

2.17269

**ASSESSMENT REPORT ON THE
OPAP PROSPECTING PROJECT
FOR BASE METALS AND KIMBERLITES, 1996-97**

**LUNDY TOWNSHIP
LARDER LAKE MINING DIVISION**

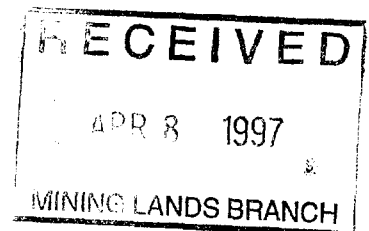
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April 1, 1997



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ABSTRACT & ACKNOWLEDGEMENTS

ABSTRACT

This Ontario Prospectors Assistance Program (Project OP96-101) was an initial prospecting program in Lundy Township, an area which has not received much attention in the past.

The results of the OPAP program as documented in this report outline potential for both base metal and kimberlite occurrences in Lundy Township.

In regards to base metals, the project indicates that the southern part of the Township has elevated levels of Copper and Zinc in the Firstbrook siltstone with assays of up to .2% Cu. Two surface base metal showings were also tested with encouraging results.

In regards to diamond exploration, a promising topographical and structural target was located in Lot 9, Con. 1 as well as other targets derived from the airborne survey and indicator mineral analysis results as reported in Appendix One and Two. The indicator picking revealed pyrope garnets in four of the samples which will be sent for microprobe analysis.

ACKNOWLEDGEMENTS

OPAP funding was of critical importance in providing support for our ongoing exploration work in Lundy and adjacent townships and thanks is due to the Province of Ontario for providing this program.

Thanks is also due to George Pollock who assisted with the field work and all aspects of the project. His thoughtful insights and many helpful suggestions were a major contribution to the project.

Many thanks also to Jim Ireland, Elaine Basa and all the staff at the Resident Geologist's office in Cobalt who were very helpful and assisted in many ways too numerous to mention.

Appreciation is also extended to Blackstone Developments Inc. Of Cobalt for use of Figures 1 and 2, as well as Hawirko & Associates for preparing the final version of those and the other figures.

Finally a word of appreciation to my prospecting associates (and friends) Harold Walton, Brett Medland and Keith Windsor for their help and encouragement.

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1996 OPAP REPORT- OP96-101 - LUNDY TWP.

SECTION ONE

1.1 PROJECT LOCATION AND ACCESS

OPAP prospecting project OP96-101 was located in Lundy Township (see Figure 1) where the writer holds an interest in 124 unpatented claims (some held with others - some 100%) and eight patented claims purchased in 1989 (see details in Table 1 and Figure 2). The properties are accessible from the Hudson Township (Twin Lakes cottage area) or from Highway 558 (Haileybury West Road). During the summer all areas require foot access via rough trails, portaging by canoe and/or float plane access. During the winter months, some areas are accessible by snow machine. Access is generally difficult at all times of the year. This may change if a proposed forest access road is built through west central Lundy Township in 1997.

1.2 PREVIOUS PROSPECTING WORK

Very little work has been done on these claims in the past. A little work was done during the early days of the Cobalt camp on our claims in lot 4, Con. 2, on a quartz vein which contains chalcopyrite in a 15cm wide quartz vein associated with a diabase contact at Moffatt Falls on Moffatt Creek.

Also, Silversides Exploration undertook a total field magnetometer and VLF/EM survey of two of our claim units and parts of two others that are held in lot 9 concession 1 (claims 1212129 and 1212130).

John Pollock had also undertaken some very preliminary surface prospecting and stripping on a

copper showing located on patented claims in the S ½ of lot 3 concession 2 over the past six years.

The only other property with previous work is the Walton copper Prospect which was explored in 1953 by Alex Godzik and in 1975 and minor stripping and pit blasting in later years by Harold Walton and associates. In 1986, K. A. Morgan, P.Eng. undertook a magnetometer/ VLF/EM field survey and geological report on these claims.

1.3 GENERAL GEOLOGY

Although Burrows and Hopkins included some very general information regarding the geology of Lundy in their 1922 Ontario Bureau of Mines Report, the definitive geology for the township was field mapped by Leo Owsjacki and assistants in 1981 and 1982 and published as Ontario Geological Survey Map P.2733 in 1985. The following description is taken from the marginal notes:


The map area (Figures 1,2), is underlain by Early Proterozoic Lorrain and Gowganda Formation Sedimentary Rocks of the Cobalt Group of the Huronian Super group. The rocks were subsequently intruded by a moderately-dipping diabase sill and steep-dipping diabase dikes and plugs of Nipissing age. Middle Proterozoic diabase and olivine diabase dikes intrude all older rocks (Owsjacki 1985).

Major structural features are the presence of the Lady Evelyn Lake anticline, major NW trending faults and lineaments, east /west folds, diabase intrusions and the location of the Township between the Cross Lake and Montreal river Faults, two major components of the Lake Timiskaming Structural Zone.

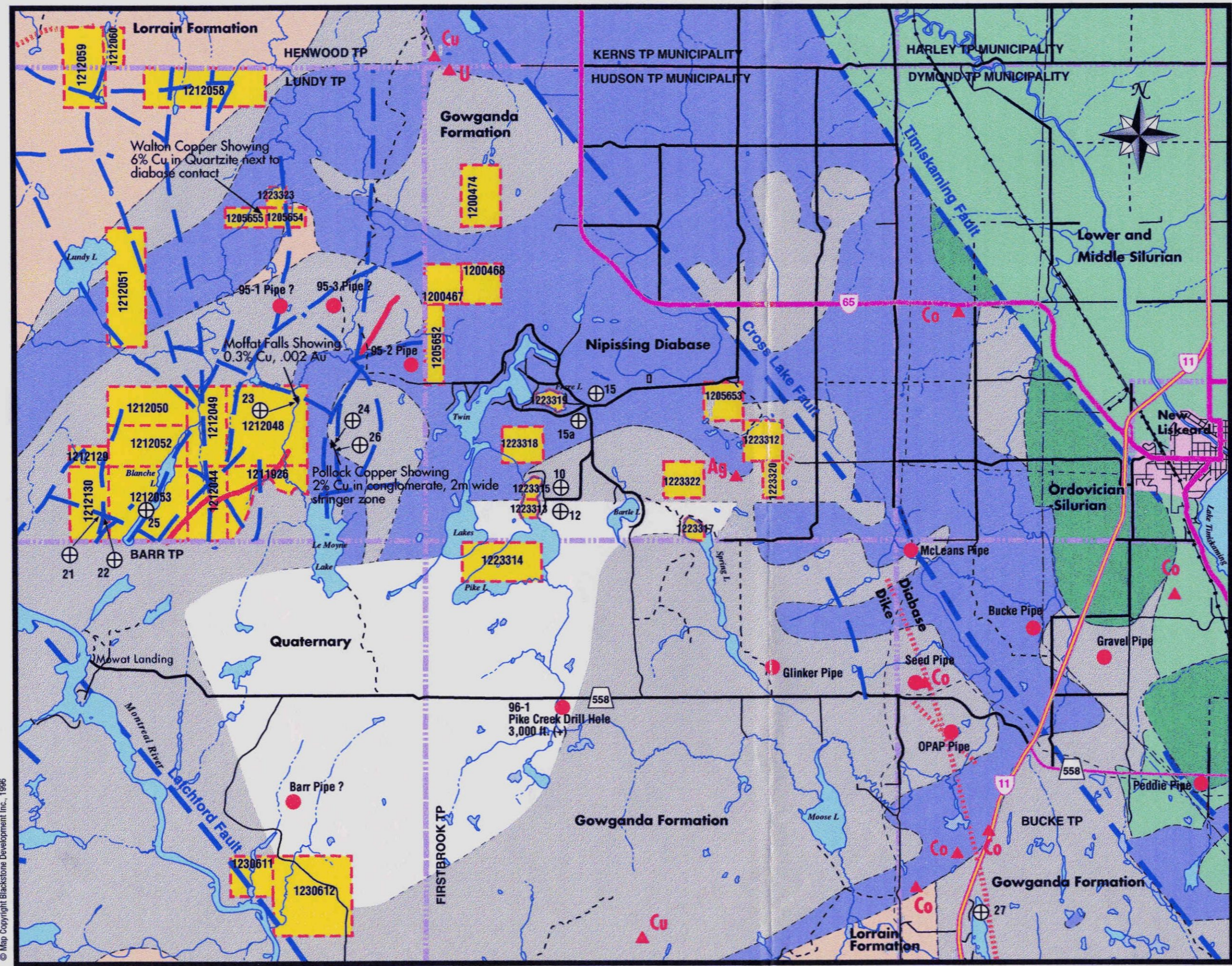
Lundy Township Location Map

BLACKSTONE Development Inc.

LEGEND

-  Former Temagami Land Claim Caution
-  Provincial Park





Note: Some of the information on this map and especially the pipe locations in Lundy and Barr townships are speculative and have not been confirmed by any person or mining company.

Top Half - Geological Survey
 Source: Ontario Geological Survey: Map 2205, Timmins-Kirkland Lake, Geological Compilation Series. Original compilation 1964, revised 1970-71.

Bottom Half - Geological Survey
 Source: Ontario Geological Survey: Map 2361, Sudbury-Cobalt, Geological Compilation Series. Original compilation 1965-9, revised 1974-5.

Symbols


- Kimberlite Pipe
- ▲ Metal/Mineral Occurrence
- ▭ Claims Pollock Group
- ⊕ 27 Indicator Mineral Sample Location
- Fault
- Lady Evelyn Lake Anticline

Metal and Mineral Reference

▲ Ag	Silver
▲ Co	Cobalt
▲ Cu	Copper
▲ U	Uranium



Figure 2, OPAP Report
Lundy Area Township Map

 50 Silver Street, P.O. Box 699
 Cobalt, Ontario
 (705) 679-5500
 Fax: (705) 679-5519
 Email: blackstn@nt.net

Scale:(see bar scale) Date: Jan. 17/97
 Drawn by: M. Hawirko Map No. C-BCI-002

Table 1. List of Claims for OPAP Work - Lundy Township

The main OPAP study area consists of 116 unpatented claims in Lundy and Henwood Townships, District of Timiskaming (recorded in December 1995 and January, February, March 1996) and 8 patented claims purchased in 1989, for a total of 124 claim units or approximately 4,960 acres/ ha(see Figure 3).

Ownership is divided into four separate packages as follows:

Owner	Claim Number	Units
1. Dr. John Pollock	S ½ Lot 3, Con. 2 N ½ Lot 2, Con. 4	8 patented claim units
	122048	16
	1212049	8
	121204	8
	1211926	8 approx.
2. Dr. John Pollock & Rheo Hacquard	1212050	8
	1212051	12
	1212058	12
3. Dr. John Pollock & Keary Walde	1212052	8
	1212053	16
4. Dr. John Pollock & George Pollock	1212059	8 - Lundy & Henwood
	1212060	2 - Henwood
	1212129	2
	1212130	8

1.4 PROJECT GOALS AND OBJECTIVES

The OPAP work was oriented toward two quite separate economic geological targets as outlined below in Section 5- Base Metals and in Section 6- Diamonds

The overall 1996 OPAP prospecting project was designed to obtain basic geological data for this little explored area. The objective is to gather enough information provide a basis for more advanced exploration for both diamonds (kimberlite pipes) and base metals in 1997, or else eliminate certain areas as exploration targets. Therefore, gathering basic geological, geophysical and structural information as well as rock, till, alluvial and soil samples formed the basis of the 1996 OPAP program in the township.

1.5 BASE METAL POTENTIAL

1.5.1 Introduction

The township has potential for sedimentary sulphide deposits in the Firstbrook mudstone with arkosic lenses (see assay and total rock analysis results Sample # Lu-7). Also there is good potential in the area of the Lady Evelyn lake Anticline where basement volcanic rocks could be as close as 200 meters or less below the present surface.

There are a lot of scattered base metal occurrences in the township and anomalous high copper and zinc values. These were never fully investigated by early prospectors searching mainly for silver and therefore the potential remains open for both sedimentary and deeper geophysical targets in the basement rocks. As Mr. Owskiacki concluded “The combination of major lineaments, drag folding in the Coleman member conglomerates and intrusions of Nipissing diabase in this area adds to its potential.”

1.5.2 1996/97 OPAP Work Undertaken - Base Metals

The 1996 OPAP work for base metals utilized surface stripping (hand tools), and sketch mapping of the untested Pollock copper showing in the S ½ lot 3, Con. 2, as well as testing of the Moffatt Falls showing in Lot 2 Con. 4 and an airborne magnetometer/ VLF-EM survey of these areas. Sketch maps were prepared of the showings and an attempt was made to locate any structural controls (ie lineaments) that are usually present when quartz veins are found in the sediments.

1.5.3 BASE METALS- RESULTS FOR TWO SEPARATE SHOWINGS

Two base metal showings were examined and documented as follows:

1.5.4 PROJECT AREA #1

PROPERTY NAME: Pollock Patented Claims -Base Metals Showing #1

COMMODITIES: Copper

LOCATION: Copper Prospect, S ½ Lot 3, Con. 2, Lundy Twp

TOWNSHIP/CLAIM AREA: Lundy Twp

PATENTED CLAIMS: four claim units in the S ½ Lot 3, Con. 2, Lundy Twp

NTS #: 31M2 SW

LATITUDE: 47 31'30"N

LONGITUDE: 79 54'W

UTM ZONE: 17T **EASTING:** 817E **NORTHING:** 626 N

OWNER: Dr. J. Pollock-100%

ACCESS: Access can be gained by Twin lakes Road south from Hwy 65 West to the end of the road. From there follow a good trail on sandy ground west to the creek crossing where a makeshift bridge can be used to cross. Past the beaver dam, the trail turns to the south and becomes very bouldery and in parts wet. The trail goes south following a narrow valley to the north property boundary where it turns east up and over a 20m high cliff and to the east for about 200m where it swings to the south for 200m to the exposed showing on a low outcrop (see Photograph 1 and sketch map Figure4)

DEVELOPMENT STATUS: prospect

TRAVERSE: Consisted of a series of east-west transects from the top of a cliff of Coleman pebbly wacke across the vicinity of the copper showing.

PROPERTY BACKGROUND (history):

This mineral occurrence, was initially found by Ed Briscoe who was logging in the area as a contractor for William Pollock & Son Limited in the 1930's. In the

early 1960's Mr. Briscoe took Ralph and Clayton Pollock, John Pollock, and Charlie Longley, then a Geologist at Porcupine Paymaster Mine in Timmins into the showing. Mr. Longley wrote a brief report but the Pollock company retained ownership of the lot until 1990 when it was purchased by the Grant Lumber Company. Dr. Pollock subsequently purchased the mineral rights for the lot from Grant Lumber.

GEOLOGY

A cliff of Coleman pebbly wacke strikes north/south along the edge of a plateau like ridge at the western boundary of the property and forms the bedrock in the vicinity of the copper showing. The wacke is underlain by Coleman laminated mudstone which is exposed in a small area at the base of the cliff (see photograph 1).

The Pollock chalcopyrite showing has had grab samples returning assays as high as 2% copper from quartz-carbonate stringers (2 m wide zone) in the Coleman pebbly wacke. It is unlikely that the chalcopyrite originated in the wacke and therefore, there is a good chance it was derived from the underlying basement rocks which as previously mentioned, could be as close as 200m below due to the Lady Evelyn Lake anticline.

STRUCTURE

The two-meter wide quartz stringer mineralized zone strikes N32 E for 100 meters in a weak fault/shear zone. During the 1996 OPAP work, surface Stripping exposed a new quartz stringer zone about 50m northeast of the main zone. The main zone itself was also extended for another 50 meters.

Assay Data From Pollock Copper showing:**Rock Sample Data- Op96-101**

Field Number #: Lu-4

Lab #: 6W-3333-RGI - Swastika Laboratories

Sample Type: hand

Rock Type: Pebbly wacke with quartz stringers

Description: Narrow 2 to 5cm quartz veins contain significant amounts of chalcopyrite and malachite

Type of Analysis & Commodities: Cu,

Results: 0.28%cu

Storage Location: John Pollock

Rock Sample Data- Op96-101

Field Number #: n.a.

Lab #: G3375L Bell White

Sample Type: hand

Rock Type: Pebbly wacke with quartz stringers

Description: chalcopyrite in quartz

Type of Analysis & Commodities: Cu, Au,

Results: 1.8% cu, 0.002 oz Au/ton, nil arsenic

Storage Location: John Pollock

Rock Sample Data- Op96-101

Field Number #: Lu-5

Lab #: 6W-3333-RGI - Swastika Laboratories

Sample Type: hand

Rock Type: Coleman laminated mudstone

Description: minor sulphides in Coleman mudstone at base of pebbly wacke cliff

Type of Analysis & Commodities: Cu, Zn, Pb

Results: 81 ppm Cu, 116 ppm Zn, 4 ppm Pb, 0.1 ppm Ag

Results: Whole rock analysis

I. C. A. P. Total Oxide Analysis:

SiO₂-55.22%, Al₂O₃- 17.59%, Fe₂O₃-7.94%, CaO-2.55%, MgO-3.65%, K₂O-2.80%, TiO₂-0.63%, MnO- 0.10%, P₂O₅-0.20%, (following in ppm) Ba-930, Sr-200, Zr-120, Y-14, Sc-18, Nb<30, Be-2, Ni-55, Cr-250, Cu-80, V-115, Co-30, Zn-120, LOI - 3.92%. Total 98.12%

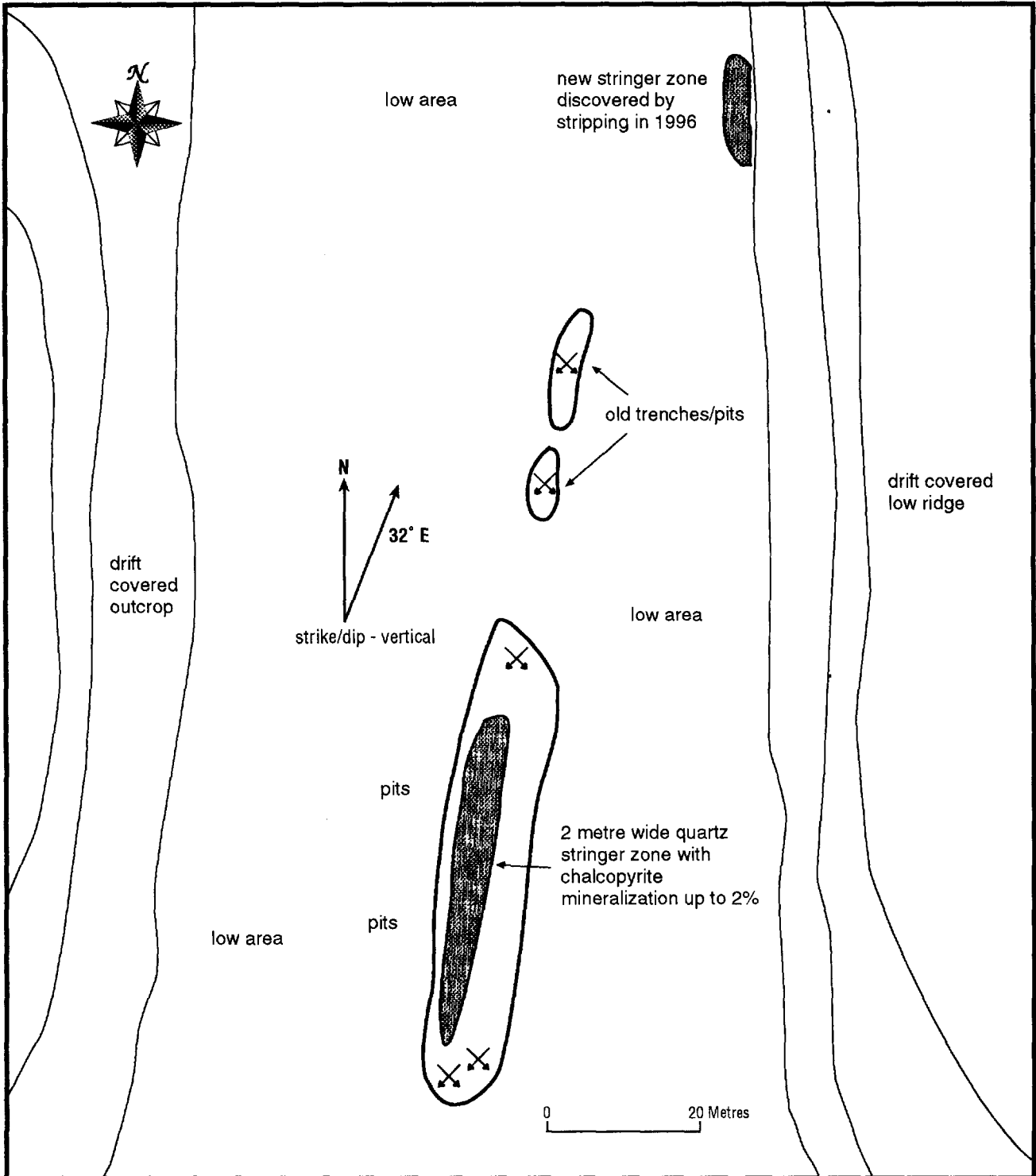
Reference Sample Storage Location: John Pollock



Photograph 1. Pollock copper showing



Photograph 2. Coleman laminated mudstone underlying Coleman pebbly wacke on cliff face 300m west of Pollock copper showing



Sketch Map of Pollock Copper Showing



50 Silver Street, Tel: (705) 679-5500
P.O. Box 699, Fax: (705) 679-5519
Cobalt, Ontario Email: blackstr@nt.net
POJ 100

Scale: (see bar scale)
Drawn by: M. Hawirko

Date: January 7, 1997
Figure 3

1.5.5 PROJECT AREA #2 BASE METALS**BASE METALS SHOWING #2 MOFFAT FALLS****PROPERTY NAME:** Moffat Falls**COMMODITIES:** Copper**LOCATION:** Copper Prospect, N ½ Lot4, Con. 2, Lundy Twp**TOWNSHIP/CLAIM AREA:** Lundy Twp**STAKED CLAIMS:** 1212048**NTS #:** 31M12 SW**LATITUDE:** 47 22"N**LONGITUDE:** 79 55' 30" W**UTM ZONE:** 17 T **EASTING:** 812 E **NORTHING:** 634 N**OWNER:** Dr. John Pollock

ACCESS: Access was gained by Twin lakes Cottage access road - go south from Hwy 65 West to the end of the road. From there, one should walk west along a good trail to an unnamed small creek crossing where a rough trail below the beaver dam can be used to cross. The trail becomes rough past the dam but continue west to Moffat Creek where it turns south and follows the east bank ending at the falls.

DEVELOPMENT STATUS: prospect**TRAVERSE:** Consisted of a series of east/west lines along the diabase sill

PROPERTY BACKGROUND (history):

This mineral occurrence, located in the north-central portion of Lot 4, Con 2, was initially prospected by unknown prospectors in the early years of this century. Apparently about 40 years ago an American put some short drill holes and possible trenches down on the showing, although no formal record of this exists (H. Walton: personal communication)

STRUCTURE/ GEOLOGY

An east/west striking diabase intrusion has Aplite and quartz veining exposed on the surface near the diabase/Huronian contact. A pit dating to 1906 and later has exposed a 15cm wide moderately south dipping quartz vein with chalcopyrite, pyrite and minor gold values. A hundred meters (100m) to the west at a twenty meter (20m) higher elevation, another pit has been blasted on a much smaller vein (see Sketch map Figure 5). The quartz vein and mineralization is located where the east-west striking contact of the diabase meets a north-south fault along Moffatt Creek and is also near the hinge point of the Lady Evelyn Lake Anticline.

Sample Data from the Moffat Falls Showing:

Rock Sample Data- Op96-101

Field Number: LU-2

Lab #: 6W-3333-RGI

Sample Type: hand

Rock Type: quartz with diabase

Description: sample was taken from the old blasted pit at the falls

Type of Analysis & Commodities: Cu, AU

Results: 0.3% Cu, .003 oz/ton Au,

Storage Location: John Pollock's office

Rock Sample Data- Op96-101

Field Number #: Lu-3

Lab #: 6W-3333-RGI

Sample Type: hand

Rock Type: Apilite, calcite, diabase :

Description: Sample taken from an old pit on the diabase hill 100 meters west of the pit at the falls

Type of Analysis & Commodities: Cu,

Results: 0.06% Cu

Rock Sample Data- Op96-101

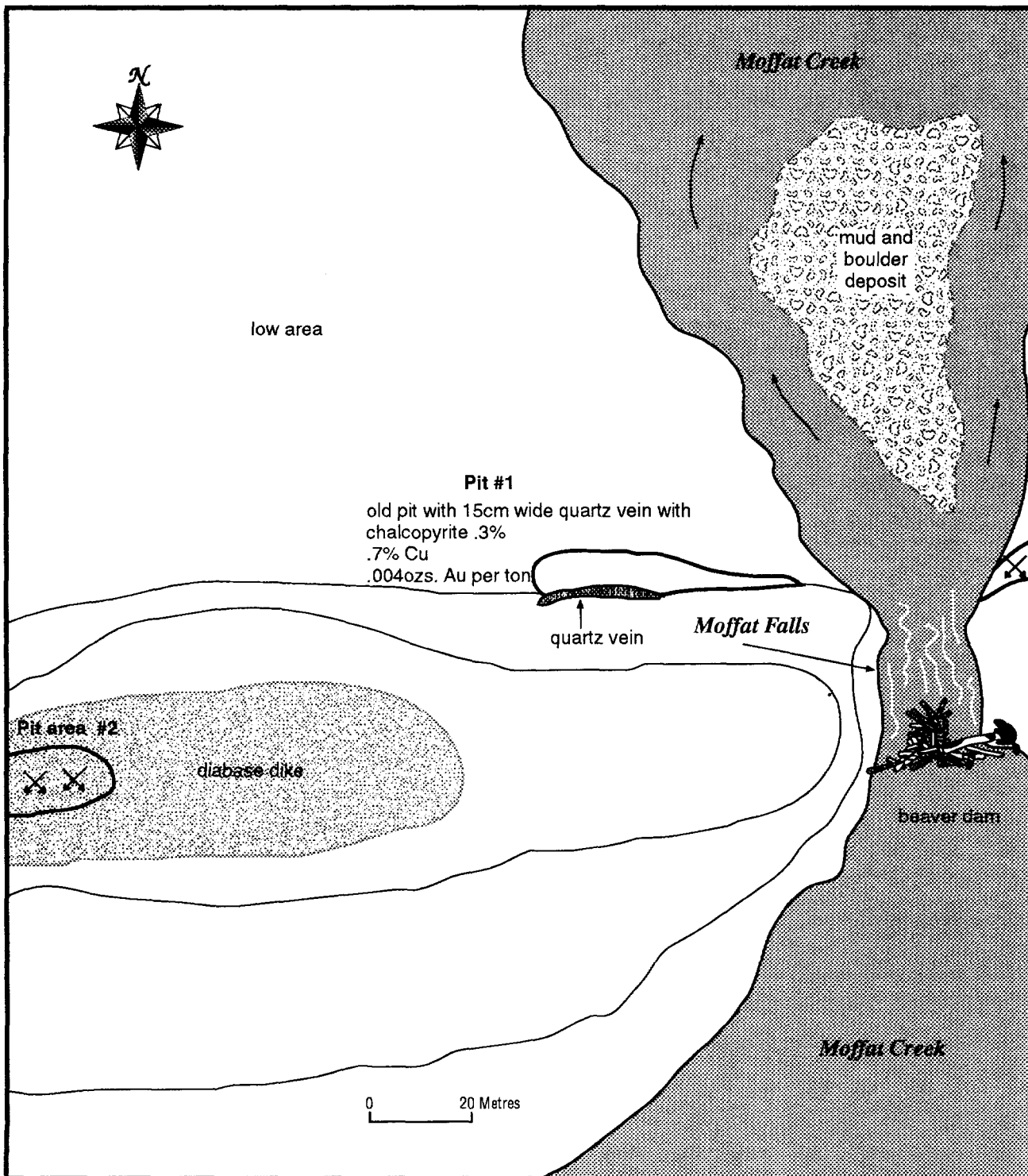
Field Number #: Lu-6

Lab #: 6W-3473-RGI


Sample Type: hand



Photograph 3. Moffatt Falls Showing



Sketch Map of Moffat Falls Showing

	50 Silver Street,	Tel: (705) 679-5500
	P.O. Box 699	Fax: (705) 679-5519
	Cobalt, Ontario	Email: blackstn@nt.net
	P0J 1C0	
Scale: (see bar scale)	Date: January 7, 1997	
Drawn by: M. Hawirko	Figure 4	

1.5.6 OTHER SAMPLES TAKEN FOR BASE METALS IN LUNDY TOWNSHIP

Rock Sample Data- Op96-101

Field Number #: 1

Lab #: 5W-2052-RAL Swastika Laboratories (submitted by Brett Medland)

Sample Type: hand

Rock Type: Unknown

Description: Massive sulphides from 3m wide zone on west shore of Blanche Lake

Type of Analysis & Commodities: Cu, Ag, Zn, Co

Results: 0.02 ounces/ton Ag, 0.03% Zn

Storage Location: reference sample not available- field location approximate as sample was collected in winter by a third party

Rock Sample Data- Op96-101

Field Number #: LU-1

Lab #: M7986, Swastika Labs

Sample Type: hand

Rock Type: Firstbrook mudstone with arkosic lenses

Description: minor sulphides in mudstone from north side of a small pond -S1/2 lot 9, Con. 1

Type of Analysis & Commodities: Cu, Ag, Co, Pb, Zn, Ni

Results: Whole rock analysis

SiO₂-56.95%, Al₂O₃- 17.59%, Fe₂O₃-8.69%, CaO-1.74%, MgO-2.78%, K₂O-3.46%, TiO₂-0.64%, MnO- 0.12%, P₂O₅-0.26%, (following in ppm) Ba-1130, Sr-70, Zr-130, Y-26, Sc-18, Nb<30, Be-3, Ni-50, Cr-350, Cu-25, V-140, Co-30, Zn-75, LOI - 3.85%. Total 97.73%

Reference Sample Storage Location: John Pollock

Rock Sample Data- Op96-101

Field Number #: Lu-7

Lab #: 6W-3473-RGI

Sample Type: hand

Rock Type: Grey Firstbrook member siltstone with 5mm bedding (light and dark)

Description: minor sulphides

Type of Analysis & Commodities: Cu, Ag, Au, Zn, Fe

Results: 0.2% Cu, 80 ppm Zn, 5 ppb Au, 5 ppm Pb, 6% Fe,

Results: Whole rock analysis:

SiO₂-57.56%, Al₂O₃- 17.31%, Fe₂O₃-9.10%, CaO-1.00%, MgO-2.77%, K₂O-3.42%, TiO₂-0.74%, MnO- 0.13%, P₂O₅-0.32%, (following in ppm) Ba-1090, Sr-70, Zr-130, Y-26, Sc-19, Nb<30, Be-2, Ni-80, Cr-250, Cu-2050, V-135, Co-20, Zn-85, LOI - 3.80%. Total 97.69%

Reference Sample Storage Location: John Pollock

1996 OPAP REPORT- OP96-101 - LUNDY TWP.

SECTION TWO

2.1 KIMBERLITE POTENTIAL - DIAMOND EXPLORATION

Kimberlites in the area of interest appear to be associated with the Cross Lake and Latchford/Montreal River faults and are located on secondary faults and lineaments connected to these major structures.

2.2 Property Location and Access

The diamond exploration claims are located in several townships with the majority in Lundy Township (see Figure 3.). The properties are accessible from Highway 560 and the paved Hudson Township (Twin Lakes) access road or from Highway 558 (Haileybury West Road).

A proposed forest access road to be built next Spring (1997) through the west central part of Lundy will access some of the more remote claims in Lundy Twp. During the winter, all areas are accessible by snow machine.

2.3 General Geology - Lundy Twp. -Also Applicable to Adjacent Townships

Although Burrows and Hopkins included some very general information regarding the geology of this area in their 1922 Ontario Bureau of Mines Report, the definitive geology for the Lundy township was field mapped by Leo Owsiacki and assistants in 1981 and 1982 and published as Ontario Geological Survey Map P.2733 in 1985. The following description is taken from the marginal notes:

The map area (Lundy Twp) is underlain by Early Proterozoic Lorrain and Gowganda Formation Sedimentary Rocks of the Cobalt Group of the Huronian Super group. The rocks were subsequently intruded by a moderately-dipping diabase sill and steep-dipping diabase dikes and plugs of Nipissing age. Middle Proterozoic diabase and olivine diabase dikes intrude all older rocks (Owsiacki 1985).

2.4 Kimberlite Potential - Diamond Exploration

The kimberlite potential of the township is based on a single press release dated June 29, 1995 and the June 1995 annual report issued in June 1996 by Sudbury Contact Mines Limited. In the press release and annual report, the company (which did not mention the location of the finds) stated that two kimberlites 95-1 and 95-2 had been located in 1995. Kimberlite 95-1 contained 8% G10 garnets and kimberlite 95-2 contained 16% G10 garnets as well as six micro and three macro-diamonds. The 1995 Annual Report also mentions a third Kimberlite was located early in 1996. Since then, another three pipes have been found, although it is not known if they are all in the area of interest.

The 1995 annual report states that diamond drilling in the winter of 1995-1996 by Sudbury Contact [although Sudbury contact has never officially released the location or even the township of any of their kimberlite discoveries, the 95/96 drilling took place in the S ½ lot 3 Con. 1 and the N ½ lot 4 Con. 4 Lundy Twp.]. The annual report goes on to say that the drilling resulted in the recovery of 52 diamonds from 1,104.44 kg of core, including 16 macro diamonds and 27 micro diamonds, with two measuring greater than 2 mm. Unpublished reports indicate that the macros were all crystal clear gem quality. As mentioned, six pipes have apparently been located to date (location unknown) with the most recent 50-kg sample returning the best grades to date. Further drilling is planned during the winter of 1996-97.

The potential to find diamondiferous kimberlites in Lundy and adjacent townships (area of interest) is further enhanced by their location between the Cross Lake and Montreal River faults, two major faults of the Lake Timiskaming Structural Zone. Associated with these major NW trending structures are many associated north-south faults and lineaments, and some southwest/northeast trending folds, as well as diabase intrusions.

The kimberlite magma of Jurassic age (ie 160 my), is much younger than all other rocks in the townships and being softer tends to erode faster than other rocks thus forming depressions. Therefore, kimberlites are usually covered by glacial deposits and are often found in low areas or depressions (ie creek valleys, under lakes, swamps). Many of these features are located on the OPAP claims.

From the limited evidence, it appears that kimberlite dikes and pipes are associated with the secondary faults and structures connected to both the Cross Lake and Montreal River faults. The role of the diabase sills is not clear and they may be significant in terms of pipe emplacement. There appears to be a correlation with anticlines, synclines, and monoclines.

The potential to discover further diamondiferous kimberlite dikes and pipes on the claims

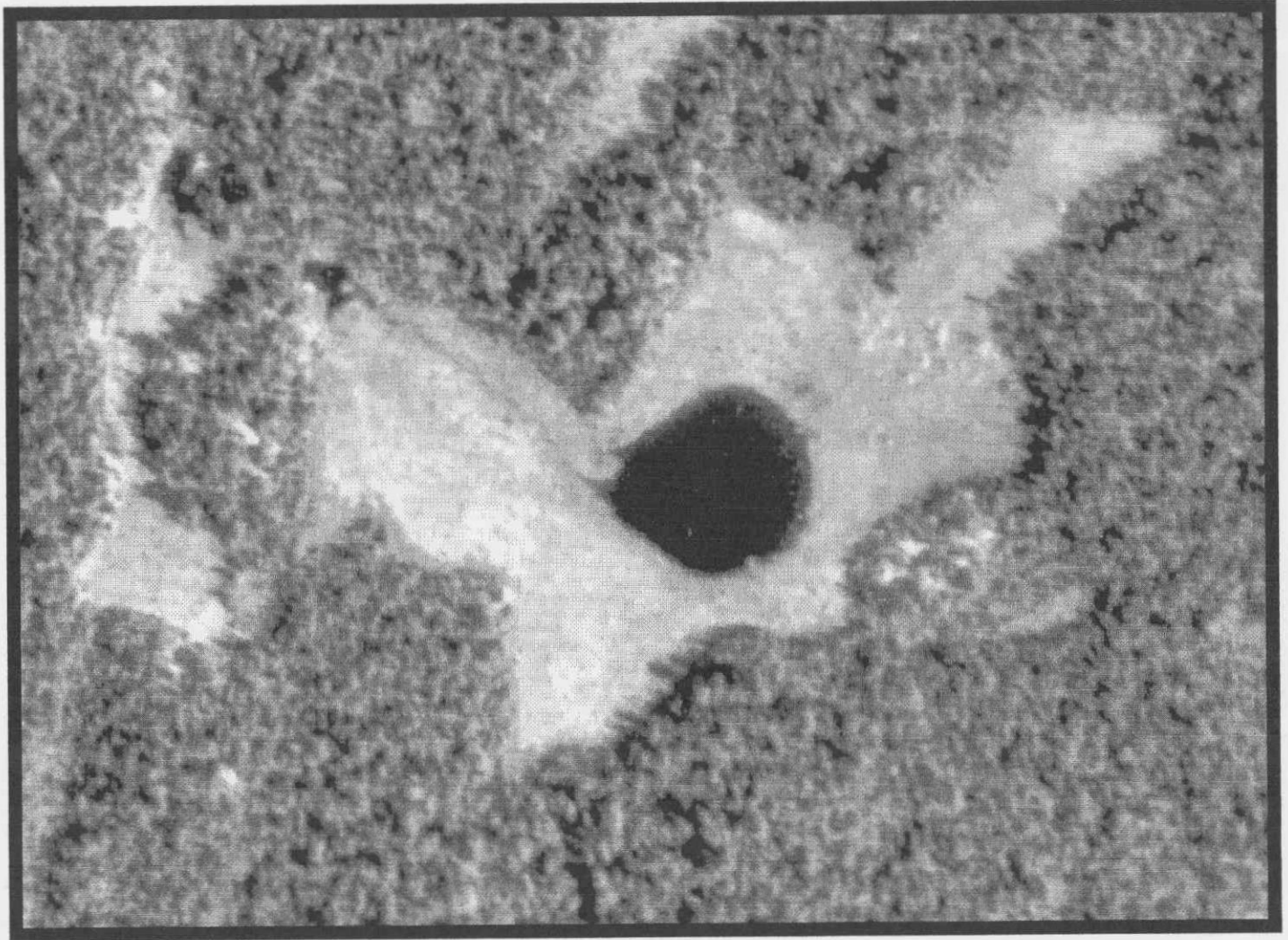
due to the structures, many topographical targets, and high success rate of Sudbury Contact on adjacent ground is very good.

2.5 1996/97 OPAP Work Undertaken -Kimberlite Exploration

As there are two and a possible third kimberlite pipe already identified in Lundy Township and as kimberlites usually occur in clusters (within 5 km of each other), there is a reasonable chance of locating additional kimberlites on the 116 unpatented mining claims within the OP96-101 study area, especially as it is located adjacent to the areas being drilled by Sudbury Contact Mines Limited. In staking the OPAP study claims, we concentrated on the major north/south faults, lineaments and topographic depressions. Using 2 sets of air photos (1970 - 1:36,000 and 1989 - 1:20,000) plus NTS topographic maps, 1965 GSC Aeromagnetic Maps, and OGS map P.2733, we identified a number of potential kimberlite target areas (see figure 4). The two most promising of these is in lots 8 & 9 Con. 1, (see photographs 4 &5). For these areas we undertook surface prospecting and eleven till samples which were analyzed for indicator minerals (see appendix A). In addition, an airborne magnetometer/ VLF-EM survey was undertaken. Results of this are presented in Appendix 2. Of special interest was the circular pond feature in lots 8 & 9 Con. 1, just west of Blanche Lake (see photographs 4 and 5). Till samples were taken near this feature to see if there were any indicator minerals - see Appendix 1 for results of this and other soil samples. Useful reference documents for this work were Kaszycki (1995) and Fipke, Gurney and Moore (1995).



Photograph 4. Oblique Aerial photo of circular pond feature in lots 8 & 9 Con. 1, looking west



Photograph 5. An enlarged 1:20,000 air photo of a circular pond feature in lots 8 & 9 Con. 1

3.0 CONCLUSION

This Ontario Prospectors Assistance Program (Project OP96-101) was an initial prospecting program in an area which has not received much attention in the past. Therefore, the OPAP funding was of critical importance in providing a base for future exploration work in Lundy and adjacent Townships.

The results of the OPAP program as documented in this report outline the potential for base metal and kimberlite occurrences in Lundy Township.

In regards to base metals, the project indicated that the southern part of the Township has elevated levels of Copper and Zinc in the Firstbrook siltstones with assays of up to .2% Cu (Appendix One). Two surface showings were also tested with encouraging results.

In regards to diamond exploration, a promising topographical and structural target was located in Lot 9, Con. 1, as well as other targets derived from the airborne survey and indicator mineral analysis results as reported in Appendix Two and Three.

4.0 REFERENCES

Born, Peter and M. W. Hitch

- 1990 Precambrian Geology - Bay Lake Area. Ontario Geological Survey Report 276, 81p. Accompanied by Map 2251 and 2552.

Card, K.D., Mcilwaine, W.H., and Meyn H.D.

- 1973 Geology of the Maple Mountain Area, Districts of Timiskaming, Nipissing and Sudbury; Ontario Division of Mines, Geological Report 106, 106p. Accompanied by Maps 2256, 2257, 2258, 2259, scale 1:63 360 or 1 inch to 1 mile, and Map 2260, scale 1:31 680 or 1 inch to 1/2 mile.

Fipke, C.E., J.J. Gurney, and R.O. Moore

- 1995 Diamond Exploration Techniques Emphasising Indicator Mineral Geochemistry and Canadian Examples. Geological Survey of Canada Bulletin 423.

Johns, G.W.

- 1985 Geology of the Firstbrook and Parts of Surrounding Townships Area, District of Timiskaming; Ontario Geological Survey, Report 237, 59p. Accompanied by Map 2474, scale 1:31 680 or 1 inch to 1/2 mile.

Morris, T.F. and C.A. Kaszycki

- 1995 A Prospector's Guide to Drift Prospecting for Diamonds; Northern Ontario; Ontario Geological Survey, Open File Report 5933, 110 p.

Owsiacki, Leo

- 1985 Ontario Geological Survey - Geological Series- Preliminary Map, Geology and Mineral Deposits, Lundy Township. Map P. 2733, Scale 1: 15,840

APPENDIX A

Results of Geochemical Analysis of Rock Samples



Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

6W-3333-RG1

Company: **J. POLLOCK**

Date: SEP-06-96

Project:

Attn: J. Pollock

We hereby certify the following Geochemical Analysis of 7 Rock samples submitted AUG-27-96 by .

Sample Number	Au Au Check PPB PPB	Ag PPM	Co PPM	Cu PPM	Ni PPM	Pb PPM	Zn PPM	WRA PPM
TU-1	27 34	0.2	-	272	-	-	74	Results
TU-2	293 617	1.7	-	1720	-	-	100	to
LU-1	-	0.1	-	29	-	1	72	follow
LU-2	108 101	0.4	170	3060	75	-	12	
LU-3	Nil -	0.2	36	602	26	-	38	
LU-4	Nil -	0.3	48	2810	39	-	35	
LU-5	-	0.1	-	81	-	4	116	

One assay ton portion used.

Certified by *Dennis Chantre*

JOHN POLLOCK

TSL/ASSAYERS Laboratories

1270 FEWSTER DRIVE, UNIT 3 MISSISSAUGA, ONTARIO L4W-1A4

PHONE #: (905)602-8236

FAX #: (905)206-0513

REPORT No. : M7986

Page No. : 1 of 1

File No. : SP06RA


Date : SEP-06-1996

I.C.A.P. TOTAL OXIDE ANALYSIS

Lithium MetaBorate Fusion

6W-3333-RGI

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	Y	Sc	Nb	Be	Ni	Cr	Cu	V	Co	Zn	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
TU-1	50.37	16.66	9.98	8.40	6.61	3.22	1.32	0.68	0.16	0.16	320	270	40	10	29	< 30	< 1	85	975	265	175	40	80	2.72	100.28
LU-1	56.95	17.59	8.69	1.74	2.78	1.67	3.46	0.64	0.12	0.26	1130	70	130	26	18	< 30	3	50	350	25	140	30	75	3.85	97.73
LU-5	55.22	17.59	7.94	2.55	3.65	3.54	2.80	0.63	0.10	0.20	930	200	120	14	18	< 30	2	55	250	80	115	30	120	3.92	98.12

SIGNED: 



Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

6W-3333-RG1

Company: **J. POLLOCK**

Date: SEP-06-96

Project:

Attn: J. Pollock

We hereby certify the following Geochemical Analysis of 7 Rock samples submitted AUG-27-96 by .

Sample Number	Au PFB	Au check PFB	Ag PPM	Co PPM	Cu PPM	Ni PPM	Pb PPM	Zn PPM	WRA PPM
TU-1	27	34	0.2	-	272	-	-	74	Results
TU-2	203	617	1.7	-	1720	-	-	100	to
LU-1	-	-	0.1	-	29	-	1	72	follow
LU-2	108	191	0.4	170	3060	75	-	12	
LU-3	Nil	-	0.2	34	602	26	-	38	
LU-4	Nil	-	0.4	48	2810	39	-	35	
LU-5	-	-	0.1	-	81	-	4	116	

One assay ton portion used.

Certified by Denis Chantre

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300



Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

6W-3473-RG1

Company: **DR. J. POLLOCK**

Date: SEP-11-96

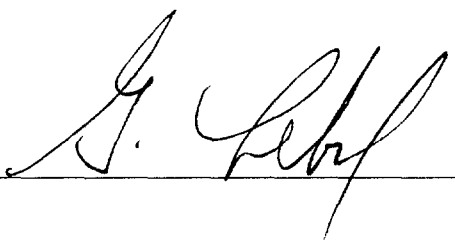
Project:

Attn: Dr. J. Pollock

We hereby certify the following Geochemical Analysis of 3 Rock samples submitted SEP-08-96 by .

Sample Number	Au Au Check PPB PPB	Ag PPM	Co PPM	Cu PPM	Fe PPM	Fe %	Mn PPM	Ni PPM	Pb PPM	Zn PPM	WRA PPM
Lu-6	12 12	0.2	44	7460	-	-	-	37	-	83	Result
Lu-7	5 -	0.1	-	2020	>20000	6.01	-	-	5	80	to
Tu-3	3 -	0.1	-	27	-	-	277	-	-	55	follow

One assay ton portion used.

Certified by 

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

DR. J. POLLOCK

ISL/ASSAYERS Laboratories
1270 FENSTER DRIVE, UNIT 3 MISSISSAUGA, ONTARIO L4W-1A6
PHONE #: (905)602-8236 FAX #: (905)206-0513

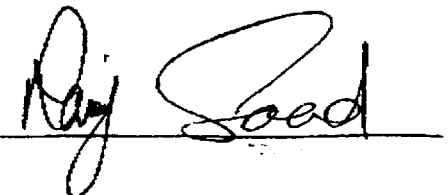
REPORT No. : M8020
Page No. : 1 of 1
File No. : SP16RA
Date : SEP-16-1996

I.C.A.P. TOTAL OXIDE ANALYSIS
Lithium Metaborate Fusion

6W-3473-RGZ

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	Y	Sc	Nb	Be	Ni	Cr	Cu	V	Co	Zn	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
LU-7	57.56	17.31	9.10	1.00	2.77	1.55	3.42	0.74	0.13	0.32	1090	70	130	26	19	< 30	2	80	250	2050	135	20	65	3.80	97.69

SIGNED :





Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

file

Established 1928

Assay Certificate

5W-2052-RA1

Company: **B. MEDLAND**

Date: APR-28-95

Project:

Attn: B. Medland

We hereby certify the following Assay of 2 Rock samples submitted APR-27-96 by .

Sample Number	Au oz/ton	Ag oz/ton	Co %	Cu %	Zn %
1	-	0.02	0.004	0.005	0.03
2 <i>Copper Concentrate</i>	Nil	-	-	2.09	-

Certified by

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244

FAX (705) 642-3300

APPENDIX B

Results of Till and Soil Sample Analysis for Indicator Minerals

Diamond Indicator Processing Inc.
129 Hill Street North
Thunder Bay, ON
P7A 5V8

January 19, 1997

Dr. John Pollock
Settlement Surveys Ltd.
P.O. Box 2529
17 Wellington Street
New Liskeard, ON
P0J 1P0

Dear Dr. Pollock

Enclosed is a copy of the picking sheet with some comments about the samples, however, I have some additional comments as follows:

Due to the presence of many clear or near colourless grains, I had difficulty picking out Olivines, even though, I did pick out some there may still be some in the samples.

The Pyropes that were found in samples #12 and 15A are fresh and angular, and not eroded.

It is recommended the samples where grains are indicated with question marks as well as others should be microprobed for definite identification.

I have put the picked grains in small nalgene vials and occasionally a few grains may get under the rim, so it is advised that they be opened very carefully over a petrie dish.

If there are any further questions or if you would like some of the grains sent off to microprobed, please do not hesitate to call (807) 344-9366.

Yours truly,



Stacey V. Saukko

4 pages
total

Time spent per fract.

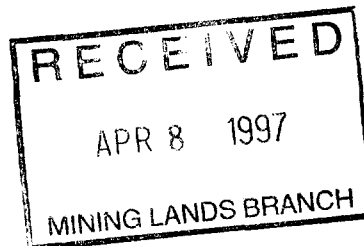
DIP	CLIENT		POSS.	CHROME	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE		COMMENTS	DATE	OBS.	WEIGHT of	WEIGHT of	TOTAL	SENT for
NUMBER	NUMBER	FRC.	PYROPE	DIOPSIDE	ILMENITE	CHROMITE	ECL.GAR	OLIVINE%	OTHER	additional comments on back if * notation appears in this column	OBS.	BY	OBS.PORT.	UNOBS.	WEIGHT	PROBE
	#10	OS												1.6	1.6	
	#10	C	0	0	0	0	0	3	0		11-Jan	svs	6.5		6.5	0.15
	#10	F	0	8	8	5	1	8	2zr	other green minerals possible enstatite	12-Jan	svs	22.6		22.6	2.4
	#10	-60												41	41	
	#12	OS												5.7	5.7	
	#12	C	0	0	3	0	0	2	1zr		18-Jan	svs	8.5		8.5	0.15
	#12	F	1	9	11	4	2	10	17 zr	17 other green grains possible augites, enstatite, limonite	18-Jan	svs	13.9		13.9	1.45
	#12	-60												26.6	26.6	
	#15	OS												4.5	4.5	
	#15	C	0	0	0	0	0	0	0		19-Jan	svs	0.9		0.9	0.05
	#15	F	0	3	4	3	1	4	1zr	← ZIRCONS	19-Jan	svs	3.2		3.2	0.3
	#15	-60												6.5	6.5	
	15A	OS												0.7	0.7	
	15A	C	0	0	0	0	0	0	0		19-Jan	svs	5.7		5.7	0.1
	15A	F	3	19	12	12	3	26	29zr	6 green grains possible enstatites	19-Jan	svs	34.8		34.8	3.05
	15A	-60												57.7	57.7	
	#21	OS												2.1	2.1	
	#21	C	0	0	0	0	0	3?	0		11-Jan	svs	9		9	0.1
	#21	F	1?red	1?	0	1?	0	0	0	2 clear zircons?	11-Jan	svs	6.2		6.2	0.2
	#21	-60												0.1	0.1	
	#22	OS												2.2	2.2	
	#22	C	0	0	0	0	0	0	0		11-Jan	svs	7.2		7.2	0.1
	#22	F	1?red	0	0	0	0	2	0		11-Jan	svs	2.3		2.3	0.15
	#22	-60												0.1	0.1	
	#23	OS												2	2	
	#23	C	0	0	0	0	0	0	0		11-Jan	svs	3.1		3.1	0.1
	#23	F	0	0	0	0	0	0	0		11-Jan	svs	1.6		1.6	0.1
	#23	-60												0.6	0.6	
	#24	OS												2.4	2.4	
	#24	C	0	0	3?	0	0	9	0	very brittle ilmenite?	5-Jan	svs	6.3		6.3	0.15
	#24	F	0	1?	0	0	0	6	1cor?	corundum?	11-Jan	svs	7.4		7.4	0.45
	#24	-60												4.1	4.1	
	#25	OS												2	2	
	#25	C	0	1?	2?	0	0	6	0	very brittle ilmenites?	5-Jan	svs	9.1		9.1	0.15
	#25	F	0	0	4?	0	0	6	0		5-Jan	svs	4.6		4.6	0.2
	#25	-60												2	2	
	#26	OS												15.4	15.4	
	#26	C	0	0	0	1?	0	20*	0	possibility of many other olivines in sample	5-Jan	SVS	38.4		38.4	0.4
	#26	F	0	1	4	0	0	2	10+		5-Jan	SVS	19.3		19.3	1.05
	#26	-60												2.2	2.2	

**APPENDIX C:
RESULTS OF AIRBORNE MAGNETOMETER/VLF-EM SURVEY
(ATTACHED AS A SEPARATE DOCUMENT)**

2.17269

REVISED REPORT ON THE
COMBINED AIRBORNE GEOPHYSICAL SURVEY
ON PART OF
LUNDY & HUDSON TWPS., ONT.
FOR
SETTLEMENT SURVEYS LTD.

on behalf of
H. Ferderber Geophysics Ltd.



Feb., 06, 1997
Nepean, Ont.

John L. Irvine
Consulting Geophysicist



31M12SW0021 2.17269 LUNDY

REPORT ON THE
COMBINED AIRBORNE GEOPHYSICAL SURVEY
ON PART OF
LUNDY & HUDSON TWPS., ONT.
for
SETTLEMENT SURVEYS LTD.

on behalf of
H. Ferderber Geophysics Ltd.

Jan. 26, 1997.
Nepean , Ont.

John L. Irvine
Consulting Geophysicist

SUMMARY

A combined airborne magnetometer and VLF-EM survey over a part of Lundy and Hudson Townships near New Liskeard, Ont. did not produce any significant signatures. However, two isolated, sub-circular magnetic signatures could represent kimberlite sources.

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31M12SW0021 2.17269 LUNDY

020C

**REPORT ON THE
COMBINED AIRBORNE GEOPHYSICAL SURVEY
ON PART OF
LUNDY & HUDSON TWPS., ONT.
for
SETTLEMENT SURVEYS LTD.**

INTRODUCTION

Settlement Surveys Ltd. have an option on some acreage located near New Liskeard, Ont. On 22 January, 1997, H. Ferderber Geophysics Ltd. conducted a combined airborne geophysical survey over the property and immediate surrounds. The airborne survey collected an approximate total of 275 line kilometers of data. H. Ferderber Geophysics Ltd. compiled the respective maps and then commissioned the author to prepare this report. The author did not visit the survey area nor visited the office of the contractor during the map compilation.

The survey consisted of a magnetometer and a VLF-EM unit. The magnetometer measured the total field component of the magnetic field. The VLF-EM unit measured the total field and the vertical component of the quadrature response of the VLF signal. A radar altimeter provided information of the height of the aircraft above the terrain. Primary navigation was by a GPS unit and confirmed with a flight path video camera.

The purpose of the magnetic survey was to locate and map the subsurface concentrations of naturally occurring magnetic minerals. These magnetic minerals generate magnetic patterns that reflect the subsurface geology.

The purpose of the VLF-EM survey was to locate electrically conductive zones within the underlying rocks. Electrically conductive zones may represent faults, shear zones and/or metallic sulfide occurrences that may be economic.

The observed relationships between the geophysical signature and the known geology of the immediate area is the basis for a geophysical interpretation. Correlation between the geology and the interpreted geophysical data suggests the geology as mapped is

correct. An obvious discrepancy requires an explanation and may indicate that the geology as mapped requires amendments.

The goal of the geophysical interpretation is the contribution of knowledge to the geological data base and where possible, suggest zones for exploration. Therefore, it would be possible to consider the resultant interpretation as a supplementary "pseudo-geological" map.

PROPERTY DESCRIPTION, LOCATION AND ACCESS

The property of Settlement Surveys Ltd. covered in this report consists of an area of approximately 2500 hectares. The nearest major town to the area is New Liskeard, Ont.

The climate in the area is typical of Northern Ontario - moderate in the summer and severe in the winter.

GEOLOGY

The survey area is underlain by late Precambrian rocks of the Cobalt Group which is part of the Huronian Supergroup. The majority of the survey area is underlain by the Firstbrook Member of the Gowganda formation - argillites and greywackes. Younger quartzites of the Lorrain Formation are reported to occur in the survey area. Mafic intrusive rocks, diabase and granophyre occur higher in the geological sequence. Contacts are northeasterly. Regional faults are northwesterly.

INSTRUMENTATION AND SURVEY METHODS

The aircraft used for the survey was a Cessna model 172, Canadian registration C-FEWW, owned by H. Ferderber Geophysics Ltd. and operated under a Canadian Licence. The aircraft was specially modified for the geophysical instrumentation.

Pilot - T. LeLong
Navigator/Operator - M. Deschamp

Magnetometers

The airborne magnetometer used was a GEM Systems GSM-11 Overhauser, proton precession magnetometer. The unit is capable of a sensitivity of 0.01 nT once a second or 0.1 nT ten times a second. The survey used 4 samples per second and a sensitivity of 0.01nT. The base station magnetometer was a Gem Systems GSM-18 memory magnetometer base station.

VLF-EM System

A Herz Totem 2A VLF-EM System measured the changes in the amplitude of the total field and the amplitude of the vertical quadrature component from two simultaneously transmitted

frequencies. The primary transmitting station was Seattle, Wash. transmitting at a frequency of 24.8 kHz. The secondary transmitting station was Rugby, England transmitting at a frequency of 16.0 kHz.

Navigation

Navigation was by a Magnavox MX300 High Precision GPS unit recording six satellite stations simultaneously. The unit has a visual output for the pilot to follow. It also can store internally end points of traverses. This feature allows for preprogramming of a survey flight. Direct GPS positioning has a RMS error of 20-50m anywhere in the world. This error is often less than the existing errors in available maps.

Tracking Camera and Video Centre

A RCA TC-200 colour video camera coupled to a Galaxy 200 video centre recorded the flight path on standard VHS video tape. Manual fiducials were overlaid on the video for additional positional reference. Flight path recovery employed a model S1360 Panasonic colour video monitor and a model AG-2500 Video cassette recorder.

Radar Altimeter

A King 10/10 radar altimeter measured the altitude of the aircraft above the ground surface. The mean terrain clearance was subject to pilot discretion for safety of aircraft and aircrew. In areas of extreme relief, deviations from the planned altitude will vary.

Data Acquisition System

A PDAS 1100 data acquisition system manufactured by Picodas Group Inc. digitally recorded seven analog inputs plus two channels of frequency data. This required external interfacing. A Termiflex Corp. ST/32 keyboard control unit plus a Sharp Corp. LCD display unit was also connected to the acquisition system.

PDAS 1100

channel one	-	Altimeter	
two	-	VLF 1 Total Field	VLF 1 was Seattle.
three	-	Quadrature	
four	-	VLF 2 Total Field	VLF 2 was Rugby, Eng.
five	-	Quadrature	
six	-	Magnetometer course scale	
seven	-	fine scale	

frequency one	-	fourth difference
two	-	fiducials

Survey Parameters

The orientation of the survey traverses were 360/180° at a nominal spacing of 200m. and a mean terrain clearance of 300 ft. An average airspeed of 160 kph (100mph) or 44m/sec. and a sample interval of 0.25 sec., produced an average sample increment was

10m. along the traverse. Three tie lines were flown perpendicular to the traverses.

DATA COMPILATION AND PRESENTATION

The PDAS 1100 recorded the survey information on a 3.5" floppy disk. After transferring the data into a PC computer, the software package generated the base map. The data from the flight path video camera verified the position of the aircraft.

Data presentation was by GEOSOFT - a software package designed specifically for geophysical presentations. H. Ferderber Geophysics Ltd. modified their GEOSOFT package for airborne use.

The removal of diurnal variations was by base station subtraction. Merging of the corrected data with the flight path provides the basis for the gridded data set. The data set of the total field is contoured at 10 nT intervals and presented at a scale of 1:20,000. Once the data set is accepted, the calculated first vertical derivative is presented at the same scale of 1:20,000. The contour interval is 0.0025 nT per m.

VLF-EM corrections included establishing a base level value and removing all drift or variations of the transmitter field strength. The variations in the total field strength are then plotted and contoured. The total field data from the two stations was plotted on two maps respectively.

Interpretive comments are qualitative and therefore, this interpretation is descriptive rather than analytical. A major assumption is that the magnetic response is due to an induced field with no elements of remnant magnetism present. Remnant magnetism can only be decided by a careful analytical, physical properties study of the area. It is very possible that remnant magnetism is present.

DISCUSSION OF THE SURVEY RESULTS

Magnetic Survey

An examination of the magnetic lineaments suggests a conjugate set of northwesterly and northeasterly structural elements. A dike is associated with the northwesterly element. The northeasterly element is represented by faulting.

A general northwesterly trend in the magnetic signatures is noted. Maximum amplitude of approximately 250 nT above a 57,500 nT background is also noted. Much weaker features are noted and noted below.

The calculated magnetic gradient (first vertical derivative) presents a similar pattern but all elements are much better

defined. Well defined negative zones are associated with the main responses and apparent dips can be posted.

M₁ is a northwesterly trending dike exhibiting near vertical dip. A narrow source is expected.

M₂ at first appears to be arising from an intrusive but an examination of the gradient data suggests that a westerly trending dike is the source of the magnetic signature. M₃ appears to be part of M₂ in the total field data set but this is interpreted as arising from the same deep source. Faulting has off-set M₂. M₂ is further interpreted to have a southerly dip of approximately 60°. M₃ exhibits a southeasterly dip of probably 75°.

M₄ is interpreted to exhibit a northerly dip and is thought to be the equivalent of M₂ but on the north limb of an interpreted anticline. It is noted, however, that the magnetic material between the two horizons does not offer a symmetrical response supplementing the interpretation of an anticline.

M₅ and M₆ are two sub-circular, somewhat isolated negative anomalies that do not correlate with any other feature. They are located close to the interpreted axis of the anticline. As kimberlite pipes are known to exist in the general area, there exists a possibility that the source of these two circular bodies may be kimberlites.

The northern portion of the survey area exhibits a higher background but is interpreted to be deep seated. This is supported by the gradient data.

Faulting exists as a conjugate pair - northeasterly and northwesterly is interpreted. The northeasterly set is much more common. Drainage in the area generally flows northeasterly. The northwesterly set may be filled with dike material. The limited size of the survey area does not permit a proper assessment. All interpretations demand an excess of peripheral information to validate the survey area.

Faults labelled F₁ and F₃ are directly associated with magnetic bodies whose strike is altered by the faults. Faults F₂ and F₄ clearly exhibit off-sets in magnetic horizons. Body M₁ could easily be a fault filling.

VLF-EM Survey

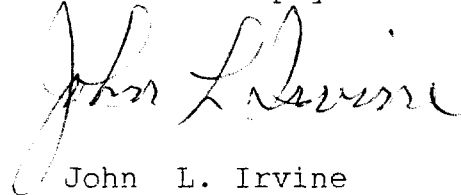
The VLF-EM data appears direction sensitive. The correlation with the magnetic data is poor. No explanation is offered for this adverse effect. The stations are known to go off the air without any notice.

CONCLUSIONS AND RECOMMENDATIONS

A combined aeromagnetic and VLF-EM survey over a portion of Lundy and Hudson Twps., Ont. revealed a northwesterly fabric to the magnetic patterns. An interpreted anticlinal axis also strikes northwesterly.

Two isolated, sub-circular magnetic "lows" exist in the survey area that appear to be independent of the interpreted structures. A vertical, cylindrical body is the suspected source.

Respectfully submitted
on behalf of
H. Ferderber Geophysics Ltd.

A handwritten signature in cursive script that reads "John L. Irvine". The signature is written in dark ink and is positioned above the printed name and title.

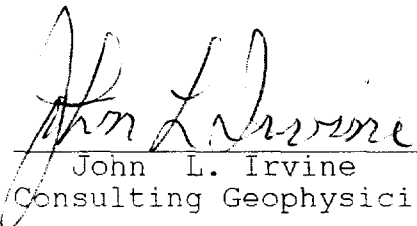
John L. Irvine
Consulting Geophysicist

CERTIFICATE OF QUALIFICATIONS

I, John L. Irvine, residing at 27 Brian Cres., Nepean Ont. do hereby certify that:

1. I am a self employed consulting geophysicist.
2. I attended the University of British Columbia at Vancouver B.C. and graduated with a B.Sc. in Geophysics and Geology in 1964.
3. I have worked continuously as a geophysicist since 1964.
4. I have been an active member of the Society of Exploration Geophysicists since 1968.
During this time, I held Chief Geophysicist positions with Australian Atomic Energy Commission, Directorate General of Mineral Resources, Jeddah, Saudi Arabia and with Kenting Earth Sciences Ltd. of Ottawa.
5. I am the author of the Interpretation Report of a Combined Airborne Geophysical Survey of Lundy and Hudson Twps. for Settlement Surveys Ltd. on behalf of H. Ferderber Geophysics Ltd.
6. The contents of this report are based on personal observations derived in part from the survey. I have not visited the survey area. Also, I have not visited the office of the airborne contractor with respect to the survey.
7. I have not directly or indirectly received or acquired nor do I expect to receive any interest direct or indirect in Settlement Surveys Ltd. or any of the company's properties within the contents of this report.
8. No part of this report may be quoted out of context.

Nepean, Ontario
26 Jan., 1997.


John L. Irvine
Consulting Geophysicist

APPENDIX C:
RESULTS OF AIRBORNE MAGNETOMETER/VLF-EM SURVEY
(ATTACHED AS A SEPARATE DOCUMENT TO THE FOLLOWING REPORT)

OP96-101
ONTARIO PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT
FOR BASE METALS AND KIMBERLITES
LUNDY TOWNSHIP, 1996

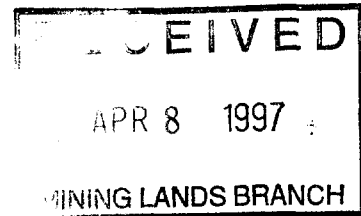
by

2-17269

John W. Pollock, Ph.D.
Box 2529, 17 Wellington St. N
NEW LISKEARD, ONTARIO
P0J 1P0

Tel.: (705) 647-8833
Fax: (705) 647-7026
E-MAIL: jpollock@onlink.net

January 30, 1997



*DUPLICATE
COPY*

SUMMARY

A combined airborne magnetometer and VLF-EM survey over a part of Lundy and Hudson Townships near New Liskeard, Ont. did not produce any significant signatures. However, two isolated, sub-circular magnetic signatures plus a VLF-EM response directly associated with them could represent kimberlite sources.

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**REPORT ON THE
COMBINED AIRBORNE GEOPHYSICAL SURVEY
ON PART OF
LUNDY & HUDSON TWPS., ONT.
for
SETTLEMENT SURVEYS LTD.**

INTRODUCTION

Settlement Surveys Ltd. have an option on some acreage located near New Liskeard, Ont. On 22 January, 1997, H. Ferderber Geophysics Ltd. conducted a combined airborne geophysical survey over the property and immediate surrounds. The airborne survey collected an approximate total of 275 line kilometers of data. H. Ferderber Geophysics Ltd. compiled the respective maps and then commissioned the author to prepare this report. The author did not visit the survey area nor visited the office of the contractor during the map compilation.

The survey consisted of a magnetometer and a VLF-EM unit. The magnetometer measured the total field component of the magnetic field. The VLF-EM unit measured the total field and the vertical component of the quadrature response of the VLF signal. A radar altimeter provided information of the height of the aircraft above the terrain. Primary navigation was by a GPS unit and confirmed with a flight path video camera.

The purpose of the magnetic survey was to locate and map the subsurface concentrations of naturally occurring magnetic minerals. These magnetic minerals generate magnetic patterns that reflect the subsurface geology.

The purpose of the VLF-EM survey was to locate electrically conductive zones within the underlying rocks. Electrically conductive zones may represent faults, shear zones and/or metallic sulfide occurrences that may be economic.

The observed relationships between the geophysical signature and the known geology of the immediate area is the basis for a geophysical interpretation. Correlation between the geology and the interpreted geophysical data suggests the geology as mapped is

correct. An obvious discrepancy requires an explanation and may indicate that the geology as mapped requires amendments.

The goal of the geophysical interpretation is the contribution of knowledge to the geological data base and where possible, suggest zones for exploration. Therefore, it would be possible to consider the resultant interpretation as a supplementary "pseudo-geological" map.

PROPERTY DESCRIPTION, LOCATION AND ACCESS

The property of Settlement Surveys Ltd. covered in this report consists of an area of approximately 2500 hectares. The nearest major town to the area is New Liskeard, Ont.

The climate in the area is typical of Northern Ontario - moderate in the summer and severe in the winter.

GEOLOGY

The survey area is underlain by late Precambrian rocks of the Cobalt Group which is part of the Huronian Supergroup. The majority of the survey area is underlain by the Firstbrook Member of the Gowganda formation - argillites and greywackes. Younger quartzites of the Lorrain Formation are reported to occur in the survey area. Mafic intrusive rocks, diabase and granophyre occur higher in the geological sequence. Contacts are northeasterly. Regional faults are northwesterly.

INSTRUMENTATION AND SURVEY METHODS

The aircraft used for the survey was a Cessna model 172, Canadian registration C-FEWK, owned by H. Ferderber Geophysics Ltd. and operated under a Canadian Licence. The aircraft was specially modified for the geophysical instrumentation.

Pilot - T. LeLong
Navigator/Operator - M. Deschamp

Magnetometers

The airborne magnetometer used was a GEM Systems GSM-11 Overhauser, proton precession magnetometer. The unit is capable of a sensitivity of 0.01 nT once a second or 0.1 nT ten times a second. The survey used 4 samples per second and a sensitivity of 0.01nT. The base station magnetometer was a Gem Systems GSM-18 memory magnetometer base station.

VLF-EM System

A Herz Totem 2A VLF-EM System measured the changes in the amplitude of the total field and the amplitude of the vertical quadrature component from two simultaneously transmitted

frequencies. The primary transmitting station was Seattle, Wash. transmitting at a frequency of 24.8 kHz. The secondary transmitting station was Rugby, England transmitting at a frequency of 16.0 kHz. The station used in the re-flying of the survey was Cutler, Maine at a frequency of 24.0 kHz.

Navigation

Navigation was by a Magnavox MX300 High Precision GPS unit recording six satellite stations simultaneously. The unit has a visual output for the pilot to follow. It also can store internally end points of traverses. This feature allows for preprogramming of a survey flight. Direct GPS positioning has a RMS error of 20-50m anywhere in the world. This error is often less than the existing errors in available maps.

Tracking Camera and Video Centre

A RCA TC-200 colour video camera coupled to a Galaxy 200 video centre recorded the flight path on standard VHS video tape. Manual fiducials were overlaid on the video for additional positional reference. Flight path recovery employed a model S1360 Panasonic colour video monitor and a model AG-2500 Video cassette recorder.

Radar Altimeter

A King 10/10 radar altimeter measured the altitude of the aircraft above the ground surface. The mean terrain clearance was subject to pilot discretion for safety of aircraft and aircrew. In areas of extreme relief, deviations from the planned altitude will vary.

Data Acquisition System

A PDAS 1100 data acquisition system manufactured by Picodas Group Inc. digitally recorded seven analog inputs plus two channels of frequency data. This required external interfacing. A Termiflex Corp. ST/32 keyboard control unit plus a Sharp Corp. LCD display unit was also connected to the acquisition system.

PDAS 1100

channel one	-	Altimeter	
two	-	VLF 1 Total Field	VLF 1 was Seattle.
three	-	Quadrature	
four	-	VLF 2 Total Field	VLF 2 was Rugby, Eng.
five	-	Quadrature	
six	-	Magnetometer course scale	
seven	-	fine scale	
frequency one	-	fourth difference	
two	-	fiducials	

Survey Parameters

The orientation of the survey traverses were 360/180° at a nominal spacing of 200m. and a mean terrain clearance of 300 ft. An average airspeed of 160 kph (100mph) or 44m/sec. and a sample

interval of 0.25 sec., produced an average sample increment was 10m. along the traverse. Three tie lines were flown perpendicular to the traverses.

DATA COMPILATION AND PRESENTATION

The PDAS 1100 recorded the survey information on a 3.5" floppy disk. After transferring the data into a PC computer, the software package generated the base map. The data from the flight path video camera verified the position of the aircraft.

Data presentation was by GEOSOFT - a software package designed specifically for geophysical presentations. H. Ferderber Geophysics Ltd. modified their GEOSOFT package for airborne use.

The removal of diurnal variations was by base station subtraction. Merging of the corrected data with the flight path provides the basis for the gridded data set. The data set of the total field is contoured at 10 nT intervals and presented at a scale of 1:20,000. Once the data set is accepted, the calculated first vertical derivative is presented at the same scale of 1:20,000. The contour interval is 0.0025 nT per m.

VLF-EM corrections included establishing a base level value and removing all drift or variations of the transmitter field strength. The variations in the total field strength are then plotted and contoured. The total field data from the two stations was plotted on two maps respectively.

Interpretive comments are qualitative and therefore, this interpretation is descriptive rather than analytical. A major assumption is that the magnetic response is due to an induced field with no elements of remnant magnetism present. Remnant magnetism can only be decided by a careful analytical, physical properties study of the area. It is very possible that remnant magnetism is present.

DISCUSSION OF THE SURVEY RESULTS

Magnetic Survey

An examination of the magnetic lineaments suggests a conjugate set of northwesterly and northeasterly structural elements. A dike is associated with the northwesterly element. The northeasterly element is represented by faulting.

A general northwesterly trend in the magnetic signatures is noted. Maximum amplitude of approximately 250 nT above a 57,500 nT background is also noted. Much weaker features are noted and noted below.

The calculated magnetic gradient (first vertical derivative)

presents a similar pattern but all elements are much better defined. Well defined negative zones are associated with the main responses and apparent dips can be posted.

M_1 is a northwesterly trending dike exhibiting near vertical dip. A narrow source is expected.

M_2 at first appears to be arising from an intrusive but an examination of the gradient data suggests that a westerly trending dike is the source of the magnetic signature. M_3 appears to be part of M_2 in the total field data set but this is interpreted as arising from the same deep source. Faulting has off-set M_2 . M_2 is further interpreted to have a southerly dip of approximately 60° . M_3 exhibits a southeasterly dip of probably 75° .

M_4 is interpreted to exhibit a northerly dip and is thought to be the equivalent of M_2 but on the north limb of an interpreted anticline. It is noted, however, that the magnetic material between the two horizons does not offer a symmetrical response supplementing the interpretation of an anticline.

M_5 and M_6 are two sub-circular, somewhat isolated negative anomalies that do not correlate with any other feature. They are located close to the interpreted axis of the anticline. As kimberlite pipes are known to exist in the general area, there exists a possibility that the source of these two circular bodies may be kimberlites.

The northern portion of the survey area exhibits a higher background but is interpreted to be deep seated. This is supported by the gradient data.

Faulting exists as a conjugate pair - northeasterly and northwesterly is interpreted. The northeasterly set is much more common. Drainage in the area generally flows northeasterly. The northwesterly set may be filled with dike material. The limited size of the survey area does not permit a proper assessment. All interpretations demand an excess of peripheral information to validate the survey area.

Faults labelled F_1 and F_3 are directly associated with magnetic bodies whose strike is altered by the faults. Faults F_2 and F_4 clearly exhibit off-sets in magnetic horizons. Body M_1 could easily be a fault filling.

VLF-EM Survey

The VLF-EM data from Cutler Maine produced 11 conductor axes striking northwesterly. There is both correlation of the conductors with the interpreted data and with drainage.

Cutler is one of the strongest VLF-EM transmitters available for geophysical work. Consequently, for surveys in eastern Canada,

surficial and geological structures striking towards Maine are enhanced and structures that are orthogonal appear weak. This is a strike enhancement effect.

VLF-EM is highly susceptible to surficial features such as drainage patterns and the edges of thick, conductive overburden. Consequently, previous knowledge of the area is mandatory if the interpreter is expected to differentiate between surficial and bedrock conductors.

Conductors C_1 , C_3 , and C_5 all parallel the interpreted anticlinal axis and could therefore reflect bedding associated with the fold axis.

Conductor C_2 is coincident with a stream and is therefore considered a surficial feature and is responding to clays and other conductive material.

C_4 is a very short conductor directly associated with magnetic feature M_4 . This magnetic feature suggests a possible sub-circular, vertical pipe. The conductive nature of such a structure is indicative of a kimberlite pipe. Further work is warranted.

Conductor C_6 is indirectly associated with the westward extension of an interpreted magnetic dike. However, it also parallels a drainage channel located to the north. Geomorphological work may resolve this concept.

Conductors C_7 , C_8 and C_{11} exhibit no correlation to any magnetic feature. Surficial sources are suspected.

Conductors C_9 and C_{10} are interpreted to be associated with a dike and interpreted body M_2 respectively. The bifurcation in C_9 should be considered normal.

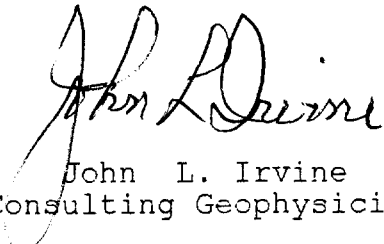
CONCLUSIONS AND RECOMMENDATIONS

A combined aeromagnetic and VLF-EM survey over a portion of Lundy and Hudson Twps., Ont. revealed a northwesterly fabric to the magnetic patterns. An interpreted anticlinal axis also strikes northwesterly.

Two isolated, sub-circular magnetic "lows" exist in the survey area that appear to be independent of the interpreted structures. A vertical, cylindrical body is the suspected source. A short, strike length VLF-EM conductor is directly associated with the magnetic responses.

Other VLF-EM conductors are present. C_2 is interpreted to be associated with drainage. C_9 and C_{10} are interpreted to be associated with dikes. The remainder represent bedding and/or surficial features.

Respectfully submitted
on behalf of
H. Ferderber Geophysics Ltd.




John L. Irvine
Consulting Geophysicist

CERTIFICATE OF QUALIFICATIONS

I, John L. Irvine, residing at 27 Brian Cres., Nepean Ont. do hereby certify that:

1. I am a self employed consulting geophysicist.
2. I attended the University of British Columbia at Vancouver B.C. and graduated with a B.Sc. in Geophysics and Geology in 1964.
3. I have worked continuously as a geophysicist since 1964.
4. I have been an active member of the Society of Exploration Geophysicists since 1968.
During this time, I held Chief Geophysicist positions with Australian Atomic Energy Commission, Directorate General of Mineral Resources, Jeddah, Saudi Arabia and with Kenting Earth Sciences Ltd. of Ottawa.
5. I am the author of the Interpretation Report of a Combined Airborne Geophysical Survey of Lundy and Hudson Twps. for Settlement Surveys Ltd. on behalf of H. Ferderber Geophysics Ltd.
6. The contents of this report are based on personal observations derived in part from the survey. I have not visited the survey area. Also, I have not visited the office of the airborne contractor with respect to the survey.
7. I have not directly or indirectly received or acquired nor do I expect to receive any interest direct or indirect in Settlement Surveys Ltd. or any of the company's properties within the contents of this report.
8. No part of this report may be quoted out of context.

Nepean, Ontario
06 Feb., 1997.



John L. Irvine
Consulting Geophysicist

Location of 11 sample locations for indicator minerals. ⊕ 15
 Location of 7 rock sample (assay) locations. Lu-7
 Jm mmm

Note: Some of the information on this map and especially the pipe locations in Lundy and Barr townships are speculative and have not been confirmed by any person or mining company.

Top Half - Geological Survey
 Source: Ontario Geological Survey: Map 2205, Timmins-Kirkland Lake, Geological Compilation Series. Original compilation 1964, revised 1970-71.

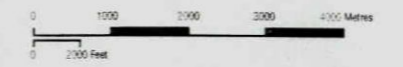
Bottom Half - Geological Survey
 Source: Ontario Geological Survey: Map 2361, Sudbury-Cobalt, Geological Compilation Series. Original compilation 1965-9, revised 1974-5.

For legend of rock types see Schedule A

Symbols

- Kimberlite Pipe
 - Metal/Mineral Occurrence
 - Claims Pollock Group
 - Claims Others
 - Fault
 - Lady Evelyn Lake Anticline
-
- Metal and Mineral Reference**
- Ag Silver
 - Co Cobalt
 - Cu Copper
 - U Uranium

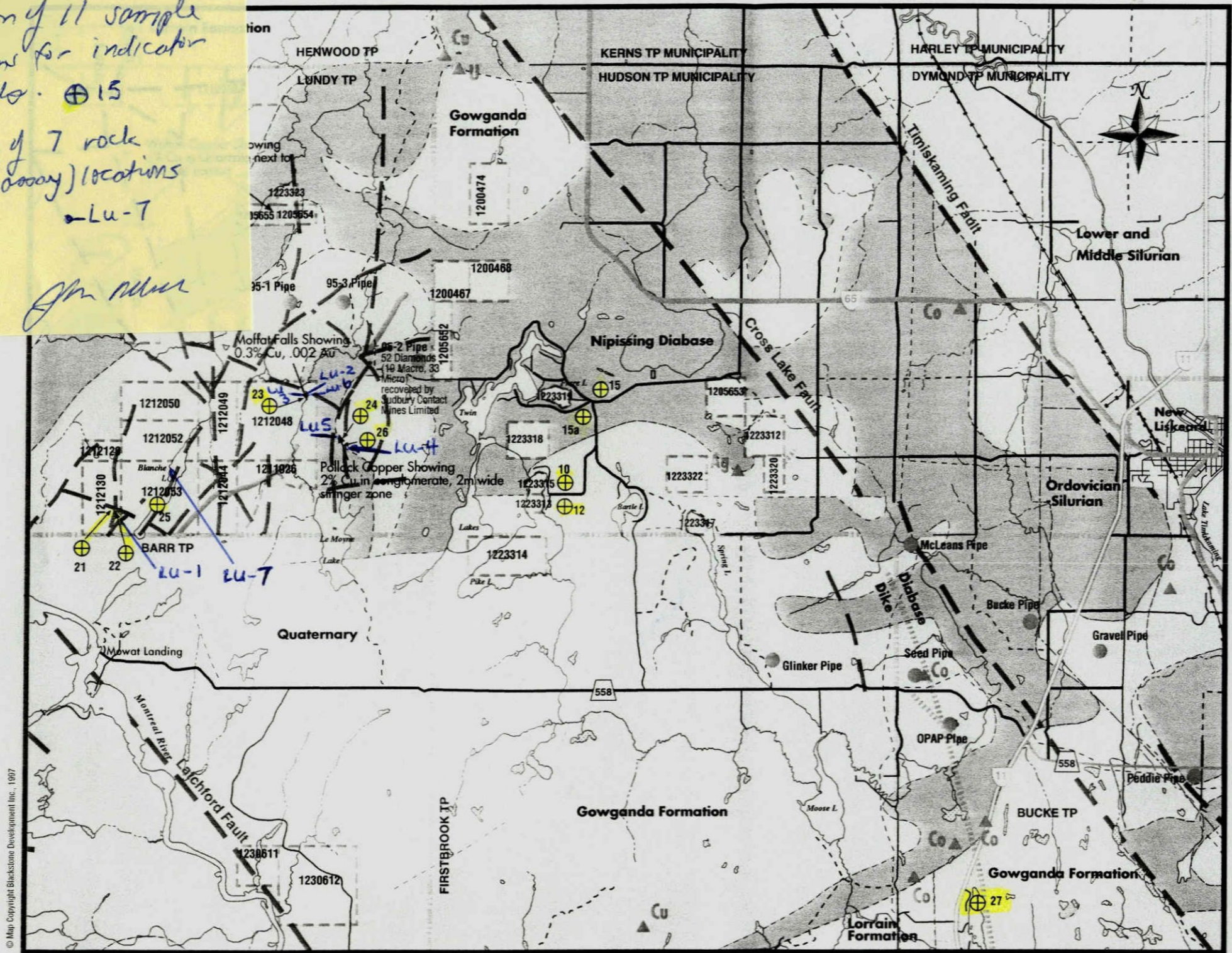
⊕ 15
 Indicator Mineral Sample Location
 + Lu-4
 Rock sample location



Pollock Group Diamond Property
COMBINED GEOLOGY MAP

50 Silver Street, P.O. Box 699
 Cobalt, Ontario
 (705) 679-5500
 Fax: (705) 679-5519
 Email: blackstn@nt.net

Scale: (see bar scale) Date: Dec. 12/96
 Drawn by: M. Hawirko Map No. C-BCI-002



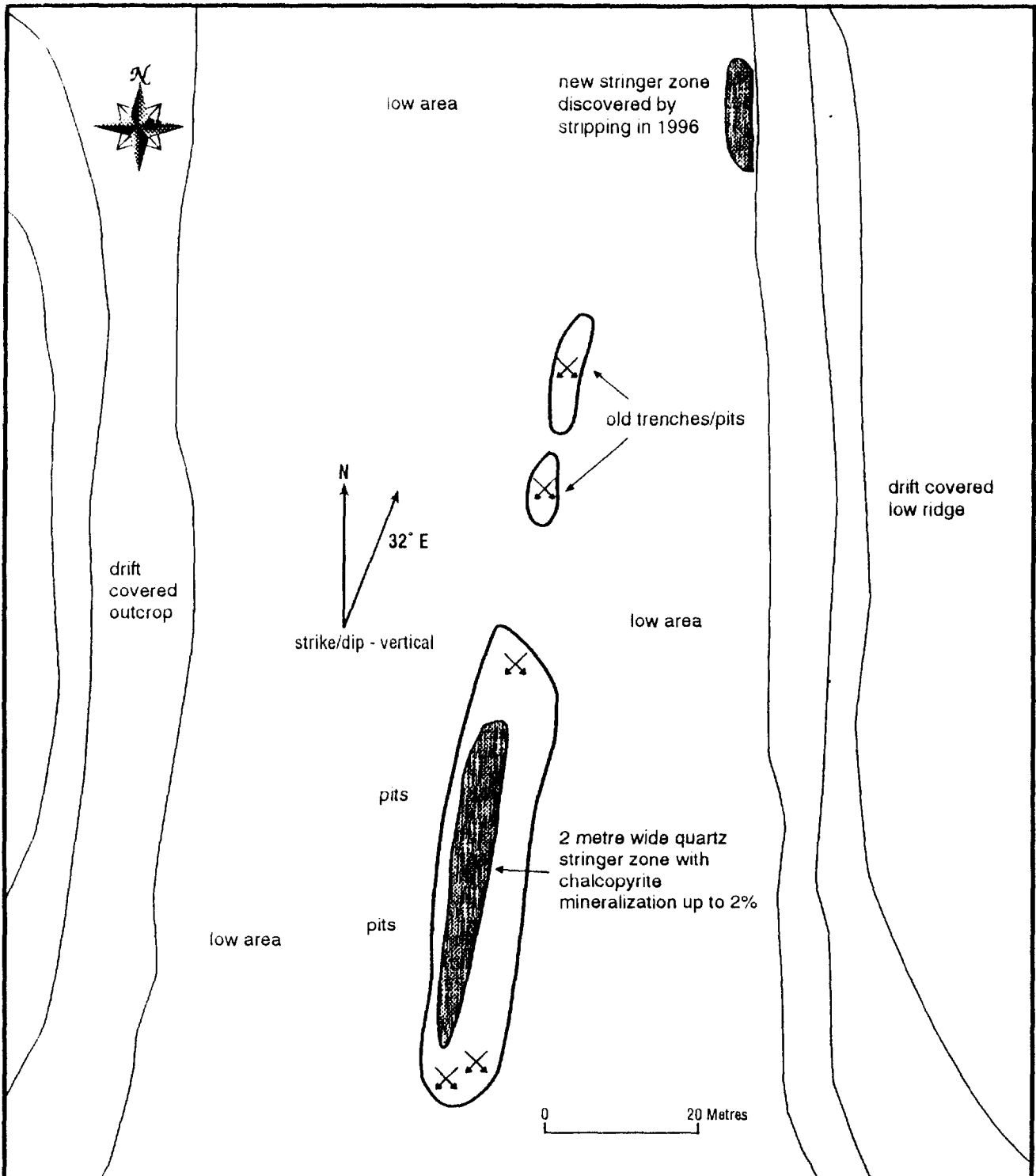

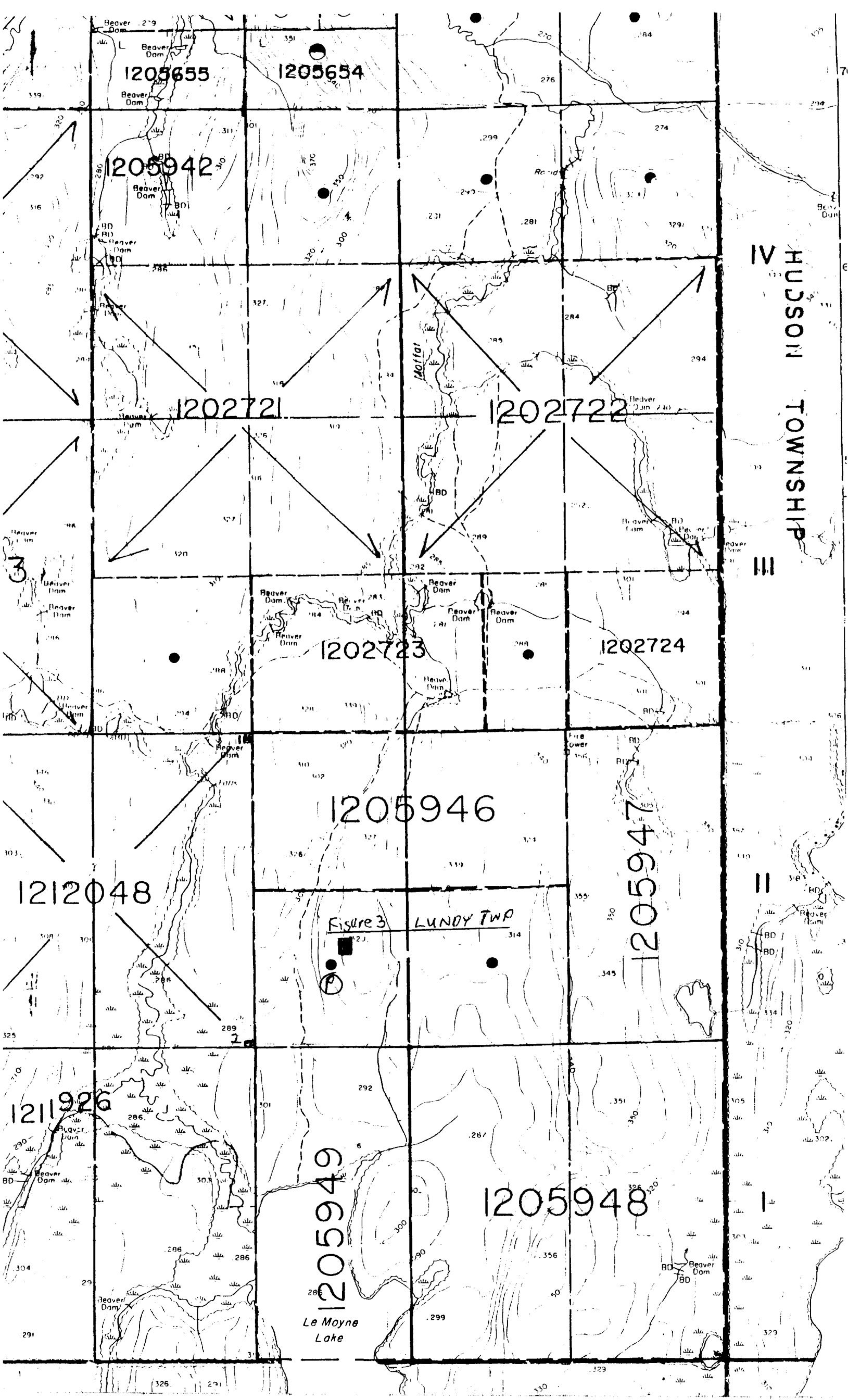


Figure 3
 Location 600 metres NE of Post #2
 on claim 1212048 on patented lot
 owned by John Pollock

Sketch Map of Pollock Copper Showing

 BLACKSTONE Development Inc.	50 Silver Street, P.O. Box 699 Cobalt, Ontario POJ 1C0	Tel: (705) 679-5500 Fax: (705) 679-5519 Email: blackstn@nt.net
	Scale (not to scale) Drawn by: M. Hewinko	Date: January 7, 1997 Figure 3



1205655

1205654

1205942

1202721

1202722

1202723

1202724

1205946

1205947

1212048

Figure 3 LUNDY TWP

1211926

1205949

1205948

Le Moyne Lake

IV HUDSON TOWNSHIP

III

II

I

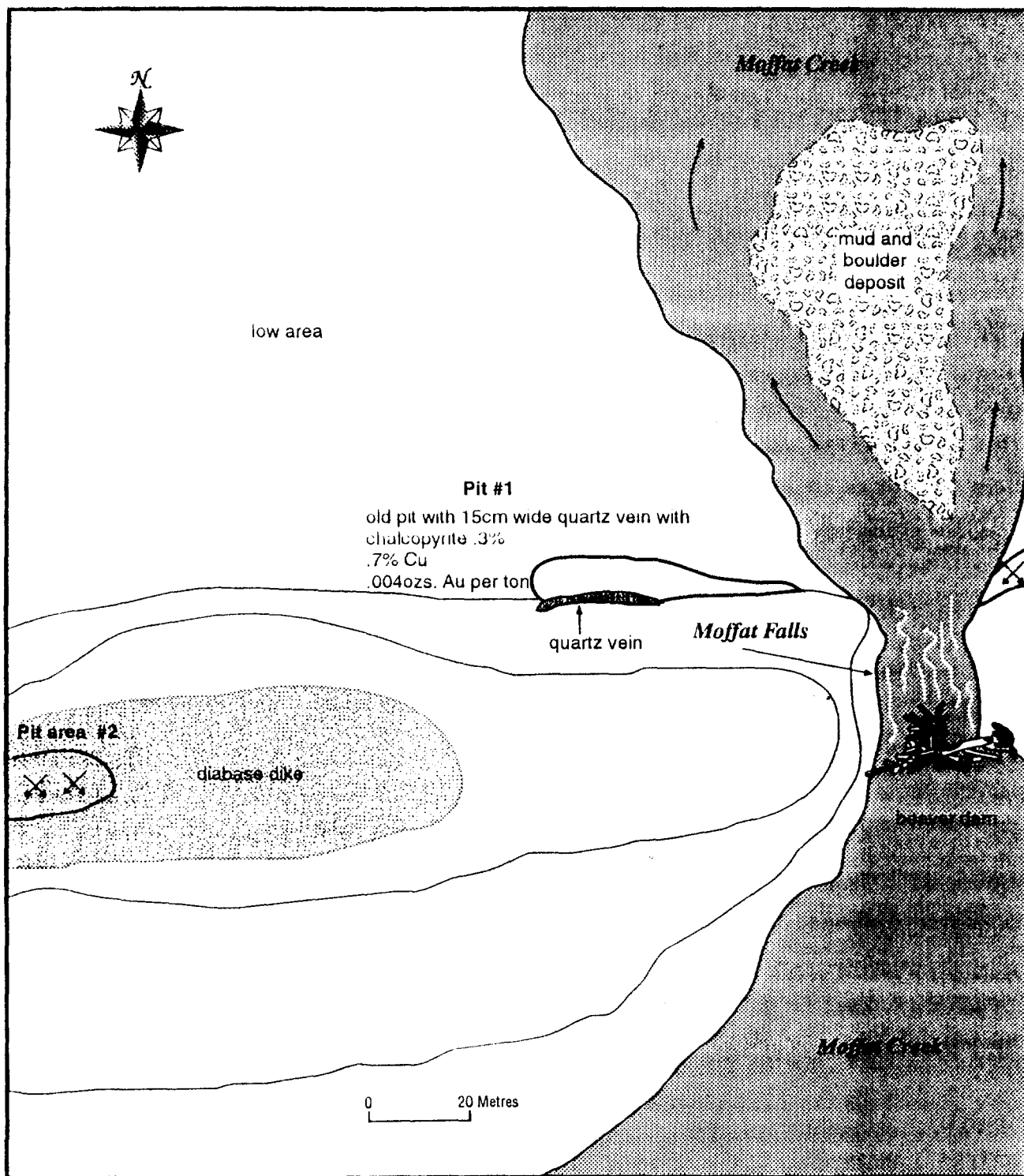

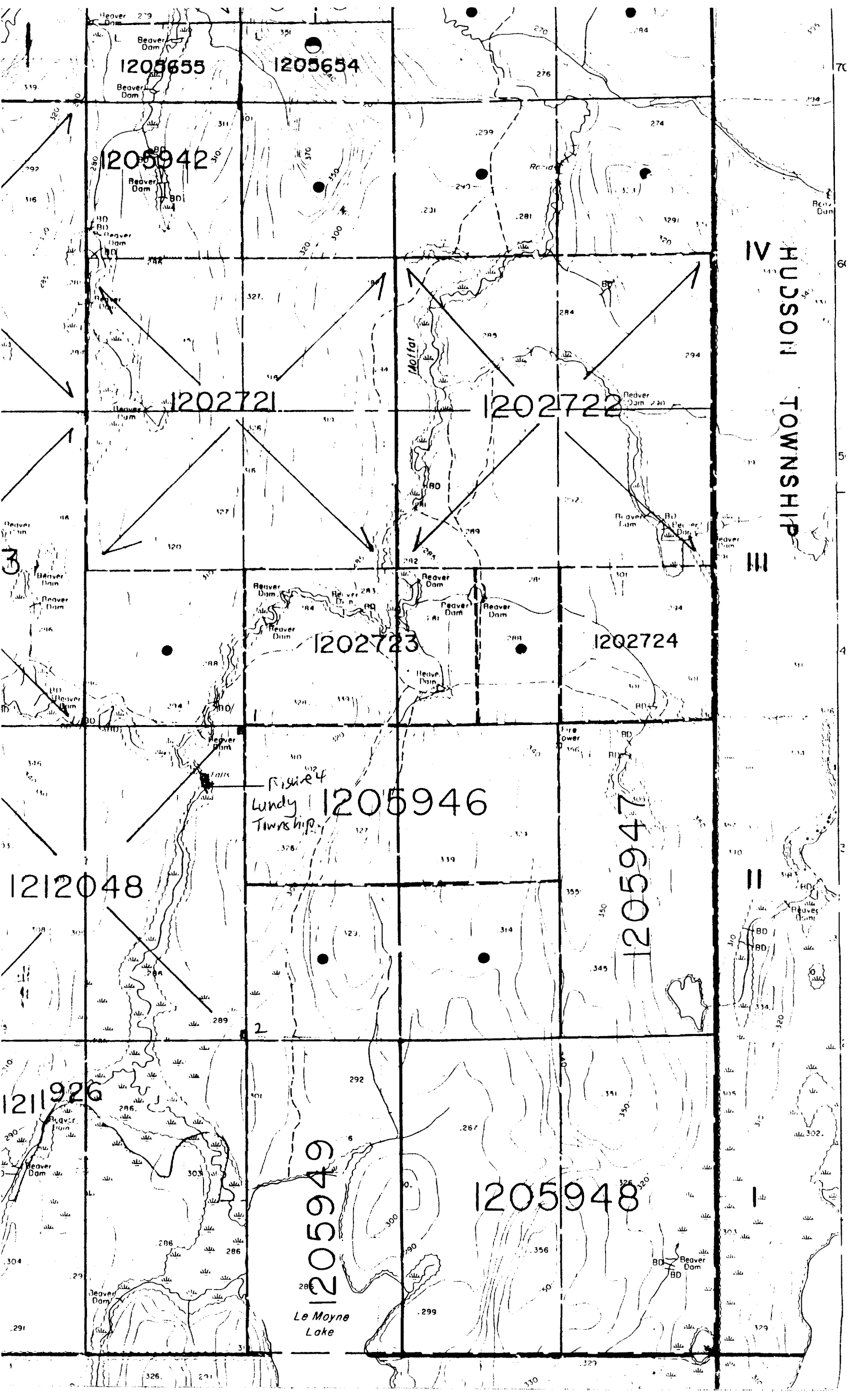


Figure 4
 Location: 300 metres SW of Post #1
 on Claim 1212048

Sketch Map of Moffat Falls Showing

 BLACKSTONE Development Corp.	50 Silver Street	Tel: (705) 679-5500
	P.O. Box 699	Fax: (705) 679-5519
	Cobalt, Ontario	Email: blackstn@nt.net
	P.O. 1C0	
SC311 (200 BY 100) Drawn by: M. Hawicko	Date: January 7, 1997 Figure 4	



1205655

1205654

1205942

1202721

1202722

1202723

1202724

Figure 4
Lundy
Township
1205946

1205947

1212048

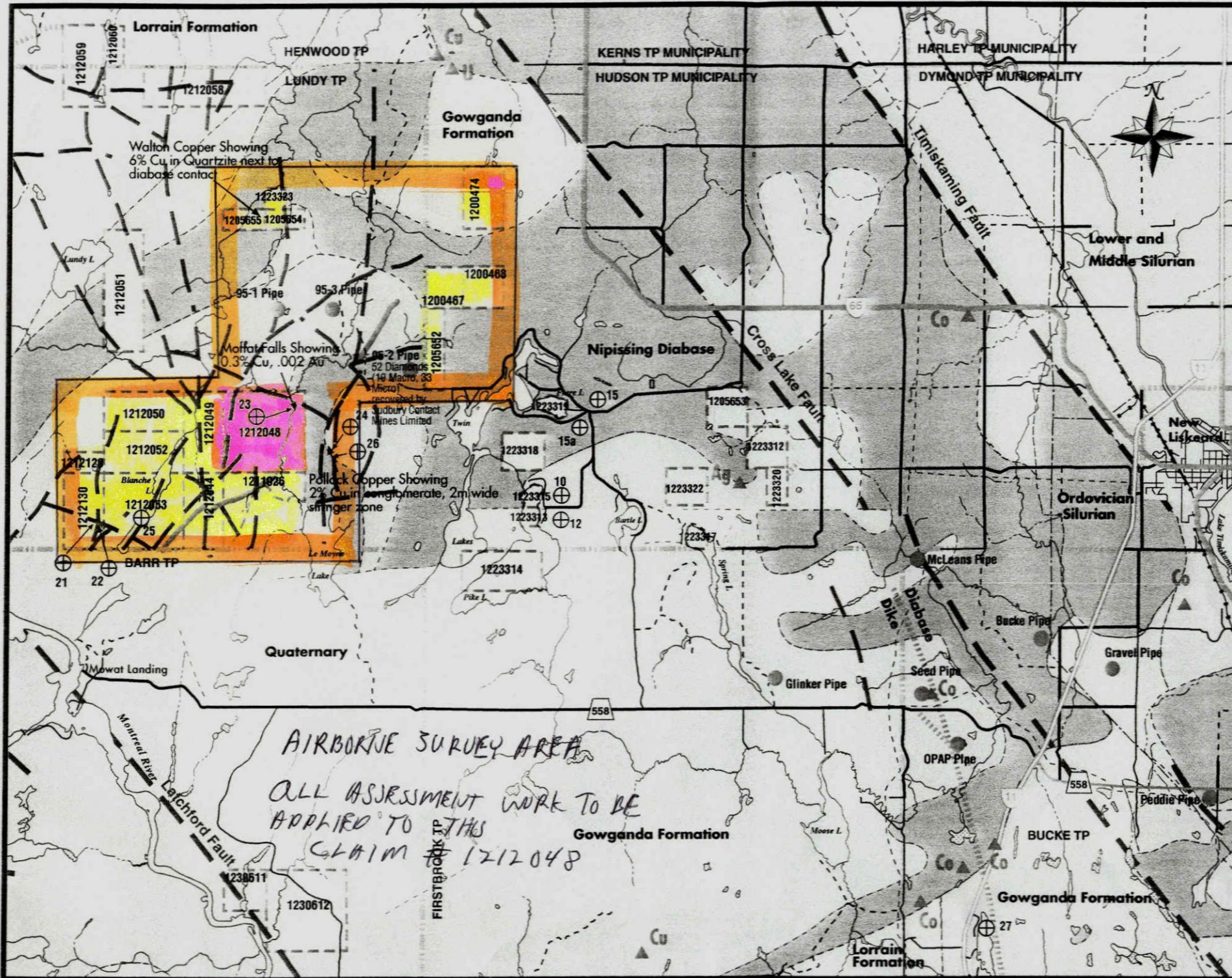
1211926

1205949

1205948

Le Moyne
Lake

IV
HUDSON
TOWNSHIP



Note: Some of the information on this map and especially the pipe locations in Lundy and Barr townships are speculative and have not been confirmed by any person or mining company.

Top Half - Geological Survey

Source: Ontario Geological Survey: Map 2205, Timmins-Kirkland Lake, Geological Compilation Series. Original compilation 1964, revised 1970-71.

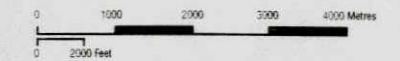
Bottom Half - Geological Survey

Source: Ontario Geological Survey: Map 2361, Sudbury-Cobalt, Geological Compilation Series. Original compilation 1965-9, revised 1974-5.

For legend of rock types see Schedule A

Symbols

- Kimberlite Pipe
 - Metal/Mineral Occurrence
 - Claims Pollock Group
 - Claims Others
 - Fault
 - Lady Evelyn Lake Anticline
- Metal and Mineral Reference**
- Ag Silver
 - Co Cobalt
 - Cu Copper
 - U Uranium



Pollock Group Diamond Property	
COMBINED GEOLOGY MAP	
	60 Silver Street, P.O. Box 699 Cobalt, Ontario (705) 679-5500 Fax: (705) 679-5519 Email: blackstn@nt.net
	Scale: (see bar scale) Date: Dec. 12/96 Drawn by: M. Hawirko Map No. C-BCI-002

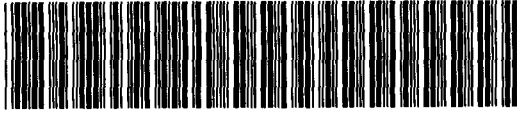


Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use) 119780 00267 Assessment Files Research Imaging

Personal Information Mining Act, the Infor Questions about th 933 Ramsey Lake F



31M12SW0021 2.17269 LUNDY

900

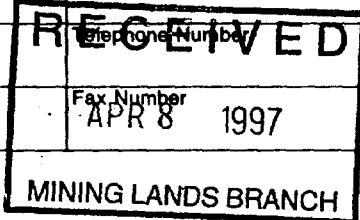
id 66(3) of the Mining Act. Under section 8 of the work and correspond with the mining land holder. f Northern Development and Mines, 6th Floor,

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

2.17269

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

Name JOHN W. POLLOCK Client Number 301410 Address 17 Wellington Street, P.O. Box 2529 NEW LISKEARD, ONTARIO P0J 1P0 Telephone Number 705-647-8833 Fax Number 705-647-7026



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

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

Work Type Prospecting Airborne Geophysical Survey Assays and Till Sample Processing Office Use Commodity Total \$ Value of Work Claimed 10,548 Dates Work Performed From 18 06 96 To 29 01 97 Mining Division Larder Lake Resident Geologist District K. Lake Cobalt

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

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

Name Dr John W. Pollock Telephone Number 705-647-8833 Address Box 2529, 17 Wellington St-N. New Liskeard Ont P0J 1P0 Fax Number 705-647-7026

4. Certification by Recorded Holder or Agent

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

Signature of Recorded Holder or Agent John Pollock Date April 1, 1997 Agent's Address Box 2529 - 17 Wellington St New Liskeard Ont Telephone Number 705-647-8833 Fax Number 705-647-7026

June 30/97

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

eg	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Val. to be distributed at a future date.
eg	TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg	1234567	12	0	\$24,000	0	0
eg	1234568	2	\$8,892	\$4,000	0	\$4,892
1	1212048	16 units	10,548	6,400	0	4,148
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
Column Totals			10,548	6,400	0	4,148

1 claim
16 units

RECEIVED
 APR 8 1997
 MINING LANDS BRANCH

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

Signature of Recorded Holder or Agent Authorized in Writing: John Pollock Date: April 1, 1997

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

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

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

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

For Office Use Only

Received Stamp: **LARDER LAKE MINING DIVISION**
 '97 APR 7 PM 1 15
RECEIVED

Deemed Approved Date <u>July 6 / 97</u>	Date Notification Sent <u>DM</u>
Date Approved <u>July 6 / 97</u>	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature) <u>Linda Loupart</u>	

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

2.17269

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
Prospecting, fill sampling	43 days	100/day	4,300.00
Airborne Mag-ULF-EM	287.5 km		4,600.00
Assay costs (rocks)			274.80
Indicator Mineral Picking			402.87
Associated Costs (e.g. supplies, mobilization and demobilization).			
Consumable supplies - insect repellent, film, bags			108.95
management costs, Administration, film processing, courier, mail etc			345.51
Transportation Costs			
Bush Plane Travel to Blanche Lake, Lundy Twp			318.43
Use of own truck - 660 km		30¢ km	198.00
Food and Lodging Costs			
			0
			0
Total Value of Assessment Work			10,548.56

RECEIVED
 APR 8 1997
 MINING LANDS BRANCH

Calculations of Filing Discounts:

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

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

Note:

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

Certification verifying costs:

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

Signature 	Date April 1, 1997
---------------	-----------------------

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines



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

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

October 3, 1997

John W. Pollock
JOHN W. POLLOCK
17 WELLINGTON STREET NORTH
NEW LISKEARD, ONTARIO
P0J-1P0

Dear Sir or Madam:

Submission Number: 2.17269

Status

Subject: Transaction Number(s): W9780.00267 Approval After Notice

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

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

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

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jerome_l@torv05.ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

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

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

Work Report Assessment Results

Submission Number: 2.17269

Date Correspondence Sent: October 03, 1997

Assessor: Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9780.00267	1212048	LUNDY	Approval After Notice	August 01, 1997

Section:

15 Airborne Geophy AMAG

15 Airborne Geophy AVLF

17 Assays ASSAY

The revisions outlined in the Notice dated June 16, 1997 have been received.

Assessment work credit has been approved as outlined on the attached Distribution of Assessment Work Credit sheet.

Correspondence to:

Resident Geologist
Cobalt, ON

Assessment Files Library
Sudbury, ON

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

John W. Pollock
JOHN W. POLLOCK
NEW LISKEARD, ONTARIO

Distribution of Assessment Work Credit

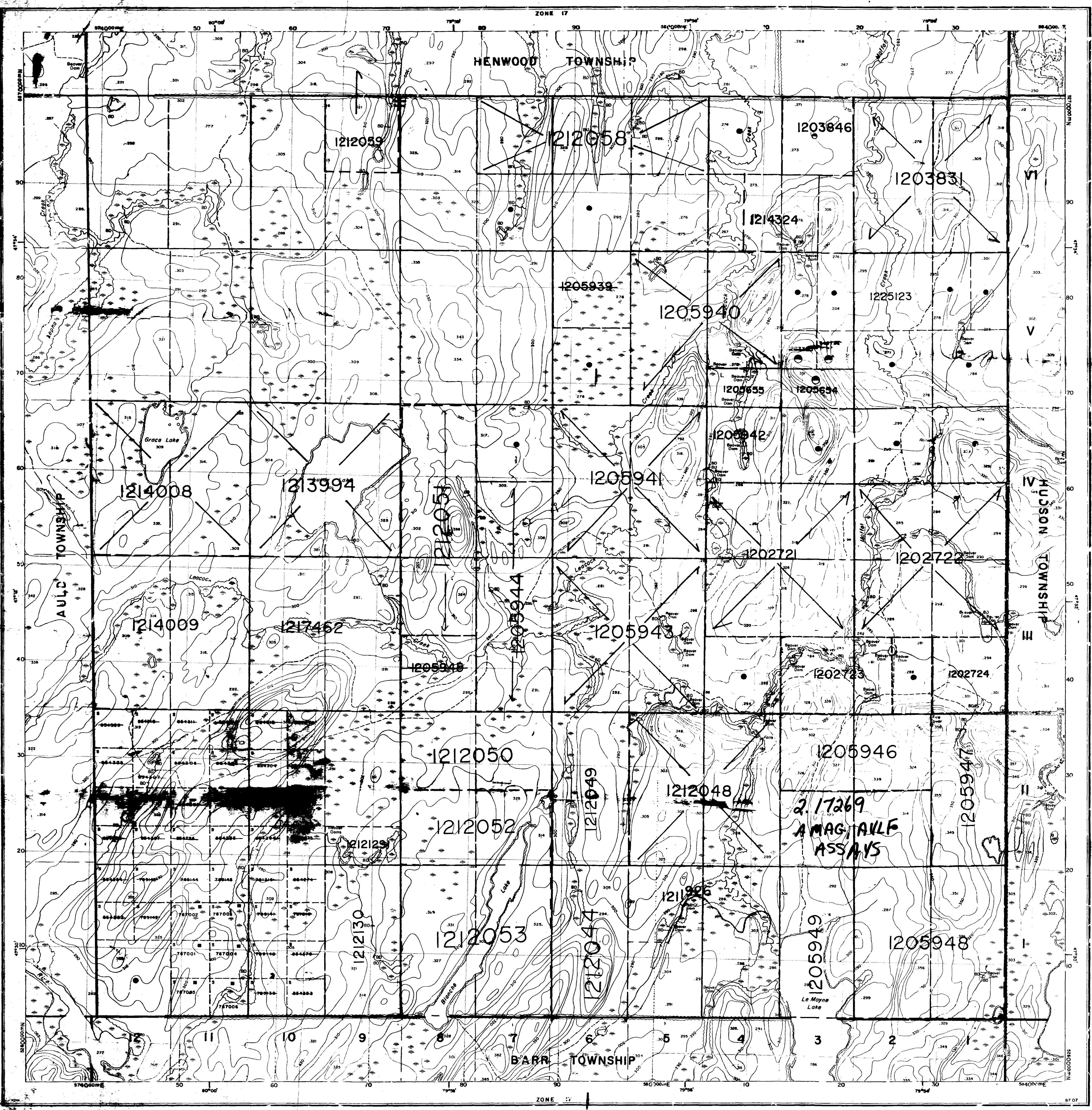
The following credit distribution reflects the value of assessment work performed on the mining land(s).

Date: October 03, 1997

Submission Number: 2.17269

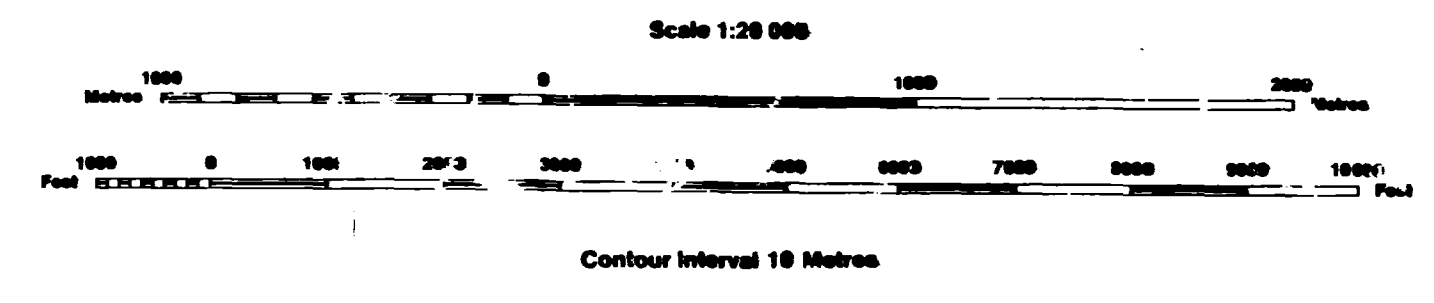
Transaction Number: W9780.00267

<u>Claim Number</u>	<u>Value Of Work Performed</u>
1212048	6,400.00
Total: \$	<u>6,400.00</u>



INDEX TO LAND DISPOSITION
 PLAN
 G-3439
 TOWNSHIP
LUNDY

M.M.N. ADMINISTRATIVE DISTRICT
TEMAGAMI
 LARDEE LAKE
 TIMISKAMING



SYMBOLS

Boundary	Township, Meridian, E. line
Road allowance, surveyed	shoreline
Lot/Concession, surveyed	unsurveyed
Parcel, surveyed	unsurveyed
Right-of-way, road	railway
	utility
Reservation	
Cliff, P. Pile	
Contour	
Interpolated	
Approximate	
Depression	
Cont. point (horizontal)	
Flood land	
Mine road frame	
Pipe line (above ground)	
Railway, single track	
	double track
	and
Road, highway, county, township	
access	
trail, bush	
Shoreline (original)	
Transmission line	
Wooded area	

AREAS WITHDRAWN FROM DISPOSITION
 M.R.O. - Mining Rights Only
 S.R.O. - Surface Rights Only
 M + S - Mining and Surface Rights

Record No.	Order No.	Date	Disposition	File
SEC. 35/80	W.2/83	25/7/83	M.R.O.	16540
SEC. 35/80	G.L.30/86NER	31/SEP/86	S.R.O.	
SEC. 36/80	W.1/85			
O.N.D.R. NO. L-18/86 NER OPENS W-1185 NER				

DATE OF ISSUE
 OCT 03 1997
 PROVINCIAL RECORDING
 OFFICE - SUDBURY

DISPOSITION OF CROWN LANDS

Parcel	Surface & Mining Rights	Surface Rights Only	Mining Rights Only
Lease	Surface & Mining Rights	Surface Rights Only	Mining Rights Only
Licence of Occupation			
Order-in-Council			
Canceled			
Reservation			
Sand & Gravel			

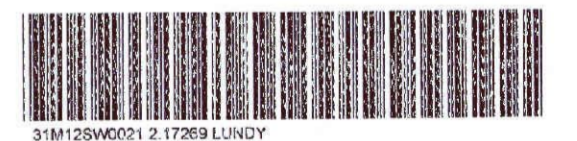
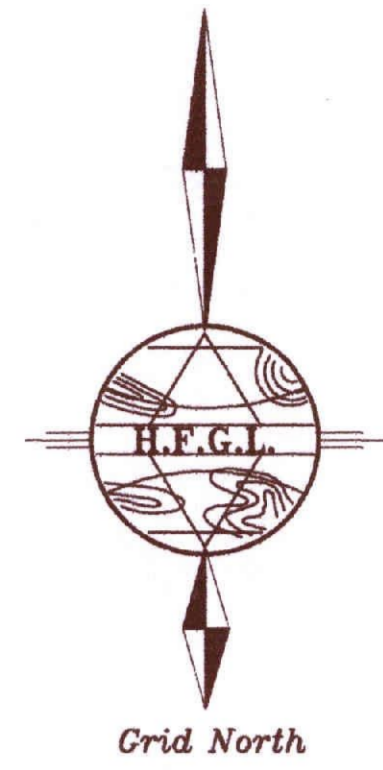
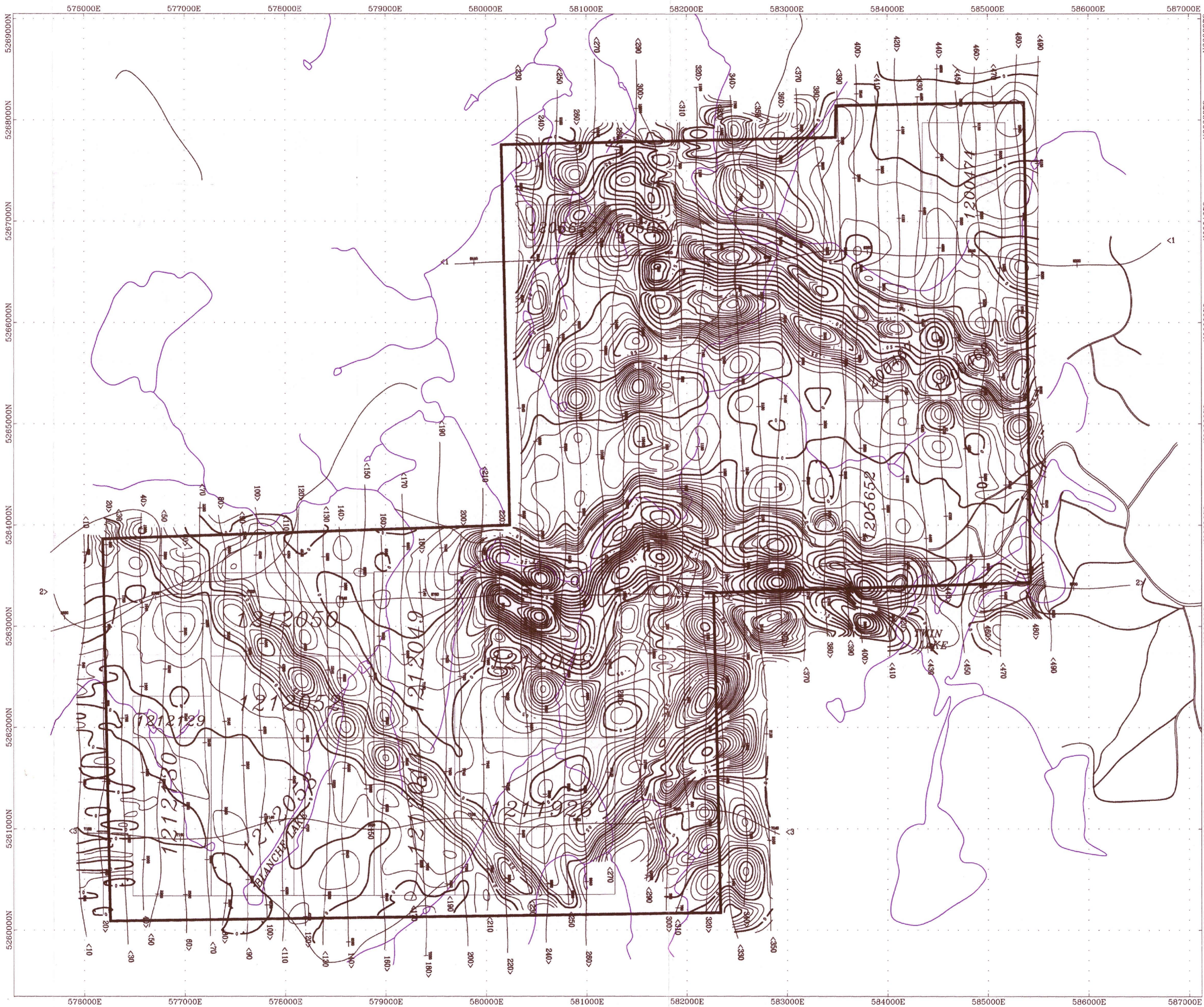
THIS TOWNSHIP AREA IS A COMPREHENSIVE PLANNING AREA. SPECIAL WORKING CONDITIONS MAY APPLY TO EXPLORATION ACTIVITIES. FOR MORE DETAILS PLEASE CONTACT:
 DISTRICT MANAGER,
 NORTH BAY DISTRICT
 MINISTRY, NATURAL RESOURCES

NOTICE OF FORESTRY ACTIVITY
 THIS TOWNSHIP AREA FALLS WITHIN THE LATCHFORD MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE NWL UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 38, LAKESHORE DRIVE, TEMAGAMI, ONT., P0H 2H0, 705-569-3622

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

CIRCULATED APRIL 19/88 ARCHIVED APRIL 3, 1995
 RECHÉVÉ APRIL 18, 1997

G-3439
 LUNDY TOWNSHIP



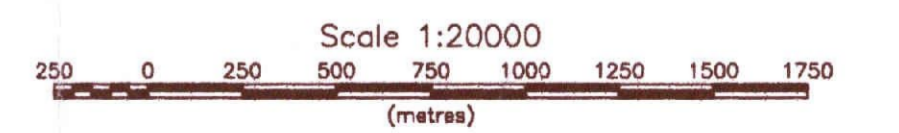
210


NOTES:

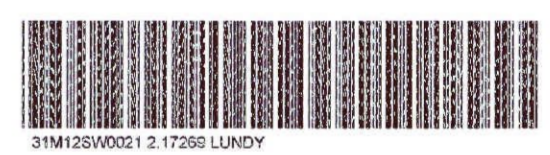
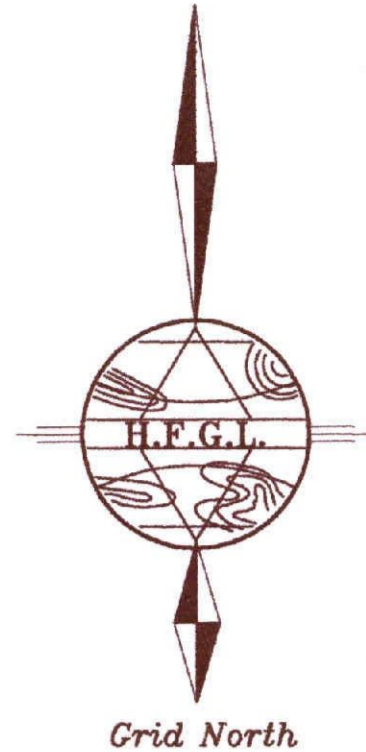
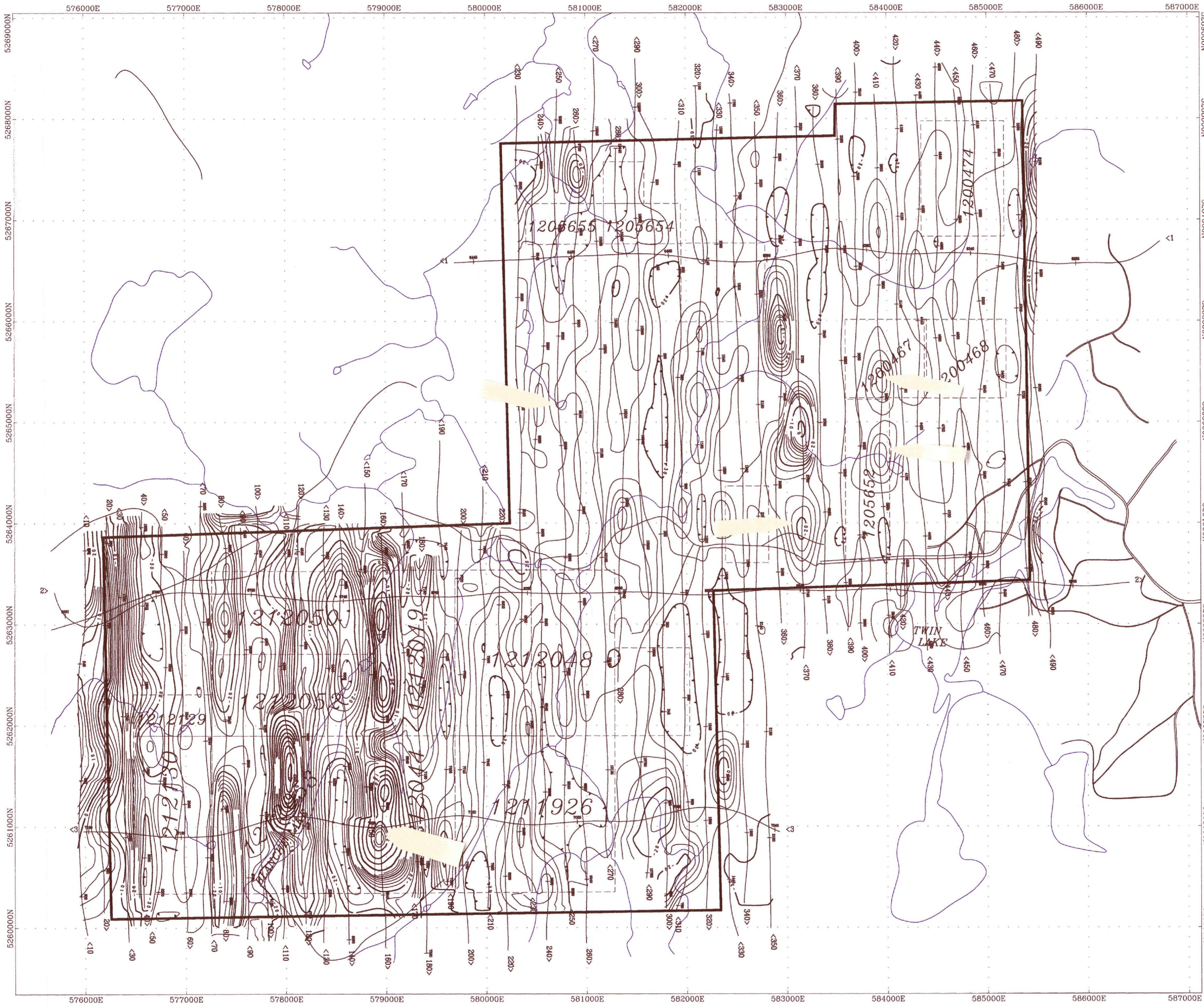
Flight path derived from GPS Data.

SURVEY SPECIFICATION:

Aircraft: Cessna 172 C-FEWK
 EM System: Totem II
 Magnetometer: GSM II
 Mag Sensitivity: 0.01 nT
 Nominal sample interval: 10 Metres (0.25 Sec.)
 Terrain Clearance: 300 Ft (100 metre)
 Flight line spacing: 200 Metres
 Flight line direction: North-South
 Contour Interval: 0.01 nT

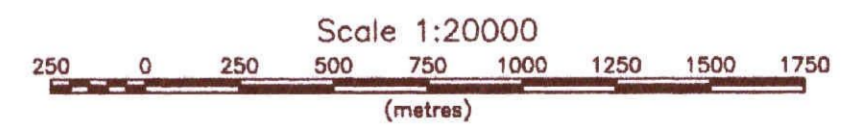


TYPE OF WORK		AIRBORNE MAP VERTICAL GRADIENT	
CLIENT			
SETTLEMENT SURVEYS LTD			
PROJECT		AREA	
LUNDY & HUDSON		LUNDY TWP. G-3439	
SCALE		DATE	
1 = 20000		JAN 97	
DRAWN BY		MAP OR SHEET NO.	
Geoplan		97-202	
 H. FERDERBER GEOPHYSICS LTD.			

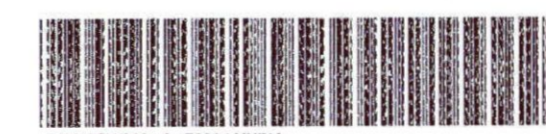
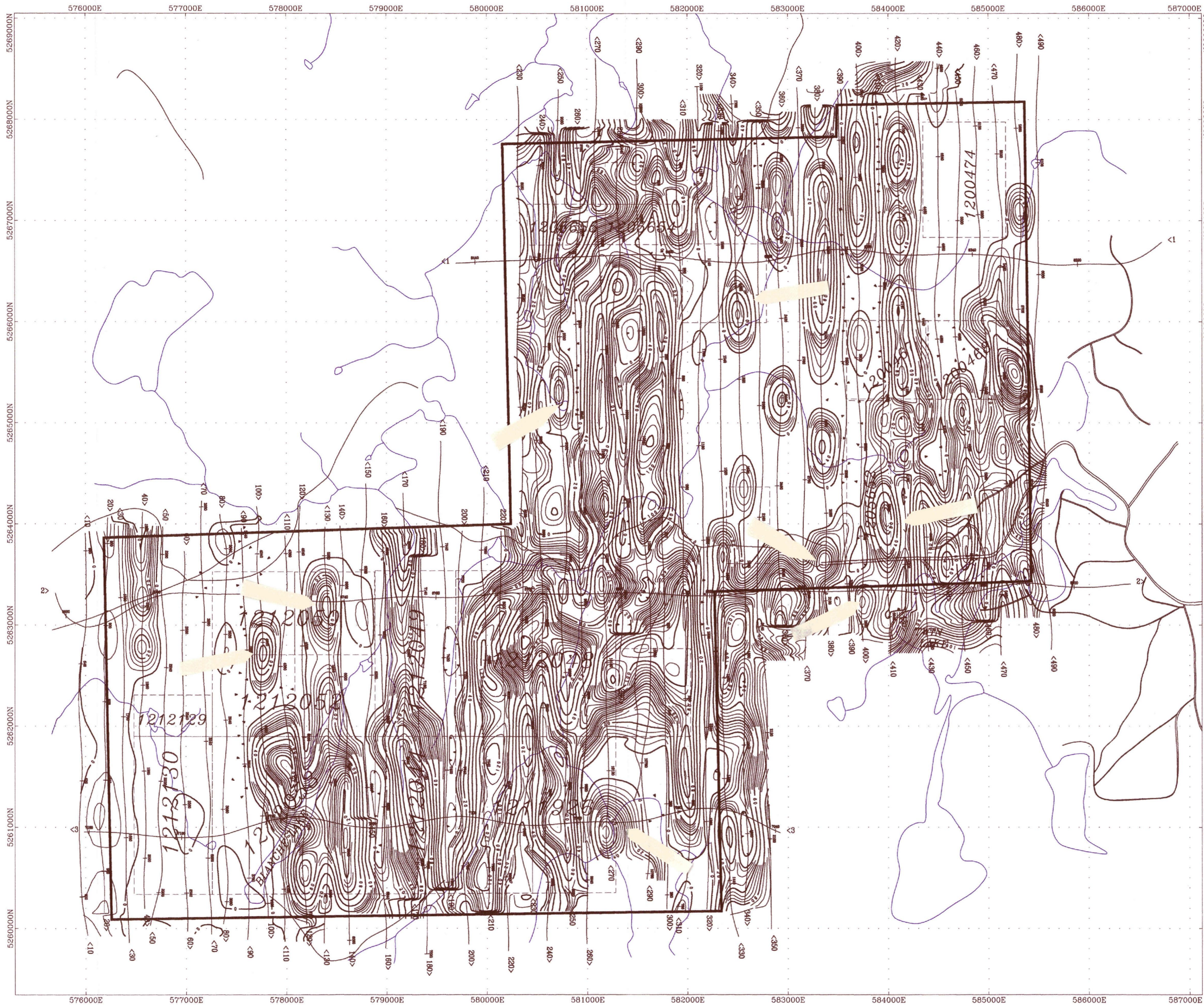


NOTES:
 Flight path derived from GPS Data.

SURVEY SPECIFICATION:
 Aircraft: Cessna 172 C-FEWK
 EM System: Totem II
 Magnetometer: GSM II
 Mag Sensitivity: 0.01 nT
 Nominal sample interval: 10 Metres (0.25 Sec.)
 Terrain Clearance: 300 Ft (100 metre)
 Flight line spacing: 200 Metres
 Flight line direction: North-South
 Contour Interval: 2%

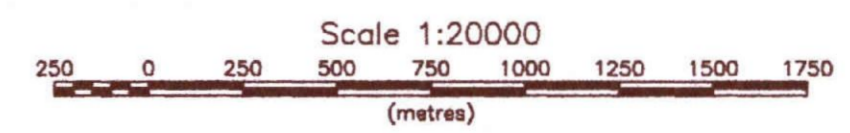



TYPE OF WORK		AIRBORNE MAP TOTAL FIELD MAP 16.0 KHz (ENGLAND)	
CLIENT			
SETTLEMENT SURVEYS LTD			
PROJECT	LUNDY & HUDSON	AREA	LUNDY TWP. G-3439
DRAWN BY	H. FERDERBER GEOPHYSICS LTD.	SCALE	1 = 20000
		DATE	JAN 97
		MAP OR SHEET NO.	97-202

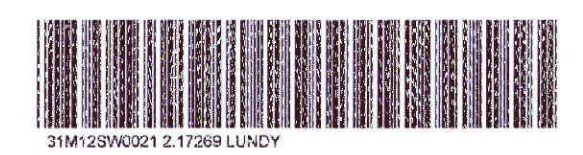
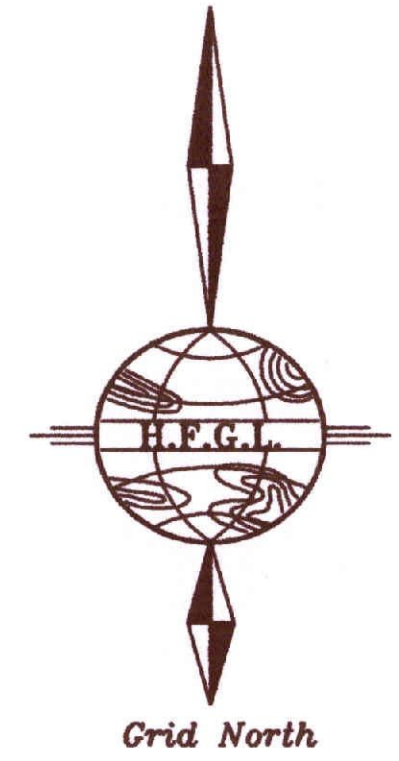
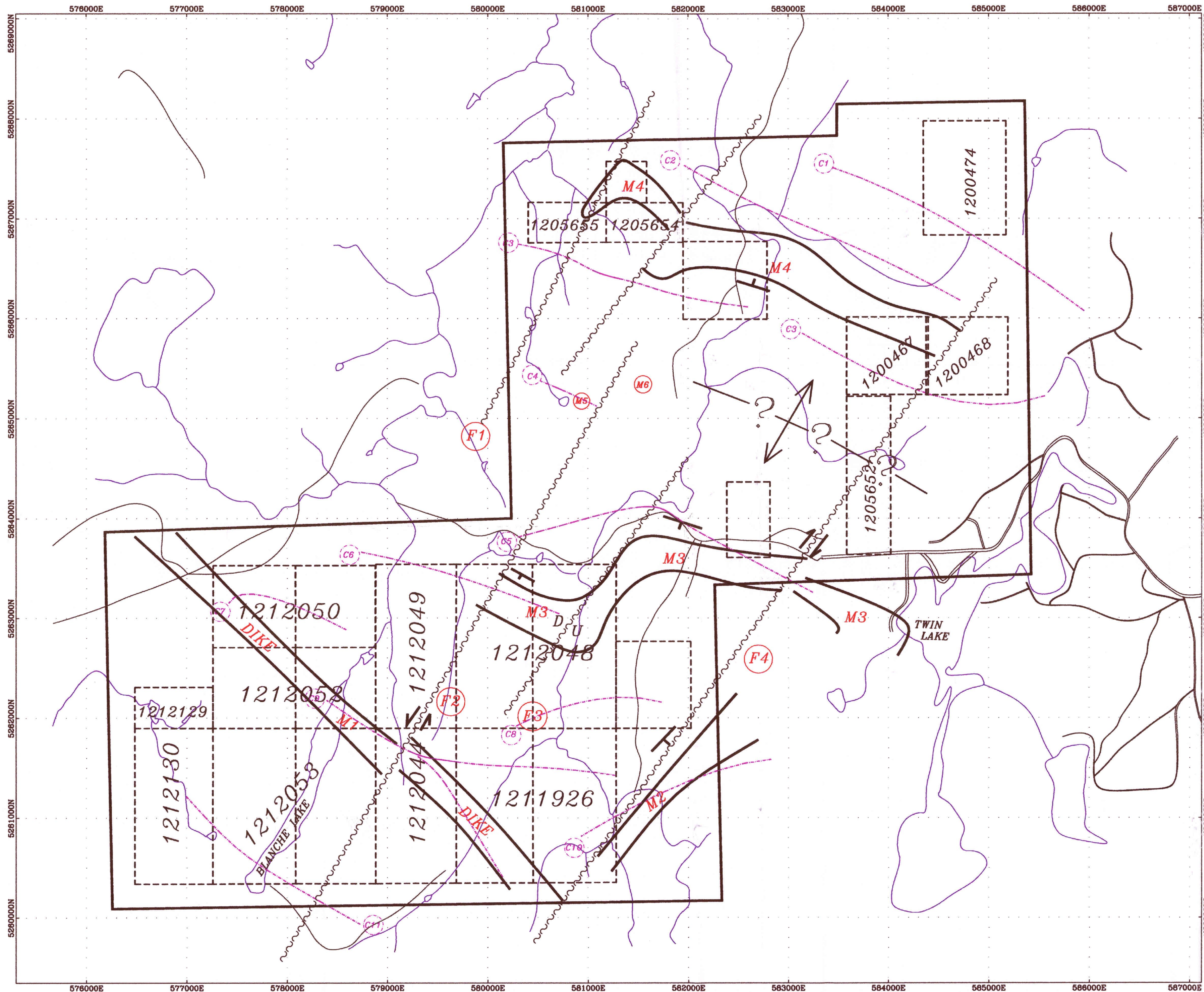








NOTES:
 Flight path derived from GPS Data.

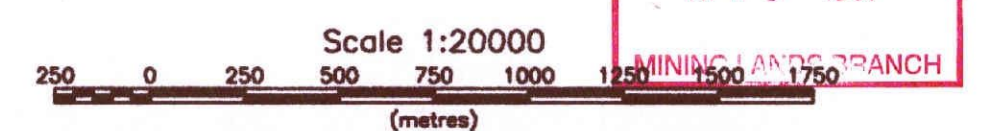
SURVEY SPECIFICATION:
 Aircraft: Cessna 172 C-FEWC
 EM System: Totem II
 Magnetometer: GSM II
 Mag Sensitivity: 0.01 nT
 Nominal sample interval: 10 Metres (0.25 Sec.)
 Terrain Clearance: 300 Ft (100 metre)
 Flight line spacing: 200 Metres
 Flight line direction: North-South
 Contour Interval: 5%




TYPE OF WORK		AIRBORNE MAP TOTAL FIELD MAP 24.8 KHz (SEATTLE)	
CLIENT			
SETTLEMENT SURVEYS LTD			
PROJECT	LUNDY & HUDSON	AREA	LUNDY TWP. G-3439
 H. FERDERBER GEOPHYSICS LTD.	SCALE	1 = 20000	DATE
	DRAWN BY	Geoplan	JAN 97 MAP OR SHEET NO. 97-202

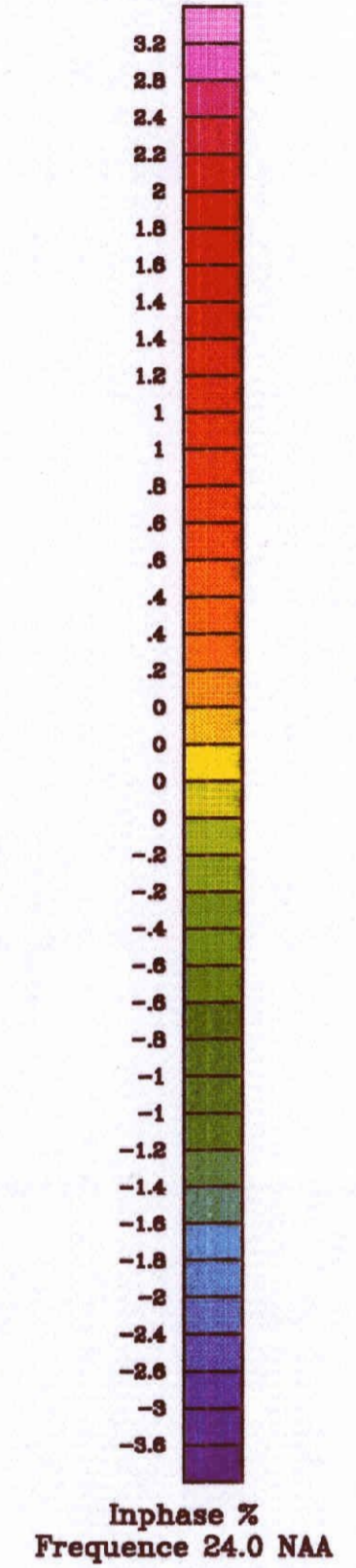
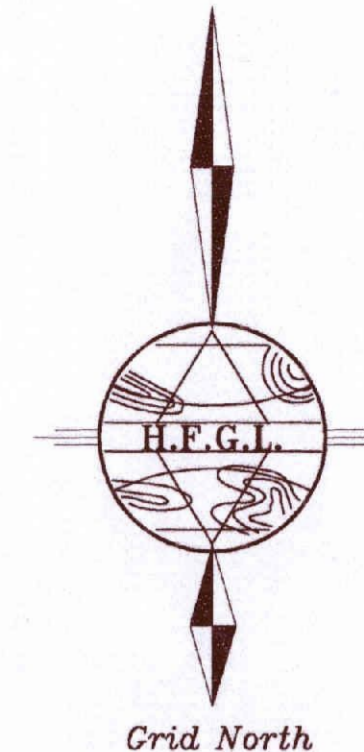
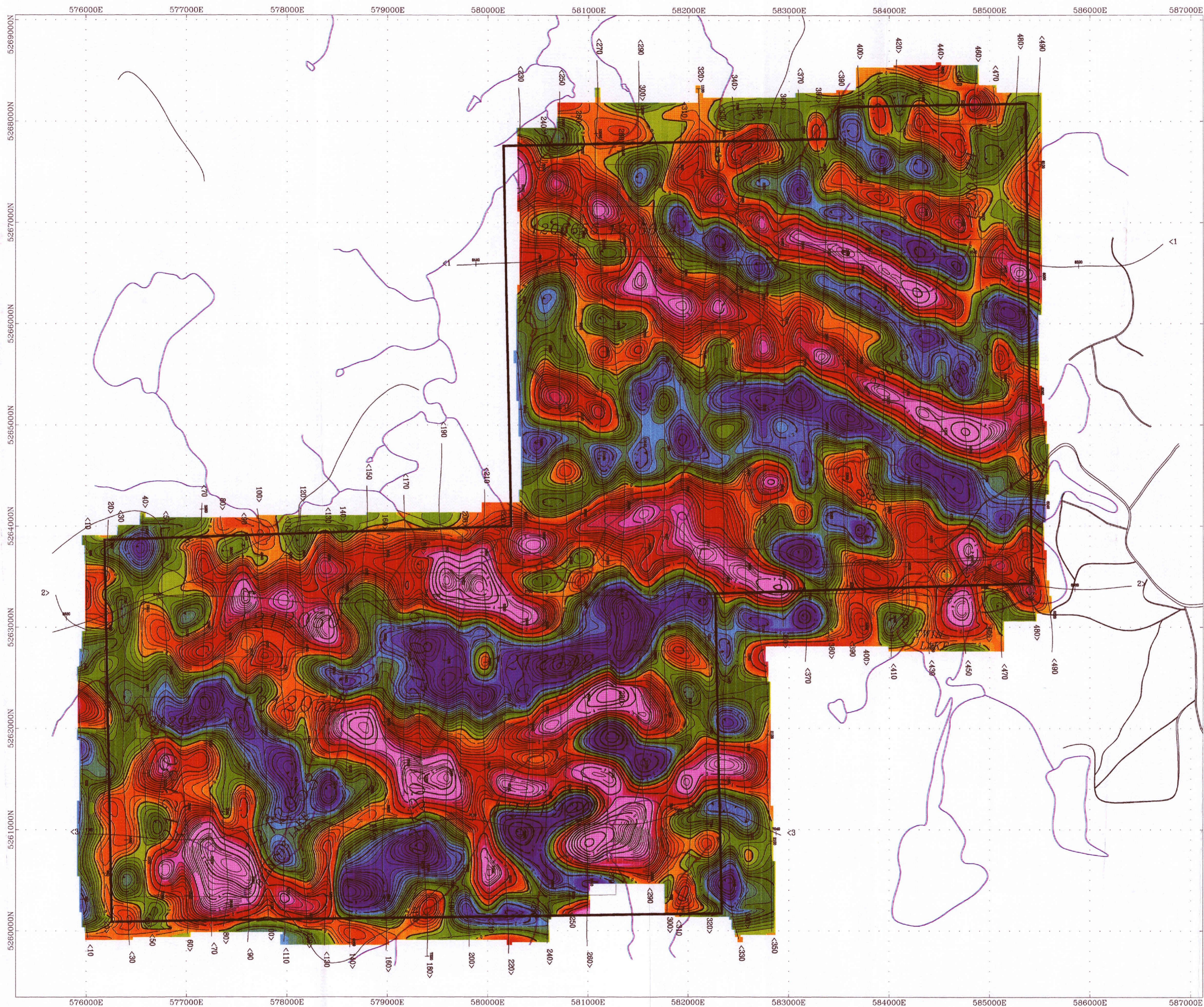


- Fault 
- Apparent Dip 
- Relative Movement 
- Magnetic Body 
- Interpreted Anticline Axis 
- VLF-EM Conductor 



RECEIVED
 APR 8 1997


TYPE OF WORK	
AIRBORNE MAP GEOPHYSICAL INTERPRETATION MAP	
CLIENT	
SETTLEMENT SURVEYS LTD	
PROJECT	AREA
LUNDY & HUDSON	LUNDY TWP. G-3439
 H. FERDERBER GEOPHYSICS LTD.	SCALE 1 = 20000
	DATE JAN 97
DRAWN BY Geoplan	MAP OR SHEET NO. 97-202



NOTES:
Flight path derived from GPS Data.

SURVEY SPECIFICATION:
Aircraft: Cessna 172 C-FEWEK
EM System: Totem II
Magnetometer: GSM II
Mag Sensitivity: 0.01 nT
Nominal sample interval: 10 Metres (0.25 Sec.)
Terrain Clearance: 300 Ft (100 metre)
Flight line spacing: 200 Metres
Flight line direction: North-South
Contour Interval .2%



TYPE OF WORK		AIRBORNE MAP	
		TOTAL FIELD MAP 24.0 KHZ (CUTLER, MAINE)	
CLIENT			
SETTLEMENT SURVEYS LTD			
PROJECT	LUNDY & HUDSON	AREA	LUNDY TWP. G-3439
 H. FERDERBER GEOPHYSICS LTD.	SCALE	1 = 20000	DATE
	DRAWN BY	Geoplan	JAN 97
		MAP OR SHEET NO.	97-202