GM 59271

REPORT, ABLOVIAK FJORD PROPERTIES, UNGAVA BAY AREA



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REPORT ABLOVIAK FJORD PROPERTIES UNGAVA BAY AREA, QUEBEC

Prepared for

Dumont Nickel Inc.

MRN-GÉOINFORMATION 2002

GM 59271

APEX Geoscience Ltd.

September, 2000 *Revised November, 2000*

D.J. BESSERER

REPORT ABLOVIAK FJORD PROPERTIES UNGAVA BAY AREA, QUEBEC

TABLE OF CONTENTS

EXECUTIVE SUMMARY......1 Diamond Potential10

PAGE

TABLES

<u>TABL</u>	<u>E</u>	<u>PAGE</u>
1	LEGAL PERMIT DESCRIPTION, ABLOVIAK FJORD PROPERTIES	2
2	PRELIMINARY DYKE DESCRIPTIONS	9

FIGURES

<u>FIGURE</u>

<u>PAGE</u>

1	LOCATION	.3
2	PROPERTY LOCATION	.4
3	GENERALIZED GEOLOGY	.6
4	SAMPLE AND DYKE LOCATIONS	11

APPENDICES

<u>APPE</u>	<u>INDIX</u>	<u>PAGE</u>
1	B. MITTON REPORT, NOVEMBER, 1999	AT END
2	PHOTOS	AT END
3	SAMPLE LOCATIONS	AT END
4	PROPOSED BUDGETS	AT END

<u>REPORT</u> <u>ABLOVIAK FJORD PROPERTIES</u> UNGAVA BAY AREA, QUEBEC

EXECUTIVE SUMMARY

Diamondiferous kimberlite dykes exist within the Abloviak Fjord area. During August and September 2000, APEX Geoscience Ltd. (APEX) and Dumont Nickel Inc. (Dumont) conducted field exploration in and around permits held by Dumont Nickel Inc. in the Abloviak Fjord area. Both the August and September 2000 exploration programs were managed by APEX Geoscience Ltd. Subsequently, 27 ultramafic dykes, a number of which are possibly kimberlitic were discovered within 4 of the 5 permits held by Dumont Nickel Inc.

Of the 27 dykes discovered to date, all were sampled for thin section study. As well, 23 of the dykes were sampled for: (a) caustic fusion; and (b) diamond indicator minerals. Finally, one other dyke was sampled for diamond indicator minerals and three dykes were not sampled. Not all of the dykes were sampled because: (a) only a small amount of material was available/discovered for sampling; (b) there was deep snow cover; or (c) the dykes are believed to be extensions of previously discovered dykes. The samples have all been submitted to the Saskatchewan Research Council in Saskatoon for analysis and have been received by the laboratory.

Further systematic exploration is necessary within the Dumont permits at this time in order to prioritize known dykes and determine whether or not they have favorable indicator mineral chemistry for the preservation of diamonds and/or contain diamonds. The proposed kimberlite testing and exploration should comprise a staged program consisting of:**STAGE 1**: (a) completing caustic analysis, processing for diamond indicators, thin section and microprobe work on the already existing samples collected at the properties during August and September 2000: (b) further staking prospective areas in and around areas where dykes are known to exist; (c) geophysical leveling and interpretation of the existing geophysical data; and (d) formal assessment reporting of all aspects of the of 2000 exploration program. STAGE 2: (a) A 45 day field program during summer 2001 utilizing an eight person crew. The program should include mapping of existing dykes, sampling dykes where diamonds were discovered, ground geophysical surveying, prospecting and possibly staking. STAGE 3: Premised on success of both the 2000 and 2001 exploration programs: (a) trench diamond-bearing ultramafic dykes; (b) process the sample(s) using a dense media separation (DMS) plant at a credited facility and ship all the recovered concentrates for diamond recovery to determine a preliminary grade and diamond distribution. The program would be completed during fall 2001. The preliminary maximum budget for all three stages is about \$1,350,000, not including a provision for GST and QST. Based on the recommended budget, the minimum budget allowable would be \$270,000, not including a provision for GST and QST. The minimum budget would include STAGE 1, as per the maximum recommended budget. STAGE 2 would include a 21 day field program during summer 2001 utilizing a four person crew.

INTRODUCTION

Terms of Reference

APEX Geoscience Ltd. (APEX), was retained during summer of 2000 as consultants by Dumont Nickel Inc. (Dumont) to conduct and manage an exploration program at Dumonts' Abloviak Fjord area properties. Two APEX personnel and two Dumont personnel worked in the field during August and two APEX personnel, Mr. J. North (Dumont) and Mr. Lee Barker (Independent consultant) worked on the project during September. The Dumont property is situated in northeast Quebec within the Torngat mountains and comprises four permits (1470, 1492, 1469 and 1522). Both the August and September 2000 exploration programs were managed by APEX Geoscience Ltd. As well, one area was staked concurrently while conducting exploration in the area (Table 1). This report has been prepared on the basis of available published and unpublished data and fieldwork thereon. The author, Mr. D. Besserer, has personally visited the properties and conducted exploration work thereon.

Property Description and Location

The legal description for the Torngat/Abloviak Fjord properties is provided in Table 1. Situated within the most northerly portion of Quebec, within the Torngat mountains, the Abloviak Fjord properties, which encompass more than 45,650 hectares, lie about 150 miles (230 km) north and northeast of Kuujjuaq (Figure 1). The properties are within the 1:250,000 scale National Topographic System (NTS) map sheet 24 P. The location of the property is shown on Figures 1 and 2.

Permit Number	Issue Date	Permit Holder	Map Area	Hectares
1469	October 19, 1999	Dumont Nickel Inc.	24 P/07	15,200
1470	October 19, 1999	Dumont Nickel Inc.	24 P/11	8,100
1492	November 19, 1999	Dumont Nickel Inc.	24 P/07	9,750
1522	May 03, 2000	Dumont Nickel Inc.	24 P/06/07	12,600
1558	September, 2000	Marum Resources	24P/02/03	???
		Inc.	/07	

TABLE 1 LEGAL PERMIT DESCRIPTION, ABLOVIAK FJORD PROPERTIES*

*Provided by Dumont Nickel Inc. and Marum Resources Inc.

Accessibility, Climate and Local Resources

The Torngat Property may be accessed from both Kuujjuaq and George River using: (a) Float or wheel equipped aircraft from either Kuujjuaq or George River; (b) helicopter from either Kuujjuaq or George River; or (c) boat from either George River or Kuujjuaq. Kuujjuaq is serviced daily by First Air from Montreal. Helicopter access is limited to suitable



FIGURE 1



landing locations. A small natural airstrip is located at the camp along the Abloviak River. Accommodation at Kuujjuaq and/or George River can be obtained at local hotels.

Accommodation at the property is obtained from an existing outfitters camp located along the Abloviak River. Food and supplies are also obtained from the camp. Limited supplies are available in Kuujjuaq and George River.

The Property lies within the Torngat Mountains physiographic zone. Elevation in the Abloviak Property rises from about sea level to more than 2700 feet. The properties saddle the Abloviak River and Abloviak Fjord. Average annual temperatures range from -40°C in winter to about +20°C during summer months. The majority of the area is void of tree cover and typically has greater than 80 per cent rock outcrop.

REGIONAL GEOLOGICAL SETTING

In the Ungava Bay area, the north-eastern Churchill Province separates Archean cratons of the Superior and Nain provinces. The eastern boundary of the Churchill Province (Rae Subprovince) is marked by an orogenic suture zone known as the Torngat Orogen. The Paleoproterozoic Torngat Orogen defines the collision zone between the Rae and Nain provinces. Within the Torngat Orogen exist numerous high-grade metamorphic domains. Some of these domains include the Tasiuyak and Lac Lomier Complex. The Tasiuyak Domain forms the axis of the Torngat Orogen and consists mainly of the 30 kilometre wide, north-south trending Tasiuyak Gneiss (Mitton, 1999). The Tasiuyak gneiss is comprised of a sequence of garnetiferous amphibolite to granulite facies paragneiss believed to be Paleoproterozoic in age. The gneiss developed as an east verging accretionary prism on the Nain Craton during the eastward thrusting of the Rae Province (Digonnet et. al., 1999). The Abloviak shear zone defines the southern margin of the unit and is the most prominent deformational feature of the Torngat Orogen. In northern Labrador and Quebec the Abloviak shear zone and the Tasiuvak domain diverge eastward towards the Nain Province and pass under the Abloviak Fjord area. The Abloviak shear zone is contained within the Tasiuvak Gneiss but also affects the adjacent Rae and Nain province rocks (Digonnet et. al., 1999; Mitton, 1999). The regional geology is shown on Figure 3.

Abloviak Fjord Area Geology

The ultramafic dykes at the Torngat area are located within the Tasiuyak gneisses and are, in part, within the Abloviak shear zone. The dykes have been described as having an inequigranular texture in which anhedral macrocrysts of olivine, garnet, phlogopite, rareilmenite and rare clinopyroxene xenocrysts are within a finer-grained matrix of phlogopite, spinel, olivine, perovskite and carbonate. Olivine and phlogopite are often replaced by secondary serpentine and chlorite (Digonnet *et. al.*, 1999). Phlogopite age dating using Ar/Ar method, determined the dykes to be about 544 Ma or Cambrian-aged. As well, some of the dykes are reported to contain diamond inclusion field indicator minerals (Digonnet *et. al.*, 1996; Digonnet *et. al.*, 1999).

The Abloviak dykes are believed to have been emplaced into tension fractures associated with the reactivation of major structures during the opening of the lapetus



FIGURE 3

Ocean (650-550 Ma). The dykes are subvertical and discontinuous and range from a few centimetres up to greater than 2 m in width (Digonnet*et. al.,* 1996; Mitton, 1999).

PREVIOUS EXPLORATION

Cambrian-aged hypabyssal kimberlite dykes which cut Tasiuyak Gneiss were identified during a regional study begun in 1991 by the Universite du Quebec, Montreal (Digonnet *et. al.*, 1996; Mitton, 1999).

During 1997, Fjordland Minerals Ltd. staked a 39,000 hectare property in the Ungava Quebec area to cover 12 kimberlite dykes discovered by a University of Quebec post-graduate student which reportedly contained a gem quality macrodiamond. The properties lapsed and Twin Gold Corporation re-staked the area previously held by Fjordland Minerals Ltd. and began conducting diamond exploration for kimberlite dykes, blows, and pipes in the Abloviak Fjord area (Mitton, 1999). It is not known by the author why the properties were dropped by Fjordland Minerals Ltd. An 'Information Report' was prepared by Mr. B. Mitton during November, 1999 on behalf of Dumont after acquiring property within the Abloviak fjord area during the fall of 1999. The report is enclosed in Appendix 1.

Richard Roy, of FRANCAUMAQUE EXPLORATIONS, reports *in 1998, SOQUEM, Mine d'Or Virginia and Cambior completed a geophysical and geological program on their permits in northeastern Quebec including the Le Droit Permit (PEM 1331). Following an airborne survey completed in June 1998, a team composed of geologists from all three companies spent two weeks exploring the EM anomalies identified as priority on the AEM survey.*the assessment reports (#56596 and #56597) review the results of the airborne *survey and most AEM anomalies visited by the geologists were explained by the presence of graphitic and sulphidic metasediments. Nevertheless, some mafic and ultramafic rocks were identified on the property, some of which returned weak nickel values (highest are 750, 770, 860, and 990 ppm). Whole rock assays from these samples returned SiO2 above 45% and MgO values below 22%. In addition to these results, a single sample of silicified anorthosite returned 220 ppb Au. The authors recommend dropping the permit'* (Richard Roy, 2000).

Subsequently, Twin Gold Corporation and/or Twin Mining have announced the presence of macrodiamonds in kimberlite dykes along Abloviak fjord, which are up to 3.2 mm in size (Twin Mining press release, August, 2000). More recently, Tandem Resources Ltd. have announced the presence of macrodiamonds in ultramafic dykes along Abloviak fjord (Tandem Resources Ltd. press release, September, 2000). At least three ultramafic dykes discovered by Tandem Resources Ltd. are in close proximity to, or are extensions of, dykes existing within permits held by Dumont. During summer 2000, at least nine companies were actively exploring throughout the Torngat area. The companies include Marum Resources Inc., Dumont Nickel Inc., International Tower Hill, 737142 Alberta Ltd., CaribGold Resources Inc./ J.P. Cloutier, Tandem Resources Ltd., Trivalence Mining, Band-Ore Resources Ltd. and Twin Mining Corp.

PROPERTY EXPLORATION

Personnel and Logistics

On August 6th, Mr. D. Besserer, the party leader from APEX, an APEX geologist (Andrea Noyes, M.Sc.) and a geologist (Mathew-Lennox King; Dumont) and prospector (David Healy; Dumont) from Dumont, mobilized to Torngat Mountain Outfitters Ltd's, Abloviak Fjord camp, from Kuujjuaq, Quebec. Mr. D. Besserer and a Dumont prospector demobilized from the Torngat camp on August 24, 2000 and both the APEX and Dumont geologists demobilized from the Torngat camp on August 28, 2000. On September 10th, Mr. D. Besserer, the party leader from APEX, an APEX geologist, Mr. Jon North, the vice-president of exploration for Dumont Nickel Inc. and Mr. Lee Barker, an independent geological consultant, mobilized to Torngat Mountain Outfitters Ltd's, Abloviak Fjord camp, from Kuujjuaq, Quebec. Mr. North and Mr. Barker demobilized on September 16th and the APEX crew demobilized on September 25th, from the Torngat camp.

During August, the APEX/Dumont crew worked concurrently for Marum Resources Inc., International Tower Hill, and 737142 Alberta Ltd. During September, only the APEX crew (Mr. D. Besserer and Ms. A. Noyes) worked concurrently for Marum Resources Inc., International Tower Hill, 737142 Alberta Ltd., and CaribGold Resources Inc.

August / September 2000 Exploration

On August 7, both foot and helicopter traversing within Dumonts' permits 1469, 1470, 1492, and 1522 began. During early August, Mr. D. Besserer noticed structures which appeared to be dykes south of Dumont's existing permits and recommended staking open ground. Subsequently, a new permit was applied for by both Dumont and Marum Resources Inc. (mmu-cdnx) as part of a 50:50 joint venture property (Permit 1558). At the completion of the August exploration program a total of 19 ultramafic dykes were discovered within the Dumont permits and on newly staked ground which are believed to be geochemically related to kimberlite and/or lamprophyre and are in places similar to those discovered by Twin Mining within the Abloviak area. During September, a total of 8 dykes were discovered by helicopter traversing within the permits. In total, 27 ultramafic dykes have been discovered within permits held by Dumont (Table 2).

The dykes found to date within Dumonts' permits are summarized in Table 2. Of the 27 spatially separate dykes discovered to date, 3 are within permit 1469, 10 are within permit 1492, 8 are within permit 1522, and 6 are within the newly staked permit, 1558. No dykes were discovered within permit 1470. The dykes typically strike from 360 degrees to 60 degrees. Although the true strike length and width of most dykes are not yet known, the dykes have been seen from 30 cm up to 3 m in width and have been traced semi-continuously in some cases for up to 4.0 km within the Dumont permits. At least seven of the dykes which have been discovered within the Dumont permits, continue off Dumont permits onto permits held by others (Table 2).

TABLE 2 PRELIMINARY DYKE DESCRIPTIONS

Dyke Name	Permit Number	Strike length/ Approx. direction in degrees	Generalized Mineralogy	Comments	
K1	1469	4.0 km/ 30	Altered OI; phlog; pyx; carb	Up to 1m wide. Visible from the Fjord.	
КЗ	1469	1.5 km/ 30	Pyx; phlog; carb	Up to 1m wide. Possible continuation of K1.	
K4	1492	700 m/ 30	Pyx; phlog; carb;+/- gar	East of K3.	
K5	1492	400 m/ 30	Ol; phlog; pyx; carb; +/-gar	Also within permit held by other.	
K6	1492	700 m/ 30	Ol; phlog; gar; carb veins; +/- gar; breccia	Mineralogically similar to Twin Mining dykes.	
K7	1492	700 m/ 30	Phlog; carb	West of K6.	
K8	1492	800 m/ 30	Pyx; phlog; carb; brecciated at contact	Also within permit held by other.	
K9	1492	1.9 km/ 360	Phlog; carb; gneissic fragments	Also within permit held by other.	
K10	1522	200 m/ 15	Phlog; carb	Very micaceous. May be continuous to the north.	
K11	1522	1.0 km/ 15	Phlog; ol; carb	May be continuous to the south.	
K12	1558	1.0 km/ 360	Ol; gar; phlog; carb veins	Possible eclogitic nodules.	
K13	1558	1.0 km/ 360	Phlog; gar; ol; chr	May be an extension of K14.	
K14	1558	1.0 km/ 360	Ol; gar; chr; pyx; mag and carb veins	May be an extension of K13.	
K15	1492	300 m/ 15-30	Brecciated at contact; phlog; carb	Poorly exposed. Also within permit held by other.	
K16	1492	1 km/ 15	Brecciated; phlog; ol; gar; pyx	Kimberlitic mineralogy.	
K17	1492	Unknown	Phlog; ol	Poorly exposed. Likely a fracture from K16.	
K18	1469	200 m/ 30	Phlog; ol; carb	Poorly exposed. East of K1.	
K19	1558	200 m/ 360	Phlog	Very poorly exposed. Possibly an extension of K31?	
K20	1492	850 m/ 30	Phlog; pyx; carb	Also within permit held by other.	
K21	1522	100 m/ 360	Phlog; ol; pyx	Possibly an extension of K6.	
K22	1522	200 m / 60	Phlog; ol	Poorly exposed. Possibly an extension of K7?	
K23	1522	200 m/ 360-20?	Ol; mag; Phlog	Up to 3 m wide.	
K24	1522	100 m/ 360	Very micaceous; OI; Phlog	Most likely northern extension of K10.	
K25	1522	1.0 km/ 30	Phlog; serpentinized clasts.	Up to 3-5 m wide in places.	
K27	1522	100 m/ 30	Phlog; carb	Micaceous. Poorly exposed.	
K31	1558	1 km / 360	Phlog; pyx; sulphides	Possibly an extension of K19.	
K38	1558	250 m / 12-30	Phlog; chr; ol; carb; pyx	In small drainage. Abundant felsenmeer and sub-crop.	

Note: phlog=phlogopite; ol=olivine;pyx=pyroxene;carb=carbonate;gar=garnet; mag=magnetite.

Mineralogically, at least six dykes contain some of the classic kimberlite indicator minerals visible in hand samples (garnet, olivine, chromite, clinopyroxene; ilmenite; Table 2). Breccias were observed within a number of dykes (Table 2). As well, dykes typically have calcite and/or brucite within the matrix and, in places, as veins. All of the dykes have a recessive weathering pattern and often are discovered within open fractures along hill tops and cliff faces (see photo attached of K11; Appendix 2). Dyke rock is often difficult to find as outcrops are rare. Mostly frost heaved rock (felsenmeer) and sub-crop are visible at surface.

All of the dykes discovered to date are moderately to highly magnetic but are usually about 1 m in thickness and have been difficult to trace using the unlevelled proprietary airborne geophysical data available.

Rock Sampling

Of the 27 dykes discovered to date, all were sampled for thin section study. As well, 23 of the dykes were sampled for: (a) caustic fusion; and (b) diamond indicator minerals. Of the 23 dykes which were sampled, two of the dykes were sampled within the 737142 Alberta Ltd. permit 1478 (several hundred metres north of the Dumont permit 1492 boundary). This company (737142 Alberta Ltd.) has agreed to share data and some costs with respect to dykes existing on both Dumont and 737142 Alberta Ltd. property. Finally, one other dyke (K19) was sampled for diamond indicator minerals only due to the lack of outcrop. Three dykes, K17, K21 and K24 were not sampled. Not all of the dykes were sampled because: (a) only a small amount of material was available/discovered for sampling; (b) there was deep snow cover; or (c) the dykes are believed to be extensions of previously discovered dykes. That is, two 10 gallon pails of dyke rock and one full 10 L sample bag of material was collected at each of the 23 sample sites. The two pails of rock (about 50 kg) were collected for caustic fusion to be tested for micro-diamonds and the bag of material (about 15 kg) was collected for crushing and processing for diamond indicator mineral chemistry. Any possible kimberlite indicator mineral grains recovered from the processing for diamond indicator minerals will be sent to R.L. Barnett Geological Consulting Ltd. for microprobe analyses. All of the Dumont samples were collected and sealed using zip ties and/or security seals under the supervision of Mr. D. Besserer. The samples (both pails and bags) from the August exploration were shipped to the Saskatchewan Research Council (SRC) in Saskatoon, Saskatchewan on August 24, 2000 from Kuujjuag, Quebec and were received on September 5, 2000, where they are with the exception of DNI-12,13 (which are being analyzed immediately) being held, unopened, in a secure compound. The laboratory has started processing two samples from the joint venture permit 1558, for diamonds. One sample, which was collected on August 25, 2000 by an APEX and Dumont geologist was shipped to the laboratory in Saskatoon on September 16th and has been received. The samples (pails only) from the September exploration were shipped to the SRC on September 25th, 2000 from Kuujjuaq, Quebec and have all been received by the lab. The sample details and locations are listed in Appendix 3 and both the samples and dykes are shown on Figure 4.

DISCUSSION

Diamond Potential

Exploration conducted to date on the Abloviak Property for diamonds is very limited considering the size of the area. The true potential of the Abloviak Property for diamondiferous kimberlites and associated intrusives can not be properly evaluated based on the sparse data currently available.

The age and distribution of potential kimberlite pipes in northern Quebec is considered to be relevant to Dumonts' Abloviak Property, as the age may have a bearing on the style of volcanism and, therefore, different preservation potential for different ages



and styles of dykes, pipes or blows. As an example, Early Tertiary kimberlite pipes of the Lac de Gras region are typically small, carrot shaped pipes that can be highly diamondiferous. In comparison, the Fort à la Corne and Mountain Lake pipes are poorly diamondiferous and are lenticular, stratabound pyroclastic deposits. In Alberta, evidence exists for four and possibly five ages of alkaline volcanic activity (Dufresne*et. al.*, 1996). In Quebec, four kimberlite fields exist which contain pipes, dykes or both of varying ages, some of which are diamondiferous (Moorhead *et. al.*, 2000).

The regional geological and tectonic setting for the Abloviak Property is favourable for the formation and preservation of diamonds in the upper mantle beneath the permit area. The potential for discovery of an economic diamondiferous kimberlite on Dumont's Property is low based upon world statistics for the discovery of economic kimberlites. However, the presence of numerous dykes within the property and properties in close proximity with mineralogically similar diamondiferous dykes (Twin Mining press release, August, 2000; Digonnet *et. al.*, 1999;Twin Mining Field Visit by APEX), indicate that there is potential for discovery of one or more diamondiferous kimberlite or lamprophyre dykes, pipes or blows within Dumonts' permits. The risk for finding an economic diamondiferous dyke and/or possibly pipe on Dumonts' Property is high.

Observations from Twin Mining Dykes

On August 13, 2000 the entire crew visited two spatially separate dyke locales within the Twin Mining permits along with two representatives of Twin Mining. One locale was the site of one trench sample collected by Twin Mining earlier in spring 2000 (DU Dyke). Dykes observed were 30cm up to 1-2m in width. Dyke rock contained garnet (often with kelyphitic rims), olivine (phenocrysts and xenocrysts), phlogopite and chrome diopside (clinopyroxene) within a fine matrix containing phlogopite, olivine, magnetite, chromite and carbonate. The dykes are brecciated in places containing both clasts of country rocks and some peridotidic nodules. Dykes exposed along Abloviak Fjord are seen as swarms. Dykes typically strike at 30 degrees near the Abloviak Fjord and at 60 degrees north of the fjord. The dykes are deformationally unaffected by the Abloviak shear zone. Most dykes have a 1-5 cm, well developed fine grained chilled margin at the contact with country rocks. The dykes pinch, swell and are often offset by late brittle faults. Dykes often horse-tail or split, prior to pinching out. Some dykes are semi-continuous for up to 10-15 km (R. Roy, pers. comm., August, 2000). It should also be noted that Twin Mining employed similar sampling and exploration techniques as those used by APEX within Dumont Nickel Inc.'s properties which subsequently led to the discoveries of Twin Minings diamondiferous kimberlite dykes.

CONCLUSIONS AND RECOMMENDATIONS

Further systematic exploration is necessary within the Dumont permits at this time in order to prioritize known dykes and determine whether or not they have favorable indicator mineral chemistry for the preservation of diamonds and/or contain diamonds. Diamondiferous dykes exist in the area which appear to be similar mineralogically to some of those found within Dumont Nickel Inc.'s properties.

APEX Geoscience Ltd. recommends further exploration at this time. The proposed testing and kimberlite exploration should comprise a staged program consisting of **STAGE 1**: (a) completing caustic analysis, processing for diamond indicators, thin section and microprobe work on the already existing samples collected at the properties during August and September 2000 by APEX; (b) further staking prospective areas in and around areas where dykes are known to exist; (c) geophysical leveling and interpretation of the existing geophysical data; and (d) formal assessment reporting of all aspects of the of 2000 exploration program. STAGE 2: (a) A 45 day field program during summer 2001 utilizing an eight person crew. The program should include mapping of existing dykes, sampling dykes where diamonds were discovered, ground geophysical surveying, prospecting and possibly staking. **STAGE 3:** Premised on success of both the 2000 and 2001 exploration programs: (a) trench diamond-bearing ultramafic dykes; (b) process the sample(s) using a dense media separation (DMS) plant at a credited facility and ship all the recovered concentrates for diamond recovery to determine a preliminary grade and diamond distribution. The program would be completed during fall 2001. The preliminary maximum budget for all three stages is about \$1,350,000, not including a provision for GST and QST.

Based on the recommended budget, the minimum budget allowable would be **\$270,000**, not including a provision for GST and QST. The minimum budget would include **STAGE 1**, as per the maximum recommended budget. **STAGE 2** would include a 21 day field program during summer 2001 utilizing a four person crew. The program should include mapping of existing dykes, sampling dykes where diamonds were discovered, ground geophysical surveying, prospecting and possibly staking. The minimum budget does not include a provision for a third stage. A more detailed break down of the proposed exploration budgets (both maximum and minimum) are shown in Appendix 4.

APEX Geoscience Ltd.

Dean J. Besserer, B.Sc., P.Geol.

September, 2000 (*revised November, 2000*) Edmonton, Alberta

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CERTIFICATION

I, D.J. BESSERER OF 131 FOXBORO LANDING, EDMONTON, ALBERTA, CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF WESTERN ONTARIO, LONDON WITH A B.SC. DEGREE IN GEOLOGY (1994). I AM REGISTERED AS A PROFESSIONAL GEOLOGIST WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS A CONTRACT GEOLOGICAL ASSISTANT WITH THE MINISTRY OF NORTHERN DEVELOPMENT AND MINES, ONTARIO, FROM 1991 TO 1992 AND THE GEOLOGICAL SURVEY OF CANADA, OTTAWA IN 1993. FROM 1994 TO 1999, I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A GEOLOGIST IN THE EMPLOY OF APEX GEOSCIENCE LTD. SINCE JANUARY 2000, I HAVE BEEN A PRINCIPAL AND SHAREHOLDER OF APEX GEOSCIENCE LTD.

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MY REPORT ENTITLED "REPORT, ABLOVIAK FJORD PROPERTIES, UNGAVA BAY AREA, QUEBEC " IS BASED UPON THE STUDY OF PUBLISHED AND UNPUBLISHED DATA AND FIELD EXAMINATIONS CONDUCTED THEREON. I HAVE PERSONALLY VISITED THE PROPERTIES THAT ARE THE SUBJECT OF THIS REPORT.

I HEREBY GRANT DUMONT NICKEL INC. OF TORONTO, ONTARIO, CANADA PERMISSION TO USE THIS REPORT AS PART OF A PROSPECTUS OFFERING IN THE PROVINCE OF QUEBEC.

D.J. BESSERER, B.SC., P.GEOL.

SEPTEMBER, 2000 EDMONTON, ALBERTA

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B. MITTON REPORT, NOVEMBER, 1999

PHOTOS

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K11 Dyke (shown by arrows). View looking Northwest.



K6 Dyke (geologist for scale). View looking South.

SAMPLE LOCATIONS

SAMPLE LOCATIONS

Easting Northing Name East 2014 East 2014 <theast 2014<="" th=""></theast>	Sample Identifier* Location		Dyke	Description	
DNI-01 398245 6591408 K16 Presch ollvine 2 om with keypbe minning. Fine grained matrix, with phologate. DNI-02 388946 658270 K1 Immic amounts of carbonate within. Trace amounts of ollvine. DNI-03 389866 658070 K3 Micaceuss. Carbonate value. Trace amounts of ollvine. DNI-04 389356 659050 Micaceuss. Carbonate value. Trace amounts of ollvine. DNI-05 389709 6550365 K4 Immic xectorize on the macrocrysts present. Up 0 2% prints. Sectorize on weathering. DNI-06 387109 6550365 K4 Immic accounts matrix. DNI-06 387109 6550365 K6 macrocrysts present. Draw weathering. Draw		Easting	Northing	Name	
DNI-02 388941 Even all vine 2 cm with keyphile mmmig. Fine grained matrix with phogopite. Chromite up to 1cm. Minor amounts of carconate in the matrix. Provem present. Moderately magnetic. DNI-03 388988 65800571 5000000000000000000000000000000000000	DNI-01	398245	6581408	K16	Fresh olivine. Pyroxene +/-garnet, magnetite, carbonate in matrix, phlogopite.
DH-03 398989 958977 45 Micaceous, Carbonate veins, Trace amounts of vivine. Lingth DH-04 388336 6580350 K7 veining. Evidence of two banding, Moderate tweekly magnetic. Reversor weathering. DH-05 388740 6580356 K7 veining. Providence of two banding. Moderate tweekly magnetic. Meter during. DH-06 388700 6580356 K6 magnetic. Altered durine. Provem present: Drange weathered uring. Micaceous. Carbonate in the matrix. Altered durine altered atmost matrixe. DH-06 387109 6582364 K2 Siming two matrix. Occasional chronito: Trace amounts of matrix. DH-07 387019 6582364 K2 Carbonate in the matrix. Altered durine. Modulin to coarse grained. Up to 30% DH-07 387019 6582564 K2 Carbonate and provosen. Weakly magnetic. Trace amounts of matrix. DH-08 398254 66351026 K8 Micaceous. Magnetic. Evidence of flow banding. Phicipseine at provosene phenococysts. No DH-10 398046 6571018 K11 Micaceous. Magnetic. Textonate in matrix. Trace amounts of provosene phenococysts. No DH-11 388066 6571018 K11 Micaceous Ayle in steep crowsen. Magnetic. Actonate thrave Steep contanatrave		388941	6585281	K1	Fresh olivine 2 cm with kelyphite rimming. Fine grained matrix with phiogopite. Chromite up to
Bit Note Description Description Description Description DNI-04 38336 6580950 KT verining_Evidence of flow banding, Moderate to weakly magnetic. Carbona weakly magnetic. Manon waakli of matrix. DNI-11 38866 6571916 K11 Seme altwart altored divine. The seme weakly magnetic. Approximately fm wide. Carbona weakly magnetic. Manon and marking divine matrix. Seme same weakly magnetic. Manon and marking divine matrix. Seme same weakly magnetic. Manon and marking divine matrix. Seme same weakly magnetic. Manon and marking divine matrix. Seme same weakly magnetic. Approximately fm wide. Carbona weakly magnetic. Carbona weakly magnetic. Manon andin weakly magnetic. Manon and	DNI-02	389889	6580707	K5	Minaceous, Carbonate veins, Trace amounts of clivine
DNI-04 388336 55805 K7 version provide the version provides and the provide provides and the provides provides and theprovides and the provides and the provides and theprov	DI11-00	000000	0300/07	<u></u>	
Altered gamet. Chronite macrocysts present. Up to 2% prite. Brockette Moderately DNI-05 388700 6580265 (K. magnetic. Altered divine. Provsene present. Orange weatherd surface. DNI-06 387109 6582335 (K. d. country rock. Brown-preen weatherd). actionate weatherd actionate. Mediam to coarse grained. Up to 30% DNI-07 380718 6582237 (K. d. country rock. Brown-there weatherd). actionate weather grains. Coccosinal chromets. Trace amounts of marks. DNI-08 389251 6585198 (K. d. d. country rock. Brown-there. Coccosinal chromets. Trace amounts of marks. DNI-09 396748 6582032 (K. d. country coll. Brown. Control on the carbonate. Trace amounts of marks. DNI-09 396748 658708 (K. d. country coll. Brown. Streng and prozene. Weakly magnetic. DNI-10 380366 657408 (K. d. country coll. Brown. Streng and prozene. Magnetic. Crane binarts. Presentic. None antonate. DNI-11 383866 657408 (K. d. country coll. Brown. Streng and the country. No garret. Type 1: Abundant attered online. Job Streng anton. Type 1: Abundant. Streng antipes. Contain bands of coarse philogoptic in matrix. DNI-12 386252 6569770 (K. J. d. country coll. Brown. Streng and matrix carbonate. Weakly to magnetic. Trane antipe. Levely to madrits. Type 1: Abundant attered online. Type 1: Abundant. Carbonate bands and matrix carbonate. Weakly to lon	DNI-04	388336	6580950	K7	10% matrix carbonate in a fine grained blue-grey mafic matrix. 10% matrix carbonate, calcite veining. Evidence of flow banding. Moderate to weakly magnetic. Grey-brown weathering.
DNI-05 388790 ES80335 K6 Imagenetic, Altered olivine, Provision present. Charge vestimered surface. DNI-06 397105 6582333 K4 Country rock. Brown-green weathering. Carbonate veining. DNI-07 397018 6582343 K4 Country rock. Brown-green weathering. Carbonate veining. DNI-08 398251 6585188 K18 Ersenhald Elemet dolivine. Undetermined altered phenocrysts with rims comprised mostly of phiogopile. The grained micaceous matrix. Occasional chromite. Trace amounts of matrix. DNI-08 398251 6585188 K18 Ersenhald Elemet dolivine. Undetermined altered phenocrysts with rims comprised mostly of phiogopile. The grained micaceous matrix. Occasional chromite. Trace amounts of matrix. DNI-09 396746 6583032 K8. Course grained phiogopile0.5cm. Abundamity proxene, from No carbonate. Weakly to moderative matrix. DNI-10 388036 6571918 K11 Some altered olivine. Course grained phiogopile0.5cm. Abundamity Trace amounts of proxene. Phiogopile in matrix. DNI-12 388256 6569770 K12 Time reservity altered olivine. Course grained material indice dolivine. Course grained material indice dolivine. Course grained material indice. Course grained material. Fire scalable. Course grained materialindice. Course grained material. <td< td=""><td></td><td></td><td></td><td>f</td><td>Altered garnet. Chromite macrocrysts present. Up to 2% pyrite. Brecciated. Moderately</td></td<>				f	Altered garnet. Chromite macrocrysts present. Up to 2% pyrite. Brecciated. Moderately
30% fine grained ph/logopte 10% atterd of wine. 15% pyrozene. Some smalt xenotifits of 000000000000000000000000000000000000	DNI-05	388790	6580365	K6	magnetic. Altered olivine. Pyroxene present. Orange weathered surface.
DNI-06 387109 65823381/44 Country rock. Brown-green weathering. Carbonale veining. DNI-07 387018 65825471/45 phiogopia Zmm in size. DNI-08 389251 65825471/45 phiogopia Zmm in size. DNI-08 389251 65825481/18 carbonate and proxone. Weakly magnetic. DNI-08 389251 65825481/18 carbonate and proxone. Weakly magnetic. DNI-09 396748 65830521/46 Micaceous. Magnetic. Evidence of flow banding. Phiogopia on proxone phenocrysts. No DNI-09 396748 65830521/46 Micaceous dyte in steep crevase. Magnetic. Approximately in wide. Carbonate in matrix. DNI-10 38604 6571918111 Some attered oilvine. Normal. Approximately in wide. Carbonate in matrix. DNI-12 386295 6569770 K12 matrix. Micaeous dyte in as. Micaeous dyte in as. Micaeous dyte in as. Micaeous dyte in as. Micaeous dyte in admits. Micaeous d					30% fine grained phlogopite. 10% Altered olivine. 15% pyroxene. Some small xenoliths of
DNI-07 387018 6582547 (X3) Micacoous. Carbonate in the matrix. Atterd olivine. Medium to compare grained. Up to 30% DNI-08 389251 6585184 (X1) Fresh and altered olivine. Undetermined altered phenocrysts with rime comprised mostly of philosophile. Fing grained micaceous matrix. Costaonat chromite. Trace amounts of matrix. DNI-09 396748 658352 (K2) carbonate and proxene. Weakly magnetic. Philosophie - Normal Microbiol. Science and the matrix. Normal Microbiol. Science and proxene. Phenocrysts. No DNI-10 386034 6574085 (K1) Consert grained printing. Science and	DNI-06	387109	6582383	K4	country rock. Brown-green weathering. Carbonate veining.
DNI-07 38/018 658254 (K3 phogopite 2/min missze. DNI-08 389251 Fesh and altered olivine. Undetermined altered phenocrysts with rims comprised mostly of phogopite. Fine grained micaceous matrix. Occasional chromite. Trace amounts of matrix achonate and proxeme phenocrysts. No DNI-08 396274 6583032 K8 carbonate and proxeme. Weakly magnetic. DNI-09 396748 6583032 K8 carbonate and proxeme. Trace amounts of matrix. DNI-10 366034 6574084 K10 Coarse grained phogopite ~0.50m. Abundant proxeme, 1cm. No carbonate. Weakly to magnetic. DNI-11 383866 6571918 K11 Some attered olivine. Toper status DNI-12 386693 6569770 k12 Some attered olivine. Toper status DNI-12 386693 6569770 k12 Garnetis with kelyphild rims. Fine to coarse grained matrix. Prokeopite in matrix. DNI-12 386693 65697128 K11 Magnetic. 1-11. Minor datus not noout status of proxeme. Pholopyte in matrix. DNI-13 391638 6569129 K11 Garnetis with kelyphild rims. Fine to coarse grained material. Moderate matrix carbonate. Proxeme in matrix. DNI-14 390704 6555338 K14 Magnetis not stoprostata					Micaceous. Carbonate in the matrix. Altered olivine. Medium to coarse grained. Up to 30%
DNI-08 389251 6585198 K18 carbonate and proxene. Weakly magnetic. DNI-09 396748 6585198 K18 carbonate and proxene. Weakly magnetic. DNI-09 396748 6583052 K8 class or nodules. Carbonate in matrix. DNI-10 396034 6574208 K10 class or nodules. Carbonate in matrix. DNI-10 396034 6574208 K10 class or nodules. Carbonate in matrix. DNI-10 396034 6571916 K11 Some altered olivine. District in matrix. DNI-11 393866 6571916 K11 Some altered olivine. District in matrix. DNI-12 386295 6569770 K12 Type 1: Abundant. Some samples contain based of corse philoppite 15% carbonate, shingers present also. Moderately magnetic. Minor amounts of proxene. Philoppite in matrix. DNI-12 386295 6569770 K12 Time risk and natered olivine. District in matrix. DNI-13 391636 6569129 K13 Magnetis. and carbonate vins. Co-037 wide, inches out in paces. DNI-14 390706 6569376 K19 Magnetis an	DNI-07	387018	6582547	КЗ	phlogopite 2mm in size.
DNI-08 389251 6585198 K18 pinodplitter integrated inflacted to shark the Octabetial Inflacted Inf		1		}	Fresh and altered olivine. Undetermined altered phenocrysts with rims comprised mostly of
Bit Indian Discretion Discretion <thdiscretion< th=""> Discretion Discreti</thdiscretion<>	DNI-08	389251	6585198	K18	carbonate and pyroxene. Weakly magnetic
DNI-09 396748 6583052 K8 class or notules. Cathonate in matrix. DNI-10 386034 6574088 K10 magnetic. Green blue matrix, serpentine? No garnet. DNI-11 383866 6571918 K11 Some altered olivine. Type 1: Abundanti altered olivine, up to Smn. 15% matrix carbonate. Weakly to moderately magnetic. Trim garnet. Some samples contain bands of coarse phlogopite. Some altered olivine. DNI-12 386295 6569770 K12 Martice. Some altered olivine. More and the set on the samples contain bands of coarse phlogopite. Some altered olivines. DNI-12 386295 6569729 K12 Martix. Some altered olivines. Control the set on the samples contain bands of coarse prilogopite. Some altered olivines. DNI-13 391638 6569129 K13 Magnetic. T-1.5m wide. Carbonate bands and matrix carbonate. Provene. Phlogopite in matrix. DNI-14 390704 6565938 K14 Magnetic. and carbonate veins. 0.5-0.8m wide, pinches altered olivines. Control the set on the		000201	0000100		Micaceous, Magnetic, Evidence of flow banding, Philogopite and pyroxene phenocrysts, No
DNI-10 386034 6574088 K10 magnetic. Gene Nut matrix, serpentine? No gamet. DNI-11 383866 6574088 K10 Micceous dyke in sleep crevase. Magnetic. Approximately 1m wide. Carbonate in matrix. DNI-11 383866 6571918 K11 Some altered olivine, up to 5mm, 15% matrix carbonate. Weakley to moderately magnetic. DNI-12 386295 6569770 K12 matrix. Gametal with kelyphitic rims. Fine to coarse grained matrix of proxene. Philogoptie in matrix. DNI-12 386295 6569129 K11 Magnetic. 1.1.5m wide. Caronate bands and matrix carbonate. Pyroxene in matrix. DNI-13 391686 6569129 K11 Magnetic. 1.1.5m wide. Caronate bands and matrix carbonate. Pyroxene in matrix. DNI-14 390704 6555938 K14 Magnetic. 1.1.5m wide. Caronate bands and matrix carbonate. Pyroxene in matrix. DNI-15 390228 6589710 K14 Magnetic. 1.1.5m wide. Caronate bands and samet or up ingoptie notaces. DNI-16 401156 658938 K14 Magnetic. Anower, there is a fair amount of weather groen -grey and tarbits room grey. No evidence of notules, olivine. Wathranges from 0.5m to 1.5m al	DNI-09	396748	6583052	кв	clasts or nodules. Carbonate in matrix.
DNI-10 386034 6574088 K11 magnetic. Green blue matrix, serpentine? No garnet. DNI-11 383866 6571918 K11 Some altered olivine, Type 1: Abundant altered olivine, up to 5mm. 15% matrix carbonate. Weakley to moderalely magnetic. DNI-12 386235 6569770 K12 Type 1: Abundant altered olivine, up to 5mm. 15% matrix carbonate. Weakley to moderalely magnetic. DNI-12 386235 6569770 K12 matrix. Garnets with kelyphitic rims. Fine to coarse grained material. Fresh and altered olivines. Garnet sith mearcorysts. Country rock dasis up to 2m. Minor philogoptie in matrix. DNI-13 391638 6569781 K14 Magnetic. 1-1.5m wide. Carbonate bads and matrix carbonate. Proxeme in matrix. DNI-14 390704 656938 K14 Magnetic and carbonate veins. 0.50-38m wide, pinches out in places. DNI-15 390228 6568781 K19 poulders or float. Nowever, there is a fair amount of weathered sol present in the fracture. DNI-16 401156 6586030 K20 Coarse grained philogopite and and or olivine. Width ranges green-grey and widths. Ow antrix carbonate. 30% matrix. No matrix philogopite. Calcille notubes up to 7mm. in diameter. Strongly magnetic. Large philogopite and onlivine. Worether				<u> </u>	Coarse grained phlogopite ~0.5cm. Abundant pyroxene, 1cm. No carbonate. Weakly
DNI-11 383866 6571918 Micaceous dyke in sleep crease. Magnetic. Approximately 1m wide. Carbonate in matrix. DNI-12 386295 6571918 Type 1: Abundant altered divine, up to 5mm. 15% matrix carbonate. Weakley to modorately magnetic. Tryme 2: fine grained. Olivine not abundant. Some samples contain bands of coarse philogopile. 15% carbonate, stringers present also. Moderately magnetic. Minor amounts of proxene. Philogopile in matrix. DNI-12 386295 6569129 K13 Magnetic. 1-1.5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix. DNI-13 391638 6569129 K13 Magnetic. 1-1.5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix. DNI-14 390704 655598 K14 Magnetic and carbonate vering. 0.5-0.8m wide, pinches out in places. DNI-15 390228 6569129 K14 Magnetic and carbonate vering. 0.5-0.8m wide, pinches out in places. DNI-16 401156 658938 K14 Magnetic and carbonate vering is altar amount of weather green regrey and dark horwer, here is a lair amount of weather green regrey and dark horwer, here is a lair amount of weather green regrey and dark horwer, here is a lair amount of weather green regrey and dark horwer, here is a lair amount of weather green regrey and dark horwer green. In the fracture. DNI-16 401156 6585018 K27 Medidue margi	DNI-10	386034	6574088	K10	magnetic. Green blue matrix, serpentine? No garnet.
DNI-11 383866 6571918 K11 Some altered olivine. Type 1: Abundant altered olivine. up to 5mm. 15% matrix carbonate. Weakley to moderately magnetic. 7mm garnet, heavily altered. Minor philogopile. 510%. Type 2: fine grained. DNI-12 386295 6569770 K12 Garmets with kelybhic rims. Fine to coarse grained material. Fresh and altered olivines. Minor philogopile. 15% carbonate, attringers present also. Moderately magnetic. Minor philogopile. 15% carbonate, attringers present also. DNI-13 391638 6569129 K13 Garmet, with kelybhic rims. Fine to coarse grained material. Fresh and altered olivines. DNI-14 390704 6565938 K14 Magnetite and carbonate bands and matrix carbonate. Minor philogopile. 15% DNI-15 390228 6569781 K19 boulders or float, however, there is a fair amount of weathered soil material for caustic. Medium grained, blue green-grey. No evidence of notales. O3% matrix philogopile. acialte notules up to 7mm. Pyroxene xencrysts approximately 27m. Weathere green-grey and dark brown grey. No evidence of garted ro olivine. Width ranges from 0.5m to 1.5m along traitable. Garted on utrops. Strike ranges from 15 to 30%. DNI-16 401156 6555530 Coarse grained philogopile megacrysts as well as groundmass philogopile. N-S strike ranges from 5 to 30%. DNI-17 392341 65739365 K25 trike. Chilled margins and stringers into country					Micaceous dyke in steep crevase. Magnetic. Approximately 1m wide. Carbonate in matrix.
Type 1: Abundant altered olivine, up to 5mn. 15% matrix carbonate. Weakley to moderately magnetic. Trim gamet, havely lattered. Minor philogopite, 15% carbonate, stringers present also. Moderately magnetic. Minor amounts of pyroxene. Philogopite in 10% DNI-12 386295 6569770 K12 matrix. Garnets with kelyphilic rims. Fine to coarse grained material. Fresh and aftered olivines. DNI-13 391638 6569129 K13 Magnetic. 1-1,5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix. DNI-13 391638 65569129 K13 Magnetic. 1-1,5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix. DNI-14 390704 6555338 K14 Magnetic. 1-1,5m wide. Carbonate bands, and matrix carbonate. Pyroxene in matrix. DNI-15 390228 6568781 K14 Magnetic. Interview. Contry DIM and TS samples taken, not enough material for caustic. Medium grained, mica rich. Weathers green, grey. No evidence of paret or olivines, grantes or pyroxene. Very few boulders or fore. howevery. Intervis and amount of weathered oil present in the fracture. DNI-16 401156 65687031 K149 boulders or fore. howevery. Intervis a faith area or olivine weathered out clasts on outry rock easily visible. DNI-17 392241 6573234 K27 Altered Tom olivine (Ito serpentine). Well-rounder magnetite nodules up to 7mm	DNI-11	383866	6571918	K11	Some altered olivine.
DNI-12 386295 6569770 IVIS The samples contain bands of coarse phologoile. 5-10%. Type 2: Inte grained. DIVIS Divise not shundant. Some samples contain bands of coarse phologoile. 5-10%. Type 2: Inte grained. DIVIS Status St				ſ	Type 1: Abundant altered olivine, up to 5mm. 15% matrix carbonate. Weakley to moderately
DNI-12 386295 6669770 K12 matrix. DNI-13 391638 656970 K12 matrix. Magnetic. 11.5m wide. Carbonate bands and matrix carbonate. Phiogoptie in matrix. DNI-13 391638 6569129 K13 Magnetic. 11.5m wide. Carbonate bands and matrix carbonate. Physoene in matrix. DNI-14 390704 6565938 K14 Magnetic. 11.5m wide. Carbonate bands and matrix carbonate. Minor phiogopte in matrix. DNI-14 390704 6565938 K14 Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in places. DNI-15 390228 656971 K12 Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in places. DNI-15 390228 656973 K14 Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in places. DNI-16 401156 656873 K14 Magnetit. No matrix carbonate. 30% matrix phiogopte, aclotte nodules up to 7mm. Pyrosene xencorysts approximately 2-3 m in width. Abundant outcrop available. Some minerals altered to serpentine, Moderately magnetic. Weathered out clasts on surface of outcrop. Sirke ranges from 5 to 30°. DNI-16 401156 657507 K23 Strike ranges from 5 to 30°. DNI-17 392341 6573585 K22 Outcrop is scaree. Moderately magnetic. Calcular up magnetic. Calcular up min diameter. DNI-	ļ				magnetic. 7mm garnet, heavily altered. Minor phlogopite, 5-10%. Type 2: fine grained.
DNI-12 386295 6569770 K12 Simplers present also. Moderately magnetic. Wino amounts of proceeding and the other of the second send material. Fresh and aftered olivines. DNI-13 391638 6569120 K12 Garnets with kelyphitic rims. Fine to coarse grained material. Fresh and aftered olivines. DNI-13 391638 6569129 K13 Magnetic -11.5m wide. Carbonate bends and matrix achonate. Proceene in matrix. DNI-14 390704 6569398 K14 Magnetic -11.5m wide. Carbonate bends and material for caustic. Medium grained, mica rich. Weatheres out in places. DNI-15 390228 6569781 K19 boulders or float. however, there is a fair amount of weathered soil present in the fracture. Medium grained, buerey matrix. No matrix carbonate. 30% matrix phospotite. acide nodules up to 7mm. Proxene xencorysts approximately 2-3 m in width. Abundant outcrop available. Some mineral sattered to serpentine. Workenatered out clasts on available. Some mineral sattered to serpentine. Moderately magnetic. Weathered out clasts on surface. 10-15% article. Strongly magnetic. Large philogopite negacrysts as well as groundmass philogopite. N-S DNI-17 392341 6573268 K27 Abundant proximately 2-M m width. Abundant outcrop available. Some mineral sattered to serpentine. Work magnetic. Veathered out clasts on strongly magnetic. Sergendine. Diversite anges from 5.5 DNI-18 389970 6575576					Olivine not abundant. Some samples contain bands of coarse philogopite. 15% carbonate,
DNI-12 Joboz 30 Joboz 70 N12 Indukt. DNI-13 391638 6569129 K13 Magnetic. 1-1,5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix. DNI-14 390704 6565938 K14 Magnetic. Magnetic. 1-1,5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix. DNI-14 390704 6565938 K14 Magnetile and carbonate veins. 0.5-0.8m wide, pinches out in places. DNI-15 390226 6569781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. DNI-15 390226 6568781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. DNI-16 401156 6585030 K20 strike. Chilled margins and stringers into country rock easily visible. DNI-17 392341 6573238 K25 surface of outcrop. Strike ranges from 5 to 30². m width. Abundant outcrop available. Some minerais altered to sort. strike. Strongly magnetic. Hait Magnetic. N-S DNI-17 392341 6575557 K23 striking.<	DAIL 12	206205	6560770	1410	stringers present also. Moderately magnetic. Minor amounts of pyroxene. Philogophe in
DNI-13 391638 6569129 K13 Magnetic. 1-1.5m wide. Carbon at bands and matrix carbonate. Proxene in matrix. DNI-14 390704 655938 K14 Magnetic. Samet, olivine macrocrysts. Country rock deasts up to 2cm. Minor philogopie in matrix. DNI-14 390704 6556938 K14 Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in piaces. DNI-15 390228 6568781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. DNI-15 390228 6568781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. DNI-15 390228 6568781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. DNI-16 401156 6585030 K20 strike. Chilled margins and stringers into country rock easily visible. Coarse grained philopotite abundant. Dyte is approximately 2-37 in width. Abundant outcrop available. Some minerals altered to serpentine. Moderately magnetic. Large philopotite megacrysts as well as groundmass philopotite. N-58 strike approximately 10°. DNI-17 392341 6575570 K27 Abundant pyroxene. Strike approximately 10°. M		300295	0309/10	N12	Garnets with kelymbitic rims. Fine to coarse grained material. Fresh and altered olivines
DNI-14 390704 6555938 K14 Gamet, divine macrocrysts. Country rock clasts up to 2cm. Minor phiogopte in matrix. DNI-14 390704 6555938 K14 Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in places. DNI-15 390228 6568781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. Medium grained, blue-grey matrix. No matrix actonate. 30% matrix phiogopite, calcile nodules up to 7mm. Provence Xenorysts approximately Zam. Weatheres green-grey and dark brown grey. No evidence of gamet or olivine. Width ranges from 0.5m to 1.5m along uark brown grey. No evidence of gamet or olivine. Width ranges from 0.5m to 1.5m along available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on surface of outcrop. Strike ranges from 5 to 30°. DNI-17 392341 6575270 K23 strike. Chiled marging the gaproximately 2.3m in width. Moderately magnetic. Weathered out clasts on surface of outcrop. Strike ranges from 5 to 30°. DNI-18 389970 6575570 K23 striking. Very micaceous. Dyke approximately 10°. DNI-19 386053 6575551 K27 Aundant procene. Strike approximately 10°. DNI-20 387839 65759365 K22 oluvine, bundant phiogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 3972	DNI-13	391638	6569129	к13	Magnetic, 1-1.5m wide. Carbonate bands and matrix carbonate. Pyroxene in matrix.
DNI-14 390704 6565938 K14 Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in places. DNI-15 390228 6568781 Number Stamples taken, not enough material for caustic. Medium grained, mica rich. Weathers green-grey. No evidence of nodules, olivines, garnets or pyroxene. Very few bolders or float. however, there is a fair amount of weathered soil present in the fracture. Medium grained, blue-grey matrix. No matrix carbonate. 30% matrix phlogopite, calcite nodules up to 7mm. Pyroxene xenocrysts approximately 2mm. Weathers green-grey and dark brown grey. No evidence of garnet or olivine. Width ranges from 0.5m to 1.5m along available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on poli-17 392341 6573238 K25 surface of outcrop. Strike ranges from 5 to 30°. DNI-18 389970 6575570 K23 striking. DNI-19 386953 6575551 K23 striking. DNI-19 386953 65759365 K22 olivine. Abundant pyroxene. Strike approximately 1m in width. Moderately magnetic. <5% calcite in matrix.		001000	0000120		Garnet, givine macrocrysts, Country rock clasts up to 2cm. Minor phlogopite in matrix.
Only DIM and TS samples taken, not enough material for caustic. Medium grained, mica rich. Weathers green-grey. No evidence of nodules, olivines, garnets or pyroxene. Very few boulders or float, however, there is a fair amount of weathered soil present in the fracture. DNI-15 390228 6568781 K19 Medium grained, blue-grey matrix. No matrix carbonate. 30% matrix philogopite, calcile nodules up to 7mm. Pyroxene xenocrysts approximately 2mm. Weathers green-grey and dark brown grey. No evidence of garnet or olivine. Width ranges from 0.5m to 1.5m along strike. Chilled margins and stringers into country rock easily visible. DNI-16 401156 6585030 K20 sufface of outcrop. Strike ranges from 5.0% matrix blue oppite. DNI-17 392341 6573238 K25 sufface of outcrop. Strike ranges from 5.09. Attered tom olivine (to serpentine). Weil-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large philogopite megacrysts as well as groundmass philogopite. N-S striking. DNI-18 389970 6575551 K22 Attered tom olivine (to serpentine). Weil-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large philogopite megacrysts as well as groundmass philogopite. N-S striking. DNI-19 386053 6575551 K27 Abundant philogopite medium grained 20%. 10% calcite in matrix. DNI-20 387839 6579365 K22 Outcrop is scarace. Moderately magnetic. Calcide veins an stringers, 10-15% ma	DNI-14	390704	6565938	K14	Magnetite and carbonate veins. 0.5-0.8m wide, pinches out in places.
Only DIM and TS samples taken, not enough material for caustic. Medium grained, mica rich. Weathers green-grey. No evidence of nodules, olivines, garnets or pyroxene. Very few boulders or hoat, however, there is a far amount of weathered soil present in the fracture. DNI-15 390228 6568781 K19 boulders or hoat, however, there is a far amount of weathered soil present in the fracture. Medium grained, blue-grey matrix. No matrix carbonate. 30% matrix phlogopite, calcite nodules up to 7mm. Pyroxene xenocrysts approximately 2m. Weathers green-grey and dark brown grey. No evidence of garnet or olivine. Width ranges from 0.5m to 1.5m along strike. Chilled margins and stringers into country rock easily visible. DNI-16 401156 6585030 K20 strike. Chilled margins and stringers into country rock easily visible. DNI-17 392341 6573238 K25 strike concerns from 5 to 30°. DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575571 K23 striking. DNI-19 386053 6575571 K23 very micaceous. Dyke approximately 2m. Noderately magnetic. Carge phlogopite and to nodules on surface. 10-15% altered olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. DNI-20 387839 6575551 K22 olivine, Abundant phlogopite and to n					
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DNI-15 390228 6569781 K19 boulders or float, however, there is a fair amount of weathered soil present in the fracture. Medlum grained, blue-grey matrix. No matrix carbonate. 30% matrix philogopite, calcite nodules up to 7mm. Pyroxene xenocrysts approximately 2mm. Weathers green-grey and dark brown grey. No evidence of game to rolivine. Width ranges from 0.5m to 1.5m along stringers into country rock easily visible. DNI-16 401156 6585030 K20 strike. Childed margins and stringers into country rock easily visible. DNI-17 392341 6673238 K25 surface of outcrop. Strike ranges from 5 to 30°. DNI-17 392341 66735570 K23 striking. DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575571 K23 striking. DNI-19 386053 6575570 K23 striking. DNI-19 386053 6575570 K23 strike approximately 10°. DNI-20 387839 6579366 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant philogopite nodule grained at scharts. Calcite veins and stringers, 10-15% matrix carbonate. 30% cocarse grained philogopite. No weathered-out clasts. Some brecciat					Weathers green-grey. No evidence of nodules, olivines, garnets or pyroxene. Very few
Medium graned, ble-grey matrx. No matrix carbonate. 30% matrix philogopite, calcite nodules up to 7mm. Pyroxene xencorysts approximately 2mm. Weathers green-grey and dark brown grey. No evidence of gamet or olivine. Width ranges from 0.5m to 1.5m along strike. Chilled margins and stringers into country rock easily visible. DNI-16 401156 6585030 K20 strike. Chilled margins and stringers into country rock easily visible. DNI-17 392341 6573238 K25 screars grained philogopite abundant. Dyke is approximately 2-3 m in width. Abundant outcrop available. Some minerals altered to seprentine. Moderately magnetic. Weathered out clasts on surface of outcrop. Strike ranges from 5 to 30°. DNI-17 392341 6573238 K25 striking. DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575571 K23 striking. DNI-20 387839 6579365 K27 Abundant pyroxene. Strike approximately 1m in width. Moderately magnetic. <5% calcite in matrix.	DNI-15	390228	6568781	K19	boulders or float, however, there is a fair amount of weathered soil present in the fracture.
DNI-16 Housing up to 7mm, Pyroketex endors as approximately 2mm, Weathers given-give and adx brown graves. No evidence of garnet or olivine. Width ranges from 0.5m to 1.5m along strike. Chilled margins and stringers into country rock easily visible. Coarse grained philogopite abundant. Dyke is approximately 2-3 m in width. Abundant outcrop available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on DNI-17 392341 6573238 K25 surface of outcrop. Strike ranges from 5 to 30°. Altered from olivine (to serpentine). Weil-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large philogopite megacrysts as well as groundmass philogopite. N-S DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 olivine. Abundant philogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 carbonate. 30% coarse grained philogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained. I way fine grained chilled margins. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts. Abundant choremater (?) macrocrysts. 5-10% matrix calcide. No salid chilled margins. Abundant choromite (?) macrocrysts. 5-10% matrix calcite. Altered	}				Medium grained, blue-grey matrix. No matrix carbonate. 30% matrix phiogopite, calcite
DNI-16 401156 6585030 K20 strike. Chilled margins and stringers into country rock enalty visible. DNI-17 392341 6573238 K25 Coarse grained phlogopite abundant. Dyke is approximately 2.3 m in width. Abundant outcrop available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on surface of outcrop. Strike ranges from 5 to 30°. DNI-17 392341 6573238 K25 Altered 1 cm olivine (to serpentine). Weil-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large phlogopite megacrysts as well as groundmass phlogopite. N-S DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 carbonate. 30% coarse grained phlogopite. Nio wathered-out clasts. Some breccitation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained. Negaretite. Negaret. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts. Abundant outcrop and fragments. Possibly ox present. (pink). Strike trom size of yproxene. Strongly magnetic. Ground mass phlogopite and		ļ			dark brown grov. No ovidence of garnet or oliving. Width ranges from 0.5m to 1.5m along
Multicity Coarse grained philogopite abundant. Dyke is approximately 2.3 m in width. Abundant outcrop available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on surface of outcrop. Strike ranges from 5 to 30°. DNI-17 392341 6573238 K25 surface of outcrop. Strike ranges from 5 to 30°. Altered 1 cm olivine (to serpentine). Well-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large philogopite megacrysts as well as groundmass philogopite. N-S striking. DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant philogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained philogopite. No weathered-out clasts. Some brecciation seen magnetic. for greiss found within dyke. Large proxeme 2cm in length are present. Strongly magnetic. Groundmass philogopite and 1 cm books also found. Magnetite macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts. Abundant chromite (?) magnetic. Some sufficient and coarse grained. Flow banding present. No calcite in matrix 1 cm sized proxene. Strongly magnetic. Some sufficient Approximately 2	DNI-16	401156	6585030	K20	strike. Chilled margins and stringers into country rock easily visible
DNI-17 392341 6573238 K25 available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on surface of outcrop. Strike ranges from 5 to 30°. DNI-17 392341 6573238 K25 Altered tron clivine (to serpentine). Weil-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large philogopite megacrysts as well as groundmass philogopite. N-S DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant philogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 carbonate. 30% coarse grained philogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained to levery fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass philogopite and tom bocks also found. Magnetite macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly ox present (pink). Strike MMU-05 389167 6565607 K31 Approximately 2m wide. NS <td></td> <td></td> <td></td> <td>· · - •</td> <td>Coarse grained phlogopite abundant. Dyke is approximately 2-3 m in width. Abundant outcrop</td>				· · - •	Coarse grained phlogopite abundant. Dyke is approximately 2-3 m in width. Abundant outcrop
DNI-17 392341 6573238 K25 surface of outcrop. Strike ranges from 5 to 30°. DNI-18 389970 6575570 K23 Altered 1 cm olivine (to serpentine). Weil-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large phiogopite megacrysts as well as groundmass phiogopite. N-S DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant phiogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Outcrop is scarce. Moderately magnetic. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phiogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained to very fine grained chilled margins. MMU-02 398355 6564723 K38 Xernoliths of gneiss found with indyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phiogopite and 1cm books also found. Magnetite macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly ox present (pink). Strike to size 2?? MMU-15 393855 6564723					available. Some minerals altered to serpentine. Moderately magnetic. Weathered out clasts on
Altered 1cm olivine (to serpentine). Well-rounded magnetite nodules up to 7mm in diameter. Strongly magnetic. Large phiogopite megacrysts as well as groundmass phiogopite. N-S DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 1m in width. Moderately magnetic. <5% calcite in matrix. Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579565 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant phiogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Outcrop is scarce. Moderately magnetic. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phiogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts. Abundant phiogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. Approximately 2m wide. MMU-05 389167 65666	DNI-17	392341	6573238	K25	surface of outcrop. Strike ranges from 5 to 30°.
DNI-18 389970 6575570 K23 Strongly magnetic. Large phlogopite megacrysts as well as groundmass phlogopite. N-S DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 1m in width. Moderately magnetic. <5% calcite in matrix.	1	1			Altered 1cm olivine (to serpentine). Well-rounded magnetite nodules up to 7mm in diameter.
DNI-18 389970 6575570 K23 striking. DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Outcrop is scarce. Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts present Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°?? MMU-05 389167 6565607 K31 Approximately 2m wide. NS 388037 6578500 K21 Not sampled due to snow cover. Possibly a continuation of K6. NS NS 387038 6578500 K24 Not sampled as it is believed to be a nextension from K10 and lack of outcrop/subcrop. <td></td> <td>1</td> <td></td> <td></td> <td>Strongly magnetic. Large phlogopite megacrysts as well as groundmass phlogopite. N-S</td>		1			Strongly magnetic. Large phlogopite megacrysts as well as groundmass phlogopite. N-S
DNI-19 386053 6575551 K27 Abundant pyroxene. Strike approximately 10°. DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Outcrop is scarce. In the grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°?? MMU-05 389167 6565607 K31 Approximately 2m wide. Abundant outcrop and fragments. No salking dyke. Approximately 2m wide. Strongly magnetic. Some sulfides present. N-S striking dyke. MS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. <td>DNI-18</td> <td>389970</td> <td>6575570</td> <td>K23</td> <td>striking.</td>	DNI-18	389970	6575570	K23	striking.
DNI-15 380035 6579365 K27 Aduited in pytokelle. Strike approximately 10°. DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°? MMU-05 389167 6565607 K13 Approximately 2m wide. NS 398001 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled us to snow cover. Possibly a continuation of K6. NS 387038 65775560 K21 Not sampled us it is believed to be an extension from K10 and lack of outcrop/subcrop.		206052	6575551	777	very micaceous. Dyke approximately 1m in width, moderately magnetic. <5% calcite in matrix.
DNI-20 387839 6579365 K22 Outcrop is scarce. Moderately magnetic. Weathered out nodules on surface. 10-15% altered olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction. MMU-01 397262 6583882 K9 Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present (pink). Strike 12°?? MMU-05 389167 656607 K38 12°?? Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous.		300033	0010001	<u>'`~'</u>	
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MMU-01 397262 6583882 K9 Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°?? MMU-05 389167 656607 K31 Approximately 2m wide. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.	DNI-20	387839	6579365	K22	olivine. Abundant phlogopite medium grained 20%. 10% calcite in matrix. 60° strike direction.
MMU-01 397262 6583882 K9 Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°?? MMU-05 389167 6565607 K31 Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6575600 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. NS 387038 6575600 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.					
IMMU-01 397262 6583882 K9 carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen. MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°?? MMU-05 389167 6564723 K38 12°?? Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix car sized pyroxene. Strongly magnetic. Some sulfides present. No calcite in matrix car sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 65756500 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. NS 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.					Moderately magnetic. Fine grained at contact. Calcite veins and stringers, 10-15% matrix
MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts naturately 2m wide. Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°? MMU-05 389167 6565607 K31 Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6575600 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. NS 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.	MMU-01	397262	6583882	K9	carbonate. 30% coarse grained phlogopite. No weathered-out clasts. Some brecciation seen.
MMU-02 396318 6584120 K15 Very micaceous. Strongly magnetic. Minor matrix carbonate. Few nodules. Veins cutting through country rock. Ranges from coarse grained to very fine grained chilled margins. Xenoliths of gneiss found within dyke. Large pyroxene 2cm in length are present. Strongly magnetic. Groundmass philogopite and 1cm books also found. Magnetite macrocrysts present Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike 12°?? MMU-05 393855 6564723 K38 12°? MMU-05 389167 6565607 K31 Abundant philogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6575600 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. NS 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.	1	[
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MMU-15 393855 6564723 K38 12°?? MMU-05 389167 6565607 K31 Abundant philogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. No striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. Not 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.		330318	0004120	<u>A15</u>	Xenoliths of oneiss found within dyke. Large pyroxene 2cm in length are present. Strongly
MMU-15 393855 6564723 K38 12°?? MMU-05 399167 6565607 K31 Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop. NS 387038 65778500 K21 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.					magnetic. Groundmass phlogopite and 1cm books also found. Magnetite macrocrysts.
MMU-15 393855 6564723 K38 Approximately 2m wide. Abundant outcrop and fragments. Possibly opx present (pink). Strike MMU-15 393855 6564723 K38 12°?? MMU-05 389167 6565607 K31 Approximately 2m wide. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 38937 6575600 K21 Not sampled due to snow cover. Possibly a continuation of K6. NS 387038 6575560 K24 Not sampled as it is believed to be a network of the top and the site on early and the	1) I			Abundant chromite (?) macrocrysts. 5-10% matrix calcite. Altered olivine macrocrysts present
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Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix 1cm sized pyroxene. Strongly magnetic. Some sulfides present. N-S striking dyke. MMU-05 389167 6565607 K31 Approximately 2m wide. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled due to snow cover. Possibly a continuation of K6. NS 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.	MMU-15	393855	6564723	K38	12°??
MMU-05 389167 6565607 K31 Approximately 2m wide. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled due to snow cover. Possibly a continuation of K6. NS 387038 6575560 K24 Not sampled due to be an extension from K10 and lack of outcrop/subcrop.					Abundant phlogopite both fine- and coarse grained. Flow banding present. No calcite in matrix
MMU-05 389167 6565607 K31 Approximately 2m wide. NS 398601 6581537 K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled due to snow cover. Possibly a continuation of K6. NS 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.					1cm sized pyroxene. Strongly magnetic. Some sulfides present, N-S striking dyke.
NS 388001 6581537 [K17 Not sampled as it is believed to be a splay off of K16 and is discontinuous. NS 388937 6578500 K21 Not sampled due to snow cover. Possibly a continuation of K6. NS 387038 6575560 K24 Not sampled due to be an extension from K10 and lack of outcrop/subcrop.	MMU-05	389167	6565607	K31	Approximately 2m wide
NS 387038 6575560 K24 Not sampled due to snow cover. Possibly a continuation of K6. NS 387038 6575560 K24 Not sampled as it is believed to be an extension from K10 and lack of outcrop/subcrop.		398601	6581537	K17	Not sampled as it is believed to be a splay off of K16 and is discontinuous.
To a service of the s	NS	387029	6575560	K24	Not sampled due to snow cover. Possibly a continuation of K6.
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PROPOSED BUDGETS

<u>APPENDIX 4</u>

PROPOSED BUDGETS

BUDGET ITEM (MAXIMUM BUDGET)	ESTIMATED COST
FIELD RELATED COSTS	
Stage 1 – Analyse Existing Samples and Reporting	
Includes caustic fusion, thin section and diamond indicator mineral processing on samples collected during August/September 2000. Geophysical leveling and interpretation of the existing geophysical data; and (b) formal reporting of all aspects of the of 2000 exploration program.	
Stage 2 – 2001 Field Work	\$125,000
Assumes about 115 hours of helicopter (Bell Long Ranger) per day @ about \$785/hour and fuel consumption of about 1 drum (205 L) per hour at \$800 / barrel landed. Also assumes camp accommodation for eight persons for 45 days at \$300/day/ person. Assumes a provision for bags, flagging, plastic pails and field gear, airfares etc. Assumes caustic fusion of at least 20, 50 kg samples.	\$405,000
Stage 3 – Trenching and Heavy Mineral Separation	
Heavy minerals will be separated using dense medium separation at a credited facility. Includes blasting, drilling and the processing of 5 to 10 trenched samples.	\$800,000
Miscellaneous Expenses	
(a) Includes miscellaneous rental charges, satellite telephone, courier, administration, shipping, office supplies etc.	\$20,000
Total Estimated Project Costs (**Excluding GST, QST)	\$1,350,000**

PROPOSED BUDGETS

	ESTIMATED COST
FIELD RELATED COSTS	
Stage 1 – Analyse Existing Samples and Reporting	
Includes caustic fusion, thin section and diamond indicator mineral processing on samples collected during August/September 2000. Geophysical leveling and interpretation of the existing geophysical data; and (b) formal reporting of all aspects of the of 2000 exploration program.	
Stage 2 – 2001 Field Work	\$125,000
Assumes about 50 hours of helicopter (Bell Long Ranger) per day @ about \$785/hour and fuel consumption of about 1 drum (205 L) per hour at \$800 / barrel landed. Also assumes camp accommodation for four persons for 20 days at \$300/day/ person. Assumes a provision for bags flagging plastic pails and field gear airfares etc. Assumes	
caustic fusion of at least 10, 50 kg samples.	\$140,000
Miscellaneous Expenses	
(a) Includes miscellaneous rental charges, satellite telephone, courier, administration, shipping, office supplies etc.	\$5,000
Total Estimated Project Costs (**Excluding GST, QST)	\$270,000**