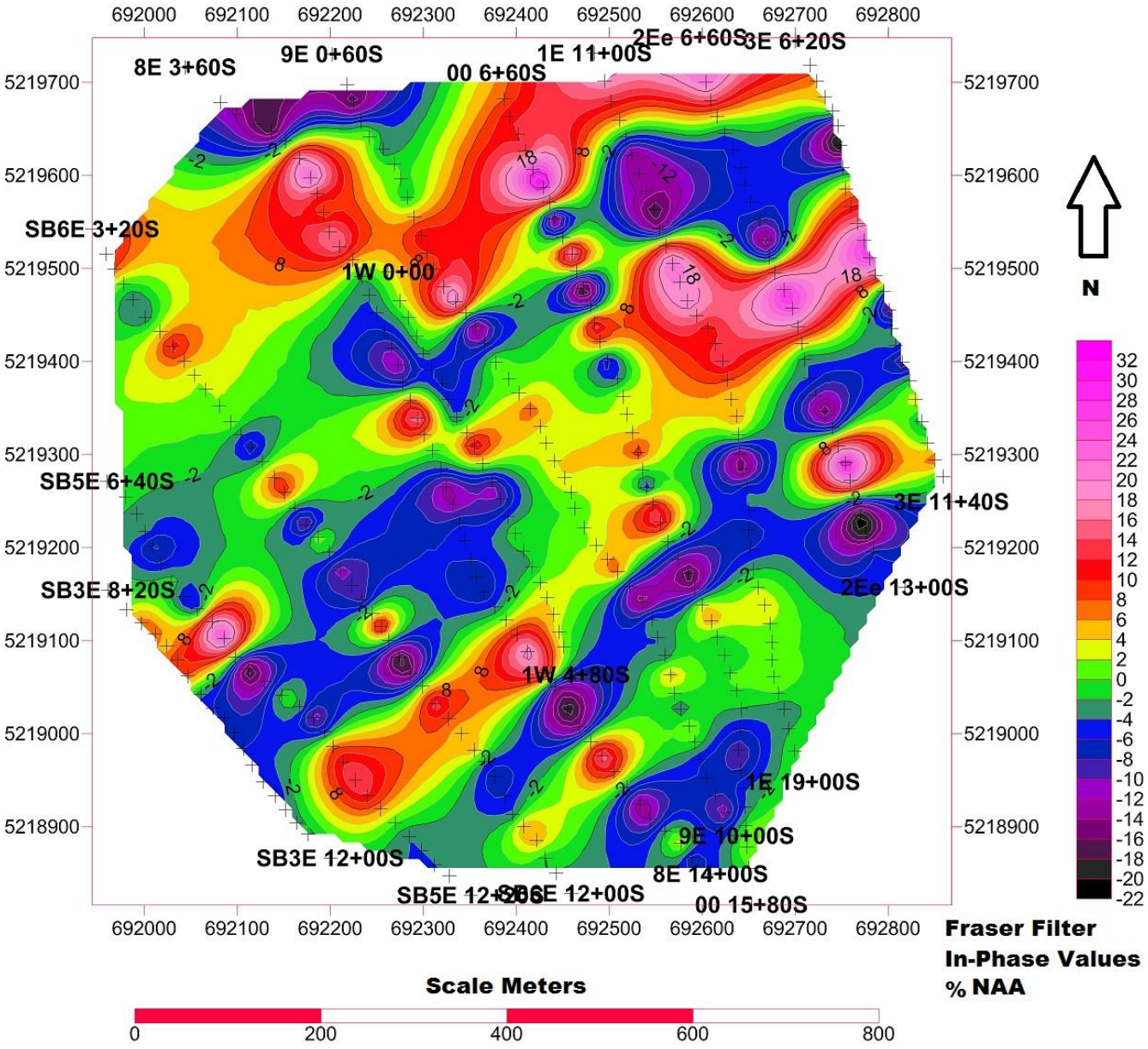


Figure 5 TX NAA Fraser Filter Quadrature Values

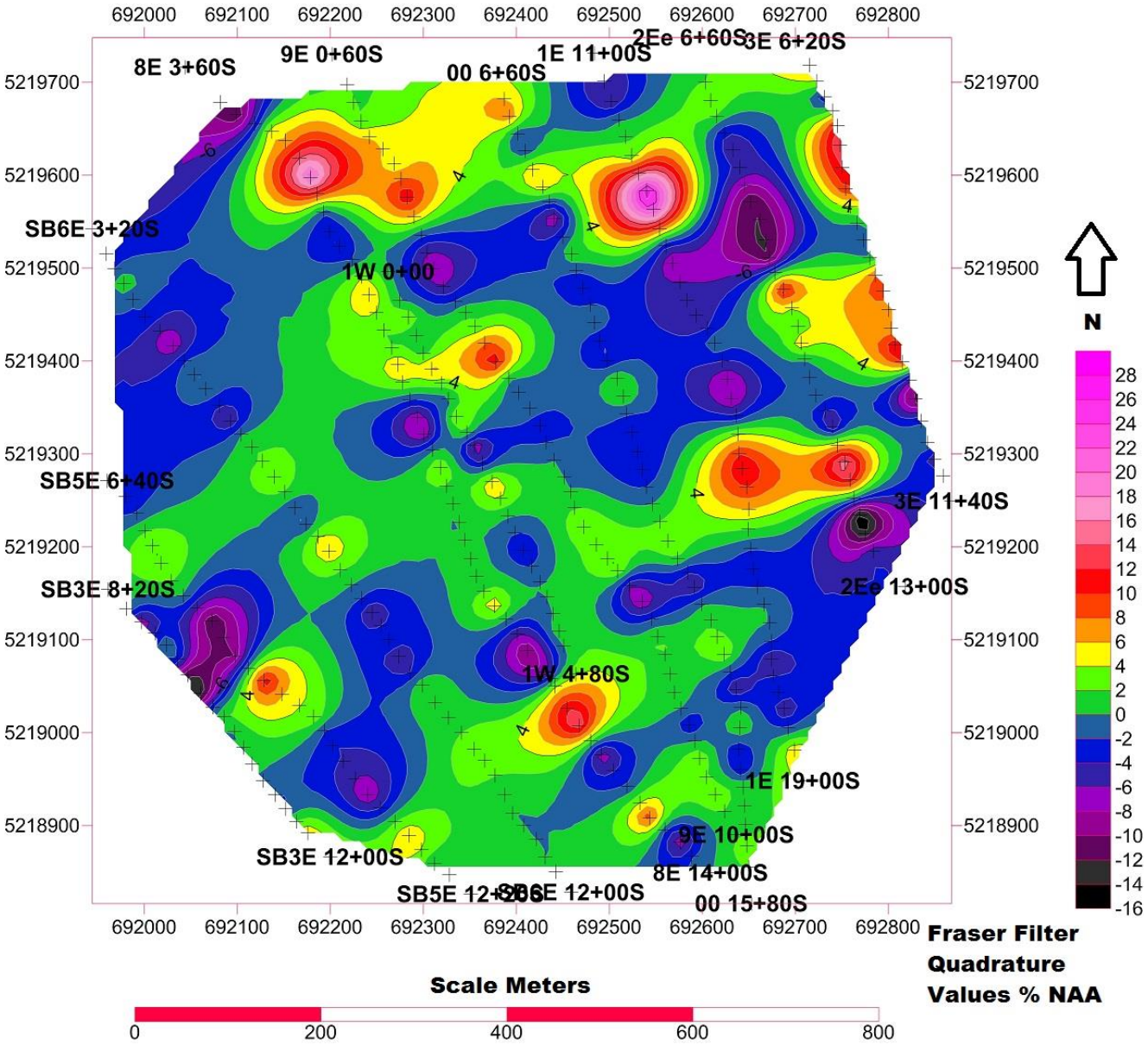
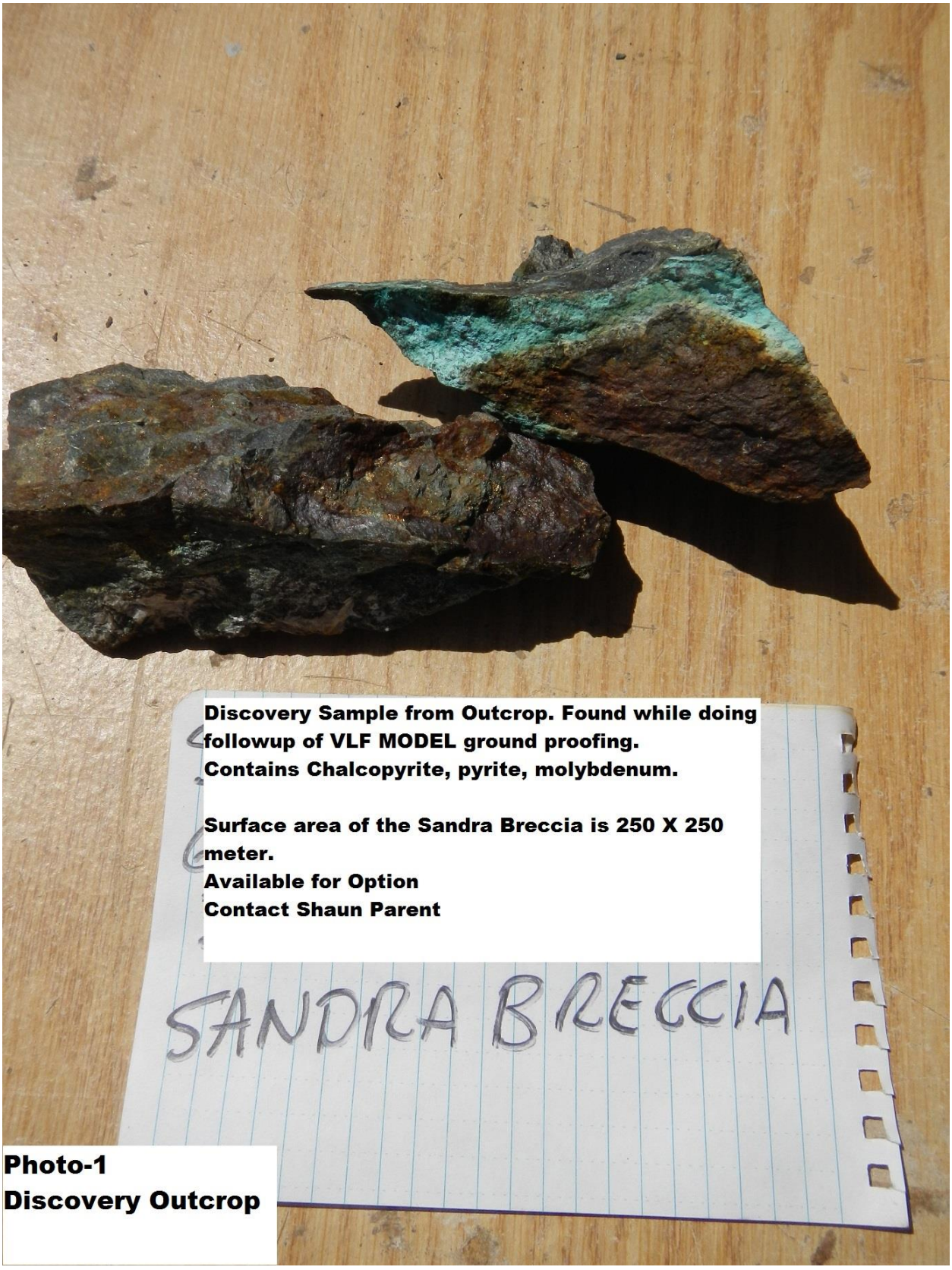


Figure 6 Photo of Discovery Outcrop on Claim 4266871 near claim line with 4273448



Conclusions and Recommendations

The Ground VLF Survey was successful with

1) Discovery of a new mineralization on Claim 4266871 near claim boundary (photo 1)
2) Finding several other VLF Tends in the area surveyed
3) Using the VLF2DMF VLF processing software
4) The discovery of a new Breccia pipe in an area that has been explored since 1953
5) Ground Follow up of VLF trends, to the west towards claim 4266871
6) Further Prospecting and sampling of outcrops near VLF trends
7) More detailed VLF line between those surveyed for more information.

List of References

Geonics Ltd. (1997): Operating Manual for VLF Em-16

McNeil, J.D. and Labson; (1991): Geological Mapping using VLF radio fields. In Nabghian, M.N Ed, Electrical Methods in Applied Geophysics 11. Soc. Expl. Geoph, p.p. 521-640

Sayden, A.S, Boniwell, J.B; (1989): VLF Electromagnetic Method, Canadian Institute of Mining and Metalurgy, Special Volume 41 p.p. 111-125 of VLF-EM Data

Monteiro Santos, F.A; (2012): VLF 2D V1.2 A program for 2D inversion

Ontario Geological Survey (1990): Airborne electromagnetic and total intensity magnetic survey, Batchawana Area, Ontario. Ontario Geological Survey Map 81447 Scale 1:20,000

Certificate of Qualifications

I, Shaun Parent, P. Geo (LTD.) residing at 282 B Whispering Pines Road, Batchawana Bay, Ontario do certify that:

1. I am a consulting Geoscientist with Superior Exploration, Adventure & Climbing Co. Ltd. which provides VLF Survey-Interpretation-Modelling using our VLF2DMF Software for the Mining Sector worldwide.

2. I am the registered owner of Claim 4273448.

3. I graduated with a Geological Technician Diploma from Sir Sandford Fleming College in 1986.

4. I graduated with a BSc. from the University of Toronto in 1986.

5. I am a member in good standing with the Association of Professional Geoscientists of Ontario #1955 and a member of the Prospectors and Developers Association of Canada.

6. I have been employed continuously as a Geoscientist for the past 27 years since my graduation from University.

7. The nature of my involvement with this assessment report was to carry out the VLF Survey
   As well as to do the interpretation of the VLF using the EMTOMO VLF2D Software of which I have been developing with the software designer Fernando Santos of the University of Lisbon, Portugal.

Dated this 14th day of December 2017

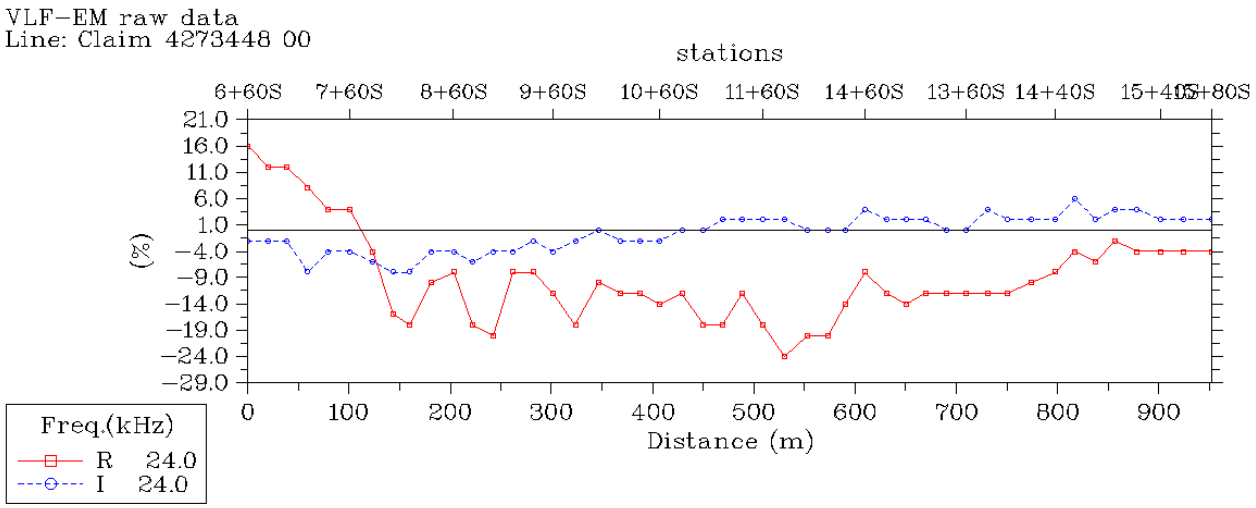
_____

Shaun Parent, P. Geo

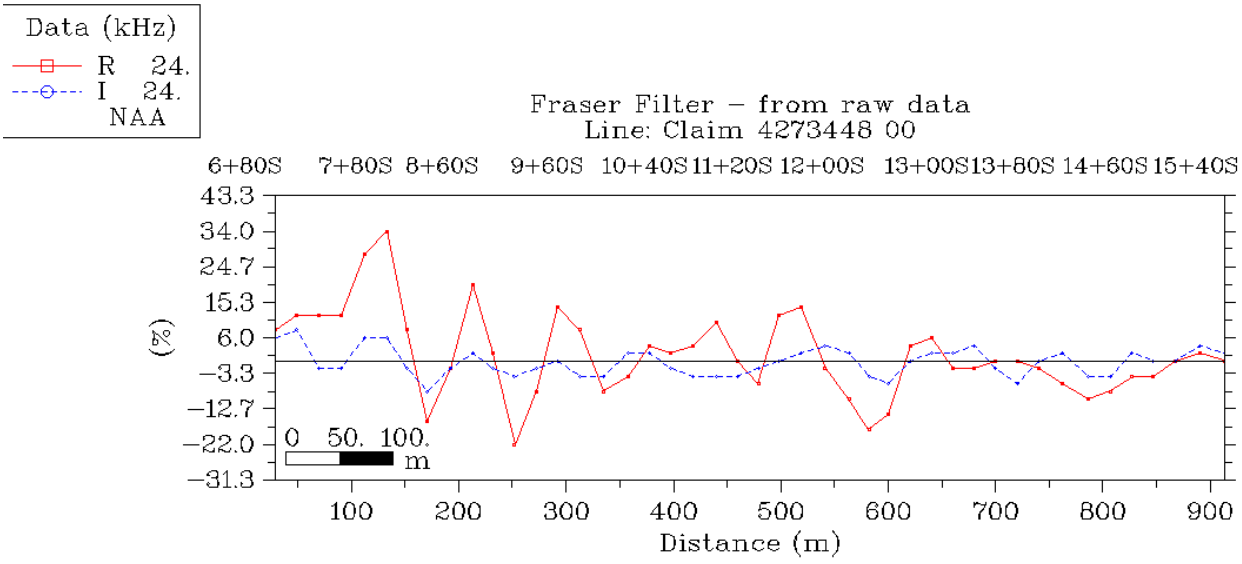
APPENDIX

TX NAA Figures

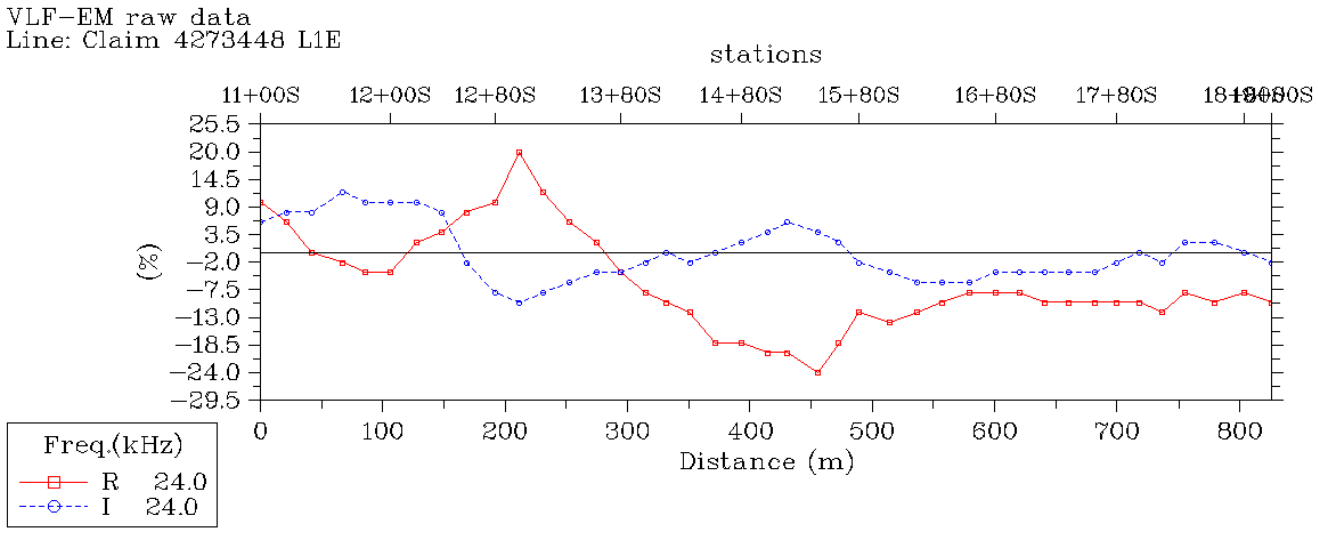
NAA Figure 1 Line 00 Raw Data Profile



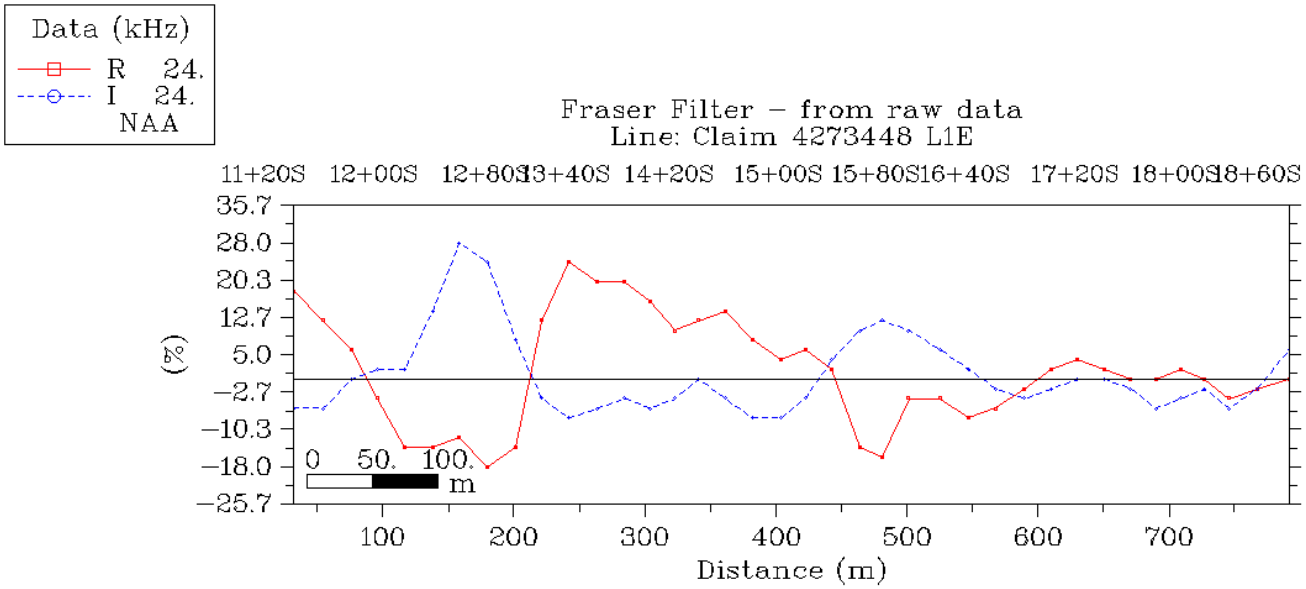
NAA Figure 2 Line 00 Fraser Filter Profile



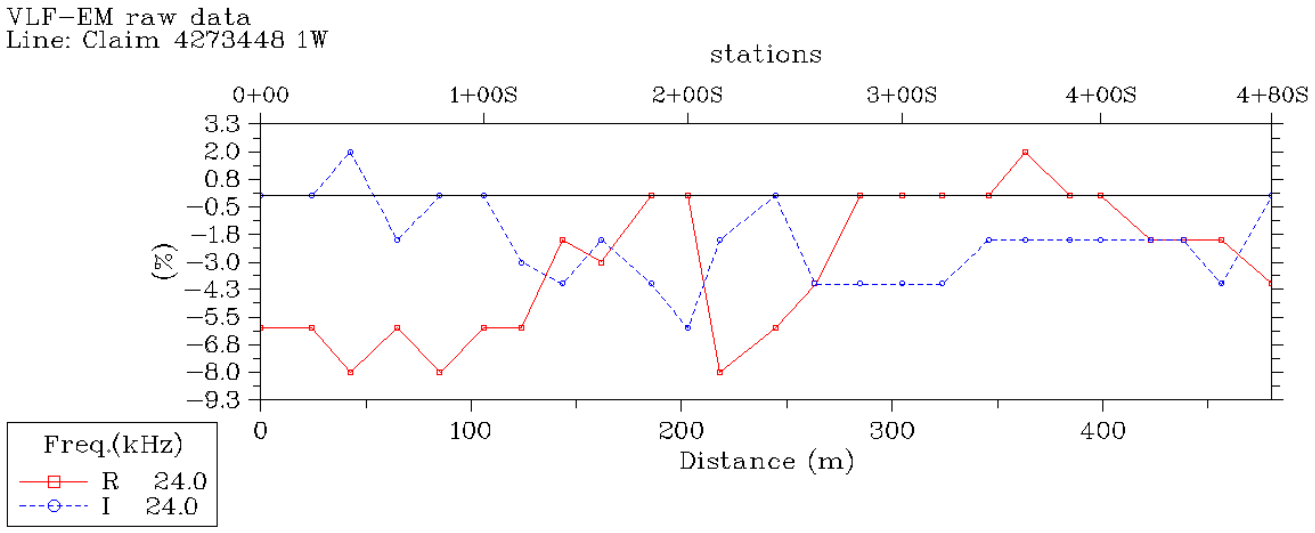
NAA Figure 3 Line 1E Raw Data Profile



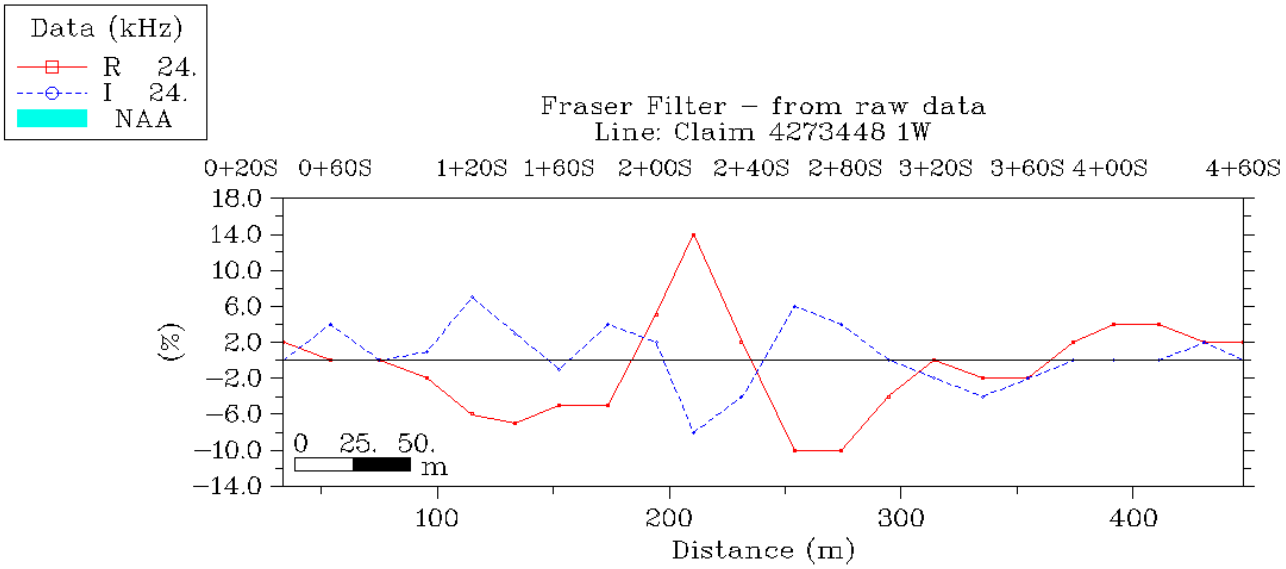
NAA Figure 4 Line 1E Fraser Filter



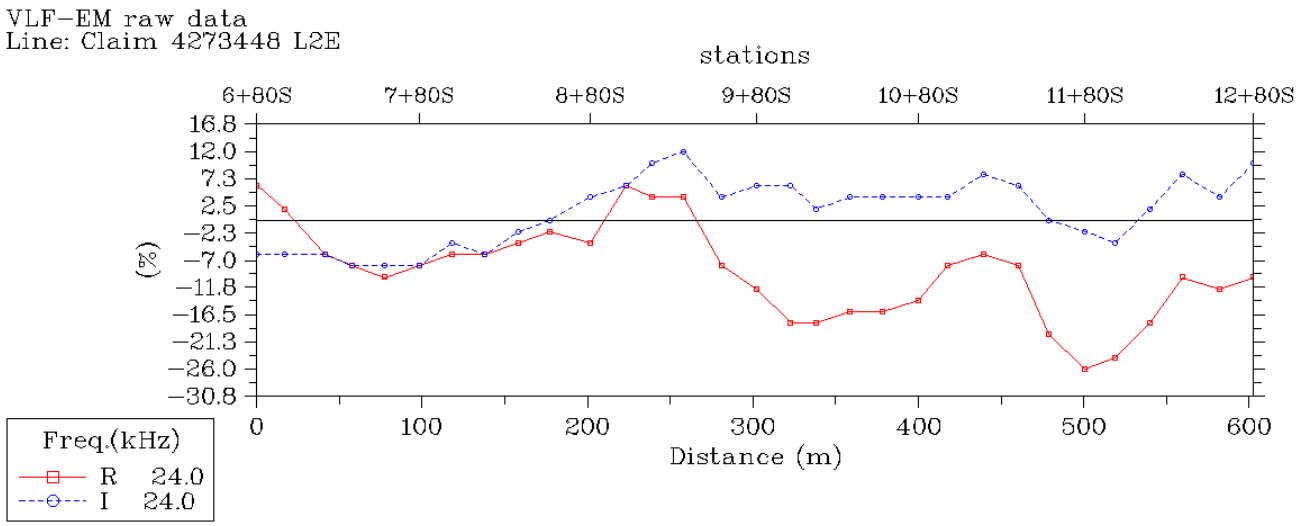
NAA Figure 5 Line 1W Raw Data Profile



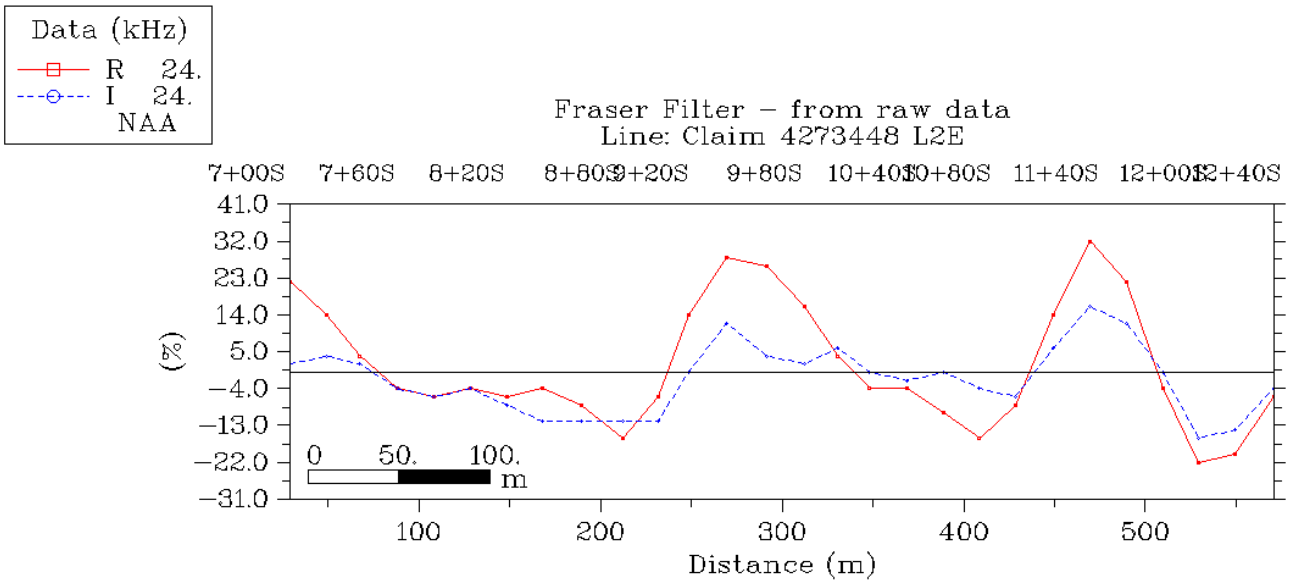
NAA Figure 6 Line 1W Fraser Filter Profile



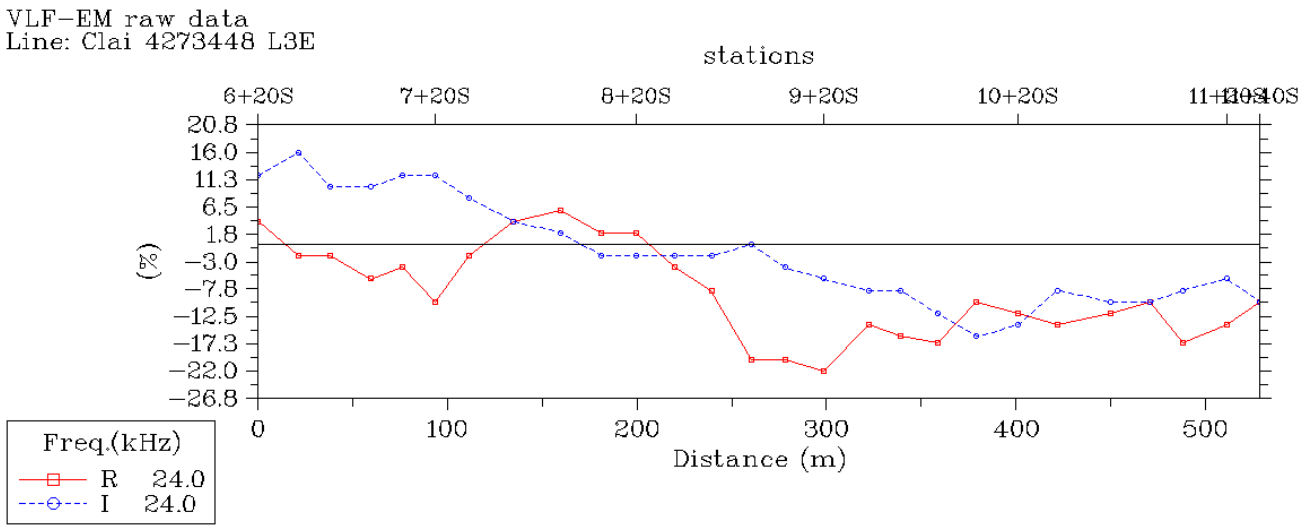
NAA Figure 7 Line 2E Raw Data Profile



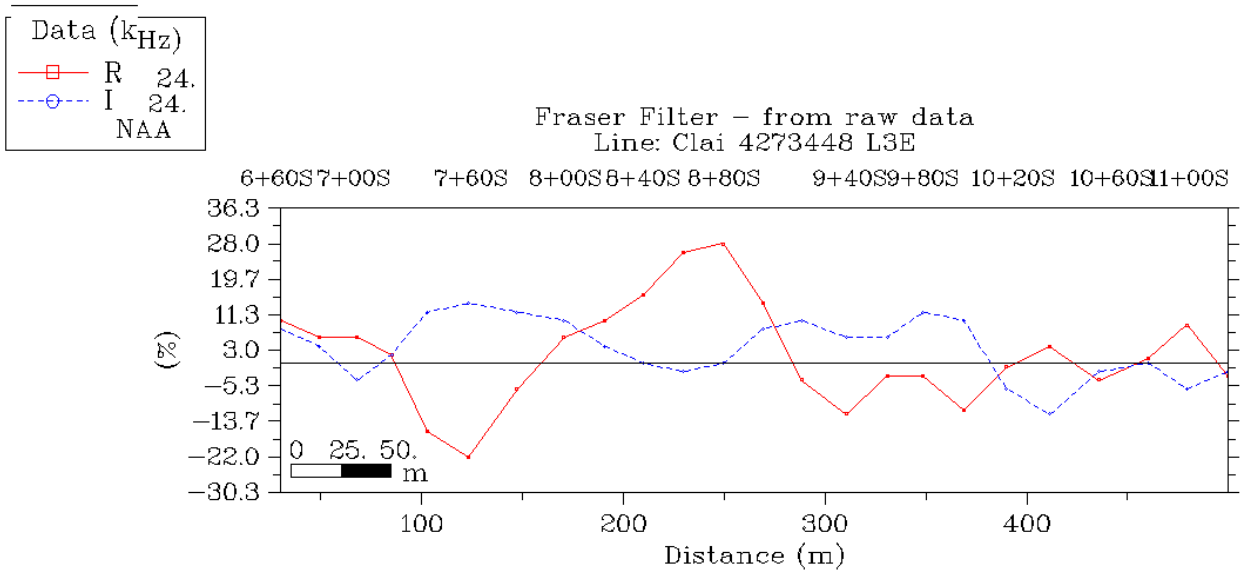
NAA Figure 8 Line 2E Fraser Filter Profile



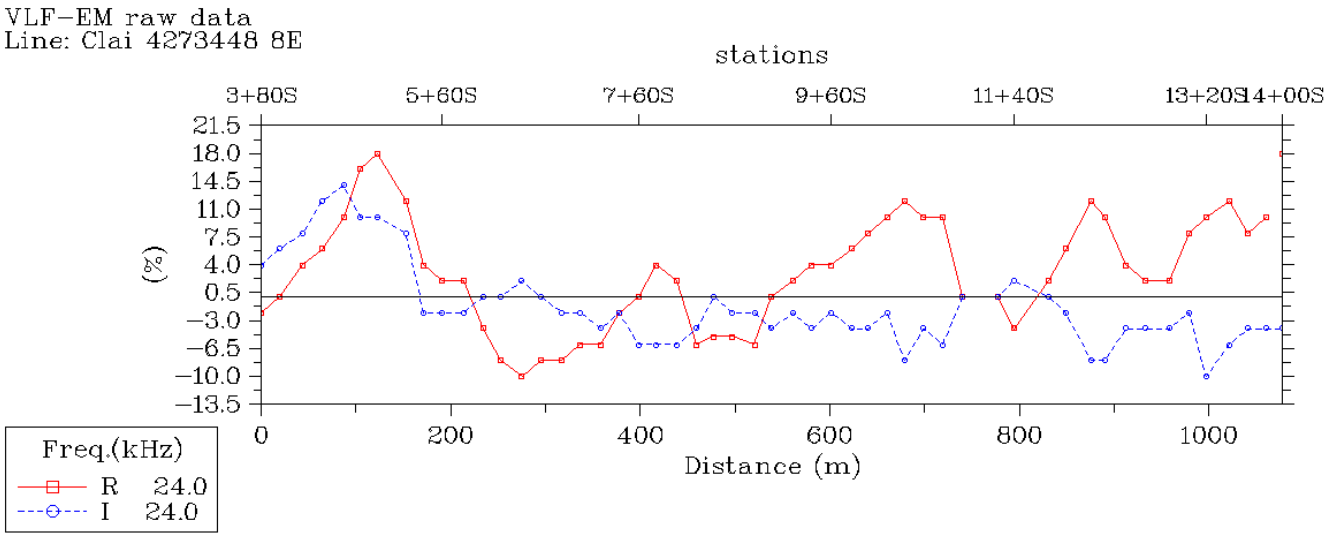
NAA Figure 9 Line 3E Raw Data Profile



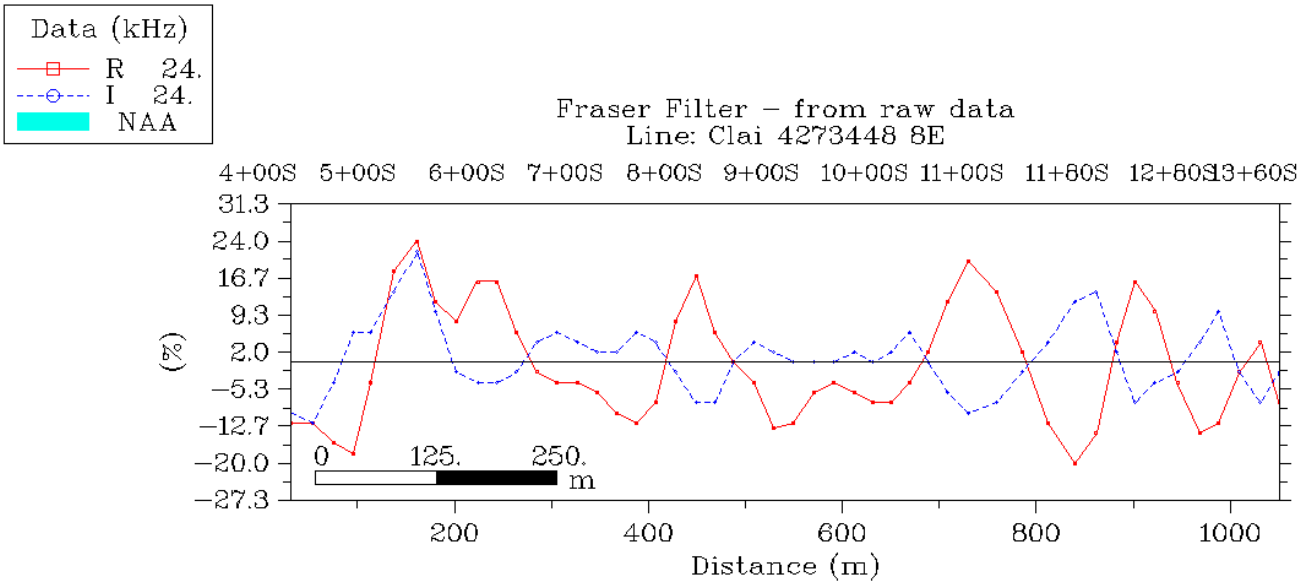
NAA Figure 10 Line 3E Fraser Filter Profile



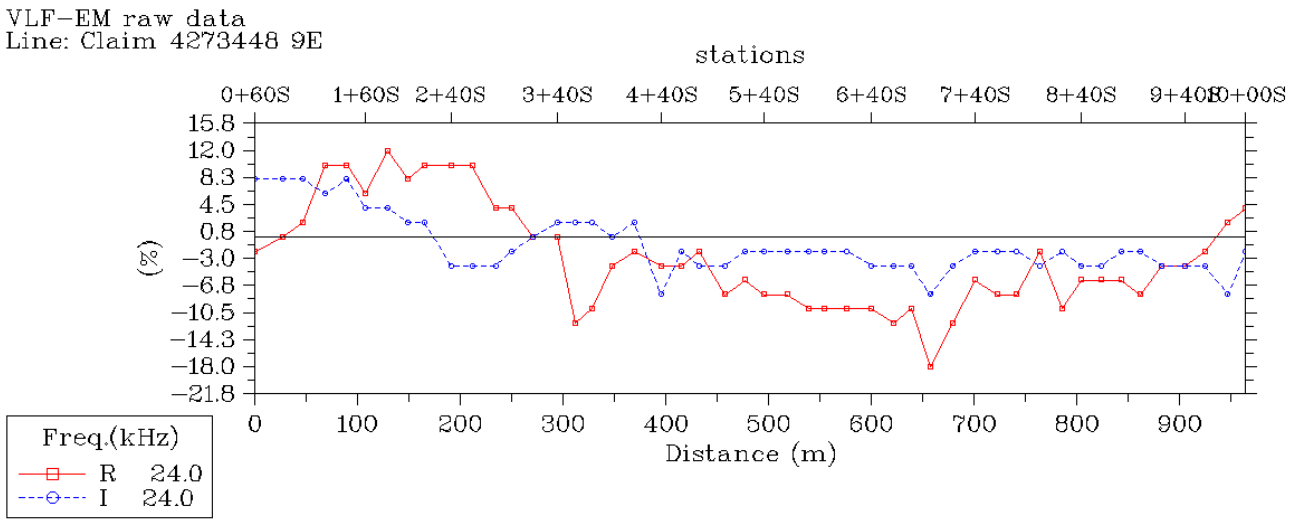
NAA Figure 11 Line 8E Raw Data Profile



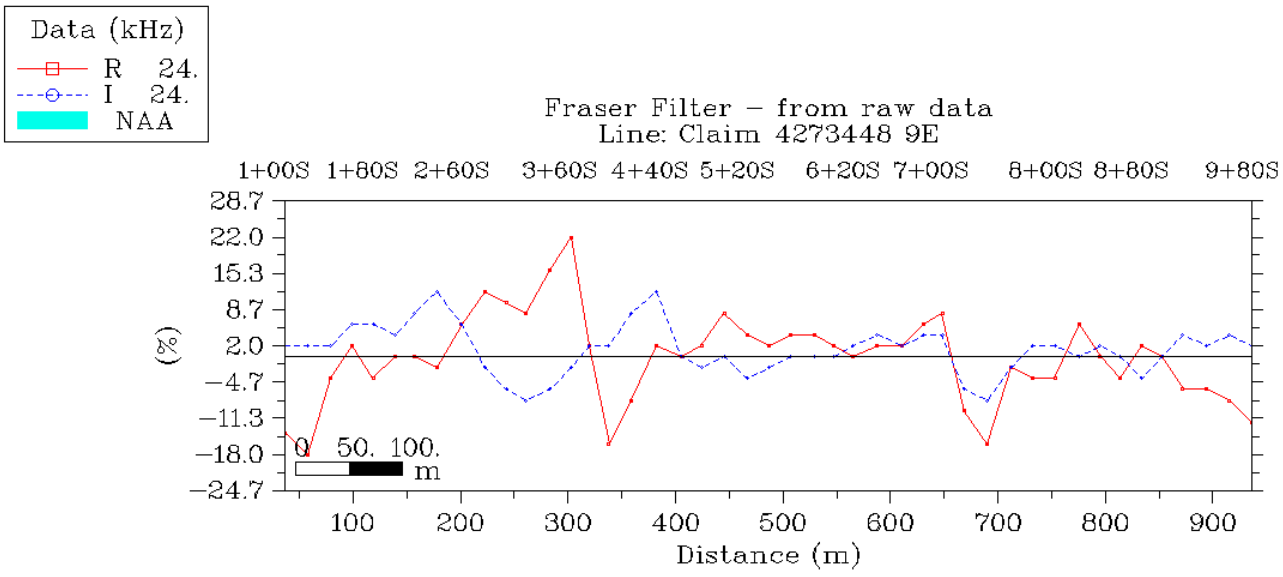
NAA Figure 12 Line 8E Fraser Filter Profile



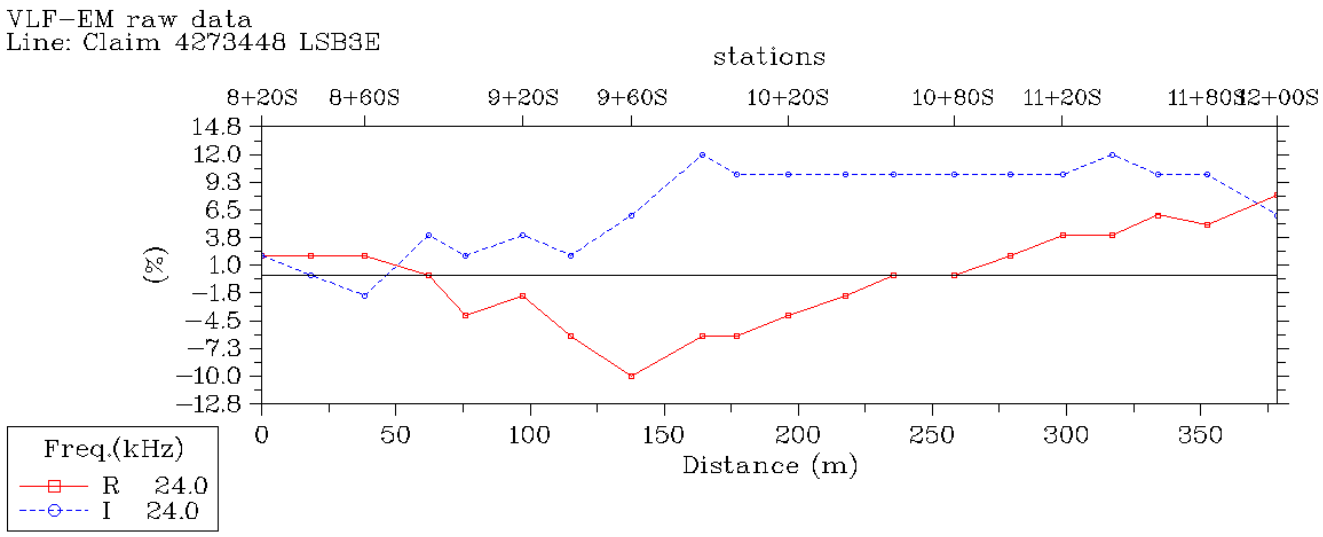
NAA Figure 13 Line 9E Raw Data Profile



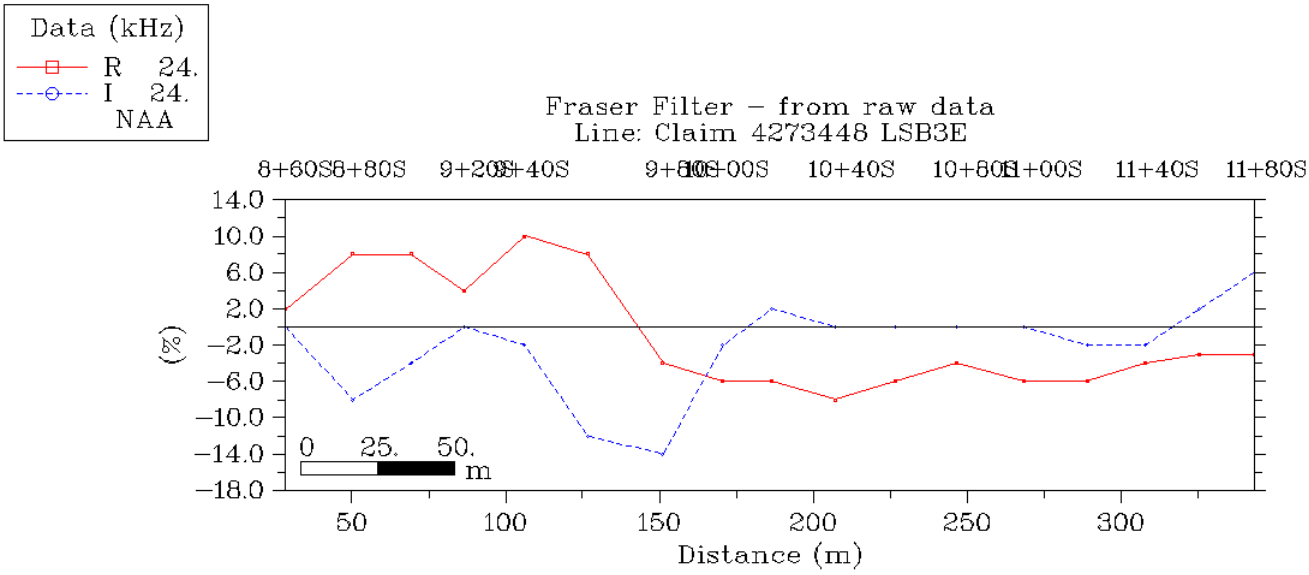
NAA Figure 14 Line 9E Fraser Filter Profile



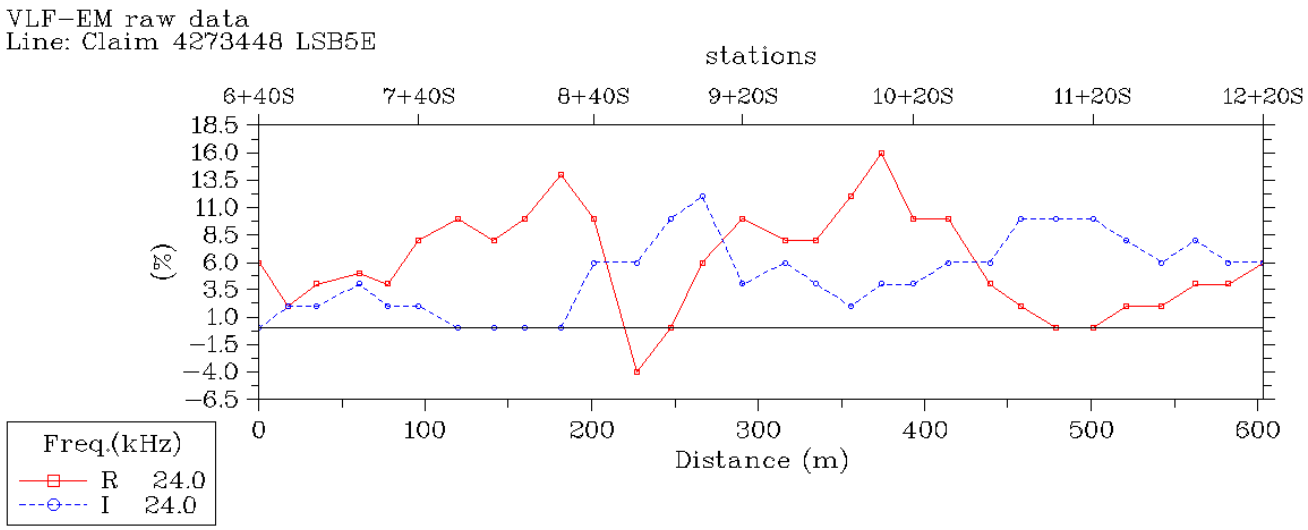
NAA Figure 15 Line SB3E Raw Data Profile



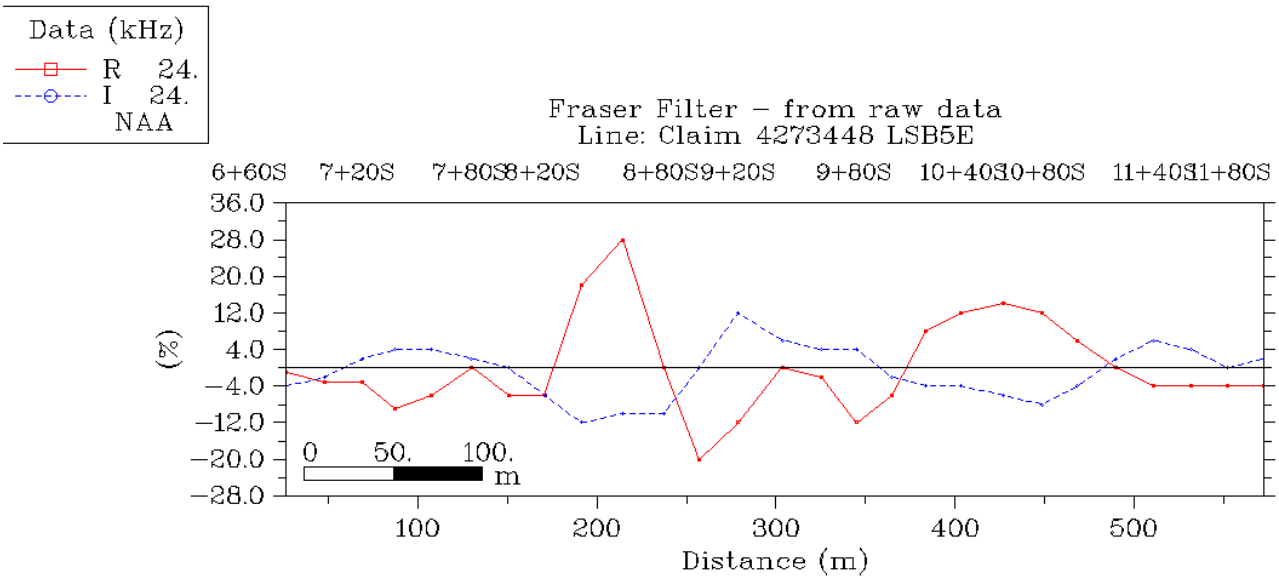
NAA Figure 16 Line SB3E Fraser Filter Profile



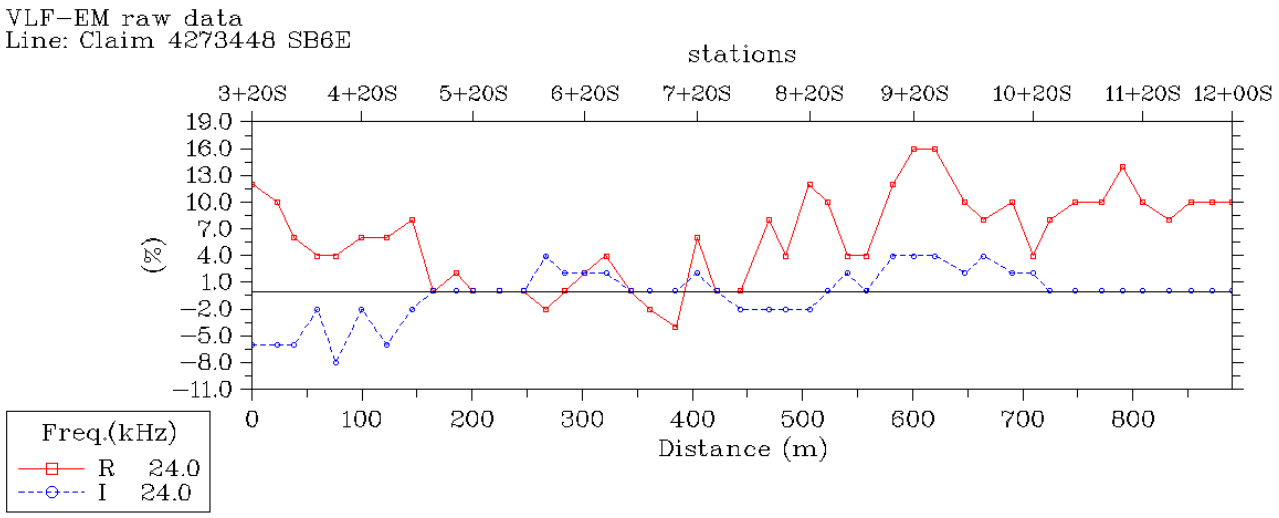
NAA Figure 17 Line SB5E Raw Data Profile



NAA Figure 18 Line SB5E Fraser Filter Profile



NAA Figure 19 Line SB6E Raw Data Profile



NAA Figure 20 Line SB6E Fraser Filter Profile