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Geological Reconnaissance Survey

Report
Casa Berardi South, Québec, Canada

Report submitted to
GREG Exploration Inc.

November 2014

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Ressources naturelles et Faune
18 FEV. 2015
Dir information géologique

REÇU AU MRNF
16 JAN. 2015
DIRECTION DES TITRES MINIERS

GM 68803

1470149

CASA BERARDI SOUTH PROJECT
(32E06/32E11) Quebec, Canada

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Casa Berardi South Project, 32E06/32E11, Québec

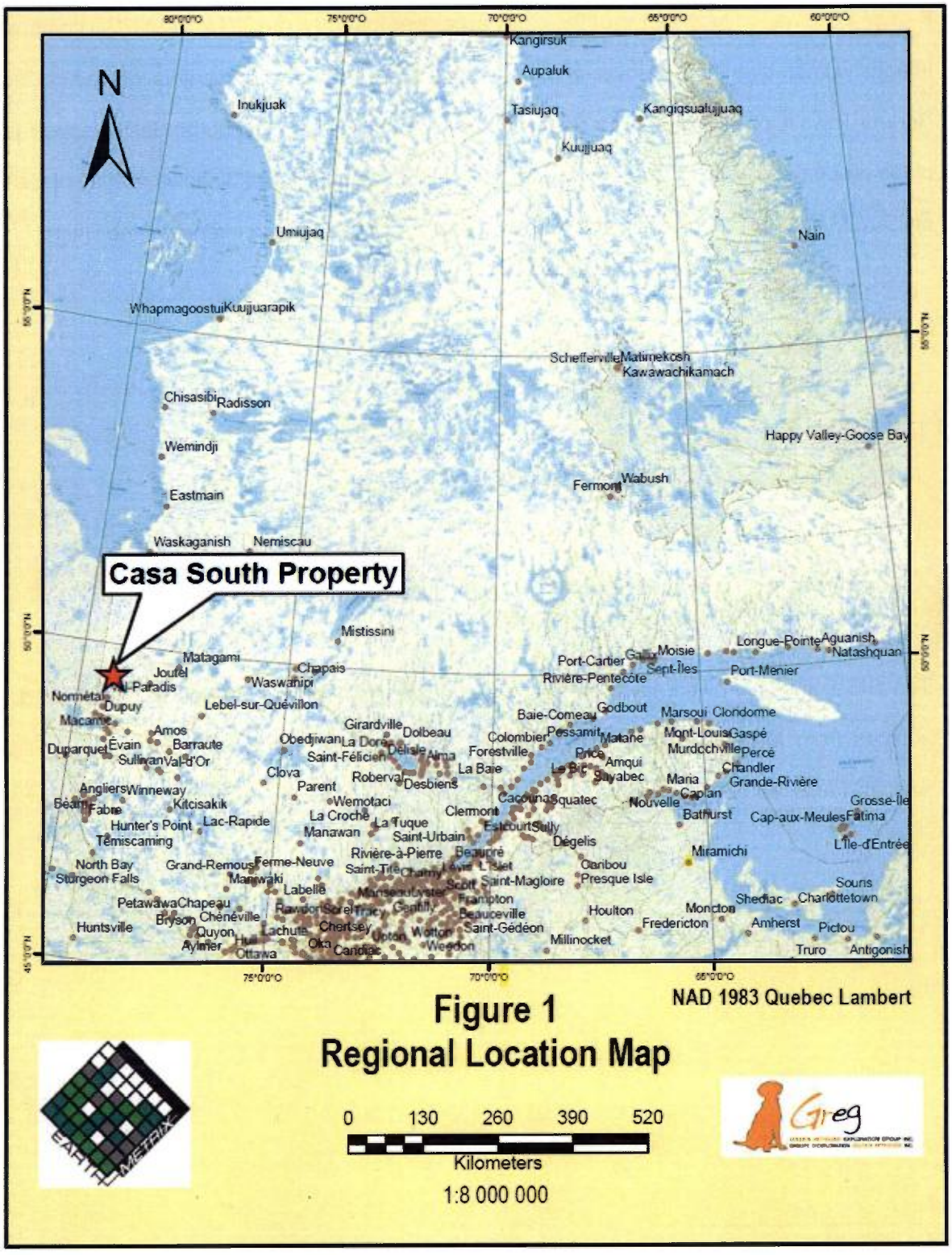
1 INTRODUCTION

EarthMetrix Technologies Inc. conducted a compilation study in the parts of NTS sheet 32E06 and 32E11, Quebec area property (157 claims) between October 8 and November 19, 2014 (**Figure 1 and Section 2**) to select suitable areas for Gold (Au) and Base Metals exploration and to define Diamond Drill Hole (DDH) targets. This compilation work utilized various data sources for interpretation including assessment work files available from Ministry de l"Énergie et des Ressources Naturelles (MERN), geophysical data (total magnetic field and vertical gradient), Digital Elevation Model (DEM), as well as LANDSAT multispectral imagery (**Section 3**). Geologically, the area is a part of volcano-sedimentary Abitibi-Greenstone Belt with mafic and felsic volcanics with gabbroic and porphyry intrusions as well as iron formation and metasediments (**Section 4**).

This compilation also utilized Image fusion method to delineate topographic variations. For this, shaded relief image was combined with total magnetic field (**Section 5**). Based on available geological information, geophysical data, and image interpretations, we proposed 11 DDH targets (**Sections 5 and 6**).

Both authors (Alain Moreau and Yask Shelat)) haven't visited the study area site. Additional exploration work is planned at the recommended site in 2015.

Figure 1 Regional Location Map of Study Area



2 LOCATION AND ACCESS

Figure 2 shows the localization of the study area over the LANDSAT (TM 742) RGB composite images with an overlay of metallic and non-metallic showings. The property is located in Casa-Berardi Township, ~90km N of La Sarre and 30 km E of Quebec-Ontario border. The west part of the property is easily accessible by gravel roads (**Figure 2**). **Figure 3** shows overlay of claims on LANDSAT (742) RGB composite with title numbers for the exact reference of the claims.

3 DATA

This study used following data sources:

1. Total Magnetic Field and Vertical Gradient (**MERN**)
2. Digital Elevation Model[1]
3. LANDSAT image with 30 m resolution
4. Fusion imagery of shaded relief and Total magnetic field

The GIS compilation work involves analysis and interpretation with the use of available data sources from MRN that includes regional geological map, outcrop map, diamond drilling, regional faults, and EM anomalies.

[1] Downloaded from http://www.geobase.ca/geobase/en/index.html

Figure 2 Detailed localization of study area over LANDSAT RGB composite (7, 4, 2) imagery (Scale 1: 100,000)

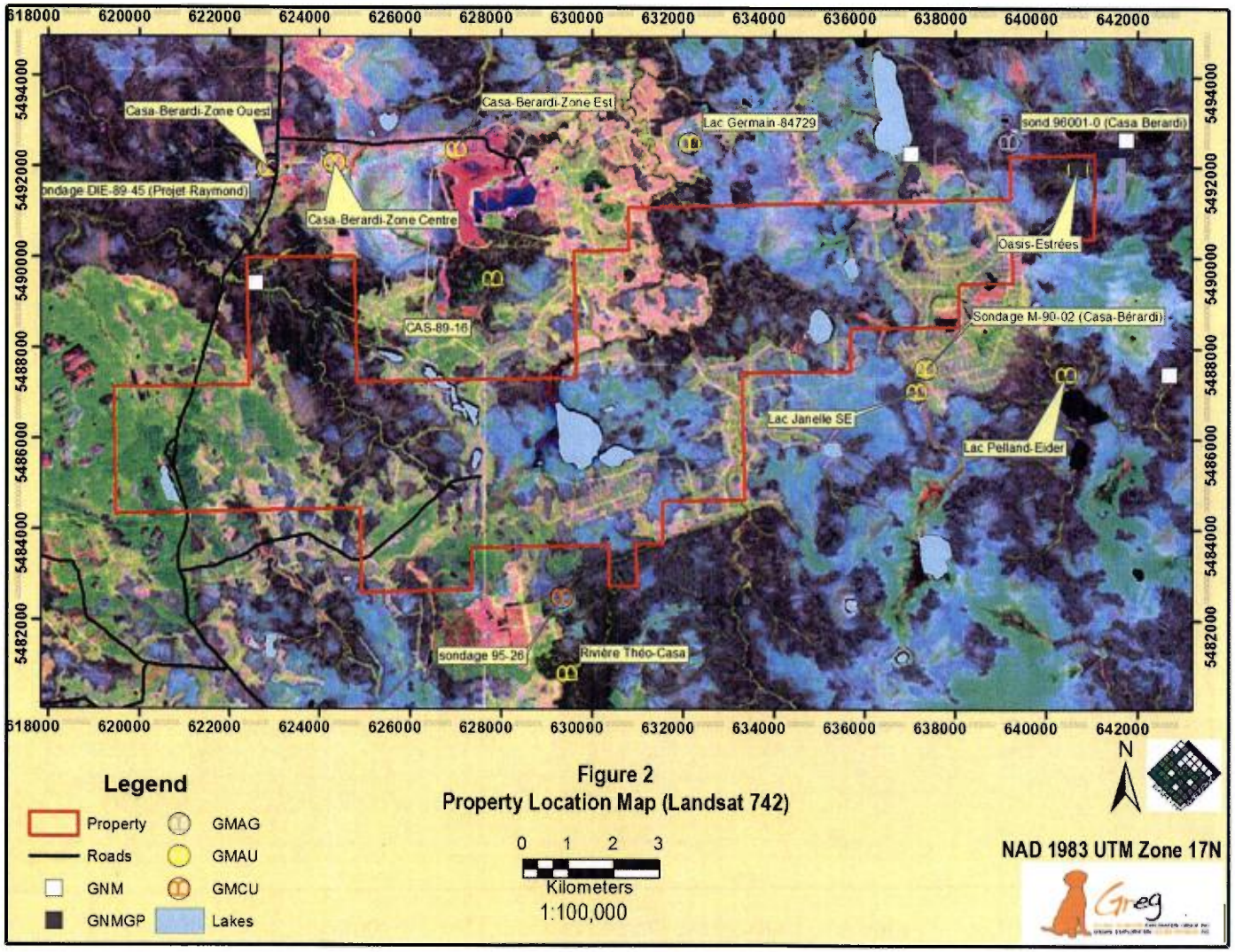
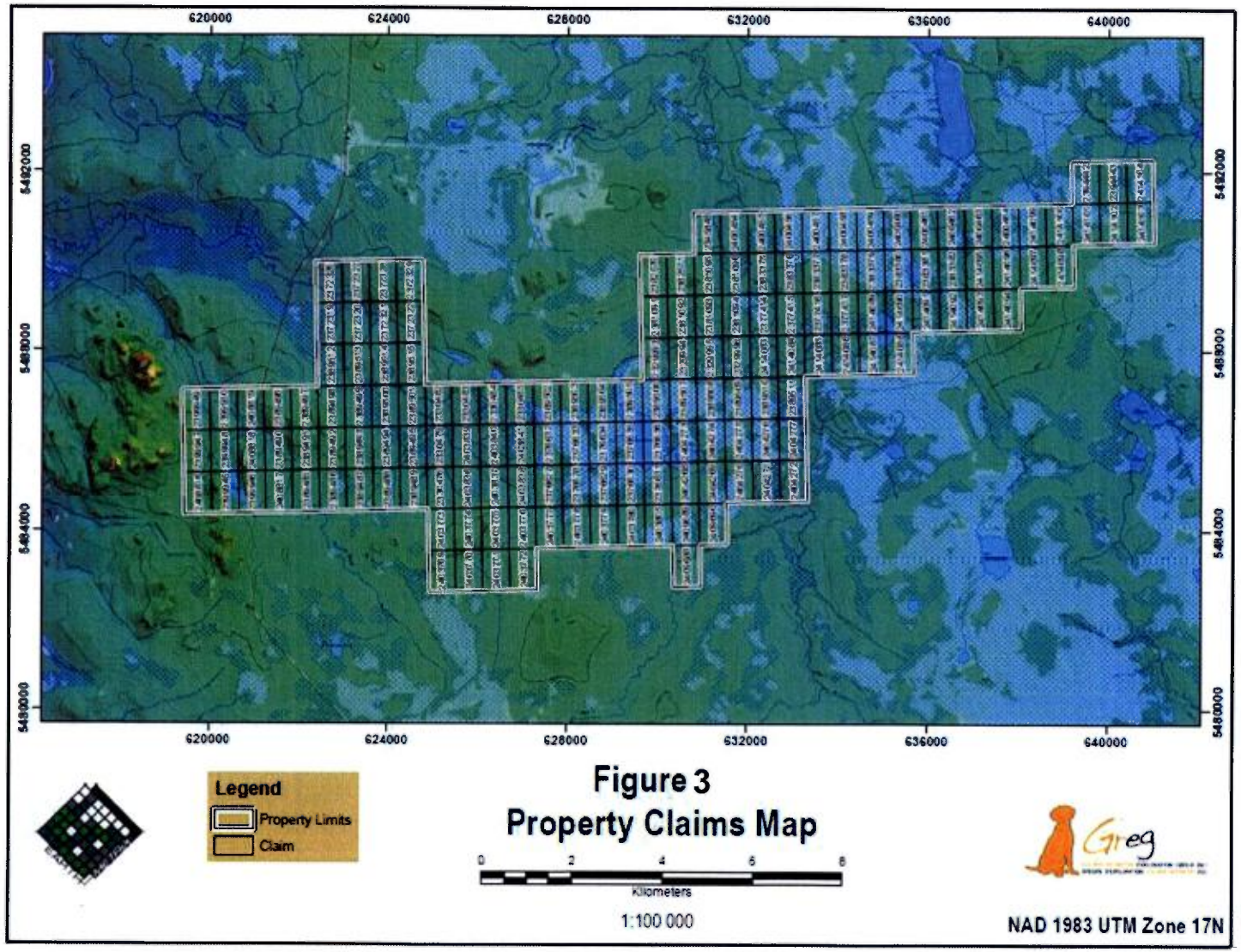


Figure 3 Property Claims Map (Scale 1:100,000)



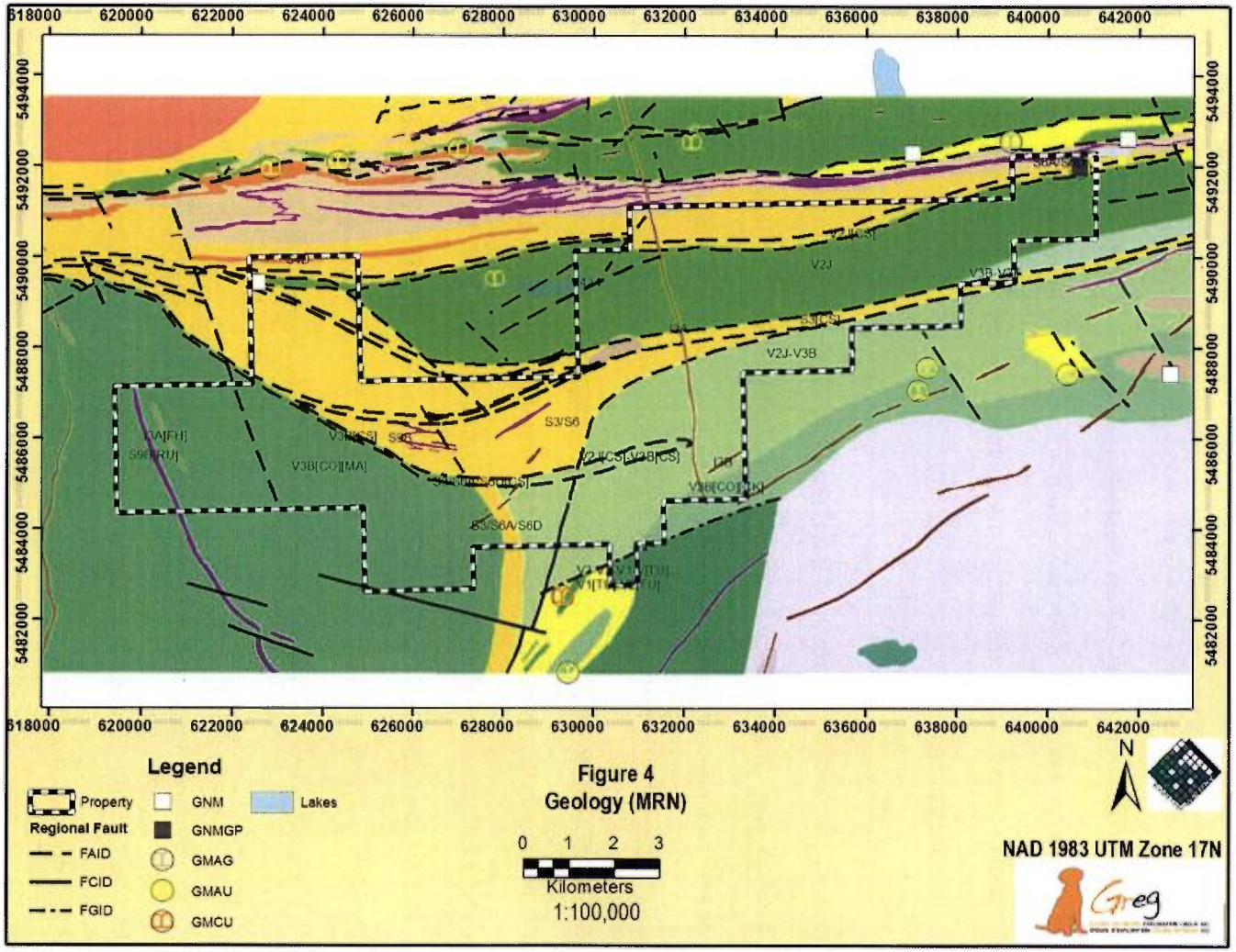
4 GEOLOGICAL SETTING

Figure 4 presents the geological outlook of the study area. The study area is located within the Superior Geological Province of Canadian Precambrian Shield. The study area is a northern part of volcano-sedimentary Abitibi-Greenstone Belt. There is a well-known E-W oriented regional deformation corridor, which hosts large number of gold deposits in Abitibi region. Regionally the area consists of Archean aged volcanic and sedimentary rocks with greenschist to amphibolite facies. They are intruded at places with dioritic intrusions as well as NW-SE oriented diabase dykes.

This property is located just south of the Casa-Berardi mine. Overall the study area consists of the Archean age mafic metavolcanics flows, intermediate to felsic tuffs and breccias. Additionally, sedimentary clastic units were also deposited during hiatuses in volcanic activities. Moreover, sulphide and iron rich deposits were also found along with submerged metavolcanics flow interfaces due to exhalative processes. Presence of iron formation is closely related with the gold mineralization found in Casa-Beradi mine; located just north of the study area. Casa-Berardi type gold mineralization is associated with graphitic shear zones and consists of pyrite-arsenopyrite-native gold bearing quartz-carbonate veins in Archean sediments with carbonates i.e., siltstone, graphitic mudstone, and volcanics including felsic agglomerate, lapilli tuff (GM 43801). Detailed geological legend is presented in **Table 1** along with age and Formation.

There is an Au showing located at the NE corner of the property (Oasis-Estrées). This Showing was discovered during the drilling program, and consists of Au mineralization within quartz vein and associated with disseminated pyrite.

Figure 4 Geological map of the study area with Metallic Showings and a Non-Metallic Showings (Scale 1:100,000)



Note: Legend (lithological units and age covered within property limits) is summarized in Table 1.

Table 1 Description of lithology codes (as in Figure 3) covered within the property area

Color Symbols (Figure 3)	Lithology Code	Type of Lithology	Age and Suite
geo122	Geo161	Diabase	Proterozoic, Dykes de Biscotasing
geo123	Gei162	Gabbro and diabase	Proterozoic, Essaim de dykes de Matachewan
geo141	Geo141	Siltstone and mudstone	Archéen, Groupe de Dieppe
geo161	Geo60	Massive and pillow basalt	
geo162	Geo 122	Wacke, siltstone et mudstone	
geo163	Geo26	Felsic tuff and intermediate tuff	Archéen, Formation de Théo
geo164	Geo61	Massive and pillow basalt	Archéen, Formation de Valrennes
geo201	Geo45	Andesite and sheared basalt	Archéen, Groupe de Joutel-Raymond
geo26	Geo59	mafic volcanics and felsic tuff	Archéen, Formation de Théo
geo41	Geo41	Andesite	Archéen, Groupe des Collines de Cartwright
geo45	Geo62	Basalt	
geo59	Geo75	Intrusive and ultramafic volcanics	
geo60	Geo123	Altered and sheared wacke and mudstone	Archéan, Groupe de Taibi
geo61	Geo201	Formation of iron oxide facies	
geo62	Geo97	Polymictic conglomerate	
geo75	Geo163	Gabbro	Archean
geo97	Geo164	Gabbro	

5 HISTORIC WORK AND REGIONAL INTERPRETATION

GREG Exploration Inc. collectively owns 157 claims (**Figure 3**) in the area. The objective of this report is to study occurrence of Au during historic exploration work and to determine DDH targets for Au mineralization for future exploration. In this context, interpretations from satellite imagery, geophysical data, and historic diamond drill holes are more emphasized. The study area was explored in details during the past drilling programs. As mentioned in **Section 4**, Au mineralization in Casa-Berardi area is associated with sulphides within graphitic sediments or mafic to intermediate volcanics, hence geophysical survey specially the Electro-Magnetic (EM) survey should be examined carefully. Similarly, in this region, any structural discontinuity oriented E-W is also important due to frequent association of E-W trending structures with Au mineralization in Abitibi region.

Based on geological characteristics, following criteria can be defined to select DDH targets:

- Abrupt change in the geophysical signature that characterises regional fault structures
- Electro-magnetic (EM) anomalies

5.1 Geophysical interpretation

Initially, regional geophysical data were reviewed to obtain an overview along with general lithological characteristics, and to interpret previous unmapped lineaments/structural discontinuities. Vertical gradient data is also useful to interpret linear structural features. **Figures 5 and 6** represent Total Magnetic Field and Vertical Gradient data (**MERN**) respectively with an overlay of regional structures and EM anomaly locations. Majority of study area shows high magnetic signature (**Figure 5**) that represents parts of iron formation, mafic volcanics, and gabbroic rocks. The trends of EM conductors correspond well with regional faults of the area (**Figure 5**).

Figure 5 Total Magnetic Field map with an overlay of regional structures and conductors (Scale 1: 100,000)

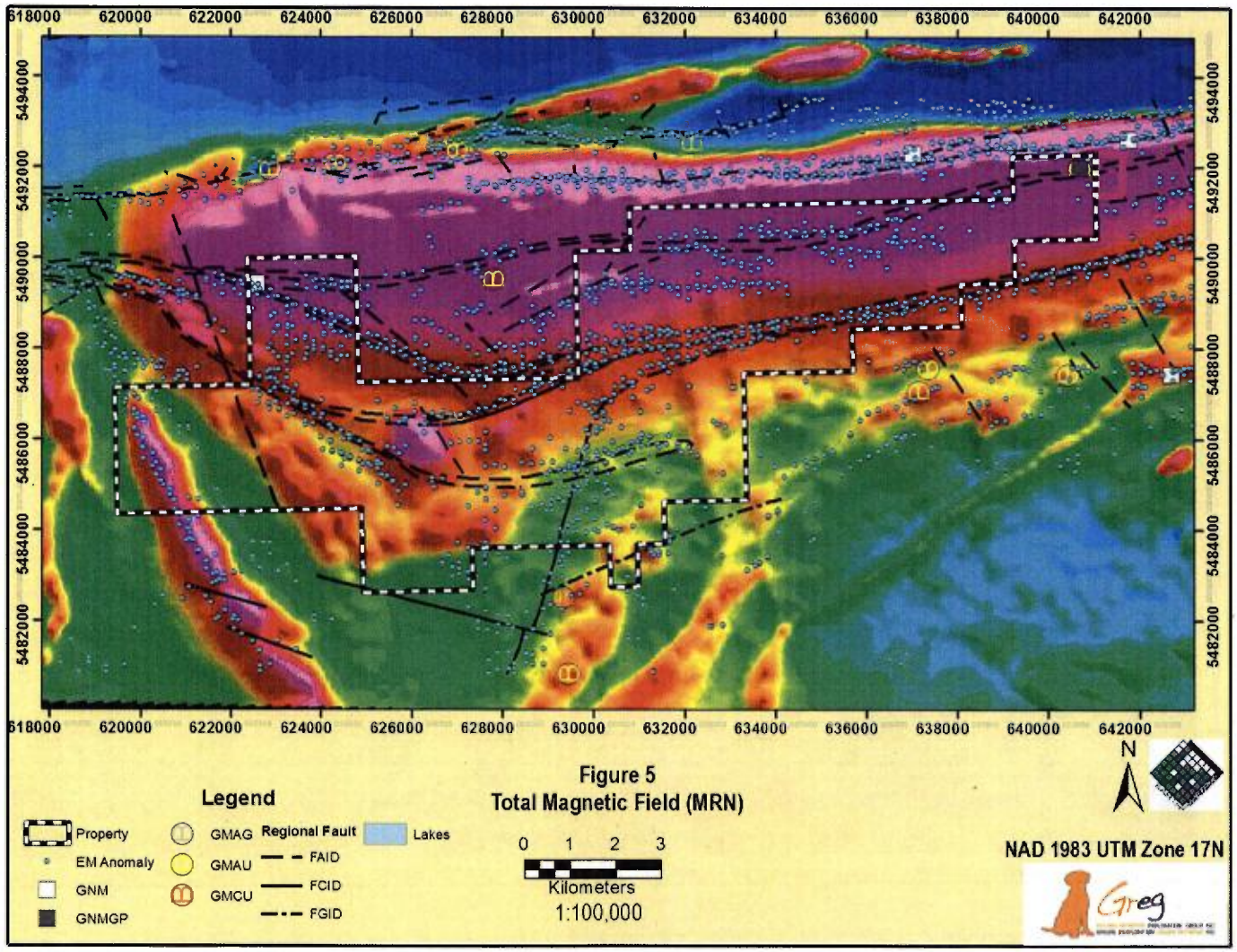
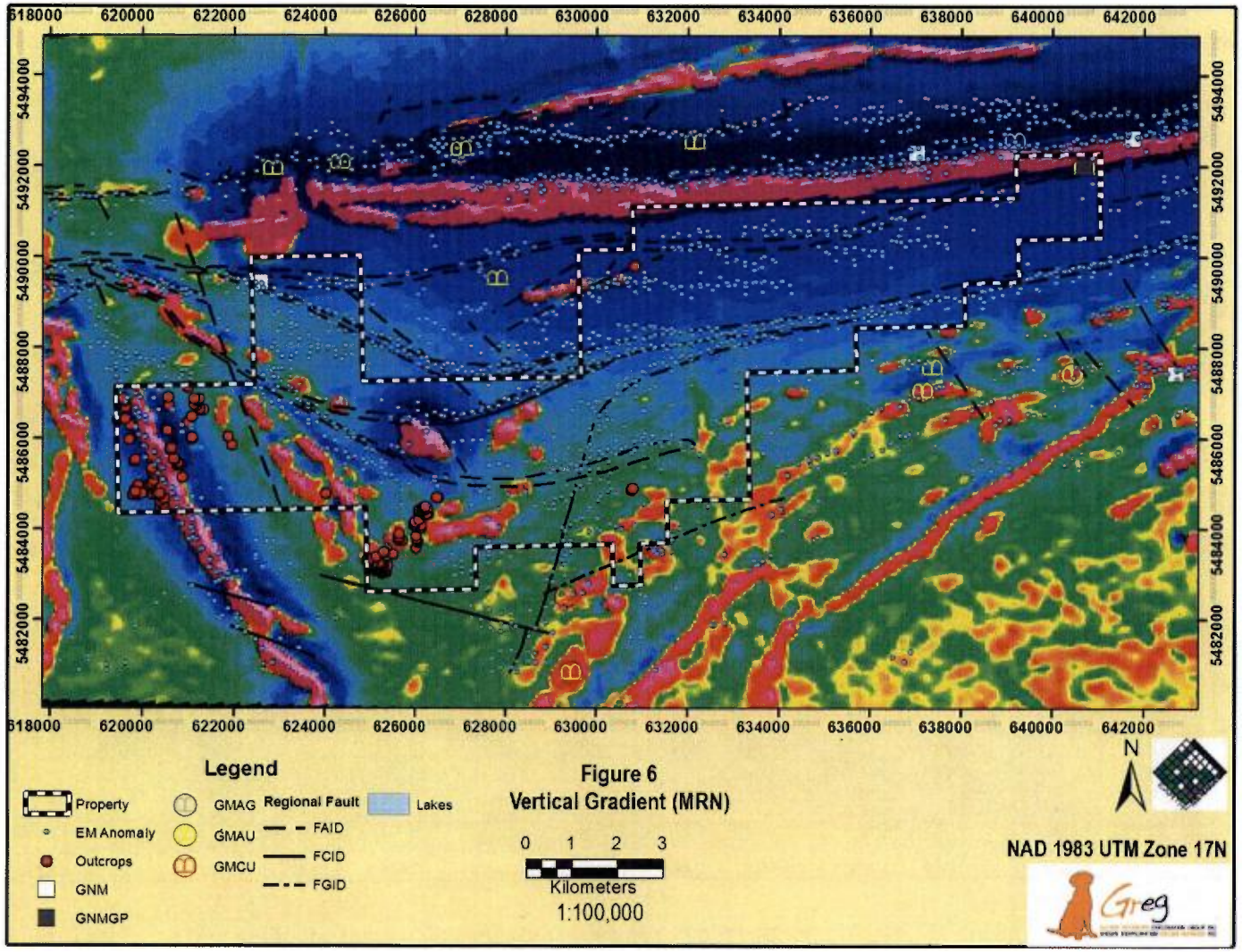


Figure 6 Vertical gradient map with an overlay of conductors, regional structures, and outcrops (Scale 1: 100,000)



This interpretation can be enhanced if image fusion technique is used as explained below.

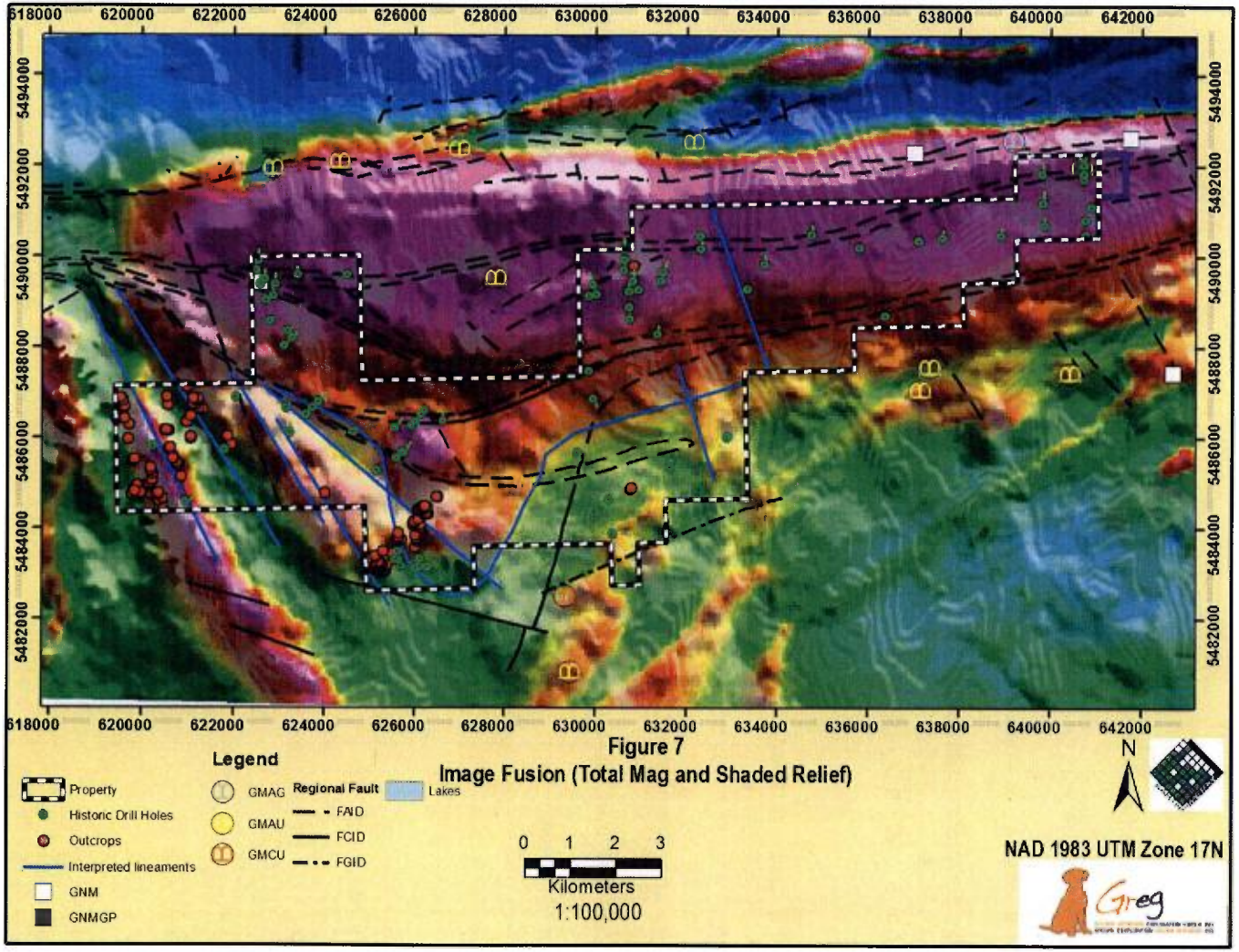
5.2 Image Fusion

The image fusion technique was applied to review topographic overview of the area. For this, a shaded relief was generated from the greyscale DEM[2]. The shaded relief enhances topographic features. In this approach, shaded relief was also combined with total magnetic field to visualize the correlation between magnetic response and topographic variations (**Figure 7**). **Figure 7** shows location of historic drill holes with their traces along with outcrops in the region.

The fusion imagery helped to interpret some of the previously unmapped lineaments. In this area most of the lineaments were already mapped using geophysical data in the past, however this imagery showed number of NW-SE trending lineaments including a fold structure in the southern part of the property. They were interpreted based on the magnetic response discontinuity. High resolution magnetic data may help to interpret this more clearly.

[2] Downloaded from http://www.geobase.ca/geobase/en/index.html

Figure 7 Fusion of Total magnetic field and shaded relief DEM to highlight topographic variations with an overlay of historic Diamond Drill Holes (DDH) and interpreted lineaments (Scale 1: 100,000)



5.3 Historic Drill Hole Interpretation

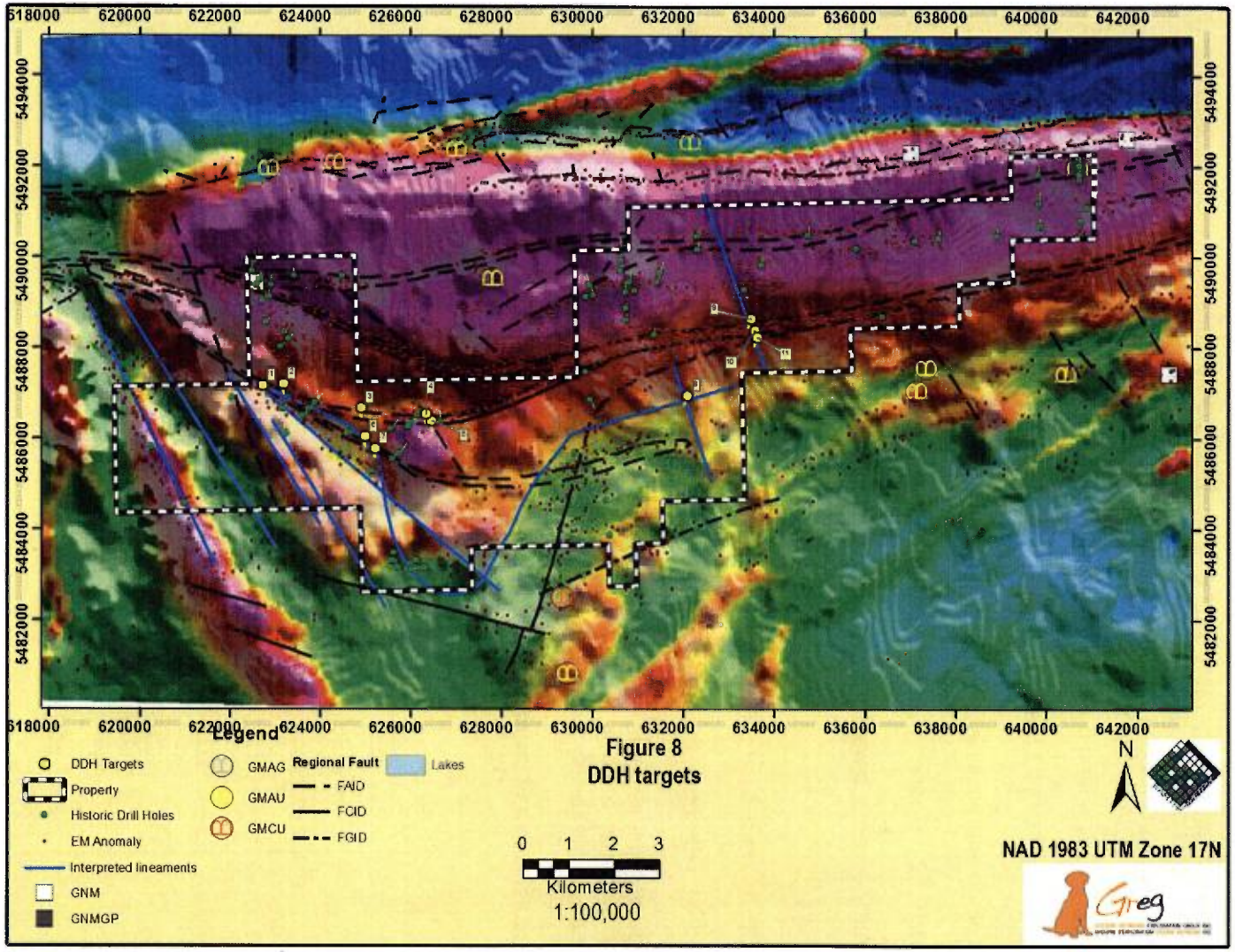
It is important to study past DDH logs and results in order to define new targets, hence historic DDH were studied. There are 84 historic drill holes reported in the property area drilled between 1959 and 1994; from which 8 DDH reported Au values between 0.30 g/t to 2.74g/t (**Table 2**). Most of the drill holes were planned to test the EM anomaly to identify gold associated sulphide mineralization and graphite horizons. The historic drill holes encountered variety of lithological horizons induding felsic to mafic volcanics, and mix of volcano-sedimentary rocks.

Table 2 Diamond Drill Holes (DDH) with Au assay results > 0.30g/t

DDH number	Interval	Interval	Assay result		Lithology	Report
			Au (g/t)	Sb (PPM)		
85-2	303.3-303.8		0.34		Dacitic tuff with silicification and presence of massive to semi-massive pyrite	GM 43452
	309.5-312.5		0.34			
	328.0-331.0		0.34		Dacitic tuff with sheared dark grey quartz and calcitewith pyrite blebs	
85-04	591.6-594.6		0.34		Porphyritic andesite with quartz carbonate vein	
85-07	81.3-82.3		0.34		Porphyritic andesite with quartz carbonate vein	
	277.8-280.2		0.34		Iron carbonate within porphyritic andesite	
	302.0-305.0		0.34			
85-8	150.0-151.0		0.34		Greywacke with quartz vein	
	318.7-322.2		0.34		Greywacke with sericitication	
	587.9-589.4		0.68		Greywacke with quartz/carbonate vein	
	597.1-598.6		0.68		Greywacke with quartz and pyrite blebs	
	610.5-611.5		0.34		Greywacke with white quartz	
	619.8-620.8		0.34		Greywacke with quartz-carbonate veins	
85-10	131.6-133.1		0.34		Greywacke with dark grey quartz veinlets	
	169.8-172.0		2.74		Intense silicification and fine grained graphitic pods and lances within lithic greywacke	
	172.0-174.0		0.34		Dark grey quartz veinlets with pyrite blebs within lithic greywacke	
	182.8-183.8		1.02		Greywacke with quartz and pyrite blebs	

DDH number	Interval	Interval	Assay result		Lithology	Report
			Au (g/t)	Sb (PPM)		
	185.3-186.3		0.34		Greywacke with pyrite blebs	GM 43452
85-11	211.8-212.8		0.68		Chloritic schist with quartz-carbonate vein	
	212.8-213.8		0.34		Chloritic schist with quartz-carbonate vein	
85-13	258.2-260.2		0.34		Lithic greywacke with pyrite cubes (1-2%)	
	324.5-326.5		1.71		Lithic greywacke with light grey quartz with disseminated pyrite (1-5%)	
86-3	112.8-113.5	0.7	Nil	180	Mudstone and fine ash tuff interbeds with graphite, pyrite (2-5%)	GM43699
86-5	74.1-75.1	1	Nil	240	Mudstone-ash tuffs with cataclasts and quartz-ankerite veins, and disseminated pyrite	
	75.1-75.7	0.6	Nil	400		
	75.7-77.2	1.5	Nil	122		
	77.2-78.7	1.5	Nil	108		
	78.7-80.1	1.4	Nil	106		
	80.1-81.7	1.6	Nil	184		
	81.7-82.5	0.8	Nil	1800		
	82.5-83.1	0.6	Nil	1600		
	83.1-84.0	0.9	Nil	560		
	84.0-84.3	0.3	Nil	680		
	84.3-84.6	0.3	Nil	3800		
	84.6-86.1	1.5	Nil	880		
	86.1-86.7	0.6	Nil	5220		
	86.7-87.5	0.8	Nil	760		
	87.5-88.4	0.9	Nil	460		
	88.4-89.3	0.9	Nil	366		
	89.3-90.9	1.6	Nil	422		
	90.9-92.3	1.4	Nil	116		
	92.3-93.8	1.5	Nil	128		
	99.1-100.6	1.5	Nil	340		
	100.6-101.3	0.7	Nil	184		
	101.3-102.7	1.4	Nil	140		
86-01	43.58-43.89	0.31	0.34		Porphyritic andesite with quartz-carbonate veins	
	76.2-76.80	0.60	0.34		Porphyritic andesite with brown carbonate staining	
	210.0-210.92	0.92	0.34		Amygdaloidal dacite with sheared breccia	
280-87-7	84.27-85.80	1.53	296 ppb		Rhyolite quartz feldspar crystal tuff	GM 46766
280-87-11	136.15-137.46	1.31	411ppb		Basaltic flow with calcite (20-30%)	

Figure 8 Diamond Drill Hole Targets (Scale: 1:100,000)



6 SELECTION OF DRILL HOLE TARGETS

As mentioned in **Section 4 and 5**, it is important to consider EM conductors, regional fault structure, and interpreted fold structures (based on satellite image interpretation).

DDH 1, 2, 3, 4, and 5 are aimed to intersect the regional fault structure as well as existing EM conductors. DDH 4 and 5 are located within mafic volcanics, however they would verify the lithology and possible mineralization at the intersection of regional fault structures. Moreover, DDH1, 2, 6 and 7 are expected to intersect contact between mafic volcanics and metasediments; a well-known contact zone for finding gold deposits in Abitibi area.

DDH 8 is located at an intersection of interpreted lineaments (this study). Similarly, DDH 9, 10, and 11 will check the geological horizons at the intersection of interpreted lineaments and regional fault structures. This DDH program will give additional glimpses into exploration in this area and will identify further zones of interests for future exploration. All the proposed DDH with their azimuth and coordinate information are presented in Table 3 below.

Table 3 Location of proposed drill holes with their approximate length

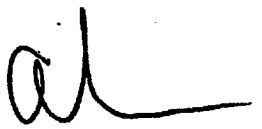
X coordinate[3]	Y Coordinate	Azimuth	Approximate Depth	Sequence in Figure 9
622724	5487169	180	200	1
623168	5487207	180	200	2
624920	5486674	180	200	3
626338	5486536	180	200	4
626465	5486384	180	200	5
624996	5486045	180	200	6
625227	5485787	180	200	7
632088	5486956	200	200	8
633486	5488644	200	200	9
633581	5488390	200	200	10
633618	5488242	200	200	11

[3] Coordinate system: UTM 1983, 18N

7 CONCLUSION AND FURTHER RECOMMENDATIONS

We proposed 11 DDH targets with approximately 200 m depth and recommend following steps for further exploration:

1. More detailed magnetic geophysical survey should be acquired, possibly with a >50 m line spacing to know precise occurrence of conductors. In a next step, the conductors should be correlated with the existing geological map. In case of more conductors found correlated with iron formation, additional drilling targets should be defined.
2. We propose planning a drilling program at all suggested locations (**Figure 9**). The DDH program can be expanded in case of suitable results. However, it is highly recommended to carry out 3-D modelization of DDH before planning drill program.



Alain Moreau, P.Geo.



Yask Shelat, Geologist in training

November 28, 2014

APPENDIX 1

List of Documents

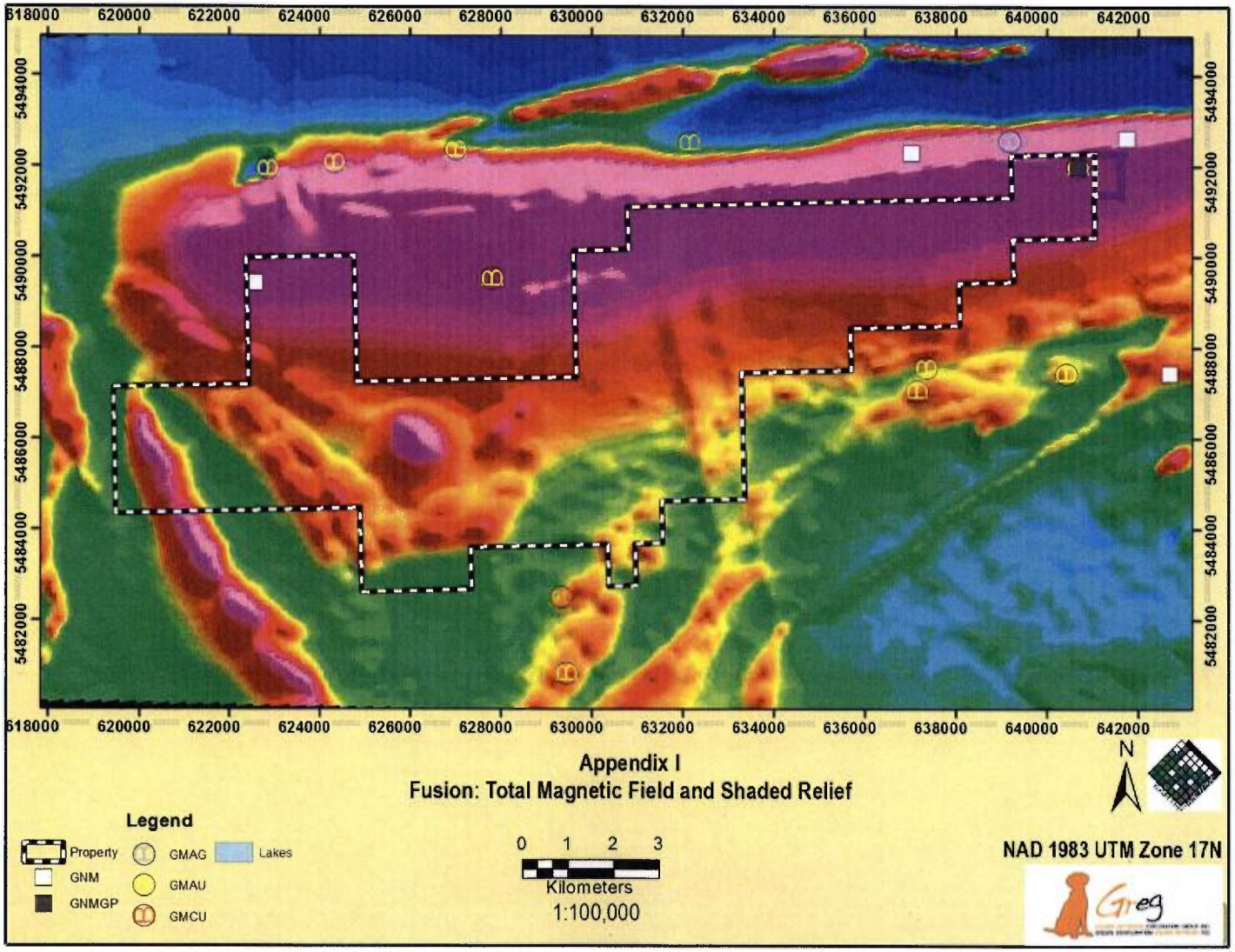
List of Documents

Name	Year
GM43699	1986
GM 43801	1987
GM46766	1987
GM43452	1988

APPENDIX 2

Fusion: Total Magnetic Field with Shaded Relief

Figure III-A: Total Magnetic Field and unenhanced shaded relief fusion image without lineaments (Scale 1: 75,000)



APPENDIX 3
Certifications

Certification

I, Alain Moreau (OGQ #1298), do hereby certify that:

1. I am a geologist, owner of EarthMetrix Technologies Inc., located at 6661, des Écores, Montreal, Quebec, H2G 2J8;

2. I graduated from École Polytechnique de Montréal with a Master Degree in Geological Engineering (M.A.Sc., 1987). I also have an Honours Bachelor Degree from Université de Montréal (B.Sc., 1980). I have practised my profession continuously since that time.

3. I am a member of the Ordre des Géologues du Québec, #1298;

4. I work in the Mining Industry since 25 years;

5. I am responsible for the preparation of this report. The work has been executed between October 8 to November 19, 2014;

6. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this report;

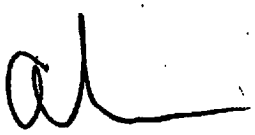
7. I do not have at present any implication or interests in this Project;

8. I am independent from **GREG Exploration Inc.**

9. I have read the NI 43-101 guidelines and have prepared the technical report in compliance with these and in conformity with generally accepted mineral exploration industry practices;

10. I consent the use of this report for assessment work and disclosure to regulatory authorities.

Dated, this **November 28**, 2014, in Montreal, Québec, Canada



Alain Moreau
Geologist, M.A.Sc., P. Geo.

Certification

I, Yask Shelat (Geologist in Training), do hereby certify that:

1. I am a Geology and GIS Specialist, employee of EarthMetrix Technologies Inc., located at 6661, des Écores, Montreal, Quebec, H2G 2J8;

2. I graduated from University of New Brunswick with a Master Degree in Geology (M.Sc. 2012). I also have an Honours Bachelor Degree from Gujarat University (B.Sc., 2007).

3. I am a Geologist in Training;

4. I work in the Mining Industry since 2011;

5. I am supervised in the preparation of this report by Alain Moreau. The work has been executed between October 8 and November 19, 2014;

6. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this report;

7. I do not have at present any implication or interests in the Project;

8. I am independent from **GREG Exploration Inc.**

9. I have read the NI 43-101 guidelines and have prepared the technical report in compliance with these and in conformity with generally accepted mineral exploration industry practices;

10. I consent the use of this report for assessment work and disclosure to regulatory authorities.

Dated, this **November 28, 2014**, in Montreal, Québec, Canada



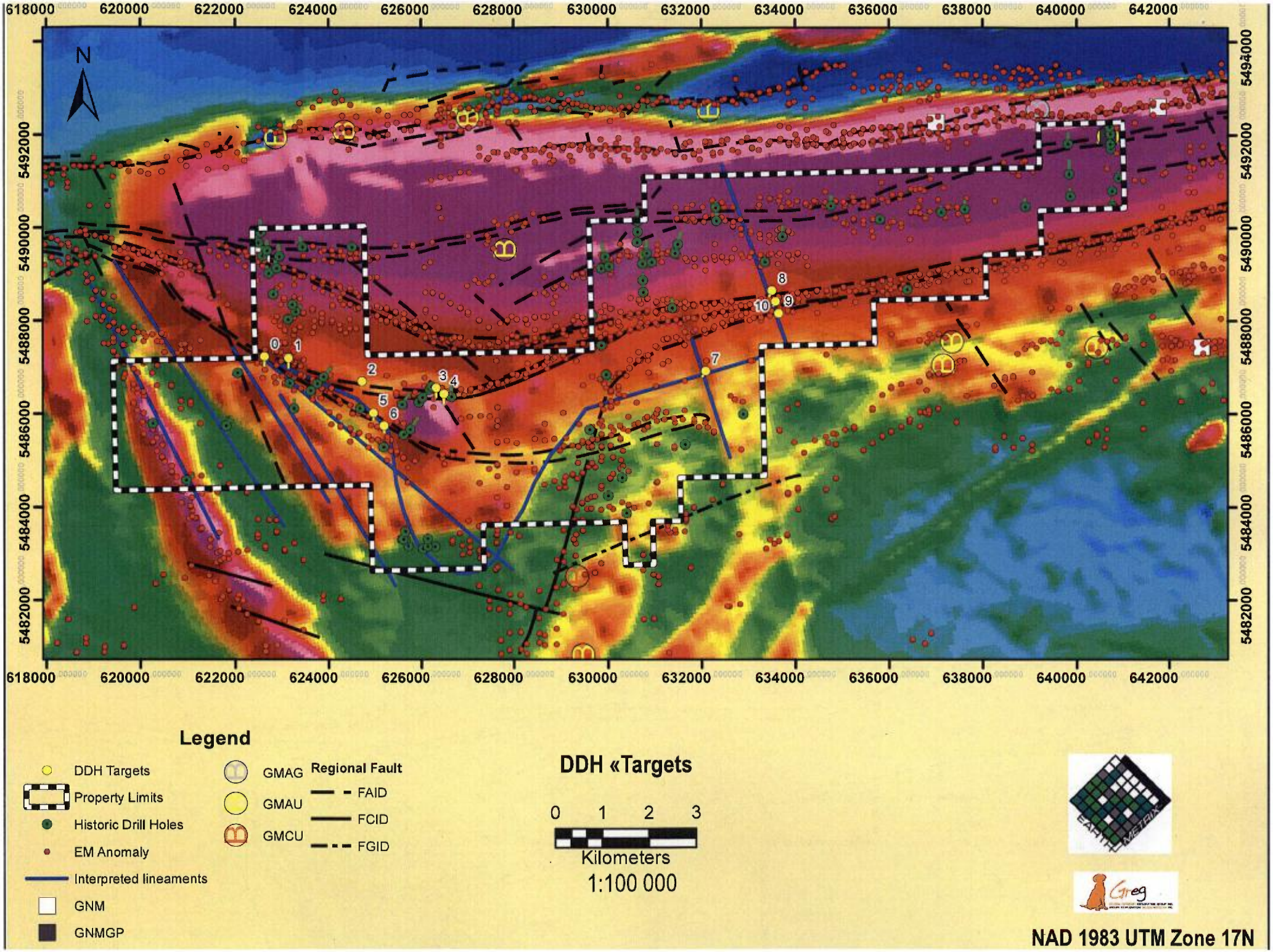
Yask Shelat, Geologist in Training

APPENDIX 4

List of Maps

List of Maps

1. DDH Targets Map


618000
620000
622000
624000
626000
628000
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5494000
5492000
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5488000
5486000
5484000
5482000
N
0
1
2
3
4
5
6
7
8
9
10
Legend
DDH Targets
Property Limits
Historic Drill Holes
EM Anomaly
Interpreted lineaments
GNM
GNMGP
GMAG
GMAU
GMCU
Regional Fault
FAID
FCID
FGID
DDH «Targets
0 1 2 3
Kilometers
1:100 000
NAD 1983 UTM Zone 17N