GM 62612

ASSESSMENT REPORT, TORNGAT PROJECT

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Énergie et Ressources naturelles
Québec

ASSESMENT REPORT

Torngat Project
Of
Scott Grant & Jerry Mazerolle

NTS 24 P/07, 24 P/10, 24 P/11

Abloviak Region, Ungava Bay, Quebec

Submitted to

QUEBEC MINISTRY OF NATURAL RESOURCES

REÇU AU MRNF
2 0 NOV 2006
Direction du Patrimoine minier

By:
Gerard J. Mazerolle BSc Geology
88 Brookland St.
Antigonish, N. S.

Ressources naturelles et Faune, Québec
07 DEC. 2006
Service de la Géoinformation

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Location Map

EXECUTIVE SUMMARY

The Torngat Mountains are remote from infrastructure. Grant and Mazerolle needed to minimize costs was a primary consideration. Costs were minimized by having a float plane place food and equipment caches at 5 locations. Grant and Mazerolle then used these supplies as a base of operations in the various areas. Helicopter support was required in three instances (two more than planned). The final cost was in the vicinity of $1,080 per man day

The first goal of the 2005 season was to recover enough sample rock from the known "kimberlite" areas to have petrographic work done on the samples. Part of this primary goal was to have enough rock to do caustic fusion for any contained micro diamonds in them. More than 190kg of rock was collected in three prospective areas in achieving this goal. Those locations were The Camp One, Round lake and four different sites on the Mt Jacques Rousseau Dyke system. At MJR three prospective areas were sampled.

The secondary goals were to prospect the claims held by Grant and Mazerolle for undiscovered "kimberlitic' dykes or pipes and obtain samples from these locations. The northern extension (about 100m long) of the Wide Dike was discovered on the MJR west group of claims. It is highly micaceous type II kimberlite and no large sample was taken of it. At the Round Lake on the south shore new narrow dykes were observed from the lake side for about 6m before they pinched out

A third level goal was to prospect open ground for "kimberlites" as the two prospectors walked between the claim groups. The prospectors visited the K-2 dyke discovered by International Tower Hill mines in 2000 on NTS map sheet 24P11. The Nodular nature of the type II kimberlite at this location is far more extensive than what was once shown on their web site. Since it was now open for staking the team did some magnetic work over the lake area that contained the large and numerous nodules. This was done from a dingy with a rope used as a guide for the survey lines. No bathymetric work was done here.

No kimberlitic rocks were found in other un-staked ground while traversing from place to place.

Part of the plan for work on the Round Lake claims was to do a bathymetric survey of the water depths from an inflatable dingy. This would be followed up by a magnetometer survey. This work was carried out and even though the magnetometer stopped working with only 60% of the Lake

covered the results show clearly that the magnetic response under the lake is circular and the highest readings are in the deepest part of the lake. This is the reverse of what one would expect if the rock magnetic susceptibility was nearly uniform. It is concluded that there is a second large magnetic rock unit under the lake; this rock unit is most logically presumed to be "kimberlitic" in nature.

Prospecting, geophysical work was completed over the Grant-Mazerolle mineral exploration licenses (see Claim list Table 1) in the Torngat Mountain region of Ungava Bay, NTS 24 P/07, 24 P/10 and 24 P/11 during July, and August, 2005 in an effort to locate diamondiferous kimberlite and/or lamproite dykes, blows and pipes.

Evaluation surveys consisted of prospecting, magnetometer surveys, bathymetric surveys, rock sampling and collection of heavy mineral concentrates (HMC). Negotiations are now in process with companies that indicate their willingness to finance the caustic fusion and petrographic work on the samples.

LOCATION - CLAIM LICENSES

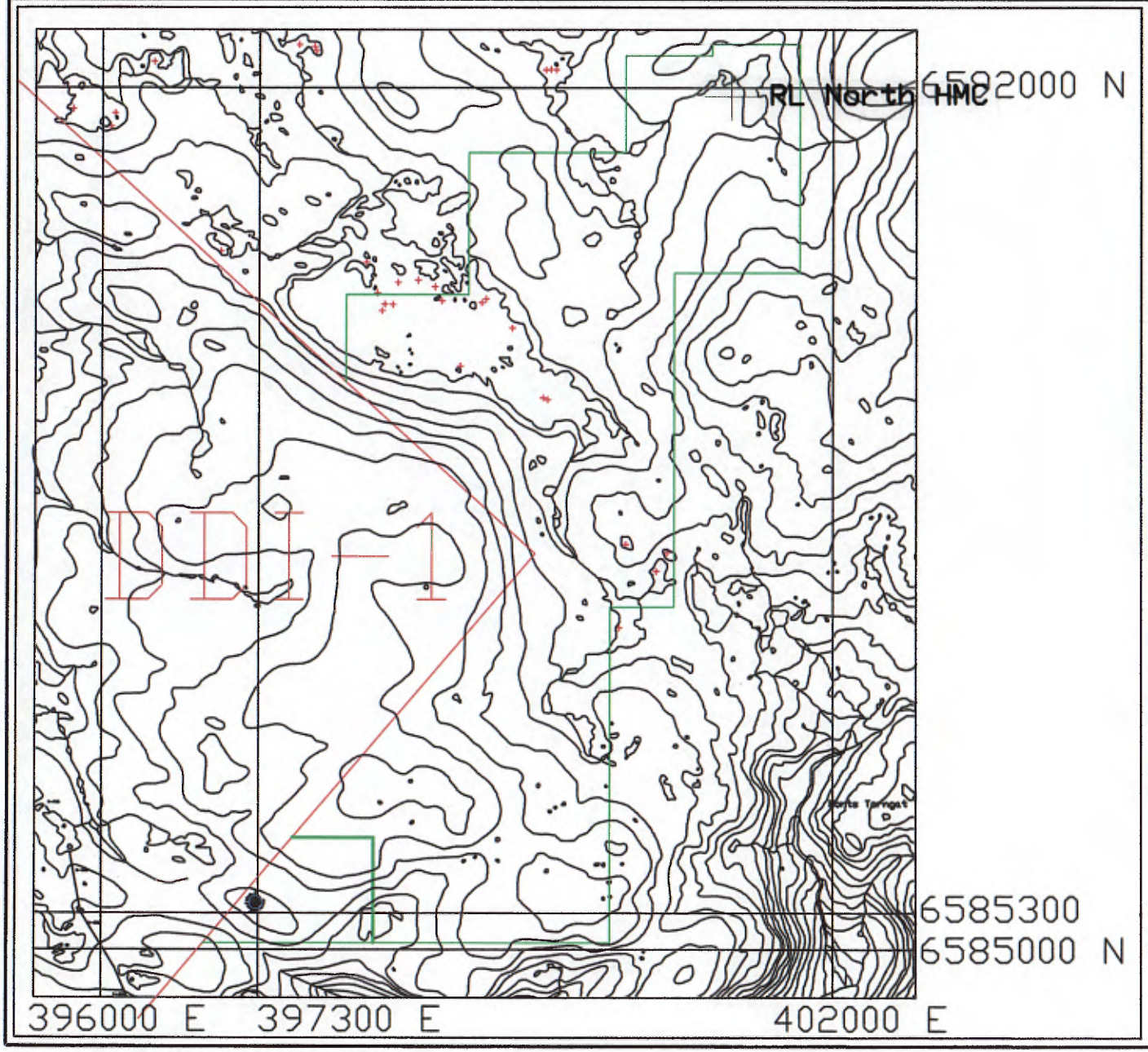
The Grant-Mazerolle claim groups are listed in TABLE 1 given below. They make up 6 licenses and 4 contiguous groups. One group of 20 claims is found on NTS map sheet 24 P/10. This is the Northeastward extension of the Twin Mining Torngat1 dyke. Another is on map sheet 24P11the Camp One dyke. The remainder is on map 24P/07. Two contiguous groups are 8-10kms northwest of the Abloviak fiord, and are called the Round Lake Pipe and Round Lake North groups. The last contiguous group is the Mount Jacques Rousseau group (MJR). It is southeast of the Abloviak fiord about 10 kames. The Abloviak Fiord is on east side of Ungava Bay in the Torngat Mountains of Quebec near Latitude 59° 20' North and 64° 45' West Longitude.

TABLE 1 Claim Licenses

NTS	Title	Row	Col	No	Area	Group Name
24 P/07	CDC0046617	18	25	1	43.93	Round Lake
24 P/07	CDC0046618	18	23	2	12.69	Round Lake
24 P/07	CDC0046619	18	24	3	38.35	Round Lake
Renewal date 23 Nov 2006						
24 P/07	CDC0059856	18	26	1	43.93	Round Lake North
24 P/07	CDC0059857	18	27	2	43.93	Round Lake North
24 P/07	CDC0059858	18	28	3	43.93	Round Lake North
24 P/07	CDC0059859	18	29	4	43.93	Round Lake North
NTS	Title	Row	Col	No	Area	Group Name
24 P/07	CDC0059860	19	27	5	43.92	Round Lake North
24 P/07	CDC0059861	19	28	6	43.92	Round Lake North
24 P/07	CDC0059862	19	29	7	43.92	Round Lake North
24 P/07	CDC0059863	20	28	8	43.91	Round Lake North
24 P/07	CDC0059864	20	29	9	43.91	Round Lake North
24 P/07	CDC0059865	21	29	10	43.90	Round Lake North
24 P/07	CDC0059866	21	30	11	43.90	Round Lake North
24 P/07	CDC0059867	22	28	12	43.89	Round Lake North
24 P/07	CDC0059868	22	29	13	43.89	Round Lake North
24 P/07	CDC0059869	22	30	14	43.89	Round Lake North
24 P/07	CDC0059870	23	28	15	43.87	Round Lake North
24 P/07	CDC0059871	23	29	16	43.87	Round Lake North
24 P/07	CDC0059872	23	30	17	43.87	Round Lake North
24 P/07	CDC0059873	24	28	18	43.86	Round Lake North
24 P/07	CDC0059874	24	29	19	43.86	Round Lake North
24 P/07	CDC0059875	24	30	20	43.86	Round Lake North
24 P/07	CDC0059876	24	31	21	43.86	Round Lake North
24 P/07	CDC0059877	24	32	22	43.86	Round Lake North
24 P/07	CDC0059878	25	32	23	43.85	Round Lake North
24 P/07	CDC0059879	19	25	24	23.71	Round Lake North
24 P/07	CDC0059880	19	26	25	43.16	Round Lake North
24 P/07	CDC0059881	20	26	26	08.02	Round Lake North
24 P/07	CDC0059882	20	27	27	34.33	Round Lake North
24 P/07	CDC0059883	21	28	27	35.84	Round Lake North
24 P/07	CDC0059884	22	27	29	42.74	Round Lake North
24 P/07	CDC0059885	22	26	30	28.02	Round Lake North
24 P/07	CDC0059886	22	25	31	08.27	Round Lake North
24 P/07	CDC0059887	23	25	32	17.48	Round Lake North

NTS	Title	Row	Col	No	Area	Group Name
24 P/07	CDC0059888	23	26	33	26.30	Round Lake North
24 P/07	CDC0059889	23	27	34	36.82	Round Lake North
24 P/07	CDC0059890	24	27	35	27.43	Round Lake North
24 P/07	CDC0059891	25	30	36	35.49	Round Lake North
24 P/07	CDC0059892	25	31	37	39.62	Round Lake North
Renewal date 21 March 2007						
24 P/07	CDC0046644	01	48	1	44.11	MJR West
24 P/07	CDC0046645	01	49	2	44.11	MJR West
24 P/07	CDC0046646	02	48	3	44.10	MJR West
24 P/07	CDC0046647	02	49	4	44.10	MJR West
24 P/07	CDC0046648	02	50	5	44.10	MJR West
24 P/07	CDC0046649	02	51	6	44.10	MJR West
24 P/07	CDC0046650	03	49	7	44.09	MJR West
24 P/07	CDC0046651	03	50	8	44.09	MJR West
24 P/07	CDC0046652	03	51	9	44.09	MJR West
Renewal date 24 November 2006						
24 P/07	CDC0048278	01	50	1	44.11	MJR East
24 P/07	CDC0048279	01	51	2	44.11	MJR East
24 P/07	CDC0048280	01	52	3	44.11	MJR East
24 P/07	CDC0048281	02	52	4	44.10	MJR East
24 P/07	CDC0048282	02	53	5	44.10	MJR East
24 P/07	CDC0048283	02	54	6	44.10	MJR East
24 P/07	CDC0048284	02	55	7	44.10	MJR East
24 P/07	CDC0048285	03	52	8	44.09	MJR East
24 P/07	CDC0048286	03	55	9	44.09	MJR East
Renewal date 12 December 2006						
24 P/10	CDC0055558	02	17	1	43.78	TORNGAT 1 Ext
24 P/10	CDC0055559	02	18	2	43.78	TORNGAT 1 Ext
24 P/10	CDC0055560	03	12	3	42.98	TORNGAT 1 Ext
24 P/10	CDC0055561	03	13	4	43.77	TORNGAT 1 Ext
24 P/10	CDC0055562	03	14	5	43.77	TORNGAT 1 Ext
24 P/10	CDC0055563	03	15	6	43.77	TORNGAT 1 Ext
24 P/10	CDC0055564	03	16	7	43.77	TORNGAT 1 Ext
24 P/10	CDC0055565	03	17	8	43.77	TORNGAT 1 Ext
24 P/10	CDC0055566	03	18	9	43.77	TORNGAT 1 Ext
24 P/10	CDC0055567	03	19	10	43.77	TORNGAT 1 Ext
24 P/10	CDC0055568	04	17	11	43.76	TORNGAT 1 Ext
24 P/10	CDC0055569	04	18	12	43.76	TORNGAT 1 Ext

NTS	Title	Row	Col	No	Area	Group Name
24 P/10	CDC0055570	04	19	13	43.76	TORNGAT 1 Ext
24 P/10	CDC0055571	04	20	14	43.76	TORNGAT 1 Ext
24 P/10	CDC0055572	04	21	15	43.06	TORNGAT 1 Ext
24 P/10	CDC0055573	02	12	16	08.93	TORNGAT 1 Ext
24 P/10	CDC0055574	02	13	17	43.06	TORNGAT 1 Ext
24 P/10	CDC0055575	02	14	18	43.78	TORNGAT 1 Ext
24 P/10	CDC0055576	02	15	19	43.78	TORNGAT 1 Ext
24 P/10	CDC0055577	02	16	20	43.78	TORNGAT 1 Ext
24 P/10	CDC1131849	02	12	21	5.54	TORNGAT 1 Ext
Renewal Date 13 Feb 2007						
24 P/11	CDC2009115	11	49	1	43.69	Camp 1
24 P/11	CDC2009116	11	50	2	43.69	Camp 1
24 P/11	CDC2009117	11	51	3	43.69	Camp 1
24 P/11	CDC2009118	11	52	4	43.69	Camp 1
24 P/11	CDC2009119	12	51	5	43.67	Camp 1
24 P/11	CDC2009120	12	52	6	43.67	Camp 1
24 P/11	CDC2009121	12	53	7	43.67	Camp 1
24 P/11	CDC2009122	12	54	8	43.67	Camp 1
24 P/11	CDC2009123	13	54	9	43.66	Camp 1
24 P/11	CDC2009124	13	55	10	43.66	Camp 1



Claim Map

NTS 24P07

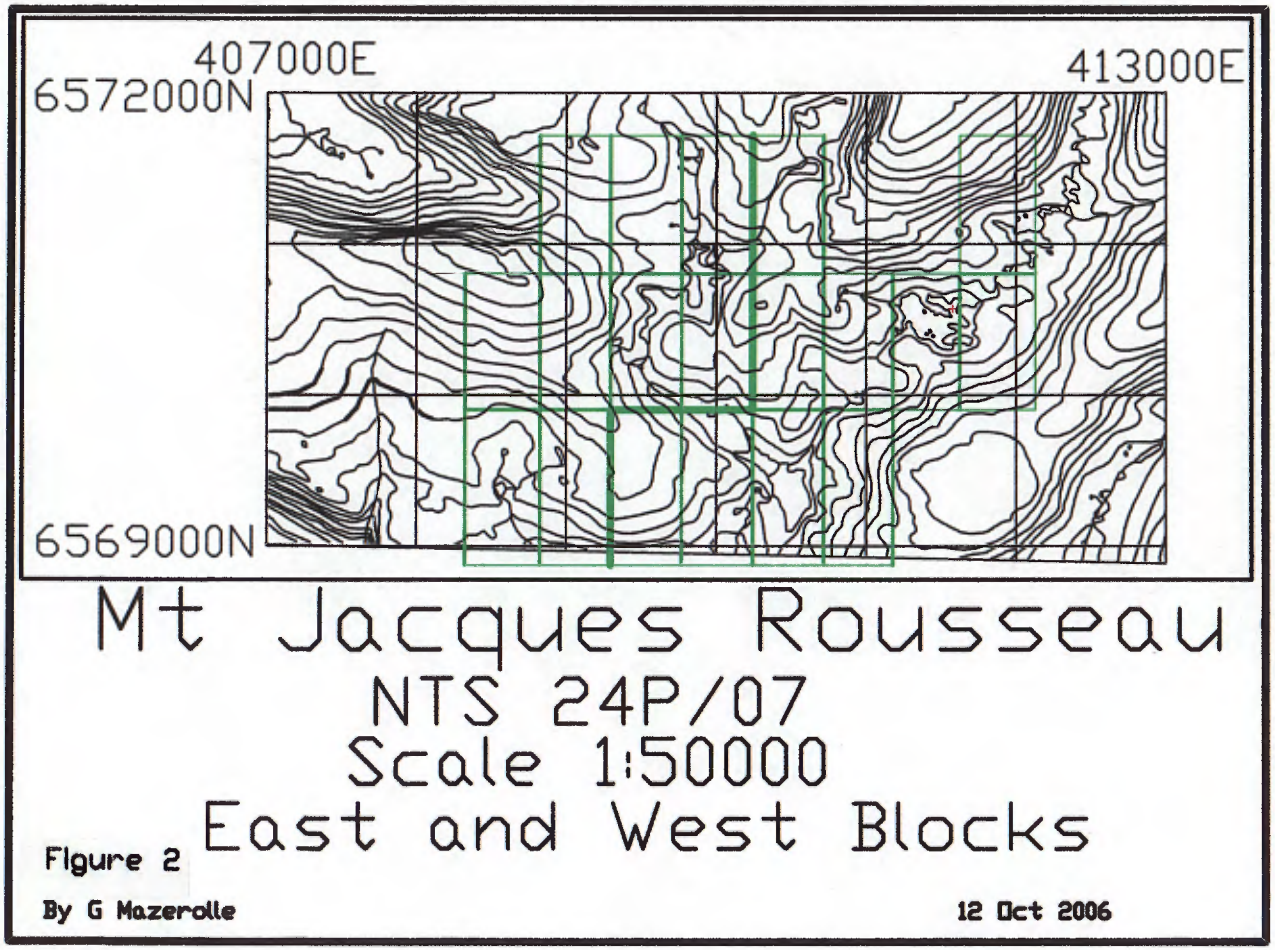
Scale 1:50000

Round Lake SW Green Block

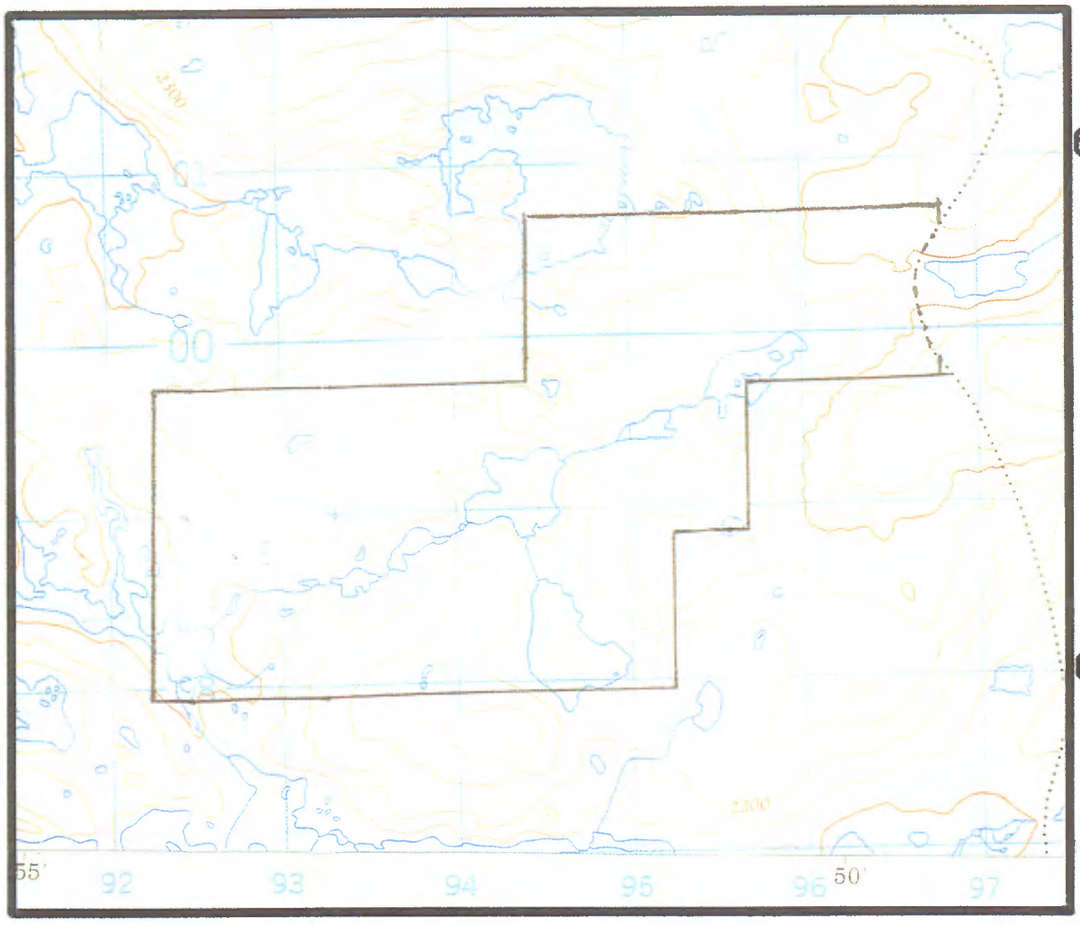
Round Lake North Green Block

Oct 11,2006 By G.Mazerolle

Figure 1


407000E
413000E
6572000N
6569000N
Mt Jacques Rousseau
NTS 24P/07
Scale 1:50000
East and West Blocks
Figure 2
By G Mazerolle
12 Oct 2006

Torngat 1 Dyke Extension



Claim Location Map

NTS 24P/10

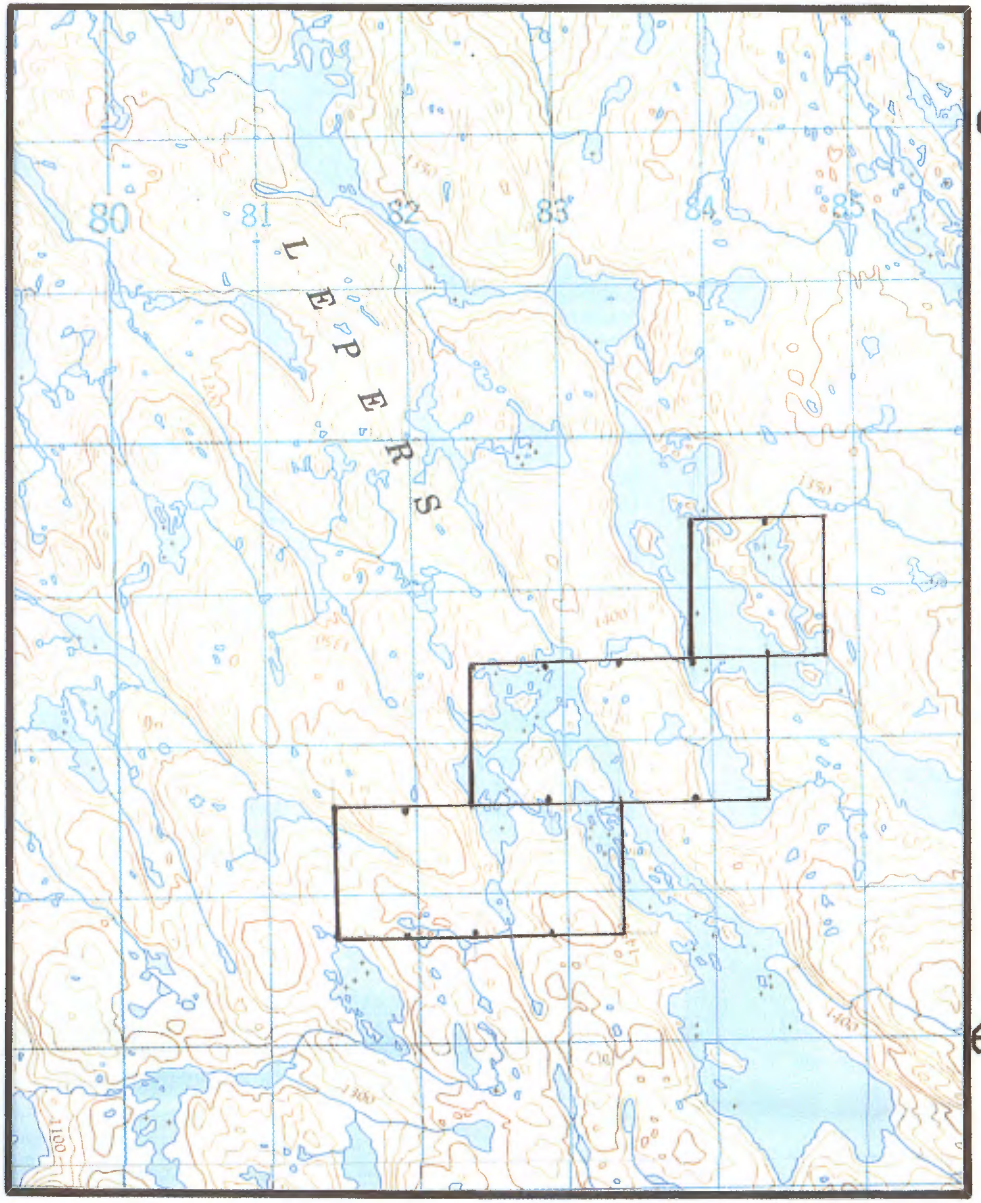
Scale 1:50000

NAD 27

Figure 3

By G Mazerolle

12 Oct.2006



Camp One

Claim Location Map

AND

HMC Sample Location

HMC Sample Camp One +

NTS 24P/11

NAD 27

Scale 1:50000

Figure 4

By G Mazerolle 12 Oct.2006

WORK DIARY

Preparation days 2005

GRANT		MAZEROLLE	
16 June	18 Jan	22 June	7 July
8 July	28 Feb	23 June	11 July
13 July	26 April	24 June	15 July
15 July	08 June	28 June	18 July
16 July	15 June	29 June	19 July
19 July	21 June	30 June	

6 days @$300/D $1800

17 days@$450/D $7650

Rock examination and write up Mazerolle 2 days Oct 10, 11 2005
Map preparation 7 days Jan 9, 10,11,12,13,14,16, 2006
Report preparation and Quebec forms Aug 23,Oct 30 Nov 01, 02 (4days)
13 days @ 450 $5850

41 Field Days

Grant @ $300/D	Mazerolle @$450/D	
$12,300	$18,450	
Above expenses		$46,050.00

Transportation costs	$23,099.26	
Shipping costs	$ 3,356.52	
Magnetometer rental costs	$ 794.12	
Food – filed equipment	$ 9,441.82	
Sub Total		$36,691.72

GRAND TOTAL $82,741.72

FIELD DIARY

20 July 2005	**Mobilization NS to Kuujjuaq –shipped supplies Not arrived after a week**
21, 22 July	**Waiting on arrival of equipment Kuujjuaq**
23 July	**Drop supply cashes and setup Camp One**
24 July	**Prospect for the Camp One Dyke location –find it**
25 July	**Ferry dingy, mag and equipment to Lake at dyke**
26 July	**Setup rope line, land mag lines and lake mag lines very long day. End in fog**
27 July	**Prospect the peninsula for other dykes none found**
28 July	**Rain, blowing all day dry clothes in tent**
29 July	**Showers Fog move equipment and samples to camp 2 mile round trip**
30 July	**Showers, prepared samples and equipment for later pickup**
31 July	**visibility <30m pack for walk to camp 2**
01 Aug	**Packs very heavy about 70lbs 1/3 way camp 387100E 6603600N**
02 Aug	**Camp 2/3 way at 390400E 6600998N cloudy cold**
03 Aug	**Arrive Torngat1 ext claims Camp 394250E 6599330 setup**
04 Aug	**Very cold, lake iced over, go for food cache-rough 5km trip**
05 Aug	**Fog high wind prospect near camp and NE diorite all**
06 Aug	**Rain all day Find prob Torngat1 break & frozen ponds NE**
07 Aug	**Zones of Magnetic pegmatites trend NE in massive Diorite at air mag "pimple" crack here max 4' wide "there is nothing of the torngat1 dyke extension here"**
08 Aug	**Called chopper for move – He busy – rain and wind**
09 Aug	**Packed to move – rain starts again packs too heavy –repack**
10 Aug	**Sat phone battery ¼ power Chopper message "we wait"**
11 Aug	**Move all cashes to work areas, camp at RL North,late finish ate in the dark**
12 Aug	**Flag lines for mag on "Z" dyke mag not functioning HMC Z-1-05 80 lbs screened and panned Frost boil Prospect around the lake all diorite at 400981E 6591611N Z dyke rift 20m wide, olivine 1" at 400958E 6591 569N**
13 Aug	**move to Round lake ½ way**
14 Aug	**pass Round lake to better camp site**
15 Aug	**Must fix the mag very tired – sensor wiring checked and improved no joy raining from 9**
16 Aug	**Battery pack main lead broken as 2 wires to two batteries**

	also jack from mag to battery – repaired – working To Round Lake Watts Griffith McOuats Cookenboo visits HMC north dyke taken, line for mag laid across lake GPS lake edge
17 Aug	**Knee sore rest it Scott prospects near camp**
18 Aug	**Gear to lake site. Gps points for mag line ends taken. Inflate dingy. HMC and rock sample taken. Mag fails again. Prospect around lake. Find narrow terminating dyke.**
19 Aug	**Fog cold work on mag, working by 1:30pm tape battery pack to rigid stick. Rain snow mix**
20 Aug	**Fog visibility 10m clears 7pm – cold**
21 Aug	**Mag on Round Lake dill mag dies –again 92 readings on 4 lines. Bathymetric 50 readings on 7 lines. Tried for lake bottom sample –fail**
22 Aug	**Local chopper in fiord will move us – pack to MJR. Setup camp there**
23 Aug	**MJR south of dog leg take samples 2 locations there MJR center and MJR center south. Also at dogleg- carry to center site for pickup**
24 Aug	**Wind 50mph + to sinuous dyke prospect and take sample Find a north extension of the wide dyke gps 152 -155**
25 Aug	**Prospect lakes north and east on MJR fog cool**
26 Aug	**Snow – too slippery walking - organization day fire in tent Scott prospects west in the afternoon**
27 Aug	**Prospect south and east – low ceiling Find kim float SE shore camp lake tremolite chlorite calcite altered rock also**
28 Aug	**sunny cloudy intervals prospect north of camp to north boundary. Find circular drainage flat area 200 meters dia. New Kim float 60% olivine at 409369E 6571069N**
29 Aug	**Call chopper to gather equipment and samples to lakes fly out with some gear to Quujjuaq Scott takes float plane back to lakes for gear. Plane engine leaks oil- emergency return. Johnny may Air collects gear later.**
30 Aug	**Grant Mazerolle fly out to Montreal and Halifax and home**

GENERAL DISCUSSION OF KIMBERLITES

Guides useful for field geologists and prospectors in the Abloviak region are given below.

Megacrysts up to 15cm in size, but average much less, include olivine, phlogophite, pyroxene, picro-ilmenite, garnet set in a matrix of olivine, mica, serpentine group minerals and carbonate.

Microphenocrysts of mica, diopsides and chrome diopsides, pyropes, spinel, perovoskite, and monticellite are probably common but not visible to the naked eye. Rare apatite, pyrochlore, rutile, quartz and chalcedony have been observed in the region. Pyrite and/or pyrrhotite have also been observed at some places on the Mount Jacques Rousseau dyke system.

The groundmass is composed dominantly of olivine, diopside, or (phlogophite olivine, pyroxene –type II kimberlites) with phlogophite, calcite, serpentine and lesser apatite, spinel, perovoskite, ilmenite and magnetite in varying proportions.

Some dykes in the region are high in carbonates. On the MJR claims the narrow 30cm dyke located about 100 meters east of the sinuous dyke is an example of one of these, as is the Wide dyke about 100 meters further east. The digging on this dyke returned about 6 pieces of rock with some having 20-40% carbonate. Carbonates include calcite, siderite, dolomite, and aragonite. A few kimberlite dykes in the Abloviak region are estimated be up to 60% carbonate.

Olivines

The MJR dyke is the exception of the usual high micaceous dykes in the region. The Camp 1 dyke is largely micaceous with local parts of the structure high in olivine and large pyroxene nodules. The Round lake rock seen thus far by the author is phlogophite rich with few bands of olivine that have been slightly serpentanised. The Mount Jacque Rousseau dyke system however is notably different. There is little mica in the main dyke and a high percentage of olivine. It would be designated a basaltic kimberlite in the literature. This is over a distance of 2.7kms. medium grained olivine together with its alteration products (serpentine etc.) is the commonest constituent mineral of this Abloviak kimberlite.

Olivines occur as large rounded megacrysts in the range of 1 to 10 mm with rare crystals up to 25 cm found in the Mount Jacques Rousseau South system at the sinuous dyke and 300m north of the Grant-Mazerolle claims on the MJR dyke –at the original discovery location. (V-20 NAD 83 409626E 6572178N). These are equal to the largest reported olivine megacrysts reported in the literature

At 409254E 6570983N, on the MJR claims, a piece of kimberlite float was found with a high percentage of olive green olivine. It was found in a boulder field with no known kimberlite source near by. Down hill to the North and uphill to the west, glacial ice still covers the ground here.

Phlogopite

Micaceous kimberlite dykes in the Abloviak area may contain up to 60% phlogopite. High quantities of phlogopite give the kimberlite a bronzy lustrous sheen. The Round Lake dykes are all micaceous. The Camp 1 dyke is largely micaceous on land, but in the lake to the north pyroxene nodules can make up 60% of the dyke. MJR dyke is rarely micaceous although the Wide dyke 200-300m east of the MJR has high phlogophite content but might better be classed a carbonate phlogophite kimberlite dyke. To the North of the Grant Mazerolle claims at MJR about 100 meters north of the MJR discovery location the MJR Dyke is highly micaceous. The mica poor zones contain nodular pyroxene, olivine kimberlites, contain chrome diopside and are garnetiferous.

A hydromica with a yellowish luminescence thought to be kinoshitalite occurs along the Mount Jacques Rousseau system. The yellowish mica resembles a luminescent muscovite

Garnets

Garnets of group 9 (J.B. Dawson classification) are observed in the field in the Mount Jacques Rousseau. They are generally lilac purple, wine red to dark brownish red. They range from 1 to 3 mm in diameter in the MJR samples

Chrome Diopside

Light bottle green glassy chrome diopsides are present in the Mount Jacques Rousseau dyke systems as well as in the Camp 1 dyke nodules. They range up to 5mm in length. They are most often found in nodules and less frequently in the groundmass as xenocrysts.

"CLASSIFICATION OF ABLOVIAK KIMBERLITES

A mid 1980's revision by Mitchell is best suited for the Ungava field descriptions of kimberlites. It makes five subdivisions according to whichever mineral is volumetrically most abundant. They are:

1. Diopside kimberlite (+ any modifier minerals in decreasing order of abundance)

2. Monticellite kimberlite (as above with modifiers)

3. Phlogopite kimberlite (with of without modifiers)

4. Calcite kimberlite (with or without modifiers)

5. Serpentine kimberlite (with of without modifiers)

Phlogopite and calcite and diopside kimberlites are the three most abundant groups in the DDI-7 licenses of the Abloviak region. Field personnel are unable to identify monticellite; petrographers may find that it exists in larger or smaller proportions. A fine non reactive whitish mineral identified in some kimberlite dykes may be monticellite or Lucite but was not in enough abundance to be the primary mineral to name the kimberlite.

Olivine content and nodular content of kimberlites are necessary modifiers."
(from DDI-7 assessment report March24 2003 p13)

DYKES AND DIATREMES ON THE ABLOVIAK CLAIMS

Dykes coalesce or break into groups of branching dykes ranging from 2 to 7 presumably due to multiple pulses of magma and /or paralleling en echelon dykes stoping to surface via available structural weaknesses.

Widenings in kimberlites referred to as dyke enlargements, or blows are pod shaped and disconnected from diatremes. They are lenticular in section as well as in plan. They are found in the Mount Jacques Rousseau, area. It appears that the enlargements may be associated with a wall rock that has elevated carbonate. Wall rock gneiss that has high chlorite, amphibole stringers with numerous vugs has been noted in proximity to some dyke enlargements. The vugs do have carbonate associated with them. The joint surfaces at these blows are arcuate and create a sinuous trace. The hydraulically stoped walls frequently display vertical striae caused by upward streaming of gouging xenoliths of gneiss. A few blind dykes stope laterally for a meter or two into gneissic wall rocks along joint planes, shear zones or other lines of weakness as is found on the south side of the Round Lake Pipe. Floating reefs composed of wall rock stoped by encompassing kimberlite dykes are located in the sinuous dyke on the Mount Jacques Rousseau south system and in the north dyke at the Round Lake.

Antecedent mafic dykes are often associated with kimberlite dykes and diatremes. Mafic dykes are noted at Mount Jacques Rousseau. In the area of the south boundary of the Grant-Mazerolle claims, the Wide dyke cuts a sill like diorite intrusion. Further south the wide dyke trace is occupied by gabbro - diabase for a short distance before it passes through the cliff on the south boundary where it is observed to be made up of nine largely micaceous dykes with locally high carbonate content. This case indicates that there are two ages to the diabase (mafic) precursor dykes.

MAGNETOMETER INFORMATION

The Specifications for the magnetometer used in the work done on the Camp One and Round Lake claim groups is given below. The description of the work and the data collected is given with the detail description for each of the claim blocks further in the report. The particular machine was rented from Lone Pine Exploration Services of Bathurst, New Brunswick.

TABLE 2 MAGNETOMETER DATA

GEM SYSTEMS
58 Ravenscroft Circle
Willowdale, Ontario,
M2K 1W9

Gsm-8
Proton Precession Magnetometer

SPECIFICATIONS

Resolution:	1 Gamma
Accuracy:	+_ 1 gamma over operating range
Range:	20,000 – 100,000 gamma in 23 overlapping steps
Gradient Tolerance:	up to 5000 gamma/meter
Operating Modes:	Manual Pushbutton, new reading every 1.85 sec., Display active between readings
	Cycling, pushbutton initiated, 1.85 sec. period
	Selftestcycle, pushbutton controlled, 7 sec. period.
Output:	Visual: 5 digit 1cm(0.4") high Liquid Crystal Display, visible in ambient light
	Digital: Multiplied precession frequency and gating pulse
	Analog: 0-99 gamma (optional)
External Trigger:	Permits externally triggered cycling with periods longer than 1.85 sec. (cycling faster than once per sec. optional)
Power Requirements:	12 V 560mA average

Power Source:	Internal: 12 V 0.75 Ah NiCd rechargeable battery 3,000 readings between chargings External: 12-32 V
Battery Charger:	Input:120/220 V 50/60 Hz; Output 14V 75 mA DC
Operating Temperature:	-35 to + 55° C
Dimensions:	Console: 15 x 8 x 15 cm (6x3 1/2 x 6") Sensor: 14 x 7 cm dia. (5 1/4 x 2 1/4) dia. Staff:175 cm (70") extended,53 cm (21") collapsed
Weight:	2.7 Kg (6 lb) complete
Standard Package:	Console, with batteries, carrying harness Sensor, with cable Staff, collapsible
Standard accessories:	Battery Charger, Manual, carrying case

INDIVIDUAL PROPERTY DISCUSSION

****

MOUNT JACQUES ROUSSEAU

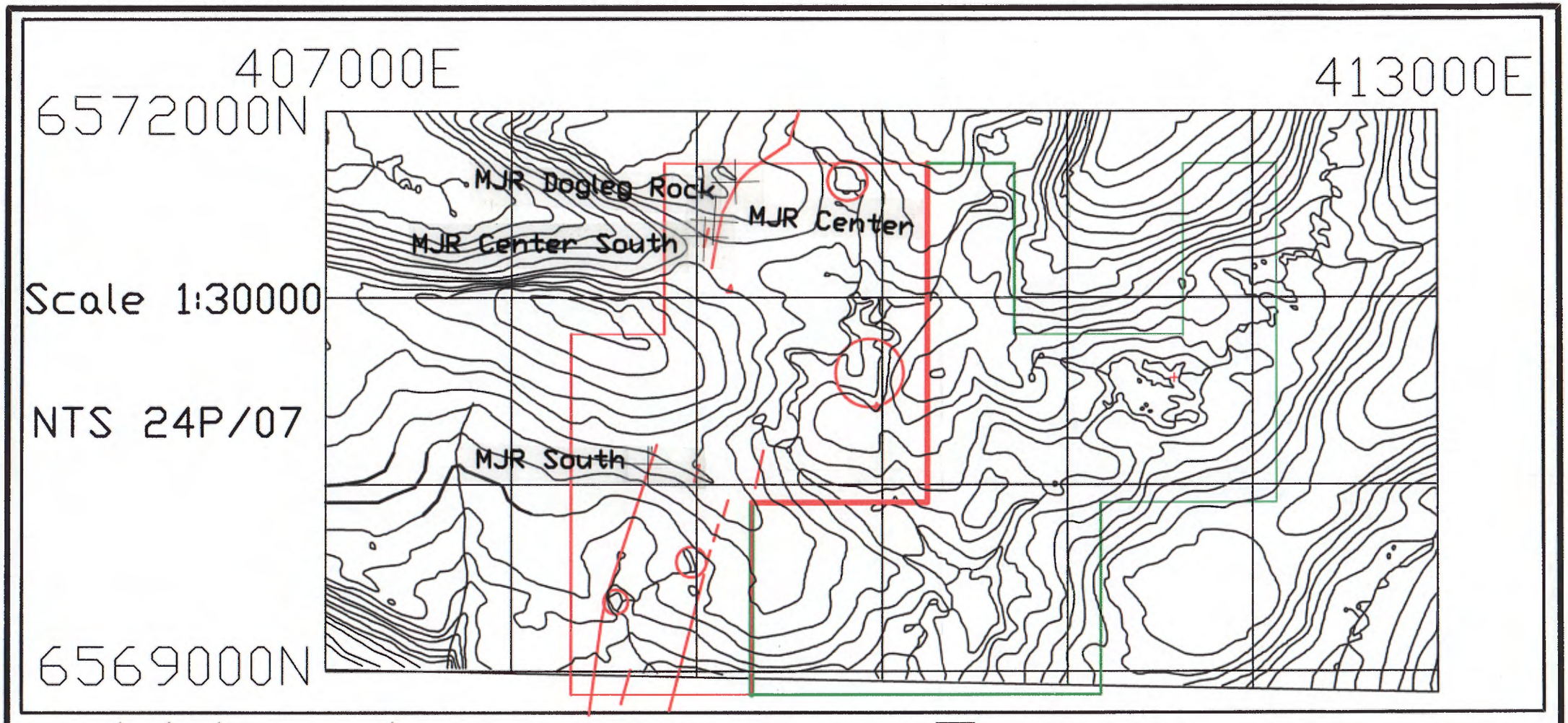
The Mount Jacques Rousseau Claim block consists of nine contiguous claims. See Figure 2 for the claim and sample locations for this group. See Figure 9 for the location of the dykes and suspected diatremes discussed here.

Immediately west of Mount Jacques Rousseau is a valley in which kimberlitic dykes have been found by Diamond Discoveries International. They trend N-S and enter the Grant-Mazerolle claims at about 409450E 6571525N NAD 27. The dykes follow a series of elongated fracture controlled gashes in the first brook system on the west side of Mt Jacques Rousseau. Kimberlite dykes located in these fractures are named the Mt Jacques Rousseau North Dyke (MJR). The brook makes a turn to the southeast but the dyke cleft trends SSW up a hill to what is called the "dog

leg" where it turns sharply more southerly. Samples were collected here and about 200-300 meters further south. The mineralogy of the xenoliths and megacrysts in the MJR dyke is very encouraging. These kimberlites contain chrome diopsides, pale olivines, wine red and violet garnets and pyroxene nodules streamed in a carbonate matrix

A kimberlite boulder train was located southwest of Mount Jacques Rousseau between 409635E 6572050N and 409693E 6572351N The boulders are confined to the edge of a prominent snow filled crevasse. The east side of which is marked by chloritized and carbonate gneissic wall rock.

The boulders up to 70 cm long were found to contain olivine rich nodules as both megacrysts and xenoliths up to 7 cm in length. Pyroxene xenocrysts range up to 7mm. The nodules are set in a groundmass of very fine grained olivine and up to 60% carbonate dominantly calcite. The olivines are marginally serpentanised by a bluish green serpentine mineral, probably coatsite. Yellow brown luminescent kinoshitalite (hydrophlogopite) mica ranges up to 8% in the groundmass as megacrysts to 4 mm. Bright to brick red pyrochlore was observed as rare specs and tiny crystals. Chrome diopside was found in several boulders. Two lilac colored garnets, possible group 10's, were located in one boulder.



Mt Jacques Rousseau

Kimberlite & Float locations

Kimberlite float

KNOWN DYKES

Suspect Diatremes

By G Mazerolle

Figure9

12 Oct 2006

North of Claims (open claims)

The boulder train trends north 500 m toward a deep lake at a pass on the west flanks of mount Jacques Rousseau

On strike at 010°, to the north of the pass 300 m, a second boulder train was located which led to the discovery of a kimberlite dyke 70 cm wide at 410036E and 6573816N. The dykes to the north and south of the pass disappear under gneiss and strike toward a deep lake located at the height of land. This ground is presently open for staking.

Mt Jacques Rousseau South

One kilometer south of the "dog leg" three dykes cut a ridge between 408859E, 6569854N and 409148E, 6569538N.

The first co-ordinate is located on the strike extension of the MJR dyke and is referred to as MJR South (or sinuous dyke). It is composed of a nodular diopside kimberlite which is a highly xenolith - xenocryst rich assemblage similar to the MJR kimberlite at the col zone.

Two hundred meters east a 40 cm wide highly carbonate rich kimberlite dyke is located and called the Hygins dyke. It is similar in size and has weathering characteristics similar to the Tuk dyke located 1.3 kms southwest along strike at 408391E, 6568722N. This is the cliff at the south boundary of the Grant – Mazerolle claims

The MJR Dykes and linears seem to converge on three small ponds one of which is at 408500E, 6569100N. A few meters west of this pond a dyke like cleft yielded extensive amounts of micaceous soil and three kimberlite boulders. The Dyke is hosted by the diabase dike (sill?) described below. Four hundred fifty meters south of this MJR extension and in alignment with it is the ANR Dyke where it goes over the cliff on the south Grant – Mazerolle boundary.

The southern half of the lake upon which the linears converge is bracketed between a 70 meters diabase dyke that follows the EW foliation. The diabase can be seen striking east to west for a number of kilometers. This feature could act as focal point for an energy build up prior to a diatreme eruption.

South of the diabase sill are the Anr (southerly extension of the MJR dyke) and Tuk kimberlite dyke (the southern extension of the Hygins dyke). On the East end of this cliff section the Wide dyke, outcrops above the scree. It is a series of 9 carbonate – mica kimberlite dykes.

In summary the kimberlite at MJR South is high in olivines many of which are pale in color, Cr-diopsides are common and G9 garnets are also

present, Phlogopite % is low and calcite is elevated, some serpentine minerals were observed

The sinuous dyke South MJR is a group one mica poor diopside, calcite, kimberlite composed of nodules to 3.5 cm of crystalline yellow olivine xenocrysts, eclogite xenoliths containing chrome diopside, fine garnets that are red brown to brownish in color and xenocrysts of chrome diopside. Reaction rims consisting of fine sooty material - kelyphite and serpentine to 3mm are noted around several xenoliths.

The groundmass consists of abundant very fine grained calcite and phenocrysts as ocelli, fine olivine with minor serpentine, phenocrysts of phlogopite or kinoshitalite, magnetite or ilmenite, rare G-9 garnets and chrome diopside and microscopic accessory minerals. It has a similar to the nodular character of Mount Jacques Rousseau center and dog leg areas of the MJR Sinuous Dyke.

The sinuous dyke has "slickensided" wall rock but the walls are not thermally altered. The bifurcated part of the dyke near the ridge crest has a large block of gneiss 70 cm by one or two meters which is likely a floating reef. A sample was collected here for petrographic work and one for caustic fusion.

Wide Dyke

The most easterly dyke of the three on the ridge is at 409148E, 6569538N. Its surface expression, a crevasse, is in excess of 8 meters. The soil is yellow ground with few micaceous kimberlite boulders. A pit dug here revealed fragments of carbonate mica kimberlite. A diabase dyke occupies the cleft near the Grant Mazerolle south boundary. At 409300E 6569903N Grant and Mazerolle located an extension of the Wide dyke coming out of the glacial cover. Its' trace is about 100 meters long by 1-2 meters wide. To the northeast the snow covered cleft trends into a lake at 409480 6570150N. Un-sourced kimberlite float is located .6km ENE and NWN of the location given above. The Lake here could overlay a diatreme.

This new alignment of the Wide dyke has it pass close to a 200 meter diameter circular drainage feature at 409780E 6571380N. This feature is about 350 meters east of the known MJR dyke and the same distance west of the projection if the wide dyke trend.

ROCK SAMPLE DESCRIPTIONS

MOUNT JACQUES ROUSSEAU Samples – 4 samples taken on this structure
Most Northerly Sample – top of hill – dog leg
GPS NAD 83: 20V 409259 E 6571556 N
Caustic Fusion sample 23.6kg
Samples for microscope work 0.68kg
HMC – No HMC samples taken here or at the other MJR locations

Matrix

Overall the rock is dark green –slightly serpentanised, olivine in the Matrix is about 80%, there is a black serpentanised mineral composing 5-10% with about 5% magnetite in the matrix. No picro-ilmenite was seen, carbonate was very minor locally. Locally phlogophite is 1-3% of the matrix.

Nodules

The overall rock has about 50% nodules about 80% of these are less than .5cm slightly serpentanised olivine and pyroxene are the main constituents (75:25). 20% of megacryst nodules are between .5cm and 10cms Nodules are slightly to rarely moderately serpentanised dark green - olive green – whitish green and black pyroxene (70:30). The whitish green colored mineral is in about 20-30% of nodules. Rare Megacryst nodules 2cms or greater have pink or wine red garnets in quantity along with chrome diopsides (both rich chrome green and paler crystals as well).

Some few samples have phlogophite carbonate bands cementing nodules. This is about 2% of the observed rock.

The largest nodule is about 12 X 5 X 5 cms. One nodule about 6 cm diameters has 5% wine red garnets and 2% Chrome diopsides.

MOUNT JACQUES ROUSSEAU Center Sample - South of Dog leg
MJR Center sample
It is located about 250m south of Dog leg sample and 50m west of dyke
GPS NAD 83: 20V 409148 E 6571339 N
Caustic Fusion sample 42.2kg
Samples for microscope work 1.1kg

This is the original location where the coarse nodular kimberlite rock was first found that contained numerous garnets and chrome diopsides in 2002 by DDI.
Matrix - about 60% of the rock

The matrix is flow banded with 60% fine olive colored olivine, 1mm; 10% carbonate makes up the cement in the bands. The matrix has Pyroxene content at about 25% and magnetite, picro-ilmenite at 5%. There is less than 1% phlogophite in the rock The matrix contains grains up to .5cms

Xenoliths – Megacrysts – 40% of the rock
About 10% of the nodules are gneissic country rock. About 5% are blebs and stringers of carbonate. The megacrysts are about 4cms in diameter with some 13 X 5 cms being exposed on the surface of some samples.
Nodules are largely 70% olive green olivine with rare pale champagne - white olivine and rarer phlogophite (kintashitalite), 20% are dark fine grained mineral grains probably pyroxene. There are also about 5% pale green to bright green Chrome diopsides and 1% wine red garnets (20% locally in some nodules) rare orange garnets were also seen. Magnetite – picro-ilmenite is about 2% and carbonate about the same or less percentage.

MOUNT JACQUES ROUSSEAU Sample is South and west of MJR center
This sample is about 20m west and 35 m south of the MJR center location
MJR Center West dyke sample
GPS NAD 83: 20V 409124 E 6571305 N
Caustic Fusion sample 20.86kg
Samples for microscope work 0.68kg
This sample is of a 70cm wide dyke on the west side of a snow filled depression that is occupied on the east side by the trace of the extension of the dog leg portion of the dyke. The snow covered area is about 50 meters wide W-E and extends across the valley to the south for more than 200m
Matrix 50%
The matrix here is similar to the MJR center sample except that it is rusty brown weathering rather than black weathering. Composition is about 65% olivine, 24% pyroxene, 5% picro-ilmenite, 3% phlogophite – kintashitalite, 2% magnetite and 1% carbonate. There is no banding of the carbonate.
Megacrysts 50% – No gneissic xenoliths seen
Most megacrysts, mostly mantle olivine are from .5 to 1.5 cms in diameter some olivine has a rind of serpentine. The olivine is bi-colored some are pale greenish the others are champagne- clear white. The olivines are tan to pale brown weathering. 5-15% of the nodules are bi-mineralic olivine, pyroxene (2:1) usually they are serpentanised, locally the crystals are intergrowths. Pyroxene is seldom seen alone. There is about 5% phlogophite hydrated to kintashitalite. There were some picro-ilmenites up

to .5cm seen. A brick red to black mineral was seen in .3 -.5cm blebs in a discontinuous band in at least two of the samples –pyrochlore? hematite?

MOUNT JACQUES ROUSSEAU Sample is 1.2kms South of MJR center
This sample is rubble from within the dyke cleft
MJR south – sinuous dyke
GPS NAD 83: 20V 408830E 6570120 N
Caustic Fusion sample 8.2kg
Samples for microscope work 1.6kg
Matrix 65%
Matrix is 60% medium dark green to pale green (pale green is translucent probably olivine) 30% is dark green pyroxene, 4% picro-ilmenite, 4% phlogophite, carbonate veinlets and blebs 2%. – Some samples have swirls of phlogophite rich pockets in the matrix. Phlogophite is about 30-35% here. The pockets make up less than 5% of the rock examined
Megacrysts 35%
No country rock gneiss was seen in the sample collected. The usual size of a megacrysts is .3cm and only about 5% are larger than .5 cms, few are larger than 1cm. 50% of the megacrysts are pale to white translucent olivines about 25% are earthy olive green mildly serpentanised olivine. 20% are black masses with locally undulating cleavage surfaces - probably pyroxene. Phlogophite is 1%, and picro-ilmenite 35 of the megacrysts. There are rare wine red garnets with "K"rims. Some pink –orange garnets were also seen. Locally rare nodules 2-4 cms of 25% chrome diopsides with wine garnets. One black pyroxene rich nodule had a very dark red to black garnet (G10?) Traces of pyrite were observed.

CONCLUSIONS, RECOMMENDATIONS MJR

The Mount Jacques Rousseau claim group has a strong persistent dyke that appears to be a true kimberlite. The dike extends over 2 kilometers in the north then is lost under felsenmier for about 900 meters to reappear again further south with the same mineralogy.

POSSIBLE PIPES

1. In the south about 300 meters from the claim boundary The kimberlitic MJR dyke passes by the edge of a small lake straddling a diabase sill. This Lake of about 150 meters diameter could be underlain by a kimberlite pipe. The area of outcrop north of this pond is extensively shattered by a dense pattern of fractures. The only area similar to it is near

the intersection of the "F", "R" dykes and the "F" cross dyke.

2. This lake and another just east of it near the "wide" dyke should have Magnetic data collected over it from a dingy in summer or over the ice in late spring. The depth of the bottoms needs to be collected at the same time in order to properly evaluate the nature of these lake bottoms. Lake bottom samples should also be collected so that their chemical signatures can be used to help answer the question "do the lakes have diatreme origins?"

3. The lake into which the Wide dyke was seen to enter is also of interest. The wide dyke enters on the southwest side of this lake. The southeast side has turned up one nodule of fine micaceous "kimberlite. Also at this location outcrop of chloritic (retrograde) gneiss with carbonate pods and stringers has been observed. This type of alteration has been noted in contact with some kimberlitic intrusions. The 200-300 foot cliff on this side of the lake indicates that the lake here may be unusually deep and possibly have a diatreme origin. The north end of the lake has a large flat pavement like area with confused drainage that is also suggestive of easily eroded rock.

4. Just inside the present north boundary of this claim group there is a 200 meter diameter circular drainage that may represent a diatreme. It is about 50 meters inside the Grant – Mazerolle claims. The claims north of this feature need to have their mineral rights acquired.

All these possible diatreme features need to have detailed ground magnetic surveys conducted over them with a line spacing of 30 meters and readings taken every 4 meters. The lakes can be done using an inflatable dingy and rope as a guiding line. The ends of the rope lines can be recorded using a GPS by the person on the shore. Lake bottoms should also be sampled for chemical analysis.

ROUND LAKE CLAIM GROUP

This group consists of only three claims. See Figure 1 for the claim and sample locations here. This figure also shows the Round lake North group of claims and the HMC sample location collected there.

The most westerly two of the 3 claims contain the one hundred meter diameter lake which is now strongly believed to be a kimberlitic pipe.

Bathymetric Survey

Grant and Mazerolle were successful in completing a survey of the depth of the lake in sufficient detail to make corrections to the total magnetic field survey conducted by them if it would be necessary to resolve the question: "Is this lake underlain by a discreet magnetic body?" See Figure 5 for the bathymetric data points and Figure 6 for the contouring of that data at one meter intervals.

The lake has two deep spots separated by a 1-2 meter high ridge. The south lobe is 14 meters deep and the north lobe is 13 meters deep.

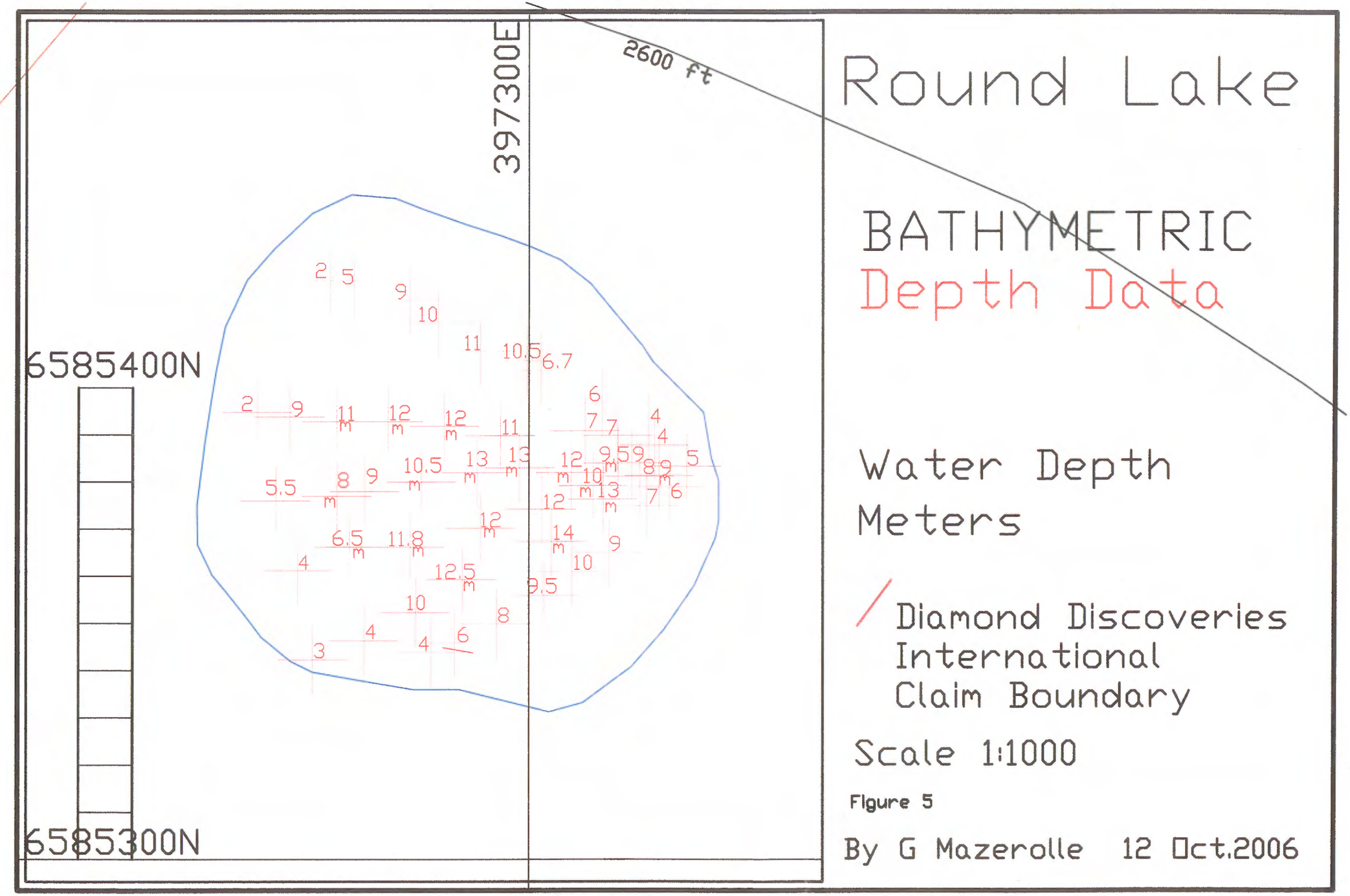
Total Magnetic Field Survey

The survey was completed using a dingy and a rope fixed at one point on the edge of the lake. The end points for the rope were located using a Garmin 76 GPS machine. The sample interval was about 4 meters. The number of readings on the line was evenly divided into the known line length. See Figure 7 for the Total magnetic Field Data and Figure 8 for the contour of that data at 100nt intervals.

The data shows clearly that the magnetic intensity increased towards the deepest part of the lake. All magnetic readings rise as the deepest part of the lake is approached. A rock with higher magnetic susceptibility must underlay the central deeper part of the lake. It is concluded that this rock is ultra basic in nature and related to kimberlite

During the property examination around the Lake a 4 cm micaceous kimberlite dyke was found coming out of the lake and ending about 6 meters away to the south. (Indicating again that the Lake is a diatreme.)

An effort was made to obtain a lake bottom sample but the device rented from the Bedford Institute of Oceanography proved too cumbersome in the dingy and after six tries the effort was abandoned.



Round Lake

BATHYMETRIC
Depth Data

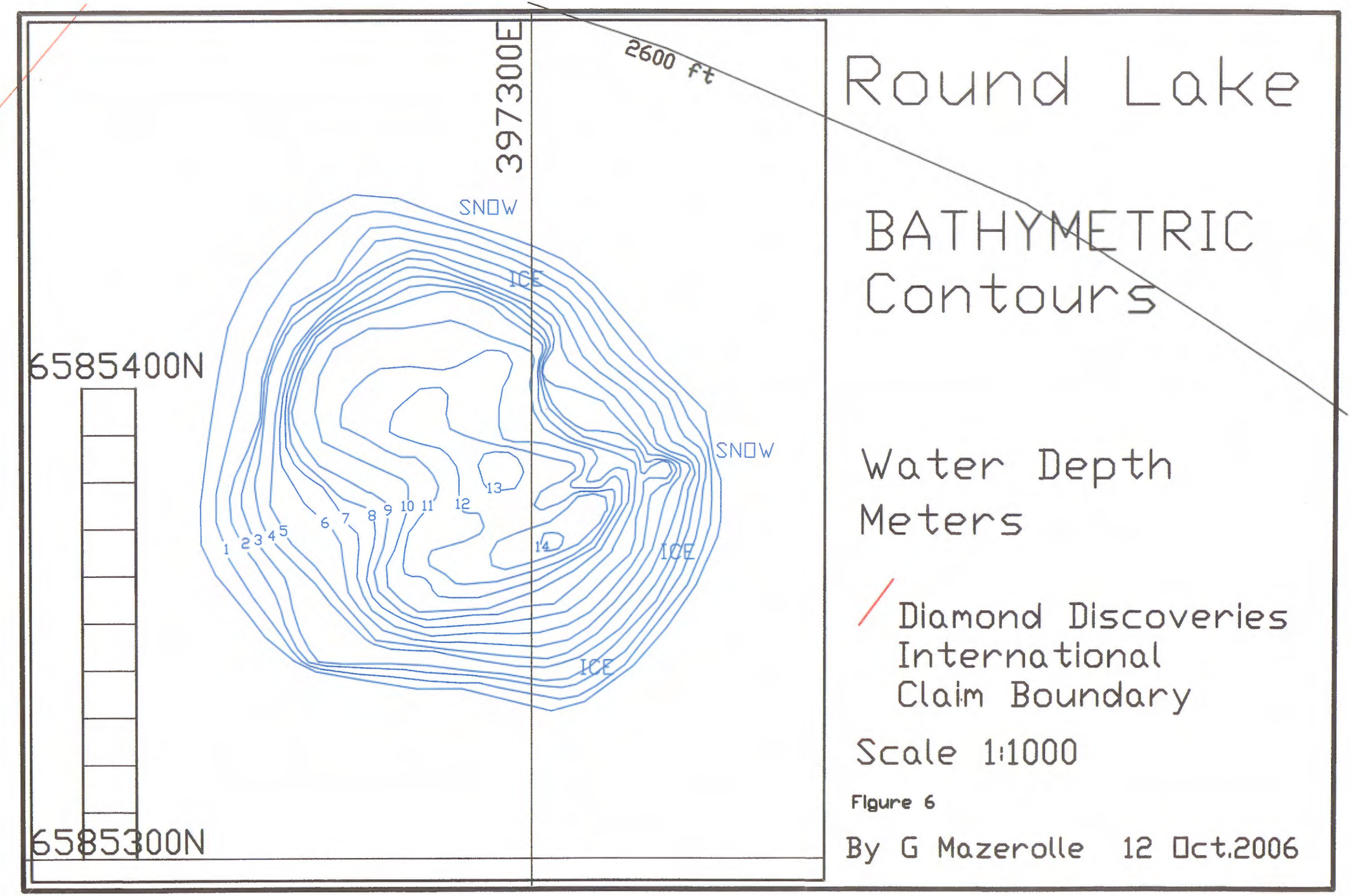
Water Depth
Meters

/ Diamond Discoveries International Claim Boundary

Scale 1:1000

Figure 5

By G Mazerolle 12 Oct.2006



Round Lake

BATHYMETRIC Contours

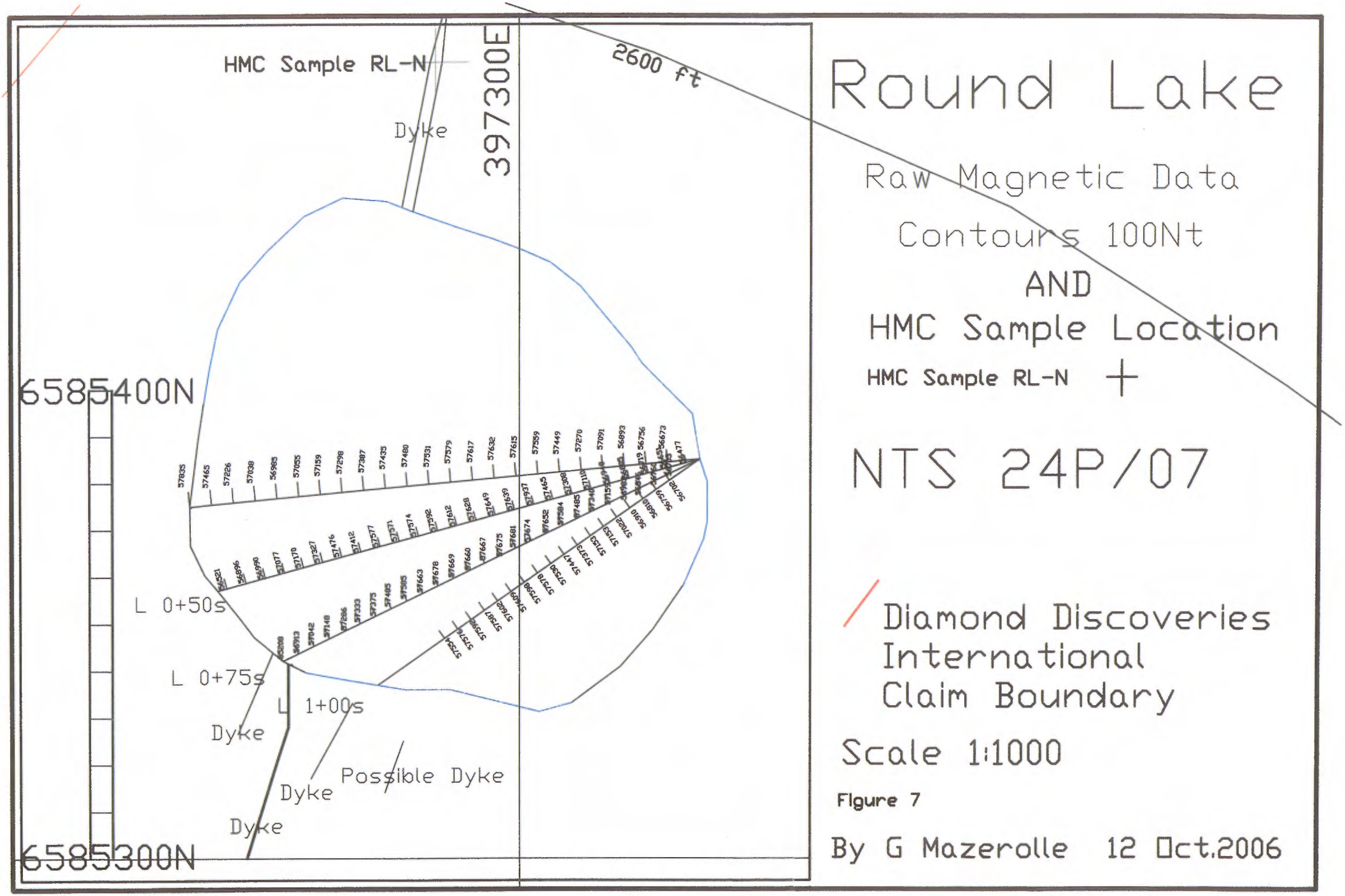
Water Depth
Meters

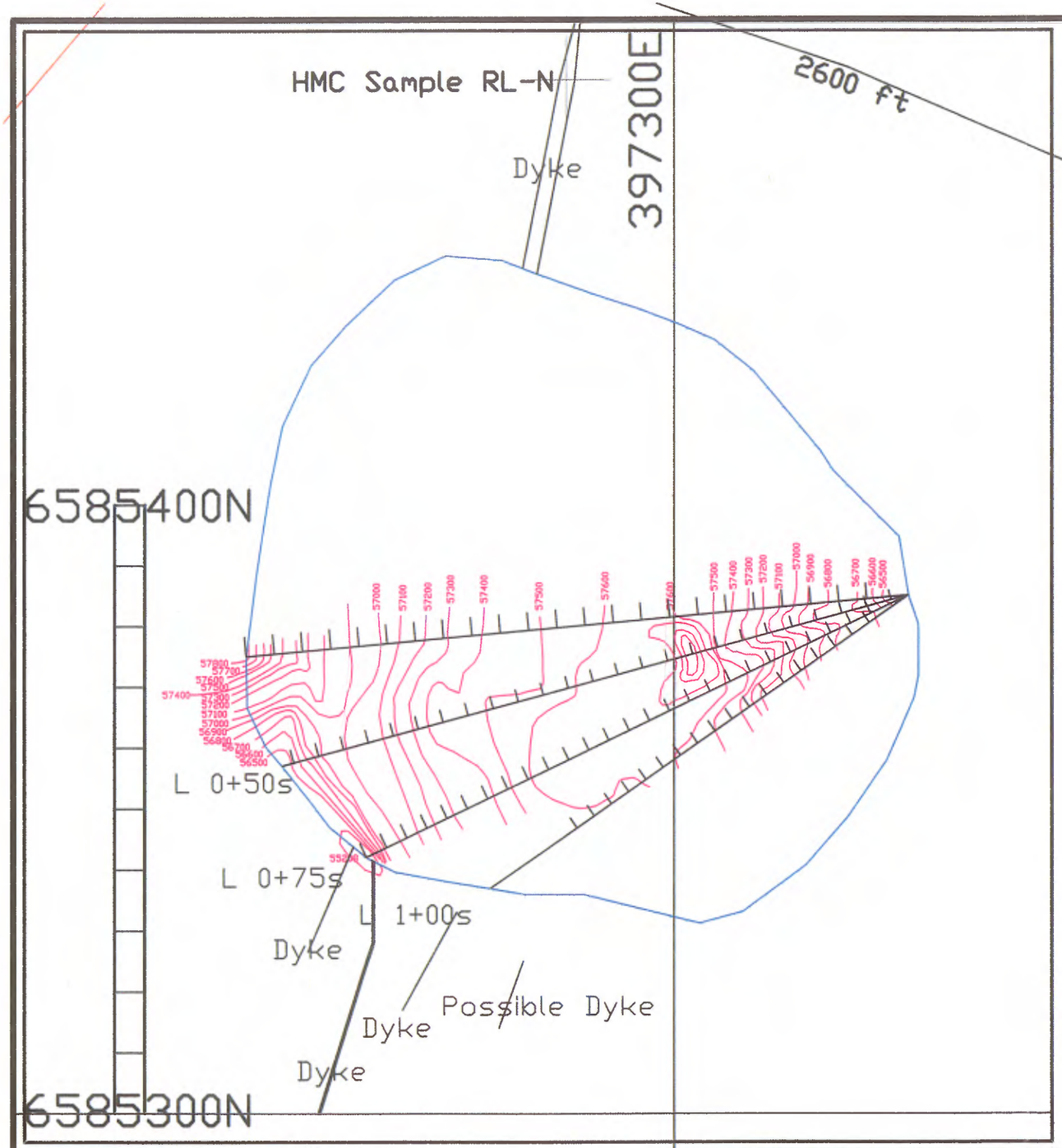
Diamond Discoveries
International
Claim Boundary

Scale 1:1000

Figure 6

By G Mazerolle 12 Oct.2006


HMC Sample RL-N
397300E
2600 ft
Dyke
6585400N
L 0+50s
L 0+75s
L 1+00s
Dyke
Dyke
Possible Dyke
Dyke
6585300N
Round Lake
Raw Magnetic Data
Contours 100Nt
AND
HMC Sample Location
HMC Sample RL-N
NTS 24P/07
Diamond Discoveries International
Claim Boundary
Scale 1:1000
Figure 7
By G Mazerolle 12 Oct.2006



Round Lake

Raw Magnetic Data

Contours 100Nt

AND

HMC Sample Location

HMC Sample RL-N +

NTS 24P/07

Diamond Discoveries International

Claim Boundary

Scale 1:1000

Figure 8

By G Mazerolle 12 Oct.2006

ROCK SAMPLE DESCRIPTION
ROUND LAKE PIPE

Sample is rubble from the dyke cleft, north side of the lake, top of ridge
NTS map shows no lake at this location, it has recently emerged from the ice. GPS NAD 83: 20V 397300E 6585400N
The North HMC sample is from the DDI "Z" dyke 401232E 6591952N
Caustic Fusion sample 5.44kg
Samples for microscope work 0.6kg
North HMC 1.58kg dry - both initial weights were about 32kg wet
South HMC 2.3kg wet

The dyke cleft here is about 4 meters wide. There are very few solid fragments in the holes dug here. The sample is about 20 meters north of the lake – pipe edge. Holes tried closer to the lake are full of immovable (with the means available) gneiss blocks. A very large erratic (about $5m^3$) sits astride the dyke trend about 4 meters from the lake edge. Snow covers the ground between the erratic and the lake. The south side of the block is overhanging the dyke trace. The melting snow was beginning to expose the dyke trace at the time Scott and I were finishing at the site. I have personal communication that another party visited the site later in the season and that there is nodular "kimberlite" exposed under the erratic.

The kimberlite collected is highly micaceous the margins have about 60 – 80% phlogophite. The mineral grains are about 2mm in size. The matrix is so fine grained as to be not discernable with a 10X hand lens. The glint of mica cleavage suggests at least 15% of the matrix is phlogophite. Carbonate is present and some serpentanised olivine was seen. There are bands of carbonate, and dark green serpentanised material often flanked by micaceous rich bands. Carbonate can be up to 35% locally; phlogophite is about 20% and the dark green minerals 45%.
NOTE: 1 There was a bed of marble seen about 100 m north of the sample site. The dyke – pipe may have added this carbonate when or if it cut this sequence.
NOTE: 2 While digging the sample there were frequent encounters with "kimberlite" coated gneissic country rock.
NOTE: 3 The HMC sample called north is taken about 7kms NNE of the Round Lake. It is from a micaceous kimberlite dyke south of a Lake that has two airborne magnetic lows in it. The known "Z" dyke strikes into the most northern of these low magnetic responses.

CONCLUSIONS RECOMMENDATIONS – Round Lake Claims

On the north side of the lake is a huge cantilevered rock under which, I have been told, is some nodular kimberlite. There was yet snow under the block when Scott and I left the area. A sample of and analysis of this material would be very useful in evaluating the value of the kimberlite here. There is sufficient information now to warrant drilling into the depths of the lake in order to sample the possibility of two lobes of kimberlitic rock there.

ROUND LAKE NORTH CLAIM BLOCK

The Round Lake North claim group consists of 37 claims contiguous with the three claims covering the Round Lake Proper. See Figure 1 for the location of these claims and the HMC sample taken there.

The principal value of this block is the existence of two magnetic depressions in an area of very high magnetic response. (Quebec report GM59273) Presently the airborne magnetic maps are not available on the Quebec government web site. I believe it can be seen on the first map in the series. The two isolated lows occur in or on the edge of a diorite mass with a uniform high magnetic response. The two depressions occur at the top and bottom parts of a lake in the northern tier of the Grant, Mazerolle claims.

There is a known micaceous kimberlite dyke that trends SSW out of the northern magnetic depression. This is named the "Z" dyke. There is also a two hundred meter diameter wet flat area on the northwest end of this lake. The dyke cleft is in places 6-8 meters wide and can be followed with some difficulty for about 2kilometers to the SSW to another flat area where outcrop is seen to have chlorite and carbonate elements often associated with other ultra mafic dyke intrusions.

CONCLUSION, RECOPMMENDATIONS RL NORTH

The coincidence of this lake having two magnetic depressions and a known kimberlitic dyke passing through the northern depression is not likely co-incidence. The lake needs to have a ground magnetic survey over its surface completed along with a bathymetric survey of the bottom so that the magnetic work can be properly evaluated. The lake bottom also needs to be sampled and chemically analysed to see if there are indications of ultra mafic rocks in the basin.

The trace of the "Z" dyke only shows micaceous soils in two locations near its northern end at the lake and 100 meters further south. If a dyke

occupies the trace it is likely low in phlogophite and high in olivine and carbonate. The southern end at 399800E 6590450N should also receive a ground based magnetic survey at about 30 meter line spacing and a tight reading interval normal to the dyke trend (2m suggested). The flat area could have a 5m reading interval. At this southern end the dyke trace passes near two lakes that should also receive the same treatment proposed for the other lakes but perhaps with a lower priority.

In this SW direction the land rises 600 to 700 feet. If the "Z" dyke dips steeply west its' southern extension could pass very near the Round lake. If the dip is to the east steeply the southern trace would be very near the "B" dyke where a northern branch is suspected (and where DDI reports the recovery of diamonds from the sample taken there. The "Z" dyke claims deserve additional work for all of these reasons. Detailed ground magnetic surveying in areas of possible diatreme activity should always be the route to take. Chemistry of lake bottoms and soils using the MMI process will allow identification of underlying kimberlitic rocks.

Torngat 1 Dyke Extension Claim Block

Location

Grant, Mazerolle have 20 claims 13 kilometres northeast of the last know outcrop of the Twin Mining Torngat1 diamond bearing dyke. See Figure 3 for the location of these claims.

Staking Rational

The claims were staked because in Quebec assessment report GM58750 for Twin Mining map 1 and map 6 show the magnetic response of the Totngat1 (east) and Torngat2 diamond bearing dykes in the southern low magnetic response area. The Torngat1 dyke is clearly trending 070° true north bearing. This will take the Torngat1 dyke off of the Twin Mining claims as they presently stand in the distance of 3 to 3.5 kilometres. Out a further 10 kilometres (on the Grant Mazerolle claims) one of the Airborne Magnetic maps of report GM59273 shows a clear break in the magnetic fabric that trends at 070°. Further at about 393000E and 6598800N there is a small sharp circular magnetic high in the center of a magnetic low. This has all the hallmarks of a diatreme occurring along the apparent Torngat1 structural break.

RESULTS DISCUSSION

The examination of the Grant Mazerolle claims in 2005 did not lead to the discovery of any kimberlitic rocks on the claim group. The rocks are largely diorites with the western most 800 meters of the block being

underlain by gneissic rocks. The structural feature shown on the Airborne Magnetic map of report GM59273 was found and prospected. The Location of the magnetic "pimple" was found but with considerable outcrop in the near vicinity and the structural trace narrow (about 1 meter) and full of rubble. No excavation work was attempted. The trend clearly continued but examination only carried on for an additional 200 metres or so.

The weather was very poor during the time on this property. The float plane that made the initial food caches was not able to land on the desired lake because of ice on the surface at that time of year (23 July) That fact made it necessary to walk a half day to the food cache on two of the good days so that supplies could be replenished.. These conditions prevented the type of effort that the excellent nature of the target deserved.

CONCLUSIONS, RECOMMENDATIONS TORNGAT1 EXTENSION

Notwithstanding considerable time was spent on the group by Grant and Mazerolle, an additional effort should be spent on the south-western trend of the lineament structure seen on this first visit. Twin Mining has since dropped claims covering ten kilometres of addition strike length on this structural trend and additional prospecting is warranted. A detailed ground magnetic survey should be completed over the co-ordinated for the observed magnetic "pimple" that has been observed on the Airborne magnetic survey for Quebec report GM59273.

CAMP ONE CLAIM BLOCK

Location

There is ten Grant, Mazerolle claims on NTS map sheet 24P/11 covering the Camp One kimberlite dyke. See Figure 4 for the claim block and sample location.

Discussion

This dyke was discovered by International Tower Hill Resources in 2000. They had a photo on their web site showing some nodular kimberlite which was noted by Mazerolle. Then the initial target was ruled out from the air as being sand and till covered features it was decided to examine this site. The width of the "K-2" dyke at 2 meters is encouraging and the presence of about 5% pyroxene nodules as it rises out of the snow and ice about 20 meters from the shore of the Lepers River lake is even more noteworthy. However the real view is to look into the clear lake on a still morning and see outcrop with sections having more than 70% coarse 4 centimetre diameter nodules. Some of these black pyroxene nodules contain

chrome diopsides. The apparent width of the dyke in the lake was paced off at nine meters. The whole south shore at this location was covered in deep snow (greater than 2 metres) while we were there. We were able to obtain a sizable sample of this nodular and micaceous kimberlite. A heavy mineral concentrate sample was collected at the base of the cliff above the shore fast ice and snow. See Figure 10 for the sample location.

ROCK DESCRIPTION

Discussion

The dyke is largely phlogophite mica but some sections as at the height of land south and above the cliff face have phases that have very little phlogophite and have greater than 60% olive coloured olivine in grains about 2-3mm. The dyke examined was observed to cross the peninsula. It could also be seen on the north side of the Lepers River on the face coming out of the river. It could also be seen again at the top of the ridge to the southwest. Its northern extension after 8 kilometres aligns well with the "T2", "M" or "sandy" dykes on the former Levelland claims on NTS map sheet 24P10. The trend to the southwest at about 13 kms passes near a Twin Mining dyke and at 18kms is near a dyke discovered on PEM licence 1484 on the north shore of the Abloviak Fiord. This entire trend is presently available for staking.

CAMP 1 Sample

GPS NAD 83: 20V 383034E 6608119N
Caustic fusion sample – 56.28kg
Microscopic work samples 1kg
HMC – 8Kgs

Along with the rock collected here, weathered dyke material was collected and panned to a heavy Mineral Concentrate (HMC) on the site. The initial material weighed about 36kgs. It was collected SW of the rock sample, at the cliff face in the notch of the "kimberlite" dyke. The material is very micaceous at this location. Dyke rocks there contain about 5% nodules ranging in size to 4 cms. This location is the closest to the lake that could be sampled because of the snow cover between it and the lake.

Camp 1 Rock sample

The rock sample is material taken out of the lake lying on surface and able to be reached and retrieved by a long handle shovel. 1.5 m of snow extended into the lake slightly (1m) on our arrival it was at the shore line a week later

when we were leaving.
The dyke is about 9 meters wide in the lake at the shore line. Overall the 9 meters is about 40% coarsely nodular the finer parts of the dyke are a phlogophite mica rich rock. The nodules range to 8cms, locally they may make up 70-80% of the rock
Matrix:
It is about 65% phlogophite, pale greenish to dark green – black olivine 10%, Pyroxene 20%, magnetite –ilmenite 3% and carbonate 2% in blebs and 2mm wide veinlets
Nodules:
60% have a dimpled weathered tan-yellow weathered surface. The nodule cores are black massive in appearance, probably pyroxene. Some nodules have up to 15% diopsides with 1-3% of that being bright green (high?) Cr-Diopside. The rare nodule had what appeared to be Harzbergite golden schiller on some undulating (cleavage?) surfaces.
The nodules have no visible mica. No country rock xenoliths were observed.
Olivine 20%, Pyroxene 65%, diopsides 5-15%, magnetite + carbonate 5%. The olivine in the nodules may be pale diopsides. Magnetite blebs up to .5cms in diameter were observed

MAGNETIC SURVEY
Methodology

Two lines short lines of magnetic readings were taken over the Dyke on land near the shore the most northerly was on top of two meters of snow. The line further south near the top of the cliff was not snow covered. The remaining part of the survey was carried out over the lake where the dike appears to thicken rapidly.

A rope was fixed on the shore of the lake about 50 meters west of where the dyke enters it and its GPS location recorded. The other end was anchored to various points on the island to the northeast. These points were recorded using a Garmin 76 GPS. There was a snow bridge that allowed easy foot access to the island. Beginning at the SW fixed point total magnetic field measurements were made by one man in a dingy while the man on shore recorded them and eventually rotated the northeast end of the rope to the next point on shore further south. If the dingy could not reach the NE end safely the distance was estimated from the GPS end point to the last reading taken on the line. The number of reading on a line was divided into the known distance giving a reading interval of between three and a half

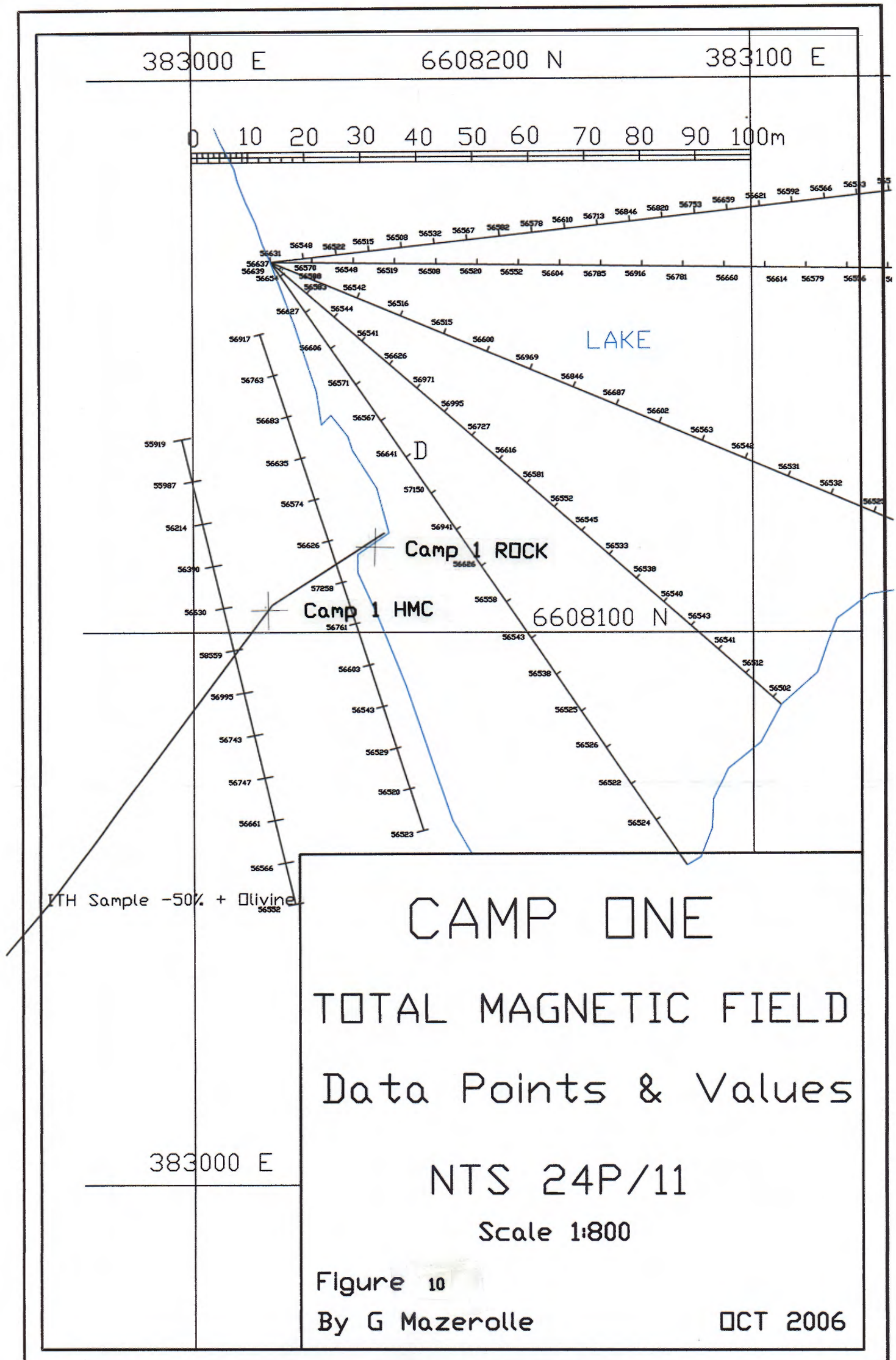
meters and about 8 meters on other lines. The last line crossed the dyke about eight meters from where it enters the lake.

The data is recorded on Figure 10 and the contoured results are displayed on Figure 11.

RESULTS

The contoured results of Figure 11 show that the dyke has a steep easterly dip and that the dyke is offset to the left about 10 to 15 meters when it is at a point about 22 meters from shore. The results do not appear to indicate that the dyke is a diatreme, at least in the length that was covered by the magnetometer survey.

The main channel of the Lepers River travels down (northwest) the north side of the lake. Observations of the mountains on the north side of the lake seem to indicate that there is a major strike slip fault on or just north of the main channel of the river. It was noted on landing on the lake initially and in observing a major snow filled lineament from our Camp One tent site. This lineament trends SE – NW and can be seen on the topographic map extending from the SE at 385400E 6605200N to 384450E 6606550N in the NW and onwards to the northwest down the river. The left hand offset of the magnetism in the dyke and its rapid thickening may be the result of a splay off of this structural feature. The feature may have been a crustal weakness prior to dyke emplacement and later movement has broken and offset the dyke as we see it today. If this is the case the strength of the dyke as it crosses the main part of the structural lineament is worthy of additional magnetic surveying on that part of the Lepers River Lake at 383190E 6608080N.



CAMP ONE

TOTAL MAGNETIC FIELD

Data Points & Values

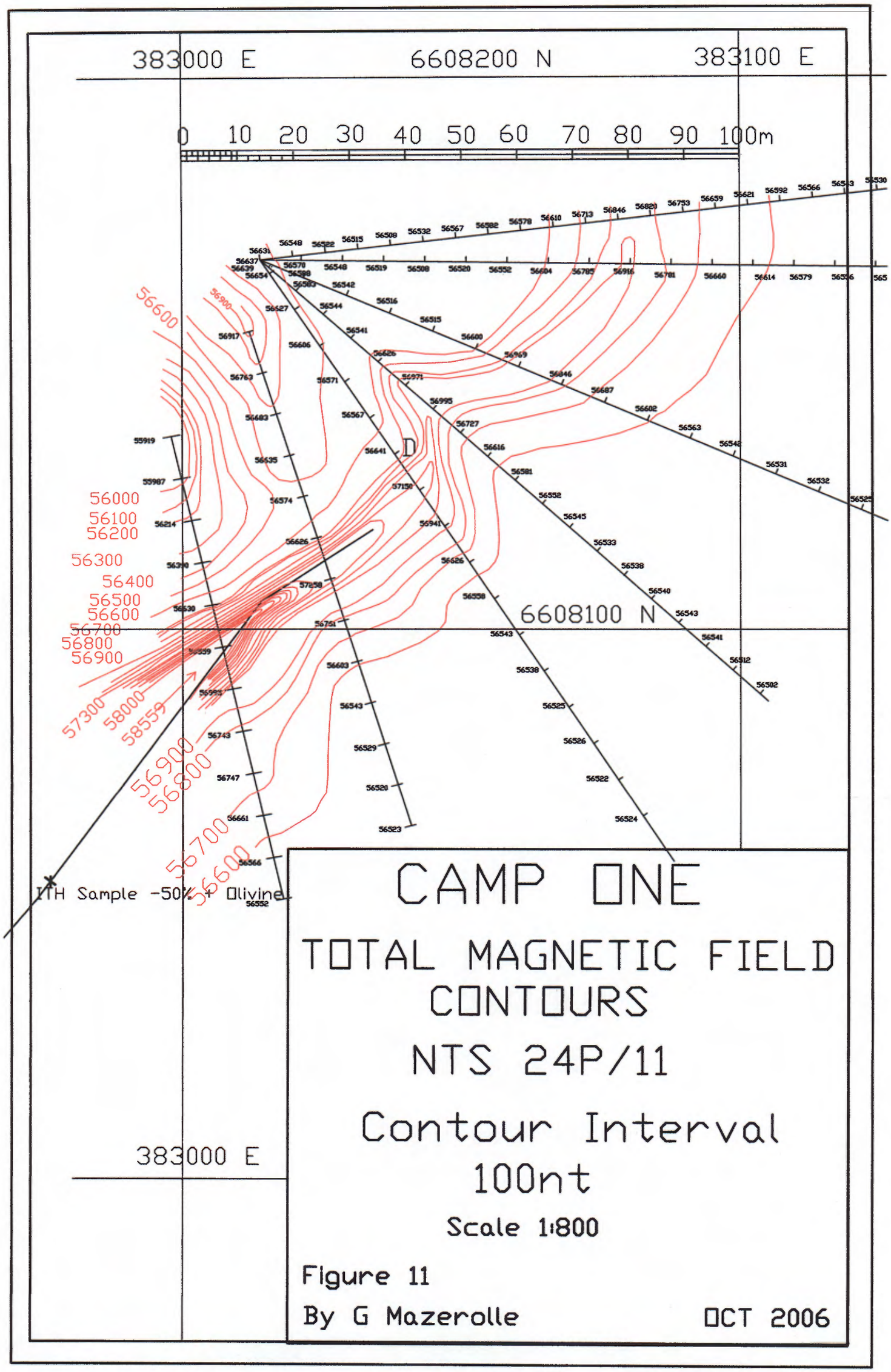
NTS 24P/11

Scale 1:800

Figure 10

By G Mazerolle

OCT 2006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ITH Sample -50% + Olivine
CAMP ONE
TOTAL MAGNETIC FIELD CONTOURS
NTS 24P/11
Contour Interval 100nt
Scale 1:800
Figure 11
By G Mazerolle
OCT 2006

CONCLUSIONS, RECOMMENDATIONS

Levelland reported diamond fragments from the "Sandy" dyke to the northeast on their former license PEM1181. The highly nodular nature of the dyke on the Camp One claims makes the intervening ground highly prospective. There are numerous lineaments between the two locations that could be the dyke trace. If the petrography of the samples collected on the Camp One claims is at all encouraging this northeast dyke trend needs to be prospected on the ground and the interesting lakes along the way examined magnetically and bathymetrically.

Recommendations: General Regional

An acceptable agreement needs to be reached with a mining company willing to pay for the analysis and petrographic work on the samples collected by Grant and Mazerolle in 2005.

Regional

Prospecting and geological reconnaissance must be carried out along the southerly extension of the favourable Mt. Jacques Rousseau dyke south of the Twin, Anr and Tuk dykes into un-staked ground to 3 snowfield breaks at 406000E 6564000N and beyond across the Alluviaq River toward Lac Malchelosse where the Holy Smoke dyke was located on the north shore of a lake at 403600E 6557100N.

Respectfully Submitted

Gerard J Mazerolle BSc

Gerard J Mazerolle BSc

CERTIFICATE OF QUALIFICATIONS

I, Gerard J. Mazerolle, of Antigonish, Nova Scotia do hereby certify that:

1. I am a consulting geologist residing at 88 Brookland Street, Antigonish, Nova Scotia

2. I am a graduate of St. Francis Xavier University of Antigonish having a B.Sc. (1968) and B.Ed (1972) degree from that institution.

3. I have been practicing my profession for Forty two years in Eastern Canada, British Columbia and Maine.

4. I do have an interest in the property described in this report.

5. I prospected and recorded an examination of the Torngat Project Properties between 20 July and 30 August 2005. Field days were from 23July to 29 Aug2005.

   I read the material listed in the bibliography and discussed the property with numerous professionals who have knowledge of the region.

Gerard J. Mazerolle B.Sc.

Gerard J. Mazerolle

BIBLIOGRAPHY

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GM61616	/04	Mark Connell	Assessment Report, DDI-7 Property, Torngat Project
GM60874	03/03	GJ Mazerolle	Assessment Report, DDI-7 Property
GM59665 Also GM60872	06/02	GJ Mazerolle	Report of Activities on Diamond Discoveries International DDI-3 Property
GM60871	07/02	GJ Mazerolle	Report on Activities on Diamond Discoveries International DDI-1 & 2 properties
GM58270	11/00	Bessner Noyes	Assessment Report for Permits 1469 1492, 1522 For Dumont Nickel By Apex Geoscience
GM58437	10/00	Spectra Aviation Corp.	High Resolution Aeromag Surveys, Torngat Project
GM58750	10/00	L. Plante	Magnetic Survey, Torngat Project, Alluviaq Fiord For: Twin Mining Corp (ground Mag survey)
GM59209	/00	R. Roy	Geological Report on The Spring 2000 Sampling Program By Francunaque Exploration For:Twin Gold Corp
GM59271	Rev 11/00	DJ Bessener	Report Abloviak Fiord Properties Ungava. For Dumont Nickel
GM59272		Richard Roy	Abloviak Report For Band-Ore Resources By Francunaque Exploration
GM59273	10/00	Spectra Aviation Services Corp, Calgary	For all Companies with property in the Abloviak Fiord region Except DDI and Twin Gold Corp "Operations Report,Torngat Project, High Resolution Aeromagnetic Survey" in three blocks
GM59664	06/02	GJ Mazerolle	Report of Activities on Diamond Discoveries International property DDI-5
GM59485 GM59662 same	05/02	GJ Mazerolle	Report of Activities on Diamond Discoveries International Property DDI-6
GM59663	07/02	GJ Mazerolle	Report of Activities on Ayrex

			Resources Ltd. Torngat Property
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GM58931	10/00	Spectrum Exploration Geoscience Corp	Aeromagnetic Survey For Diamond Discoveries International

EX-IN

EXPLORATEURS - INNOVATEURS
DE QUÉBEC INC.

3700, boul. de la Chaudière
Sainte-Foy (Québec)
Canada G1X 4B7
Téléphone : (418) 877-4249
Télécopieur : (418) 877-4054

Certificat

Edwin Gaucher, ci dessous soussigné, est un ingénieur-prospecteur minier, et son bureau est situé au 3700 Chaudière, Québec.

Je suis un diplômé de l'École Polytechnique de Montréal (1955), et j'ai reçu un doctorat en géologie de Harvard en 1960.

Je suis membre de l'ordre des ingénieurs.

J'ai travaillé à temps partiel en Mines-Exploration depuis 1952, et à plein temps depuis 1960 jusqu'à aujourd'hui. Présentement je suis président de Ex-In, une société junior d'exploration minière.

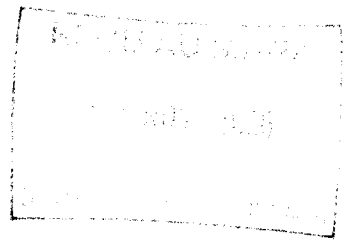
Je n'ai aucun intérêt direct ni indirect dans les propriétés décrites du rapport du 6 novembre 2006 par Gerard J. Mazerolle, décrivant les travaux du projet Torngatt situés dans les NTS 24 P/07, 24 P/10, 24 P/11.

Je suis membre de l'ordre des ingénieurs du Québec et du ICM, depuis 50 ans.

Je peux certifier que j'ai examiné le rapport de M. Gerard J. Mazrolle. Il me paraît décrire fort adéquatement les travaux exécutés sur les claims. Ces travaux semblent techniquement fort adéquats à l'étape d'une évaluation du potentiel de ces propriétés. Je ne connais pas M. Gerard J. Mazerolle, mais son rapport témoigne d'une grande expérience en exploration. J'ai fait une vérification rapide des montants déboursés pour ce projet, et le coût global me semble fort raisonnable.

Je recommande que le MRN accepte ce rapport pour des crédits statutaires.

Edwin Gaucher



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