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REPORT OF ACTIVITIES ON DIAMOND DISCOVERIES INTERNATIONAL PROPERTY DDI 3 IN THE TORNGAT MOUNTAINS

Year 2001

REPORT OF ACTIVITIES
ON
DIAMOND DISCOVERIES INTERNATIONAL
PROPERTY
DDI 3

CLAIM LICENCE NO.
P.E.M. 0001482

NTS Sheet 24P/07
IN
THE TORNGAT MOUNTAINS
OF
NORTH-EASTERN QUEBEC

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SUMMARY

Geological, ground magnetic and geochemical stream sediment surveys were conducted over the Diamond Discoveries International mineral exploration licence number 0001482 during July, August and September of the year 2001.

Geological work consisted of foot traverses aimed at mapping the rock types in a broad way and recording their relationships and structures. The primary goal was to locate kimberlite dykes and obtain samples of them for laboratory analyses. There were no proven kimberlite dykes on this property prior to this field season. The "H" dyke on the Labrador boundary had been located last year. This structure was trenched by hand to a depth of 2.5 metres and yielded kimberlite rock, which was sent for assay. In addition the Martina and an unnamed and unvisited dyke on strike with it to the south were found. The Martina dyke is only about 10 centimetres wide yet has some of the coarsest booklets of phlogophite. It was sampled and sent for assay. The unnamed extension of the Martina dyke is midway up a 1000-foot cliff and was not visited. The "K" kimberlite dyke on the south boundary was found and sampled.

The most notable discovery in the 2001 field season was the discovery of the Harry & Johnny dykes now referred to as the Champagne Complex. This consists of two dykes with Harry more than 3 metres wide. Harry is a coarse-grained hypabissal kimberlite. The Johnny dyke is 40 centimetres wide and fine grained, with grains less than 0.2mm. There is also abundant diatreme facies kimberlite around the discovery location at the mouth of the brook and at numerous places along the structure. The Harry - Johnny dykes were followed northward up the brook and eventually lead to the discovery of the first kimberlite pipe (called the Champagne Pipe) in the Torngat Mountains or for that matter in East of the Otish Mountains of Quebec. Including the main vent in Champagne Lake there are five blow centres known so far. They are from north to south: the Peter blow, the Champagne Pipe, the Triangle blow, the Side blow and the Johnny blow. Approximately 200 kilograms of rock from each of these vents was collected and sent for assay. A similar sized sample from a two metre wide dyke at the mouth of the brook was also recovered and sent for assay.

In an effort to evaluate the diamond potential of the structure. A series of seven stream sediment samples were taken near the blows in the creek bed. Sites were selected that would maximize the natural concentrating power of the stream. This should give a sample representing years of concentrating by

nature of the heavy minerals and diamonds moving down the stream. Seven samples each in excess of 25 kilograms of -5 mm sediment was collected, concentrated by jigging and sent to Robert Dillman to select indicator mineral grains and diamonds. Although the samples are pregnant with kimberlite indicators no diamonds were located in any of these samples.

A **Ground magnetic** survey was completed on a grid constructed on the Champagne Complex. The contour map and profiles are useful in evaluating the kimberlite potential in the part of the valley that is covered with overburden and talus. The men working to complete this work did so at risk. They worked in winter conditions over large talus blocks and icy outcrops. Additional infill lines available for the magnetic survey were not completed because of dangerous conditions.

A second grid was constructed in the valley between the "H" and Martina dykes. There were numerous kimberlite indicator minerals in the samples collected there in 2000. This grid was not used because of the magnetometer breakdown and the delay in obtaining a replacement after the Sept 11th terrorist attack on New York. When the machine did arrive it was employed immediately on the Champagne Complex survey.

In the **Stream Sediment Sampling** work forty-three (43) samples having a mass of from twenty five to thirty five kilogram were collected on key drainage sites on the property. These samples were further processed in camp to obtain a fine and a coarse concentrate of the heavy minerals found in that sample. The concentrate vials were then shipped to Robert Dillman of Arjadee Prospecting, of Mount Brydges, Ontario for microscope examination of the grains in order to identify Diamond Indicator Minerals (or diamonds) contained in the samples. The mineral grains selected by Bob Dillman were then sent for microprobe analysis. R. L. Barnett, Geological Consultant Inc., 9684 Longwood Road, RR32 London, Ontario, N6P 1P2 did this microprobe work. The results for this work are pending for the samples taken on the DDI-3 mineral exploration licence. In total forty-three sample were taken from streams located on the DDI-3 claims in 2001. In addition five till (soil) samples were collected in the valley between the "H" and Martina dykes. A separate report covering the microscope phase of the work will be compiled and submitted by Mr. Robert Dillman.

Using this process of silt sampling, the kimberlite indicator minerals found in the samples will indicate the presence of kimberlite dykes or pipes in the watershed drained by that portion of a stream.

In the process of collecting these stream sediments it is possible that an experienced crew might visually locate a kimberlite dyke or pipe. This happened on numerous occasions. The crews were well instructed that sampling was not the only goal of the project. The true goal was to locate kimberlite pipes or dykes. All crewmembers were very active in searching for kimberlite rock, or dykes or pipes. For example the unnamed cliff dyke was found by looking at the hills while eating lunch.

The property is at an elevation greater than about 700 feet. About 85% of the elevations are higher than 1500 feet. This low point is where the southeast claim line follows the north side of the West Wind River valley. The field crew called the creek draining the eastern region of DDI-3 Mountain Creek. The branch draining the "H" dyke area itself is called Mountain Creek West. Work in this high country is restricted by the frequency of low cloud cover and fog.

PREVIOUS WORK

Previous geological work done in the area consists of regional scale geological mapping by the Geological Survey of Canada.

1 The map 24P/04 by: Van Kranendonk, M. J. 1993,
Geology Mount Jacques Rousseau
GSC Open File 2738, Scale 1:50,000.

2 The Quebec Department of Mines has just released map sheet 24P07 in October 2001. It is a compilation by Chantel Belodeau and Serge Perreault and numbered SI-24P07-C3G-01H. The coloured map has a slightly different underlined code. The map is called Mount Jacques Rousseau and its' scale is 1:50 000.

3 There is also map 1429A at 1:250,000 scale called Point Le Droit compiled by F. C. Taylor in 1975. It is published by the Geological Survey of Canada and has the map legend printed separately as "map 1462A".

1.0 INTRODUCTION

This paper reports on the fieldwork completed on the Diamond Discoveries International mineral licence PEM 0001481 in the TORNGAT Mountains of Northeastern Quebec during the 2001-field season.

Stream Sediment Samples were collected from the first and second order river drainages in an attempt to find Diamond Indicator Minerals in the Heavy Mineral Concentrates (HMC) of those samples.

The concentrates were sent to Robert Dillman of Arjadee Prospecting for microscope examination of the individual grains. Selected suspect grains, from the sample, are then sent for detailed microprobe identification.

The analytical results for this work are pending.

The northeast half of the property was largely prospected and mapped in 2000, as was the high country west of the un-named cliff dyke. Nine days was spent examining the rocks on other parts of the property in 2001.

The 2.3 metre wide cleft in the rock at the "H" location was proved to be a hypabissal phlogophite rich kimberlite dyke. The "H" dyke extends to the north across the provincial boundary into Labrador. This dyke is lost in the valley about 1kilometre south of this boundary crossing point, in an area of disturbed rock (probably "recent" and part of the shearing making up the Abloviak Shear Zone (ABZ)). There are some unusual rocks located in the vicinity of the "H" dyke. Soil sample number five was from rock weathering in place to coarse sand.

The Martina dyke is located one kilometre to the southwest of the "H" though only 8 cm's wide the phlogophite mica crystals are some of the largest overall, found in any dyke so far. It strikes into a lake about 30 metres to the south. The un-named dyke seen from the helicopter on a cliff face is probably the southern extension of the Martina dyke but appears to be from 1 to 2 metres wide there.

Lastly the "K" dyke is located nine and one half kilometres to the south-southwest of these dykes near the south boundary of the property and has the same strike as the "H" dyke. It may then be the extension of either the "H" or Martina structures.

The first kimberlite pipe in the Torngat Mountains is located one kilometre east of the "K" dyke. The Champagne Complex extends for a mapped length of one kilometre. A snow filled cleft to the south on the former Dumont Nickel ground is almost certainly the southern extension of the structure. The northern extension of the Champagne Complex above 2000 feet was largely snow covered after the initial discovery. A small lake northeast of the Champagne pipe above this elevation has not been examined.

A grid was constructed over the accessible ground and a magnetometer survey was completed over it. Maps and profiles have been constructed using this data. A geology map was completed covering the area from 200 metres north of the pipe and 800 metres south of the pipe and having a mapped width of about 400 metres. The valley containing this structure is bounded on the both sides by vertical walls of rock, some of which are the blast boundaries of the kimberlite pipe. A total of about 2250 pounds of rock from six locations in the complex has been submitted to Lakefield Labs for diamond assays.

Six stream sediment samples were taken in the creek draining the complex in an attempt to locate diamonds. None were found.

1.1 EXPLORATION IN OPEN GROUND

In conjunction with the finding of the Champaign Complex it was decided that it would be wise to examine and collect silt samples in the open ground to the south and southeast of DDI-3. A number of kimberlite dykes were found in the un-staked ground as well as kimberlite float. The sources of which were not located. Much of this ground has since been acquired by staking. The old Dumont Nickel and Twin Mining claims south of the Champagne Complex have also been staked after those companies allowed those mineral rights to expire.

2.0 LOCATION AND ACCESS

The Diamond Discoveries International Torngat Mountain property (licence 0001482) is located in the northeast quadrant of 1:50,000 NTS map sheet 24P/07.

The nearest community, George River - KANGIQSUALUJJUAQ, Quebec is about 80 kilometres to the southwest of the centre of the claim group. George River gives access to shipping and airline facilities as well as food and other supplies. Float equipped air craft can land and depart from Lakes there. At least two of these lakes now have roads connecting them with George River.

There is no lakes of suitable sized on the DDI-3 property that could be used as a floatplane serviced base camp. The nearest reasonable sized lake is located four kilometres southwest of the Champagne Complex at an elevation of about 1050 feet. It is narrow 100 - 200 metres wide and a maximum straight "runway' of 1.3 kilometres. This could only be used in the SSW or NNE direction for departures because of the 1400-foot cliffs east and west of the lake. The 1000-foot elevation is also the cloud level on most early to mid mornings in this part of the Ungava region. The Abloviak Fiord is usually clear so helicopter movement should not be any worse than in 2001 given similar weather conditions.

There are two other lakes at about the same elevation in the southwest corner of the map sheet at UTM 394000E and 6570000N. The second is at 387000E and 6570800N. They would be 18 km's and 22 km's SW of the Champagne Complex at elevations of about 1150 and 950 feet respectively. Two kilometres south of the first given location is a possible lake at an elevation of about 1050 feet. It is on NTS sheet 24P/02. The problem with locations south of the Fiord is that there are no direct valleys to the usually clear Abloviak Fiord that could be used by the helicopter to access a base camp and workers on the various properties. Flying to the east from these last three lakes would allow access to the Alluviaq branch of the Fiord after passing over a 1700-foot ridge. The location north of the Fiord is best for helicopter access and reduced flying time to the presently held properties. The locations south of the fiord would reduce flying time to George River but may make the fiord less accessible to the helicopter on days of low ceiling and visibility

The 2001 field crew was serviced out of a camp at the West End of Pangia Lake at a Latitude 59°36'N and Longitude 065°15'W. The camp was about 30 to 45 minuets flying time from George River. The camp was about 45 kms northwest of the centre of the DDI 3 claim group. The bulk of the work will be on the DDI-3 property and the newly acquired claims. A base camp closer to work is needed to increase time worked on the property and reduce flying costs.

The DDI-3 mineral license covers the north side of the Valley of the West Wind River as far as the Labrador border. Mountain Creek and a Creek 3 km's to the west give access to the property by foot if necessary. These valleys are narrow but have reasonable slopes for most of their lengths. The till filled valleys rises rapidly to elevations of from 2700 to 3000 feet on the plateau like hills. The rise in some places is in excess of 1500 feet. The mountaintops are largely boulder covered with rare outcrop exposure. Accessible outcrop is very limited probably making up less than 20% of the property on these plateau's.

The West Wind Valley is pleasant with eskers and recessional moraines trapping water as ponds and small lakes. At low elevations, usually in the valleys or cracks in the rocks, vegetation such as grasses can be found. No shrubs were observed on the claims. The high portion of the licence is rock covered, barren and bleak with a number of small glaciers on sheltered hill faces. Rock outcrops are small, scattered and not numerous in the rock debris fields.

3.0 LICENCE INFORMATION

The Diamond Discoveries International Torngat Mountain property (licence 0001482) is located in the northeast quadrant of 1:50,000 NTS map sheet 24P/07. There are about 6580 hectares (HA) making up the area of the claim group. The centre of the property is in the Mountain Creek Valley where Mountain Creek turns Northeast and the Mountain Creek West branch continues north. This is at about UTM 409000E and 6590000 N. It has a maximum east to west extent of 13 Kms and 12 Kms maximum north to south length. (Fig 1)

4.0 2001 EXPLORATION PROGRAM

4.1 Heavy Mineral Concentrates of Stream Sediment

The program was designed to collect fifty (50) stream sediment samples then concentrate the heavy minerals from the samples by panning and mechanical jigging. Concentrates were then examined for the presence of any diamond indicator minerals in them. The presence of kimberlite indicator mineral grains would reveal the presence of kimberlite rock in that part of the drainage basin. Fifty sample sites were visited and fifty samples were taken (Fig 2). The samples were panned and jugged in facilities installed at the camp on Pangia Lake. The concentrates obtained after mechanical jigging were sent to Robert Dillman for microscope selection of suspected indicator mineral grains. These selected grains were then sent to a R. L. Barnet for microprobe identification of these mineral grains. The results of this work are pending. A separate report will be compiled and submitted by Robert Dillman covering this aspect of the program.

Stream sediment samples were taken immediately down stream from high energy sites were stream energy was seen to drop rapidly. The site should have at least 5cm-diameter gravel. This size material moves only in the flood stage and permits the winnowing of light material out of the spaces around the larger stones as the flood stage dissipates. This process should concentrate the garnets, magnetite, chrome diopside and other kimberlite indicator minerals. The initial field screen had openings of 5mm. More than 20 kilograms of the material that passed through this screen was de-slimed. This involved stirring with lots of water so that the clay and organic portion became suspended. This was followed quickly by carefully decanting the dirty liquid. This process was repeated until the residue was largely clear of clay and organic matter. The sample site was marked with a sample ribbon (ex DDI-3 #10). The GPS location of the sample site was taken and written in the field notes of the sample team. This original record of the sample location was kept on file. That crew later transferred the location information to a master logbook kept at camp. If the next sample was to be collected nearby (100's of metres) the first bucket was carried to the next site. This is a difficult task in rough country. A helicopter returned crew and samples to camp as required.

At camp on rain days or foggy early mornings the 40 - 60 pound samples were screened and panned in the lake. Each screen was jigged by hand and the eye that resulted was examined for diamonds or indicator minerals. The eye of the material that remained on the Milner diamond screen (1mm openings) was collected into an appropriately labelled vial. (The previous screen has openings of 2mm). This constituted the "coarse" sample for that location site. The material that passed through the Miller Diamond screen was panned to remove some of the lightest fraction and further de-slimed. The remaining material was collected in a clean properly labelled polyethylene sample bag. This process continued until all the material from that sample site was processed. It required from three to six "pans" to completely process the sample at this stage. The "coarse" fraction (+1 to 2 mm) was filed for future reference in case indicator minerals are found in the fine fraction. The last step was to have the fine material from the polly bags jigged mechanically. A trained operator using a motorized jig designed for concentrating heavy minerals completed the extraction process. The eye from this final stage was collected and placed in a properly labelled vial. These vials were shipped to Robert Dillman for examination of their kimberlite indicator mineral content.

4.2 Improvements

Use screen sizes in the field that will allow the direct collection of 1-1.5 litres of de-slimed sand (-1mm). Pan and bottle the coarse fraction (+1 to 2mm) of the sample in the field. This will permit the easy transport of the sample to the next site. It should be possible in this way for one crew to collect up to 6-8 samples per day. This could only be done last year with direct helicopter support. This process will also reduce panning at camp. It will also standardize the sample size taken from one site to the next. The amount of time walking the ground by the crew will increase and allow for the increased chance of locating dykes or pipes. The helicopter is vital but in some terrain, eyes on the ground are more effective in locating dykes. This is especially true in the high elevations where grass does not grow.

5.0 REGIONAL GEOLOGICAL SETTING

The rocks underlying the Diamond Discoveries International Licence - 1482 are part of the Canadian Shield. The Canadian Shield is the largest single block of ancient (Archean) rock in the world. It is with these Shield areas that all the commercial diamond mines of the world are associated. The Canadian Shield has only recently received the attention of the diamond exploration community over the last fifteen years. This is the first year (2002) that DeBeers has committed the majority of its diamond exploration money to the search for diamonds in Canada (38 million dollars).

In more detail the DDI - 3 ground is situated near the margin or just

TIME SCALE

EON	ERA	SUB-ERA or PERIOD
PHANEROZOIC		Tertiary (T) Neoproterozoic-Cambrian (NC)
545		
PROTEROZOIC	NEOPROTEROZOIC (N)	
	900	
	MESOPROTEROZOIC (M)	Late Mesoproterozoic (M3)
		1200
		Middle Mesoproterozoic (M2)
		1350
		Early Mesoproterozoic (M1)
	1600	
	PALEO- AND/OR MESOPROTEROZOIC (P-M)	
	1600	
	PALEOPROTEROZOIC (P)	Late Paleoproterozoic (P3)
		1800
		Middle Paleoproterozoic (P2)
		2100
		Early Paleoproterozoic (P1)
2500		
	ARCHEAN AND/OR PALEOPROTEROZOIC (A-P)	
2500		
ARCHEAN (A)	UNDIVIDED ARCHEAN (A)	
	NEOARCHEAN (A_N)	
	2800	
	MESOARCHEAN (A_M)	
	3400	
	EO to PALEOARCHEAN (A_P)	
4000		

west of the suture line that separates the Nain Geological Province rocks of Labrador and the eastern most rocks of the Churchill or Rae Province rocks. The suture line is probably no more than 30 km's to the east of this mineral licence and may indeed be closer. It is along this line across which two continents collided over 1800 million years ago. This collision suture and the deformation and metamorphism that occurred as a result of it is what is known as the Torngat Orogen. To the east of the suture are Archean age gneisses of the Nain Province and to the west are reworked (metamorphosed) Archean gneisses and slightly younger Paleoproterozoic intrusive and supracrustal rocks of the Eastern Churchill or Rae province. The eastern 30-km's of which are rocks known as Tasuyiak gneiss. This Tasuyiak gneiss is mainly a garnet sillimanite bearing paragneiss that is often rusty in places and may contain graphite and sulphide minerals.

"South-eastern Churchill Province (SECP)

This developed by oblique collision of the Nain and Superior cratons between 1860 and 1740 Ma, and has a tripartite division. The western division of the SECP is the ca. 2100 to 1840 Ma New Quebec Orogen (formerly Labrador Trough). It is a west-verging fold and thrust belt composed of low-grade shallow to deep water sedimentary rocks (Schefferville zone) and thick allochthonous sequences of rift-related mafic volcanic rock and associated gabbro to ultramafic sills (e.g. Howse zone and Doublet terrane). The easternmost component of the orogen is the metagreywacke Laporte terrane. The central SECP, the core zone, is underlain mainly by reworked Archean gneisses, locally overlain by supracrustal rocks (Lake Harbour Group), and is intruded by Paleoproterozoic granitic plutons such as the De Pas batholith (ca. 1840 to 1810 Ma). Also, it is cut by a number of major transcurrent ductile shear zones. The eastern division of the SECP is the Torngat Orogen, a doubly vergent transpressional orogen, the axis of which is the metasedimentary Tasiuyak domain. This is flanked to the west by the Lac Lomier complex (mixed Paleoproterozoic orthogneiss, metasedimentary gneiss and ca. 1840 to 1830 Ma granitoid plutons) and to the east, in northernmost Labrador, by the Burwell domain (ca. 1895 to 1860 Ma calc-alkalic plutonic rocks and Nain[?] Archean gneisses), both representing the roots of magmatic arcs. **The Tasiuyak domain, together with the Abloviak shear zone, marks the collisional suture with the Nain craton** and can be traced north across the Hudson Strait by virtue of its distinctive, low aeromagnetic expression. Archean gneisses and Paleoproterozoic cover rocks (Ramah Group) of the Four Peaks domain extend into the eastern part of the Torngat Orogen where they have been reworked and deformed in a series of east-verging thrust blocks. These rocks are equivalent to those of the Saglek block, Nain Province."

GSC Ecsoott project.

Prior to the collision of the Torngat Orogen slabs of ocean crustal rocks were bent and shoved under the Rae Province along the collision line. Sometimes a piece would break off and as the pushing continued a second portion of the oceanic slab would be subducted along with its predecessor. Pieces of crust stacked on edge dipping steeply westward would be piling up in front of the approaching Nain Province landmass. These mantle slabs provide the silica rich sedimentary rocks on their upper sides for the deep mantle penetration without excessive degradation through melting that is necessary to tap the diamond stability field in the mantle at about 200 kilometres. The underside of these slabs provides the peridotite pods and lenses scattered in thin lines on the present day surface. They often are spaced 5-10 km's apart.

At some time after the Torngat Orogen the crust in the region was put under tension. At least one such event was the rifting when Greenland was torn away from Labrador. Such tension could weaken the crust and allow molten kimberlite and other lavas to rise from great depths along the numerous dykes found in Torngat Mountains of Northern Quebec and Labrador. B. Ryan, R Wardle ET. El. in report 95-1 on Labrador state on page 179 that the igneous rocks of the Nain Plutonic Suite along the suture line "is ...believed to be emplaced in an intracontinental extensional zone above a mantle hot spot, much younger than the preceding Torngat Orogen and unaffected by younger tectonism." The Hutton Anorthosite Suite marks one such tensional area running North to South just 20 km's east of the property. The Alluviaq River Valley running south of the Champagne Pipe Complex may be an ancient parallel tensional valley or it may mark the western side of the ancient rift valley.

The western part of the Nain geological province was affected by the Torngat Orogen that took place (2 to 1.9 billion years ago). The Rae Province rocks were pushed into folds with about 1 kilometre between fold planes. Folds plunge from eight to about 60 degrees but usually about 30 degrees to the NW. The Kimberlite dykes probably cut across all the rock types. The diabase kimberlite emplacement relationship was not observed.

Most of the rock on the property is Tasuyiak gneiss. There is a belt of brittle deformation mapped running east to west just south of the "H" dyke. This is the type of brittle deformation related to the Abloviak Sheer Zone (ABZ).

James Moorhead et el in the Quebec Government publication "Kimberlites and Diamonds In Northern Quebec" places the northern limits of the E-W trending Abloviak Shear Zone (ABZ) (his Fig 8) through the centre of this licence. The Kimberlite dykes in the ABZ discussed in his document are all in the Tasuyaik gneiss in this Abloviak Shear Zone. We have observed kimberlitic rock that cut older rocks north of the ABZ and not considered part of the ABZ.

It has been learned in 2001 that there is Kimberlite dykes north of the Tasuyaik gneisses and therefore out of the proposed Abloviak Shear Zone (ABZ). It is clear that it is possible to have Kimberlite intruding rocks of **any** of the three ages associated with brittle-ductile deformation events in the region. James Moorhead ET el P.4 in "Kimberlites and Diamonds in Northern Quebec" says: "At least three crustal extension events are known in the area occurring in Middle Proterozoic in Lower Proterozoic and in Mesozoic" (time). It should therefore be possible to find Kimberlitic rocks outside the boundaries of the ABZ and in rocks both older and younger than the Tasuyiak gneiss.

Twin Mining reports that kimberlite dykes have been found in the oldest member of the Lake Harbour Group on the Beaufremont River in rocks of the Far North (RAE) Craton itself. These dykes trend east-southeast. Kimberlite dykes in the ABZ trend NNW through NNE. Other kimberlite dykes on Diamond Discoveries International ground DDI-3 are also in metasediments that are older than the Tasuyiak unit and are located north of the Abloviak Shear Zone as are the "S", T2", and "M" dykes on Tandem resources ground 30 kilometres to the northwest. Furthermore Moorhead et.. El (page 4) states that "Post-tectonic ultramafic lamprophyres, some of which are kimberlites, have been identified in the northernmost portion of Labrador, approximately 75 km NE of the Abloviak Fiord dykes (Wardel et el., 1994)." We conclude therefore that exploration efforts for kimberlite rock need not be restricted to the area of the Abloviak Fiord or the ABZ.

5.1 LOCAL GEOLOGY

The rock foliation on the property strikes nearly W - E in the south progresses to a general NW strike in the central and eastern portion of the licence. Strike of the foliation in the area south of the eastern branch of Mountain Creek and in a small section (about 1Km2) in ground west of the "H" dyke have foliation trends to the south and SW. There are indications of numerous strong faults in these areas that probably account for the disturbed foliation trends. (FIG 6)

Locally the rocks have been folded and their axial plane trend in the same direction as the foliation and their plunge direction is north-westerly. The distance between axial planes of these F1 folds is from 1 to 1.5 km's. Usually the dip on the limbs of the folds is nearly vertical. This is the pattern in the Tasuyiak gneiss in the Abloviak Shear Zone that marks the collision front of the Torngat Orogen. This therefore is consistent with the position of the rocks on the property in relation to the Torngat Mountain building event.

The Torngat Orogen collision front has a major bend from NNW to WNW that is located on the DDI - 3 property and also to the southeast of the property. This structural feature could create stresses and strains in the region that would help to create crustal weaknesses up which Kimberlite rock could intrude to the surface. There are N-S faults in the Mountain Creek West Valley (FIG 6) that closely matches the trend of the "H" and Martina Dykes. James Moorhead ET. El. in PRO 99-09 Figure 8, show Early & Late Proterozoic brittle faults in the south that if extended, would pass through the property. The author believes this is one of the key components involved in localizing the emplacement of the kimberlite dykes in the region.

There could be a second cross structure that would provide a second level of weakness in the crust that would facilitate the entry of rising kimberlitic magma. There are two candidates for this job. The rocks mapped as T1Aa and T2a in the area described and underlined above and found on the Quebec Geology map SI 24P07-PG#-01J (Fig 6). The other possibility is that the long lakes and Fiords to the east (in Labrador) represent weaknesses in the surface that are the expression of transform faults in the subducted rock pushed under the Churchill (RAE) province just prior to the Torngat Orogen. The weakness in the subducted crust would penetrate to diamond stability field depth and the isostatic adjustment of the crust during glaciation would induce movement on the transform fault that is reflected in the excavation of this fractured rock that formed these deep valleys during the past ice ages. These Lakes have an approximate NE to SW trend. For example trend of Ryan's Bay extended into Quebec would cross the new claims south of DDI-3 on which wide kimberlite dykes were observed from the air in 2001. At least five other such trends can be projected into Quebec. The Intersection of these linears with N-S brittle zones in Quebec should be the targets of stream sediment sampling for diamond indicator minerals. It was noted that the Upper Kangalaksiorvik Lake in Labrador is on a mapped E-W fault that extends into the area being examined closely because of the presence of diamond indicator minerals at Mountain Creek West.

6.1 DYKES

The "H" Dyke

The "H" dyke is in the north central part of the property and it crosses into Labrador. The cleft is traceable southward for a distance of a little over one kilometre before being lost in a series of E-W faults. It has a width of 2.3 metres and is weathered to a depth of 2.6 metres. The rock is a medium grained phlogophite hypabissal kimberlite. The contact margins are chilled for about 2-4 cms. Phlogophite is in excess of 70-80% with carbonate making up most of the remainder, rare white apatite? crystals were observed. At one location just inside Quebec float of a green chloritic fresh looking volcanic rock was found in the kimberlite cleft. This rock has blebs larger than 6 cm's of calcite. This could represent a phase of the kimberlite that reached the surface. It is a vesicular lava. The origin of this rock is not known but since it was found in the kimberlite cleft it is felt to be associated with that feature. A 200-kg sample of the kimberlite was sent for assay to Lakefield laboratories.

The Martina & Cliff Dyke

The Martina dyke is nine hundred metres WSW of the end of the "H" dyke. It strikes north from the shore of a lake at UTM 408000E and 6593000N. It is the usual hypabissal kimberlite but the phlogophite books of crystals have a larger average diameter than any other kimberlite encountered in 2001. This is doubly unusual in that the dyke is only 10 cm's wide. To the south this dyke enters the lake and it was not possible to follow it to the north under the till above the cliff 100 metres from the lake. This lake is of interest because there are cliffs on the east and west sides, there is thick heavy coarse till on the north and drumlins of fine till on the south. There is a dyke on a vertical cliff about one kilometre to the SSW of the lake that strikes so as to enter the lake. The West Side of this lake is not accessible by foot because of the cliff. This cliff has what appears to be a fault striking westward at the centre of the West Side of the lake. The lake appears to be deep based on the steepness of the till face on the north and the cliffs on the east and west sides. A few lines of ground magnetometer survey should be conducted across the lake using a canoe or inflatable dinghy. A lake 1.6-km's south on easting line 408000 deserves the same treatment. It has a wide snow filled cleft on its' NW cliff side which is not safely accessible by foot.

The "K" Dyke

The "K" dyke is sixty centimetres wide; fine to medium grained hypabissal kimberlite dyke reported to contain (Peter Ferdeber) natural corundum (rubies). It is located .5 km north of the south boundary of this licence at UTM 403950E and 6584800N. It is traceable in the valley for a distance of 500 metres it is lost to the north and south in the broken frost heaved rubble.

6.2 Champagne Complex: Dykes Pipes & Blows

On 06 September 2001 the trail to the first known Kimberlite Pipe in the Rae Province of the Canadian Shield was discovered. It would be the following day before the first man (Dan St. Pierre) descended into the actual depression. On the sixth the silting crew of Harry Ferdeber and Johnny Annatok returned to camp with pieces of varied volcanic float collected at the mouth of what we now call Champagne Creek. G. Mazerolle, Y. Champagne and M. Tennier returned to find numerous hypabissal kimberlite dykes up to 3 - 4 metres wide along with diatreme facies kimberlite rock in other locations along the trend of the creek. The first day ended at the Triangle Blow where the dykes appeared to end.

6.21 Geology

The rocks of this blow and the others later located and sampled are fine grained dark green to black kimberlite with fine vesicles and 10-20% nodules of similar looking material. The outcrops are knobby weathering and medium to dark green-brown in colour.

On the seventh of September we saw a small dyke striking NW out of the Triangle Blow to the cliff wall and following northward along it. Later from a distance someone noticed the black looking rock on the south side of Champagne Lake and D St Pierre was sent to investigate. He returned with the words "you better come see this".

The lake is about 80 metres in diameter. There is outcrop of hypabissal kimberlite on the south shore of the lake surrounded by the usual tuffaceous blow material. The rock between here and the Triangle blow to the south, upon very close examination, was seen to be large blocks of shattered gneiss or the rock was completely pulverized to sand size and welded again with a volcanic matrix. The weathered outcrop revealed nothing of the rocks history. The true nature of the large blocks of gneiss could easily be missed. In a few locations the weathered surface shows strong and locally intense salmon pink potassium alteration of the "granitic" gneiss. One such sample with a grey fresh surface reacted strongly in HCl. The "granite was about

40% carbonate. Mapping will require careful examination of all the rock.

The rock northeast of Champagne Lake has not been examined well enough to rule out the presence of another zone of large blocks of fractured gneiss.

South of the property on the old Dumont Nickel ground a snow filled crack climbs the mountain for 1500 feet to an elevation of 3000 feet. This is certainly the southward extension of the Champagne Complex. It was noted that the wide hypabissal kimberlite dyke at the mouth of the Creek does not line up with this southern extension. Some dykes coming from the east are feeders to the wide dyke at the mouth of Champagne Creek. The small letter "h" is a good model for explanation purposes. If the "h" is inverted, the short leg would represents the wide dyke at the mouth of Champagne Creek. It is traceable to the Triangle blow and the zone of the pipe blast about 1800 feet to the north. The cross arm is the feeder coming off of the long snow filled crack seen on the old Dumont ground. This arm of the "h" north of the cross feeder is not seen.

With reflection it was realized that the power evident in the diatreme facies of the dykes could not have been contained in two nearly right-angled turns. The straight continuation of the Dumont crack northward was suspected to be under the glacial drift and talus east of the Creek. The location of the Johnny Blow on strike with this suspected second dyke added some evidence as to its' reality. Further evidence is seen on the magnetic contour map Fig 5.

The wide kimberlite dyke that leads to the Champagne Pipe is not recorded on the southern part of this magnetic contour map because of the nature of the canyon in the Creek. A magnetic survey in walking mode could not be done safely near this part of the 4E baseline so no magnetic data was collected over the wide "Harry" dyke.

Observations

The salient features for discovery of other pipes are likely to be one or some of the following features.

1. A lake probably with a diameter of 20 metres or greater (the side blow is this size).
2. The lake may not have a stream shown as draining it on the topographic map. The kimberlite may have weathered leaving the cleft filled with mica dominant sand through which the water moves without being seen on the surface.
3. There will likely be a cliff facing up ice on the lake. Usually Ice rides smoothly up and plucks rock on the down ice side. The soft kimberlite causes the formation of a cliff facing the ice flow, as at the Champagne Pipe and Lake.
4. Sharp "V" shaped contours pointing up hill with no creek marked on the topographic map flowing in them are probably dykes.
5. Such contours pointing to lakes with no marked outlets should receive priority scrutiny <u>of the Lake and the cleft.</u>
6. Salmon pink "granite" could be potassium alteration and closer examination is called for.
7. If the goal is to locate dykes as the roads to pipes. Traverses made following the strike of continuous outcrop should not be avoided.
8. Lakes occurring in topographic depressions must be investigated.
9. A lake with glacial ice that is in the water of the lake year round indicates a cold and possibly deep lake because of the erosion of the softer kimberlite. These need to be investigated.
10. Grasses on the shores of lakes should be taller than normal as is the grass over the kimberlite dykes. This clue will only be useful up to elevations of about 1500 feet.

6.4 Rock Sampling

Only six locations and two rock types were sampled in the 2001 season from this extensive complex. A large number of smaller samples from all areas of the diatreme should be taken and assayed in 2002. Fifty samples of 20 kgs each would be sufficient to indicate areas that should receive more detailed work.

6.5 Ground Magnetic Survey

A picket grid was constructed on the known length of the Champagne Complex. The initial base line began on the west of the Pipe and was extended north on a bearing of 015° true north. This baseline extends south on a bearing of 195o true to a point 300 feet south of the zero point on the base line. Orthogonal cross-lines was extended east and west to the vertical walls of the valley. At 4oo feet east on this 300 S line a second baseline was extended southward to the mouth of Champagne Creek the bearing of this portion is 010°true. GPS points were taken at various places on the grid to act as control points. Lines are generally at fifty-foot intervals in the blast zone and more widely spaced in other areas.

The season was late and conditions were treacherous at the time of the magnetometer survey.

The use of the base line pickets as correction points for the diurnal variation was an error. The hypabissal kimberlite is strongly magnetic and station correction values are very erratic since the base lines are very close to strong magnetic rocks. There were no magnetic sun storms during the survey so the data is plotted as raw uncorrected data. A very good picture of the magnetic characteristics of the rock in the pipe zone is given by the resulting magnetic contouring of the uncorrected Total Magnetic Field.

The west "Harry" dyke can be seen entering the grid and being displaced eastward. The hidden dyke on the east is clear and is shown not to reach the blast zone. There appear to be two arcs of magnetic high response surrounding the pipe itself. The blows are magnetic low features. There is a wide belt of high magnetic rock trending northwest to southeast. It may indicate a large-scale crustal feature. More detailed work will be needed to see how this trend fits around the Pipe. The response in the northeast indicates that there is likely more disturbed rock in that direction. This points to the area near a second small lake not visited because of snow cover. There is a great deal of useful information that can be gained by a careful examination of this magnetic data.

The profiling of the magnetic response (Fig 4) in conjunction with the geological map (Fig 3) showing the known kimberlite dykes is an excellent way to trace those dykes under sacrificial deposits from one grid line to the next since most dykes have a unique profile pattern.

6.6 Airborne Magnetic Maps

Of all the filtering done to the airborne magnetic data of the year 2000 the most useful is the gradient. This portrays the rate of change of the magnetic intensity at a given location. The best, isolated, gradient magnetic anomaly not associated with a regional rock trend is located 1.3 kms north of the Champagne Pipe. The "Harry Johnny" dykes when extended northward would flank this feature on its' East Side and the "K" dyke would pass on the West Side of this gradient anomaly. The area was visited but a metre of snow was on the ground. A closer examination needs to be carried out there. The surface gneiss there is magnetic but only the larger harder rock was poking through the snow at the time. The quality of the 2000 airborne survey is low. I do not believe the aircraft was able to drape the sensor well enough over the mountains. Many magnetic high "anomalies" correspond to the tops of hills. This Gradient anomaly however is on the plateau of a mountain and is a thumb like bump in the southwest side of magnetically high rock unit. It is possible that this magnetic gneissic rock unit has a fold in the area of this gradient anomaly. Detailed bedding examination will be necessary to determine what is occurring geologically in this area.

The hills in the region of the pipe have a slope that will permit the completion of a detailed magnetic survey over any of the region when the snow has melted in August. A few places may not be accessible because of the presence of cliffs locally.

7.0 DIFFICULTIES

It is difficult to locate kimberlite dykes on this property because of the extensive boulder-fields covering the high elevation plateaus and the extensive glacial deposits in the valleys can hide small features such as dykes. Additionally there is also mush less vegetation at the high elevations which removes the use of grass as a clue for locating kimberlite rocks.

It is difficult to get a continuous stretch of good weather in this high country. The fog at high elevations or rain restricts access and makes it impossible to work continuously on these properties at high elevations. The field crew returned to the high country when weather permitted.

There was not sufficient time to do more on the DDI-3 property in 2001 because of the lateness if the season. Snow first arrived on 28 August and remained at elevations above 2000 feet. Much of the scree is two metres or larger and snow covered openings between boulders makes work in the snow in these areas too dangerous. A project on DDI-3 should go ahead in conjunction with work on a property at lower elevations. This will avoid excessive lost time. An alternative would be to place a crew in a camp on the property at the point where work needs to be done. This will eliminate lost time because the helicopter could not access the high country because of fog or poor visibility. The other aspect to that needs answering, is it wise to work the high country with no helicopter support in case of an accident?

8.0 RESULTS

The results of the stream sediment sample work - are pending. Robert Dillman will submit the mineral grain data under a separate report. The silt sample locations are plotted and printed on the Sample Location Map DDI-3 (Fig 2) and are listed with their UTM NAD 27 co-ordinates as a table in Appendix II.

The use of prospecting alone in the locating of kimberlite dykes and pipes has been well demonstrated by the number of dykes located by the DDI field crew in 2001. About ten other companies report on a total of 56 dykes in the Quebec assessment for the Abloviak Fiord region. The DDI field crew counted an additional 26 up to the discovery of the "Harry Johnny" - Champagne Complex. Dykes in unclaimed ground and seen from the air in other places pushes the number located by the DDI crew to more than fifty dykes one pipe and four blows.

The efforts of this crew deserve the reward of having located the first Kimberlite Pipe in the Rae Province of the Canadian Shield. Thanks to R. Grenier, D. St-Pierre, M. Tennier, J. Annatok Sr., D. Ferdeber, H.Ferdeber, T. Taqulik, T. Assevak, D. Henrix, Y. Champagne, and G. Mazerolle.

There may not be any other area in the world where kimberlite dykes and pipes can be readily located by surface prospecting or identified from the air by helicopter. Glacial till cover is light. Bare cliff faces and continuous outcrop in places provides locations that dykes must cross in plane sight. Greener, taller grassy strips mark their location in low country. Dykes are the road to locating pipes find and follow them to lakes.

9.0 CONCLUSIONS

The geology of this property in the area of the "H" dyke is very complex. Complex faulting, folding along with what appears to be unusual intrusive rocks, in conjunction with the close proximity to the kimberlite "H" dyke could conceal a kimberlite pipe under any of the dozen or so lakes in the area.

The geology around the Champagne Pipe is simpler on the regional scale. The detail of the various phases of the kimberlite intrusive will require close examination of all the outcrops in the pipe blast zone to be able to detect the subtleties hidden by the weathered rock surface.

It is fortunate that the Quebec department of mines has published their geology map of this area in October 2001. The information contained on it will be valuable in interpreting the distribution of indicator minerals in the drainage systems on the property and in aiding with putting the discoveries into a regional context.

These two areas of the property may be linked since both the "K" and "H" dykes have the same strike direction and are in near alignment over the 10 kms that separates them. Each of the areas will need to be treated as separate exploration targets because of the vertical Western Wall of Mountain Creek West. The MCW valley has till cover in parts of it, which would lend itself to narrowing the search for pipes by sampling this media for diamond indicator minerals in a systematic box grid. The plateau to the west and south lacks till and is scree covered, some of which is coarse. Dykes are easily hidden under this debris. Detailed ground magnetometer surveys will be needed to locate targets under this cover.

Insufficient sampling of the various facies of the pipe was done in 2001. The dyke complex extending to the south can now be investigated and sampled. Initially samples of 20 kgs should be enough to indicate the presence of diamonds in the phases of the pipe rocks or at fixed intervals along the dykes.

Samples should also be taken in areas where the ground magnetic survey indicates there may be a "blow". Till samples in the valley floor would indicate the near presence of buried kimberlite bodies.

Since one of the key signs of the presence of the kimberlite dykes is the grassy cleft in the rocks, exploration above this elevation on the property needs to be done on the ground. Kimberlite rock could be found by taking systematic till samples or by using a ground magnetometer as described below in areas with no grass growth.

The magnetometer used in walking mode is a very good tool in following invisible kimberlitic dykes once they disappear under the extensive boulder fields at these higher elevations. It should be used to follow the south extension of the known kimberlite dyke. It can also be used to locate narrow steep gradient magnetic features that are magnetic dykes but may be diabase dykes. An experienced operator should be able to find the more resistant diabase as float on the surface and enter this fact in his field notes.

It is possible to rent a magnetometer that has a built in GPS. If this machine is used along with its base station magnetometer, collected data can be correction for its position and diurnal magnetic variation at the same time. The precision of data and location are top quality and are completed in minutes rather than days. Such a dedicated base station magnetometer also has a base station GPS capability. This corrects the GPS field points to accuracy in the meter range. This would eliminate the need to construct extensive grids in the field.

Grid construction in this region takes three times longer than below the tree line. The savings in detailed grid construction costs will easily justify the rental and use of such equipment. Grids can be reduced to witness markers done in paint or with ribbons. In areas of snow, pickets could still be used.

A computer with appropriate software and an operator familiar with the system will be needed to give daily feedback on likely targets for the crew to focus on the next day.

10.0 RECOMMENDATIONS

10.1 Till

Systematic till samples taken in the Mountain Creek West valley should narrow the search for the source of the diamond inclusion chromite grain found in 2000. The use of a magnetometer and a zodiac or other inflatable boat should be used to obtain magnetic profiles in a number of directions across the most likely lakes in this part of the Mountain Creek West Valley. Consideration should be given to using a bottom sounder to profile the depth to the bottom of these lakes. Actually sampling the lake bottom sediments would be a valuable addition to information of the distribution of diamond indicator mineral grains in the valley.

Extensive use of a ground magnetometer with correcting base station should be used to survey all the drift covered areas accessible by foot in areas of unexposed bedrock in the areas of interest.

10.2 Stream Sediment Sampling

Research by the author indicates that it is possible and preferable to take smaller silt samples in the field. Efficiencies would be increased by first screening the material to the required mesh sizes in the field and returning to camp with 1 to 2 litres of stream sediment to be jigged. The field crew could jig the coarse fraction on the 1mm screen in the field fill and label this coarse vile and return them to camp. This would speed up movement from one sample site to another. It would not be necessary to carry 20 to 30 Kg samples to the next location OR have an expensive helicopter land at three or more sites to recover the buckets.

It may be warranted to collect additional silt samples to narrow the target areas in places where kimberlite indicator minerals were found in 2001 and indicated in Mr R. Dillman's report.

10.3 Ground Magnetometer

There are large areas that should be delineated by a magnetometer survey. The area between the "K" dyke and the Champagne Complex and extending northward should be covered by such work. The width would be over 1.2 kms and the length northward in excess of two kms. The dykes could be done separately initially but the magnetic pattern of the rock on the ground would contribute to the picture of what a pipe looks like magnetically in the region. This magnetic survey should revisit the old grid so that proper diurnal corrections can be made to the magnetic data collected. The addition of the second sensor would allow the direct collection of Gradient Magnetic data. Since the magnetic bodies sought are steep the gradient component of the magnetic field will best reveal vertical kimberlite dykes and pipes.

The new ground acquired to the south is partly above 3000 feet and snow covered. The magnetometer will be needed to locate and assess the dike there and locate any associated pipes. Further south the dyke crosses the drift covered Abloviak Fiord. The magnetometer will be an invaluable tool in tracing these features under this overburden cover. In a few places dykes create chasms that are deep but not very wide. The use of a suitably chosen bridging ladder used at selectively chosen sites would give magnetic profiles of dykes in known locations so that the profile signature can be used to identify these same signatures under overburden. There are over 8 kilometres of ground to the south of the known Champagne Complex that is underlain by numerous kimberlite dykes some of which have been seen from the air to be three or more metres wide. The Gem 19 GPS recording magnetometer used in walking mode at 2-second intervals is suggested for this work. Line spacing should be no more than about 120 metres. Since the rock units strike across the dyke direction wider spacing will allow the automatic contouring algorithms in contouring programs to confuse some high magnetic rock strata signals with the kimberlite signal with the same value. Some cross strata lines will help to define belts of strata with high magnetic response. In such areas the dyke would be traced as depression with a steep magnetic gradient.

10.4 Exploration in Open Ground

The work done in open ground to the southeast revealed the presence of numerous dykes. The best of these was the Bella dyke about 2.1 kms NW of Mount Jacques Rousseau. It was traced for over one kilometre north to south. It is almost 2 metres wide at its northern end where it disappears under drift there is dark rock in the till that warrants a closer look. This feature was noticed only on leaving the area the following day saw the area covered in snow. The Olympic dyke of Twin Mining has a mate unseen by them about 400 metres to the east of 402000E 6573800N.

Strong clefts south of XP-008 may be a dyke it was snow covered when the silt sample was taken, as was another pair of clefts near the Labrador border two kilometres to the east of XP-008. Dykes may narrow to the north. The Bella dyke seems to become three narrow "Q" dykes one kilometre north of its last observed location.

APPENDIX I

9.0 MAN DAYS OF WORK

50 samples collected	51 man-days
50 samples panned & jigged	24 man days
Concentrates Examined R. Dillman	
In process..	
Microprobe work..	
Grid construction	42 man-days
General prospecting	22 man days
Geology	15 man-days
Share of mobilization and demobilization...	21 man-days
reports	4 man days
TOTAL more than	**179 man days**

APPENDIX II

9.1 SAMPLE LOCATIONS

Stream Sediment Heavy Mineral Concentrates

Sample ID	No of fine vials	No. of coarse vials	UTM Coordinates
MC- 01	1	1	412023E 6594609N
MC- 02	1	1	411929E 6594467N
MC- 03	1	1	411140E 6593449N
MC- 04	1	1	410391E 6592073N
MC- 05	1	1	405776E 6589179N
MC- 06	1	1	405814E 6589354N
MC- 07	1	1	406602E 6588930N
MC- 08	1	1	407367E 6587663N
MC- 09	1	1	406970E 6586251N
MC- 10	1	1	405111E 6583634N
MC- 11	1	1	402072E 6586430N
MC- 12	1	1	404291E 6588546N
MC- 13	1	1	403687E 6588111N
MC- 14	1	1	403694E 6588003N
MC- 15	1	1	404679E 6587780N
DDI3- 16	2	2	404600E 6584130N
DDI3- 17	1	1	402441E 6585553N
DDI3- 18	1	1	402841E 6586761N
DDI3- 19	1	1	402787E 6587189N
DDI3- 20	1	1	406885E 6586808N
DDI3- 21	1	1	407265E 6587755N
DDI3- 22	1	1	406199E 6589729N
DDI3- 23	1	1	408876E 6593059N
DDI3- 24	1	1	414375E 6592888N
DDI3- 25	1	1	408056E 6593133N
DDI3- 26	1	1	408152E 6594017N
DDI3- 27	1	1	406556E 6589225N
DDI3- 28	1	1	404292E 6588602N
DDI3- 29	1	1	404877E 6589033N

DDI3- 30	3	2	404739E 6584819N
DDI3- 31	1	1	404691E 6584763N
DDI3- 32	1	1	404693E 6584664N
DDI3- 33	1	1	404671E 6584660N
DDI3- 34	1	1	404669E 6584618N
DDI3- 35	1	1	404642E 6584316N
DDI3- 36	1	1	408492E 6591060N
DDI3- 37	1	1	408038E 6592771N
DDI3- 38	1	1	410500E 6592666N
DDI3- 39	1	1	409505E 6590192N
DDI3- 40	1	1	408004E 6593442N
DDI3- 41	1	1	409150E 6590230N
MCW- 01	1	1	409243E 6592705N
MCW- 02	1	1	408895E 6592475N
MCW- 03	1	1	408548E 6592630N
MCW- 04	1	1	408389E 6592802N
MCW- 05	1	1	408410E 6593649N
MCW- 06	1	2	408321E 6593037N
MCW- 07	1	1	408277E 6592952N
MCW- 08	1	1	408254E 6592945N
MCW- 09	1	1	408060E 6592050N
SOILS			
MCSS-01	1	1	408135E 6592921N
MCSS-02	1	1	408262E 6592706N
MCSS-03	1	1	408598E 6592506N
MCSS-04	1	1	408426E 6592339N
MCSS-05	1	1	408986E 6593299N
DYKE SOILS			
"H"	1	1	408931E 6593719N
"K"	1	1	403882E 6584808N
Exploration Stream Sediments			
XP001	1	1	410867E 6580182N
XP002	1	1	411372E 6578846N
XP003	1	1	410285E 6578656N
XP004	1	1	407151E 6579917N
XP005	1	1	406290E 6578959N
XP006	1	1	411673E 6578818N
XP007	1	1	410409E 6579070N
XP008	1	1	409949E 6574206N

10.0 DISCLAIMER

I, Gerard J Mazerolle of 88 Brookland Street, Antigonish, Nova Scotia; have been a professional Geologist for more than 32 years. I declare that I have never, nor do I hold any interest, monetary or otherwise, in any of the Diamond Discoveries International properties or in the company itself.

I declare that I performed and supervised the performance of all the fieldwork declared in this report for Peter Ferdeber (Prospecting Geophysics Ltd.) on behalf of Diamond Discoveries International.

Gerard J Mazerolle

11.0 QUALIFICATIONS

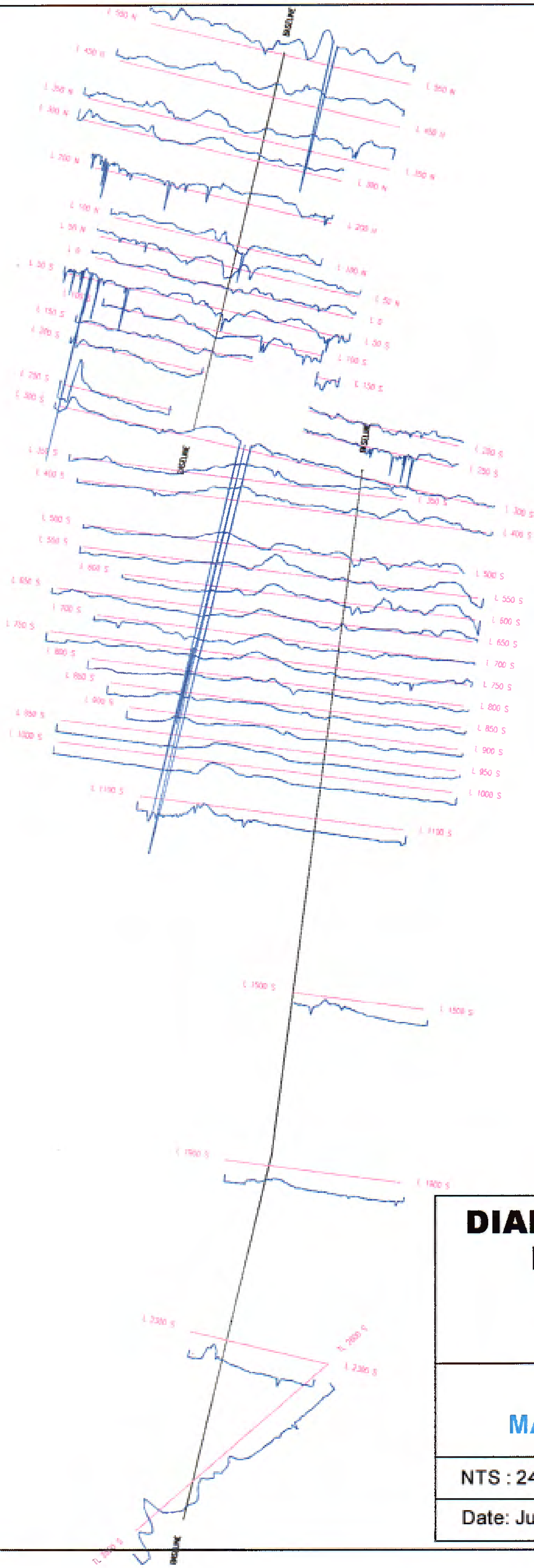
I, Gerard J. Mazerolle, declare I am a graduate geologist. I received my B.Sc. degree in Geology from St. Francis Xavier University in 1969.

I have practiced my profession in Canada and the United States over the last 32 years. I am a member of the Prospectors and Developers Association of Canada.

I have performed or supervised all the work declared in this report.

YOURS TRULY

Gerard J. Mazerolle BSc.

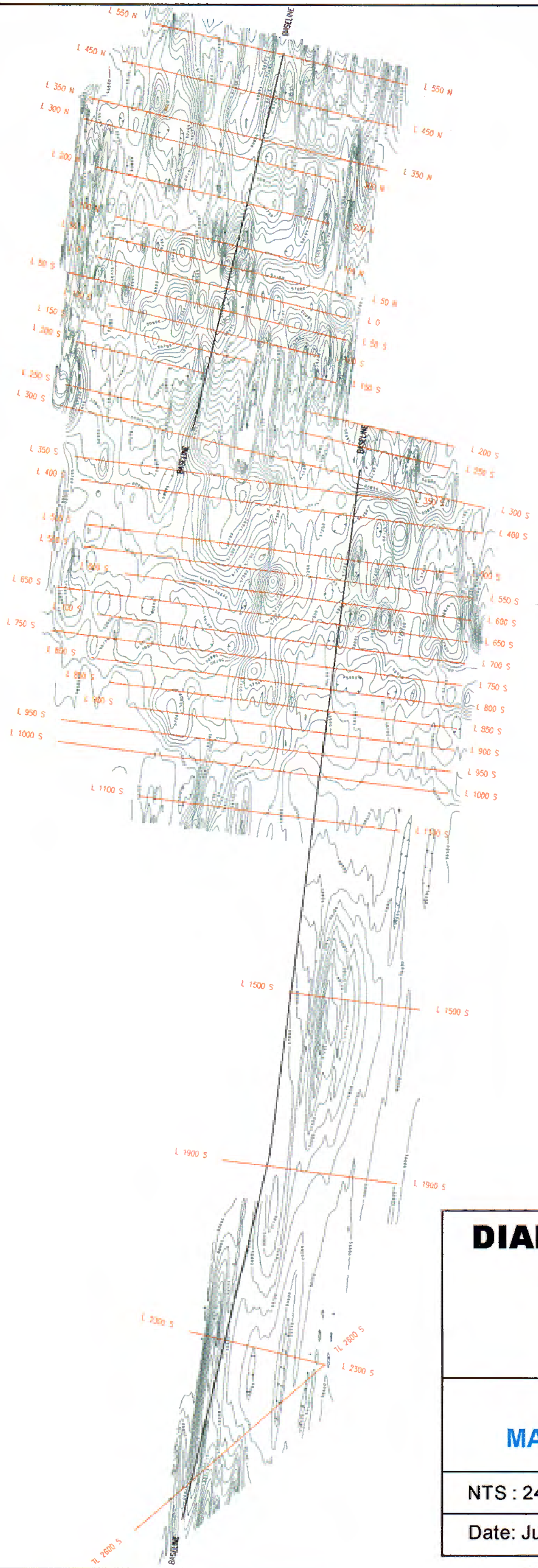


DIAMOND DISCOVERIES INTERNATIONAL

FIG. 4

MAGNETOMETER PROFILES

NTS : 24P/7	DDI-3
Date: July 20,2002	



DIAMOND DISCOVERIES INTERNATIONAL

FIG. 5
MAGNETOMETER CONTOURS

NTS : 24P/7	DDI-3
Date: July 20,2002	