REPORT
on

KIMBERLITE EXPLORATION, VICTORIA ISLAND PROPERTIES
Yankee Property

VICTORIA ISLAND, NUNAVUT

NTS 1:250,000 SHEETS 77C, 77F
110 -107'35 W
69 57 – 70 15' N

Claims	**tags**
CA 1 to CA 38	F68431 to F68468

Reported by
MAJOR GENERAL RESOURCES LTD

Work period
Aug 24 to Sept 23, 2000

VOL 1 Till sampling, by P.C.LeCouteur

VOL 2 Ground magnetic geophysics, by J.L.LeBel

VOL 3 Airborne magnetic geophysical survey, by C.St-Hilaire

Compiled by
P.C. LeCouteur, P.Eng (BC)
Vancouver, BC
June 3, 2001

SUMMARY

Objective:

The objective of the work reported here was exploration for kimberlite by till sampling for kimberlite indicator minerals, magnetic surveys on the ground and by helicopter, and by prospecting.

Background:

Major General Resources Ltd has been involved in kimberlite exploration on Sth central Victoria Island since 1994 with several joint-venture partners. As a result of this exploration, and by Monopros Ltd in other areas, a number of diamond-bearing dikes and small pipes have been found in the period 1994-2000 on central Victoria Island.

Work done:

Major General Resources Ltd carried out exploration from Aug 24 to Sept 23, collecting 125 tills of about 25kg each. CFMineral Research Ltd concentrated and examined till heavy minerals for kimberlite indicators. In addition 6 km of ground magnetic surveying was done over magnetic anomalies from previous surveys, and 512 km of helicopter-borne magnetic surveying was done by contractor SIAL Geosciences Ltd (see Vol2&3, this report).

Results:

The tills contain a small number of samples with low numbers of grains of kimberlitic indicator minerals, apparently none from diamond-bearing sources, although the number of grains is small .

Samples of particular interest include 45, 66, 68, 75, and 99. Samples 74, 86, 39, 87 and 39 also contain kimberlitic mineral indicator grains

Conclusions:

Three areas were identified that may warrant further till sampling. The most promising of these is on claims C30 and CA33 down-ice from magnetic anomalies that may be kimberlite intrusions.

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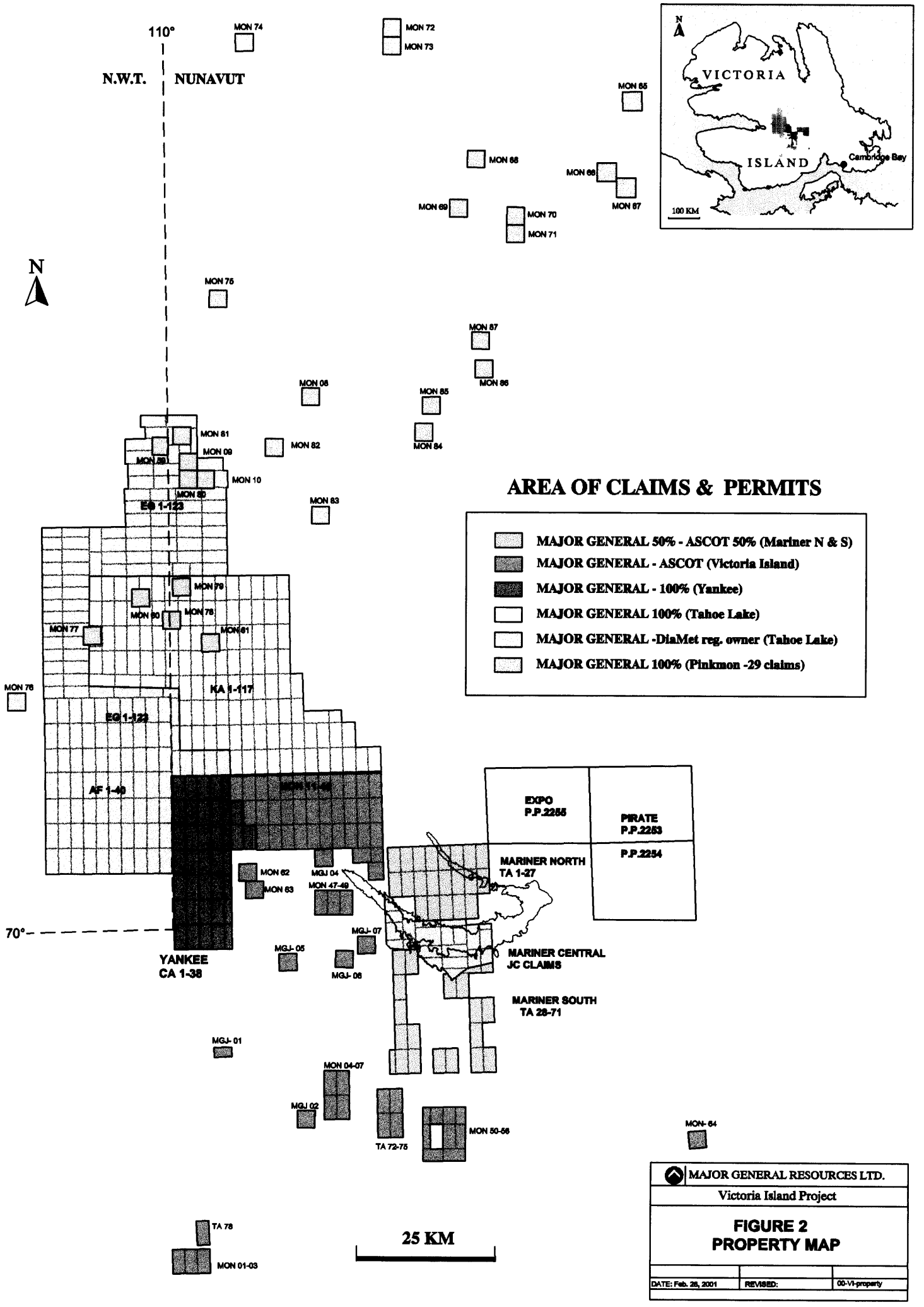
MAJOR GENERAL RESOURCES LTD.

Victoria Island Diamond Project

Figure 1
Project Location Map

February 28, 2001		
wcanada.dwg		



AREA OF CLAIMS & PERMITS

- MAJOR GENERAL 50% - ASCOT 50% (Mariner N & S)
- MAJOR GENERAL - ASCOT (Victoria Island)
- MAJOR GENERAL - 100% (Yankee)
- MAJOR GENERAL 100% (Tahoe Lake)
- MAJOR GENERAL -DiaMet reg. owner (Tahoe Lake)
- MAJOR GENERAL 100% (Pinkmon -29 claims)

MAJOR GENERAL RESOURCES LTD.

Victoria Island Project

FIGURE 2
PROPERTY MAP

DATE: Feb. 28, 2001	REVISED:	00-VI-property

1.0 INTRODUCTION

1.1 Location and access

Major General Resources Ltd has been involved in kimberlite exploration on properties in Sth-central Victoria Island (fig 1) since 1994. These properties(fig 2) include several permits, blocks of claims, clusters of a few claims, and individual claims, and are scattered between latitudes 69 and 72 N and longitudes 107 and 111 West, and lie within NTS 1:250,000 sheets 77C,D , F and G. The claims that comprise the property that is the subject of this report are identified on fig 2 as "Major General-100% (Yankee)"). This property is being explored as a joint-venture with Hawkeye Gold International Inc.

Access to the area is through the town of Cambridge Bay, which is served in summer by daily scheduled airline flights from Yellowknife. Twin Otter charter flights can be arranged from Cambridge Bay.

1.2 Terrain and climate

The central part of Victoria Island is an area of low relief, rising only to about 150m, and is mostly plains and rolling country with numerous small and shallow lakes . There are a few larger lakes, generally with connected drainage, such as Lake Tahoe and Lake Washburn.

Much of the area is mantled with thin tills, but outcrops of Paleozoic carbonate bedrock are scattered everywhere, usually with a broken-up surface of loose slabby rubble. There are several long sinuous eskers, and raised beaches and strandlines are common. Vegetation is sparse , and typical of the Arctic tundra with species of grass, sedge, moss, and dwarf willow and birch.

The climate is severe in winter, averaging about –30 C, and thin snow cover, frozen ground, and lake ice generally persist from about Sept to June. Average summer temperature is about 10 C.

1.2 Major General Resources Ltd exploration program, Sept 2000

The work reported here was carried out between Aug 24 and and Sept 23 of 2000, and consisted of till sampling, a helicopter-borne magnetic survey, and some ground magnetic surveys. Although this work was carried out as if it was a single program, it was spread over 4 properties with different ownership/joint-venture structures. Reporting will therefore be done separately on each property, and expenditures have been allocated according to man-days, till sample numbers, line km, as appropriate.

The Yellowknife firm Discovery Mining Services Ltd was used as expediter, and Major General Resources Ltd rented their tents and camp equipment on a camp site Discovery rented from W. Lyall of Cambridge Bay. The location of this camp is 588993 E 7744456 N (NAD83 zone 12). An unimproved tundra airstrip suitable for Twin Otter operations is located on an esker at this camp, and was used to supply the camp, and to move fuel, personnel and till samples, using Adlair Aviation Ltd of Cambridge Bay . To access the claims and collect tills a Eurocopter helicopter was chartered from Nunasi Helicopters Inc of Yellowknife.

TABLE 1 YANKEE CLAIMS							
Claim name	Claim tag #	NTS Sheet	Size acres	Recording date	Owner's name	Operator's name	Expiry date
CA 1	F68431	77F,C	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 2	F68432	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 3	F68433	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 4	F68434	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 5	F68435	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 6	F68436	77F,C	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 7	F68437	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 8	F68438	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 9	F68439	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 10	F68440	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 11	F68441	77F	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 12	F68442	77F,C	2582.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 13	F68443	77F,C	1549.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 14	F68444	77F	1549.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 15	F68445	77F	1549.5	12-Oct-99	ASCOT	MGJ	12-Oct-01
CA 16	F68446	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 17	F68447	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 18	F68448	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 19	F68449	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 20	F68450	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 21	F68451	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 22	F68452	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 23	F68453	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 24	F68454	77F	1549.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 25	F68455	77F	1549.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 26	F68456	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 27	F68457	77F	2582.5	13-Oct-99	ASCOT	MGJ	13-Oct-01
CA 28	F68458	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 29	F68459	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 30	F68460	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 31	F68461	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 32	F68462	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 33	F68463	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 34	F68464	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 35	F68465	77F	2582.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 36	F68466	77F	1549.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 37	F68467	77F	1500	14-Oct-99	ASCOT	MGJ	14-Oct-01
CA 38	F68468	77F	2410.5	14-Oct-99	ASCOT	MGJ	14-Oct-01
		total=	**90682.50**				

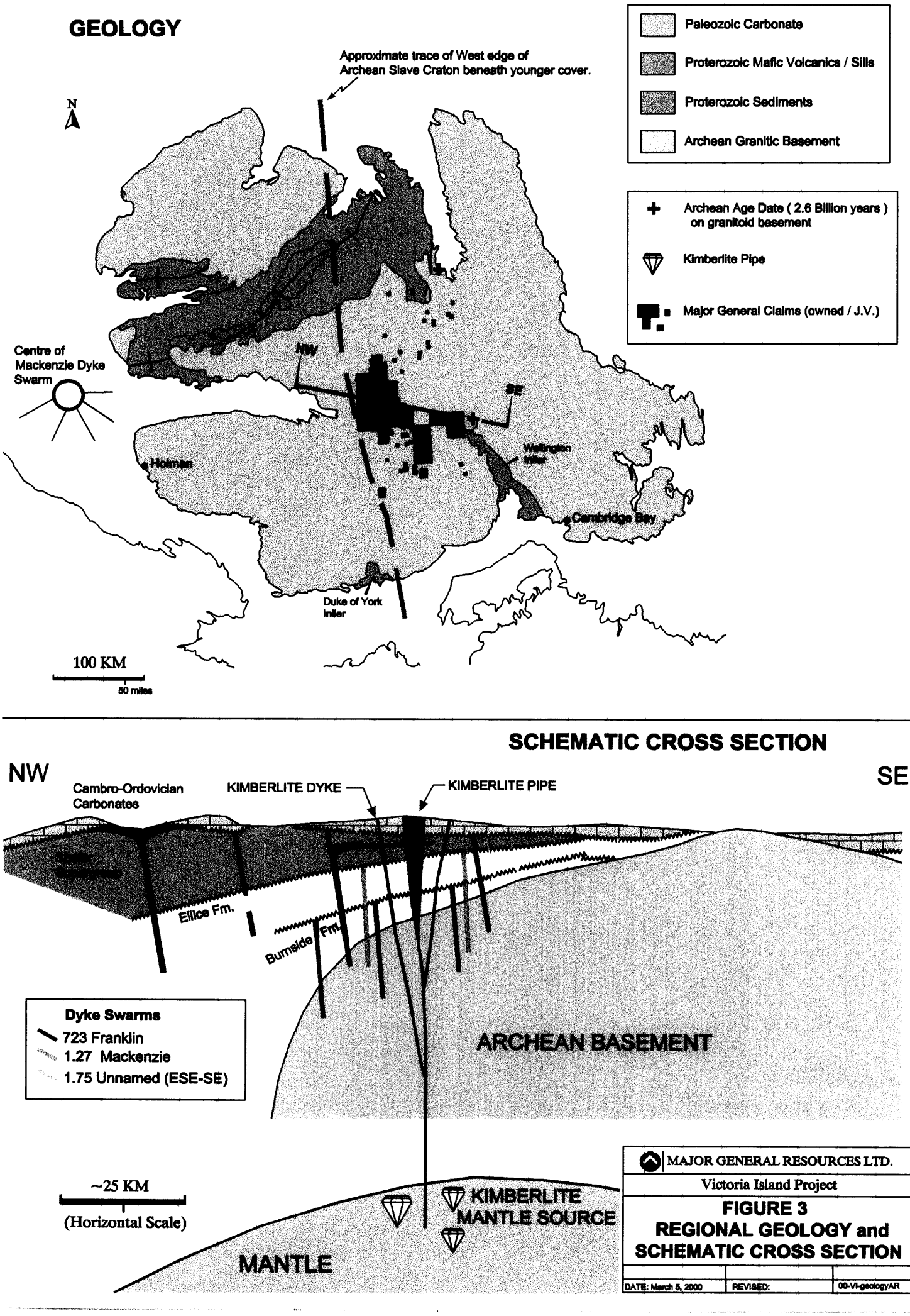

GEOLOGY
Approximate trace of West edge of Archean Slave Craton beneath younger cover.
N
Paleozoic Carbonate
Proterozoic Mafic Volcanics / Sills
Proterozoic Sediments
Archean Granitic Basement
Archean Age Date (2.6 Billion years) on granitoid basement
Kimberlite Pipe
Major General Claims (owned / J.V.)
Centre of Mackenzie Dyke Swarm
NW
SE
Holman
Wellington Inlier
Cambridge Bay
Duke of York Inlier
100 KM
50 miles
SCHEMATIC CROSS SECTION
NW
SE
Cambro-Ordovician Carbonates
KIMBERLITE DYKE
KIMBERLITE PIPE
Ellice Fm.
Burnside Fm.
Dyke Swarms
723 Franklin
1.27 Mackenzie
1.75 Unnamed (ESE-SE)
ARCHEAN BASEMENT
~25 KM
(Horizontal Scale)
KIMBERLITE MANTLE SOURCE
MANTLE
MAJOR GENERAL RESOURCES LTD.
Victoria Island Project
FIGURE 3
REGIONAL GEOLOGY and SCHEMATIC CROSS SECTION
DATE: March 5, 2000
REVISED:
00-VI-geology/AR

Table 2. Stratigraphy of Victoria and Banks Island

		Unit*	Description	Thickness
CENOZOIC				
Pleistocene			- thick glacial drift, mainly morainal	
Late Tertiary and Pleistocene		Beaufort Fm.	- gravel, sand, minor silt, peat	150m
Cretaceous and Tertiary		Eureka Sound Fm.	- sand, sandstone, siltstone, shale	600m
MESOZOIC				
Cretaceous		Christopher Fm.	- shale, minor sandstone	300-600
		Isachsen Fm.	- sandstone, conglomeratic sandstone	0-100
PHANEROZOIC				
Devonian		Melville Island Fm.	- sandstone, minor siltstone, shale, limestone	1250m
		Blue Fiord Fm.	- limestone, minor dolomite, shale	?
Silurian		Read Bay Fm.	- limestone, dolomite, shale	210m
Cambro-Ordovician		Cass Fiord Fm.	- thick laminated to thin wavy bedded sandy dolostone	1000
		Old Fort Island Fm.	- white to buff, fine to medium grained quartz arenite	
NEOPROTEROZOIC				
	Shaler Supergroup (1077-718 Ma)	*Natkusiak Fm. (718-723 Ma)*	*- mafic lavas comagmatic with thick gabbro sills*	1100m
		Kuujjua Fm.	- quartz arenite	120m
		Kilian Fm.	- gypsum, anhydrite, varicolored shale, dolomite, sandstone	550m
		Wynniatt Fm.	- dark limestone	550m
		Minto Inlet Fm.	- interbedded gypsum, anhydrite, carbonate and clastics	200m
		Reynolds Point Group:		
		Jago Bay Fm.	- interbedded yellow weathering, cross-bedded dolomitic quartz arenite, microbial laminate and dololutite	50m
		Fort Collinson Fm.	- lower quartzose sandstone rhythmite interbedded with dolomitic quartz arenite, upper part is quartz arenite	50m
		Boot Inlet Fm.	- cyclically alternating ooid grainstone, stromatolite and dolosiltite rhythmite	500m
		Grassy Bay Fm.	- basal mudstone overlain by quartz arenite	100m
		Rae Group:		
		Aok Fm.	- cream colored and orange brown weathering sideritic to ankeritic dolostone hosting stromatolite biostrome	50m
		Nelson Head Fm. (formerly Glenelg Fm.)	- laminated black carbonaceous pyritic mudstone, grading to laminated red siltstone and quartz arenite. Top part is glauconitic quartz arenite	460m
		Mikkelsen Islands Fm.	- laminated reddish to cream colored pale grey cherty aphanitic dolostone with stromatolites, intraformational conglomerate	240m
		Escape Rapids Fm.	- quartz arenite, mudstone, siltstone	910m
PALEOPROTEROZOIC				
		Mackenzie Suite (1.27 Ga)	- gabbro sills	
		Ellice Formation: (1.7 Ga)		
		members 2 and 3	- white and pink quartz arenite/subarkose	
		member 1	- quartz/quartzite pebble orthoconglomerate	
		ESE-SE diabase dykes (c. 1.75 Ga)		
		Burnside Formation: (1.9 Ga)		
		member 3	- red hematitic siltstone, Fe-rich breccia	
		member 2	- pink to red quartz arenite, quartz veins	
		member 1	- pink to purple/maroon pebbly quartz arenite and quartz-rich paraconglomerate, quartz veins	
			- immature grey sandstone, interbedded dolostone	
ARCHEAN		*Granitic basement* (2.6 Ga)	- muscovite-biotite syenogranite, biotite-hornblende monzogranite and granodiorite, pegmatite and aplite dykes	

* intrusive rock units italicized.

Major General Resources Ltd staff consisted of a supervising geologist, 3 geotechnicians , a geophysicist, helicopter pilot and a cook . The principal activity of this group was till sampling, and this work is the subject of Vol 1 of this report.

In addition, ground magnetic surveys were carried out on 2 small grids established over airborne magnetic anomalies identified from previous surveys (listed in appendix B.2). The results of magnetic surveying on these grids are reported as Vol 2 of this report by J.L. LeBel, who was responsible for both the ground magnetic surveying and monitoring of the airborne survey flown for Major General Resources Ltd.

From Sept 13 to 19 SIAL Geosciences of Montreal carried out a 1413 km helicopter-borne magnetic survey using a line spacing of 100m and helicopter ground clearance of 30m, with a crew of 4. The results of the relevant part (512 of the 1413km) of the SIAL survey are included with this report as Vol 3, by C. St-Hilaire of SIAL Geosciences.

2.0 PROPERTY DEFINITION

The claims listed in table 1 that comprise the property are identified as the "Major General –100% Yankee" property on fig 2, which also shows other claims in this area that Major General has interests in .

3.0 REGIONAL GEOLOGY

A generalized geological map of Victoria Island is shown with a schematic cross section as fig 3. A table of formations is included as table 2, derived from Thorsteinsson and Tozer(1962), Le Cheminant and others (1996) and Rainbird and others(1996). On Victoria Island Archean granitic basement is overlain by Proterozoic sediments and volcanics, and both are overlain by Paleozoic sediments. The Proterozoic sedimentary sequence has several important unconformities within it, and is capped by mafic volcanics of late Proterozoic age. Unconformably overlying the Proterozoic rocks are flat-lying Cambrian to Devonian carbonate rocks. Cutting parts of the sedimentary sequence are at least 3 dike sets of different ages, all apparently older than the Paleozoic cover rocks, which usually conceal them except from airborne magnetic surveys. Kimberlite dikes and pipes of probable Mesozoic age pierce the Paleozoic sediments. Quaternary cover, generally thin till, mantles the older rocks.

Within the properties explored in Sept 2000 only flat-lying carbonates were encountered, and as these are largely irrelevant to the exploration for younger kimberlites no geological observations of significance were made on the carbonate sequence.

Several aspects of the geology that should be emphasized, because they are important to kimberlite exploration, include the following:

1 The Eastern half of Victoria Island is apparently floored by Archean basement, as indicated by Archean dates on basement rocks (Le Cheminant and others,1996) and gravity mapping(Miles and others,2000). It appears this Archean basement is the Northern extension of the Slave Craton. As it is well-known that kimberlites tend to be restricted to Archean cratons, demonstration of the presence of Archean basement on that part of Victoria Island underlying the property was important in the early exploration, until kimberlites were discovered.

2 The flat-lying, generally non-magnetic carbonate cover tends to mute the magnetic expression of the basement rocks, and kimberlites can stand out in contrast. Magnetic surveying is therefore an effective method of exploration for kimberlites in the area. Both negative and positive kimberlite occurrences are known on Victoria Island.

3 The Paleozoic carbonates contribute little heavy mineral detritus to the tills, the heavy mineral concentrate yields are typically small, and grains of kimberlitic origin should have a good chance of being detected even from small bodies, as they are not swamped by non-kimberlitic sources.

3.2 Glaciation

In the area of the property the general sense of ice movement deduced from drumlinoid features is toward the West and North-west, but a number of studies(Fyles(1962), Sharpe (1992,1993) Millard(1994), Szabo and Sandberg(1995), Wood and Berenyi(1999)) indicate that the situation is more complex, perhaps due to several glacial advances and complex deglaciation patterns within the main Late Pleistocene Wisconsinan Glaciation event, or perhaps an even earlier glacial episode. According to Vincent(1989) the Laurentide Ice Sheet reached its maximum extent about 18,000 yr ago, and by about 9,000 years ago most of Victoria Island was free of ice. A marine incursion of the isostatically depressed land followed, and is marked by shells, found to about 150m ASL in this area, and by raised beaches. Some marine reworking of the till sheets may have occurred, but is not thought to have been so vigorous as to affect interpretation of kimberlitic indicator minerals in tills.

4.0 TILL SAMPLING

4.1 Methods

Locations of till samples were selected for various reasons. Most samples were taken on 2 regional fences to fill in previous work, but some were taken in the vicinity of airborne magnetic anomalies(eg see appendix B), or to confirm reports of indicator minerals found by previous groups. Locations of the 2 main till fences were chosen in Vancouver by B.H.Kahlert of Major General Resources, and others were selected in the field by W. Kahlert and P.C. LeCouteur. W. Kahlert was in charge of till collection and recording of relevant field data . Sample locations were taken by GPS, and are believed to be accurate to within about 5 m.

Till samples of approximately 25kg weight were collected by helicopter, and were sieved to –1.18mm in camp, being partially deslimed in the process. Seven sieved tills were sent to Lakefield Research of Lakefield, Ontario , and 118 to CF Mineral Research Ltd of Kelowna BC, for picking and probing. About half the samples sent to CF Mineral Research were picked by I and M Morrison Geological Services of Delta, BC.

Methods used by Lakefield and CFMineral Research are given in detail in appendices C.1 and C.2 respectively, but can be briefly summarized as follows.

Lakefield : wet and dry screening to obtain –20+35 and –35+60 mesh, heavy liquid concentration of the –3.1 g/cc fraction, followed by binocular microscope examination, and probing of all potential kimberlite indicator grains.

CFMinerals : wet and dry screening to obtain +20, -20+35, and –35+80 mesh fractions, heavy liquid separation using tetrabromoethane and methyl iodide to concentrate the -3.2 g/cc fraction, followed by multipass electromagnet separation to produce 4 fractions. Grains were examined by binocular microscope, selected grains were mounted in epoxy and scanned with an SEM to reject grains not of possible kimberlitic compositions, and the remaining potential kimberlite indicator minerals were probed.

4.2 Work done

A total of 125 till samples was taken. The location of these samples and other relevant data are included in appendix A. The location of the samples is shown in relation to claims and topography on map A .

4.3 Results

The results of microscopic examination of the heavy mineral concentrates from tills are included in appendix C, and microprobe analyses of selected grains are included in appendix D. An interpretation of the indicator mineral chemistry by G.H. Read is included as appendix D.3.

The tills typically contain a small volume of heavy minerals, and low numbers of kimberlite indicator minerals. Read concludes that, while indicator minerals of kimberlitic origin are present, none are of high interest-- that is, from potentially diamondiferous sources, although he cautions that the number of grains is limited. Samples of particular interest include garnets from tills 45, 66, 68, 75 and 99. Other samples of lesser interest include chromites in 74 and 86, ilmenite in 39, olivines in 86 and 87, and clinopyroxene in 39.

5.0 CONCLUSIONS

The tills contain low numbers of kimberlite indicator minerals, apparently none of them of high interest.

However, considering the distribution of the kimberlitic indicator grains the most interesting area appears to be on adjoining claims CA30 and CA33 in the northern part of the property. In this area samples 66, 68, 86 and 87 contain kimberlitic indicator mineral grains down-ice from several round magnetic anomalies (I3 and I10) that may be kimberlitic intrusions(L.Lebel, pers comm.) on

the west side of a linear magnetic anomaly that is likely a diabase dike (see maps Vol 3).

Two other areas of interest identified from the till geochemistry are indicated by the groups of samples 74 and 75, and samples 43, 113 and 110. Magnetic anomalies A1 and A8 lie up-ice from these areas.

6.0 RECOMMENDATIONS

Further sampling in the area of anomalies I3/I10 , A8 and A1 is warranted.

7.0 REFERENCES

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8.0 EXPENDITURES

Cost centre	Description	Total cost $	Till sampling	Airborne geophysics	Ground geophysics	Sub totals
Geology	Contractors & consultants	$ 21,350.19	$ 20,450.19		$ 900.00	$ 21,350.19
	Demobilization	$ 1,665.90	$ 1,665.90			$ 1,665.90
	Air transport, fuel	$ 40,864.97	$ 40,864.97			$ 40,864.97
	Supplies	$ 1,876.39	$ 1,876.39			$ 1,876.39
	Freight , courier	$ 6,616.16	$ 6,616.16			$ 6,616.16
	Assay , analyses	$ -	$ -			$ -
	Equipment rental	$ 308.64	$ 308.64			$ 308.64
	Drafting	$ 6,753.80	$ 6,753.80			$ 6,753.80
	Expediting*	$ 235.84	$ 181.47	$ 40.10	$ 14.28	$ 235.84
	Food*	$ 1,380.12	$ 1,061.92	$ 234.65	$ 83.55	$ 1,380.12
	Accomodation	$ 679.74	$ 679.74			$ 679.74
	Travel	$ 3,430.49	$ 3,430.49			$ 3,430.49
	Vehicles	$ 115.44	$ 115.44			$ 115.44
	Camp operations*	$ 15,970.62	$ 12,288.48	$ 2,715.36	$ 966.78	$ 15,970.62
	Communications*	$ 1,723.71	$ 1,326.30	$ 293.07	$ 104.34	$ 1,723.71
	Reproduction	$ 112.26	$ 112.26			$ 112.26
Geophysics	Contractors & consultants	$ 3,758.00		$ 2,203.35	$ 1,554.65	$ 3,758.00
	Air transport, fuel	$ 7,369.27		$ 7,369.27		$ 7,369.27
	Freight , courier	$ 49.51			$ 49.51	$ 49.51
	Airborne surveying	$ 34,858.67		$ 34,858.67		$ 34,858.67
	Equipment rental	$ 200.00			$ 200.00	$ 200.00
	Reproduction	$ 2,127.00			$ 2,127.00	$ 2,127.00
Geochemistry	Contractors & consultants	$ 3,735.00	$ 3,735.00			$ 3,735.00
	Supplies	$ 498.39	$ 498.39			$ 498.39
	Lab charges	$ 29,080.35	$ 29,080.35			$ 29,080.35
$ 184,760.46	**Totals=**	**$ 184,760.46**	**$ 131,045.89**	**$ 47,714.47**	**$ 6,000.11**	**$ 184,760.46**
		Cost-lab charges	**$ 101,965.54**			
72.52	Camp man days	72.52	55.8	12.33	4.39	
3.36	Geophysicist days	3.36		1.97	1.39	
125	No of tills taken	125	125			
512	Airborne line km	512		512		
6	Ground geophysics km	6			6	
	Cost per till sampling only		$ 815.72			
	Cost per airborne line km			$ 93.19		
	Cost per ground line km				$ 1,000.02	
	Cost process tills(total)		$ 29,080.35			

9.0 PERSONNEL

The following staff were involved in the exploration program over the whole or part of the period from Aug 24 to Sept 23,2000.

P.C.LeCouteur	Supervising geologist 4900 Skyline Dr ,N.Vancouver , BC
J.L.LeBel	Geophysicist 2684 Violet St, N. Vancouver , BC
W.Kahlert	Chief geotechnician 1195 Sutton Place, W. Vancouver, BC
A.Querner	Geotechnician 1087-17th St , W. Vancouver, BC
A.C.LeCouteur	Geotechnician 4900 Skyline Dr, N. Vancouver, BC
V. Snowden	Cook 6580 Central Rd, Hornby Island, BC
S. Feuz	Helicopter pilot c/o Nunasi Helicopters, #9 Yellowknife airport, NT

10.0 STATEMENT OF AUTHOR'S QUALIFICATIONS

I, Peter C. LeCouteur of the District of North Vancouver, in the Province of British Columbia, do certify that:

1 I am a contract geologist employed by Major General Resources Ltd of 1550- 409 Granville St, Vancouver, BC, Canada, V6C 1T2

2 I have been involved in mineral exploration as a geologist since 1973.

3 I graduated from the University of Auckland (New Zealand) with degrees of B.Sc (1964) and M.Sc. (1967), and from the University of British Columbia with a Ph.D (1972)

4 I have been a Fellow(#F1378) of the Geological Association of Canada since 1969, and a Professional Engineer of the Province of British Columbia since 1977 (#10,963)

5 The information in this report is based on personal field supervision of the exploration program, and on reports acknowledged in the references.

6 I do not own shares in Major General Resources Ltd or Hawkeye Gold International Inc, nor do I have expectation of financial return from these companies other than normal contracting fees.

P. LeCouteur

APPENDIX A.1 LOCATION OF TILL SAMPLES TAKEN IN AUG-SEPT 2000

Sample no	Easting NAD83	Northing NAD83	Zone No	Sample Type	Date taken	Project	Claim name	Map no	Anomaly no	Ice from deg T	Frost boil	Sample quality	-1.18mm kg wet	Process lab	Comments
1	538279	7763755	12	Till	27/Aug	Y	CA1	A		110	Y		12	CFM	Limestone rubble, assorted grey brown, mix of sizes
2	538303	7764286	12	Till	27/Aug	Y	CA1	A		110	Y	Good	13	CFM	High silt/mud, mostly grey limestone. Tan coloured assorted fragments
3	538399	7764816	12	Till	27/Aug	Y	CA1	A		110	Y	Good	11	CFM	Rocky area, angular rocks, grey brown
4	537943	7765358	12	Till	27/Aug	Y	CA1*	A		110	Y	Good	16	CFM	Same as above
5	537893	7765862	12	Till	27/Aug	Y	CA1*	A		110	Y	Good	13	CFM	same as above
6	538213	7766451	12	Till	27/Aug	Y	CA1	A		110		OK	11	CFM	sloping N, very high gravel & sand. Esker?, stream sorted?
7	538767	7767001	12	Till	27/Aug	Y	CA2	A		110		Good	8	CFM	assorted fragments, grey brown, sloping S
8	539052	7767331	12	Till	27/Aug	Y	CA2	A		110			9	CFM	
9	539095	7767899	12	Till	27/Aug	Y	CA2	A		110	Y	Good	5	CFM	same as above, very dry
10	540091	7764940	12	Till	27/Aug	Y	CA1	A		110	Y	Good	9	CFM	Moist grey brown
11	540724	7765389	12	Till	27/Aug	Y	CA6	A		110	Y		9	CFM	from hillside sloping N
12	540460	7765911	12	Till	27/Aug	Y	CA6	A		110	Y	Good	7	CFM	on small terrace at end of lake
13	540653	7766251	12	Till	28/Aug	Y	CA6	A		110	Y		8	CFM	Very rocky area, brown, much local content
14	541044	7766486	12	Till	28/Aug	Y	CA6	A		110	Y		4	CFM	Difficult digging, rocky, high silt
15	541018	7767040	12	Till	28/Aug	Y	CA5	A		110	Y	Good	12	CFM	Moist
16	540822	7767760	12	Till	28/Aug	Y	CA5	A		110			8	CFM	
17	540854	7768229	12	Till	28/Aug	Y	CA5	A		110		Good	8	CFM	Very silty
18	540707	7768791	12	Till	28/Aug	Y	CA5	A		110		OK	7	CFM	Very high silt
19	540802	7769202	12	Till	28/Aug	Y	CA5	A		110		OK	8	CFM	high silt
20	540806	7769740	12	Till	28/Aug	Y	CA5	A		110			6	CFM	poor frost boils, difficult, on terrace just E of lake
21	540753	7770208	12	Till	28/Aug	Y	CA5	A		110	Y		5	CFM	
22	540755	7770707	12	Till	28/Aug	Y	CA5	A		110	Y		5	CFM	
23	540838	7771105	12	Till	28/Aug	Y	CA5	A		110	Y		6	CFM	
24	540787	7771630	12	Till	28/Aug	Y	CA4	A		110			6	CFM	taken on terrace area
25	540397	7772209	12	Till	28/Aug	Y	CA4	A		110	Y	Good	10	CFM	at N end of lake, sloping into lake
26	540449	7772787	12	Till	28/Aug	Y	CA4	A		110	Y	Good	7	CFM	S side of lake
27	540780	7773200	12	Till	28/Aug	Y	CA4	A		110	Y	Good	10	CFM	Silty, taken from point on S side of lake
28	540631	7773830	12	Till	28/Aug	Y	CA4	A		110	Y		7	CFM	N tip of lake on terrace
29	540662	7774251	12	Till	28/Aug	Y	CA4	A		110	Y	Good	10	CFM	North side of lake, moist
30	540814	7774684	12	Till	28/Aug	Y	CA4	A		110	Y	Good	11	CFM	moist, N tip of lake
31	540663	7775152	12	Till	28/Aug	Y	CA4	A		110	Y	Good	10	CFM	lots of silt, field of frost boils
32	540524	7775737	12	Till	28/Aug	Y	CA4	A		110	Y	Good	11	CFM	many frost boils, S of small lake
33	540634	7776227	12	Till	28/Aug	Y	CA19			110	Y	Good	10	CFM	vast field of frost boils , many fines
34	540752	7776694	12	Till	28/Aug	Y	CA19			110	Y	Good	9	CFM	between two lakes, silty, mix of frags
35	540451	7777257	12	Till	28/Aug	Y	CA19			110	Y	Good	9	CFM	flat, just NE of small lake
36	540480	7777761	12	Till	28/Aug	Y	CA19			110	Y	Good	7	CFM	
37	540613	7778273	12	Till	28/Aug	Y	CA19			110	Y	Good	9	CFM	flat, limestone
38	540663	7778770	12	Till	28/Aug	Y	CA19			110	Y	Good	9	CFM	N side of lake
39	540901	7779310	12	Till	28/Aug	Y	CA19			110	Y	Good	10	CFM	on E side of lake
40	540734	7779805	12	Till	28/Aug	Y	CA19			110		Good	9	CFM	lots of local flat limestone
41	540456	7780267	12	Till	28/Aug	Y	CA19	A		90	Y	Good	10	CFM	rocky area, flat
42	540553	7780858	12	Till	28/Aug	Y	CA18	A		90	Y		9	CFM	
43	540962	7781229	12	Till	28/Aug	Y	CA18	A		90	Y		8	CFM	moist, gentle slope to N, high silt, mixed boulders

Sample	Easting	Northing	Zone	Sample	Date	Project	Claim	Map	Anomaly	Ice from	Frost	Sample	-1.18mm	Process	Comments
no	NAD83	NAD83	No	Type	taken		name	no	no	deg T	boil	quality	kg wet	lab	
44	541116	7781707	12	Till	28/Aug	Y	CA18	A		90	Y	Good	9	CFM	gentle slope to S, drainage, assorted rocks
45	541007	7782185	12	Till	28/Aug	Y	CA18	A		90	Y		11	CFM	
46	540719	7782825	12	Till ?	29/Aug	Y	CA18			90		Good	11	CFM	on N edge of lake, possible esker?, roundish rocks
47	540698	7783278	12	Till ?	29/Aug	Y	CA18			90		Good	10	CFM	Possible esker, roundish rocks
48	540880	7783844	12	Till	29/Aug	Y	CA18			90		Good	10	CFM	many angular rocks
49	540762	7784360	12	Till	29/Aug	Y	CA18			90	Y	OK	5	CFM	rock outcrop in area, much silt/fines
50	540714	7784831	12	Till	29/Aug	Y	CA18			90	Y	Good	6	CFM	many frost boils in area
51	540784	7785310	12	Till	29/Aug	Y	CA31			90	Y	Good	9	CFM	round boulders, many frost boils
52	540667	7785816	12	Till	29/Aug	Y	CA31			90	Y	Good	9	CFM	many frost boils, few boulders
53	540616	7786334	12	Till	29/Aug	Y	CA31			90	Y	Good	11	CFM	many frost boils
54	540912	7786949	12	Till	29/Aug	Y	CA31			90	Y	Good	7	CFM	
55	540857	7787454	12	Till	29/Aug	Y	CA31			90	Y		9	CFM	
56	540958	7788018	12	Till	29/Aug	Y	CA31			90			9	CFM	
57	540792	7788682	12	Till	29/Aug	Y	CA31	A		90	Y	Good	7	CFM	flat area S of small lake
58	540586	7789302	12	Till	29/Aug	Y	CA31	A		90		Good	8	CFM	on NW side of lake, very flat, moist
59	540678	7789847	12	Till	29/Aug	Y	CA30	A		90		Good	11	CFM	moist, great material
60	540445	7790362	12	Till	29/Aug	Y	CA30	A		90		Good	13	CFM	taken 50m S of tip of lake
61	540456	7790566	12	Till	30/Aug	Y	CA30	A	A7	90	Y	Good	13	CFM	till beside lake
62	540301	7790697	12	Till	30/Aug	Y	CA30	A	A7	90	Y	Good	10	CFM	swampy area, 200m W of lake
63	540441	7790917	12	Till	30/Aug	Y	CA30	A	A7	90	Y	Good	15	CFM	just off of NW corner of lake
64	540510	7791179	12	Till	30/Aug	Y	CA30			90	Y	Good	14	CFM	250m N of T62
65	540570	7791721	12	Till	30/Aug	Y	CA30	A		90	Y	Good	13	CFM	some intrusive boulders, till field
66	540038	7792312	12	Till	30/Aug	Y	CA30		A28	90	Y	Good	10	CFM	till field W of anomaly
67	539909	7793029	12	Till	30/Aug	Y	CA30			90	Y	Good	12	CFM	low area, swampy with terraces of outcrops
68	539957	7793776	12	Till	30/Aug	Y	CA30		A6	90		Good	14	CFM	large till plain, much local material
69	540019	7794332	12	Till	30/Aug	Y	CA30*		A6	90		Good	14	CFM	good till plain, mix of rocks
70	543297	7793788	12	Till	30/Aug	Y	CA33			90	Y	Good	13	CFM	N end of till line
71	543281	7793285	12	Till	30/Aug	Y	CA33			90	Y	Good	7	CFM	off NW corner of large lake
72	542704	7784904	12	Till	30/Aug	Y	CA21			90			5	CFM	very high silt
73	542796	7785356	12	Till	30/Aug	Y	CA32			90	Y	OK	8	CFM	lots of very fine silt
74	542839	7785798	12	Till	30/Aug	Y	CA32			90		OK	9	CFM	lots of fines, also lots of rounded intrusive stones
75	543137	7786407	12	Till	30/Aug	Y	CA32			90		OK	8	CFM	lots of very fines, not much coarse
76	543197	7786872	12	Till	30/Aug	Y	CA32			90		OK	11	CFM	very high fines, same as above
77	543003	7787397	12	Till	30/Aug	Y	CA32			90		OK	9	CFM	very fine, W end of lake
78	543041	7787852	12	Till	30/Aug	Y	CA32			90		OK	10	CFM	E side of lake, very very fine and a few mixed pebbles
79	543100	7788399	12	Till	30/Aug	Y	CA32			90		OK	7	CFM	mix of rock fragments, still silty
80	543249	7786277	12	Till	30/Aug	Y	CA32			90	Y	OK	10	CFM	same as above
81	543465	7789379	12	Till	30/Aug	Y	CA32	A		90	Y	OK	9	CFM	till field, very high silt
82	543517	7789920	12	Till	30/Aug	Y	CA33	A		90	Y	Good	7	CFM	top of small hill, many fb's
83	543298	7790516	12	Till	30/Aug	Y	CA33	A		90	Y	Good	10	CFM	
84	543138	7790935	12	Till	30/Aug	Y	CA33	A		90	Y	Good	17	CFM	mix of rock types, SW of lake
85	543245	7791465	12	Till	30/Aug	Y	CA33	A		90	Y	Good	10	CFM	top of hill, lots of local material, angular limestone
86	543186	7791840	12	Till	30/Aug	Y	CA33	A		90	Y	Good	16	CFM	low area W of lake, good coarse material
87	543353	7792336	12	Till	30/Aug	Y	CA33			90	Y	Good	14	CFM	
88	543249	7792746	12	Till	30/Aug	Y	CA33			90	Y	Good	11	CFM	20m W of lake, good mix of fragments

Sample no	Easting NAD83	Northing NAD83	Zone No	Sample Type	Date taken	Project	Claim name	Map no	Anomaly no	Ice from deg T	Frost boil	Sample quality	-1.18mm kg wet	Process lab	Comments
89	543961	7769758	12	Till	31/Aug	Y	CA8			110	Y	OK	11	CFM	mix of fragments, on bench from S end of lake
90	543620	7770230	12	Till	31/Aug	Y	CA8			110		OK	10	CFM	bit rocky, till on top of outcrop, dark brown
91	543787	7770739	12	Till	31/Aug	Y	CA8			110	Y	Good	15	CFM	mix of fragments
92	543514	7771316	12	Till	31/Aug	Y	CA9			110	Y	Good	15	CFM	grey-brown, some angular rocks
93	543518	7771745	12	Till	31/Aug	Y	CA9			110	Y	Good	14	CFM	grey-brown, mix of fragment types
94	543297	7772299	12	Till	31/Aug	Y	CA9	A		110		Good	16	CFM	100m E of lake, sloping up to E
95	543185	7772843	12	Till	31/Aug	Y	CA9			110	Y	Good	15	CFM	rocky area, lots of silt
96	543335	7773305	12	Till	31/Aug	Y	CA9			110	Y	Good	11	CFM	SW of large lake, moist
97	543316	7773710	12	Till	31/Aug	Y	CA9	A		110	Y	Good	14	CFM	rounded calcareous boulders, grey-brown
98	543460	7774181	12	Till	31/Aug	Y	CA9	A		110	Y	Good	17	CFM	flat area, a few boulders, part angular and grey-brown
99	543342	7774650	12	Till	31/Aug	Y	CA9	A		110	Y	Good	15	CFM	just S of lake, rounded boulders, mixed fragments
100	543310	7775248	12	Till	31/Aug	Y	CA9	A		110	Y	Good	15	CFM	probably on drumlin feature, grey, many rounded rocks
101	543212	7775769	12	Till	31/Aug	Y	CA9	A		110	Y	Good	16	CFM	grey-brown, calcareous rocks, between 2 lakes
102	543271	7776245	12	Till	31/Aug	Y	CA20	A		110	Y	Good	14	CFM	good mix of rubble, grey-brown
103	543302	7776832	12	Till	31/Aug	Y	CA20	A		110	Y	Good	20	CFM	N side of pond, angular, calcareous rocks
104	543295	7777384	12	Till	31/Aug	Y	CA20	A		110	Y	Good	11	CFM	very moist, grey-yellow, mixed fragments
105	543295	7777946	12	Till	31/Aug	Y	CA20	A		110	Y	Good	7	CFM	mix of fragments, rounded boulders, and angular calcite
106	543275	7778382	12	Till	31/Aug	Y	CA20	A		110	Y	Good	10	CFM	mix of fragments, sloping up to N, red sandstone
107	543313	7778784	12	Till	31/Aug	Y	CA20	A		110	Y	Good	9	CFM	some red sandstone, mix of clay and rocks, good
108	543468	7779384	12	Till	31/Aug	Y	CA20	A		110		Good	6	CFM	till field, mostly calcareous rocks
109	543456	7779894	12	Till	31/Aug	Y	CA20	A		110		Good	9	CFM	mostly angular calcareous rocks, grey-brown
110	543437	7780359	12	Till	31/Aug	Y	CA20	A		110	Y	Good	9	CFM	good frost boils, large blocks of limestone
112	543349	7780889	12	Till	31/Aug	Y	CA21	A	A8	110	Y	Good	9	CFM	complete till cover, mix of fragments
113	543331	7781322	12	Till	31/Aug	Y	CA21	A		110		Good	11	CFM	very moist, till coverage all over, lots of red sandstone
114	543421	7781792	12	Till	31/Aug	Y	CA21	A		110		Good	12	CFM	total till coverage, calcareous and a few sandstone
115	543479	7782356	12	Till	31/Aug	Y	CA21	A		110		Good	9	CFM	total till coverage
116	543508	7782823	12	Till	31/Aug	Y	CA21	A		110		Good	10	CFM	total till coverage, mostly angular limestone boulders
117	543347	7783410	12	Till	31/Aug	Y	CA21			110		Good	9	CFM	Low area, good till
118	543257	7783917	12	Till	31/Aug	Y	CA21	A		110		Good	8	CFM	complete till coverage, good mixture
119	543145	7784391	12	Till	31/Aug	Y	CA21	A		110	Y	Good	4	CFM	complete till coverage, just of SE side of lake
317	539142	7793816	12	Till	16-Sep	Y	CA29	A	140621	95	Y	Good	6	LKFLD	repeat sample, mix of frags
318	538974	7791701	12	Till	16-Sep	Y	CA29	A	140619	95	Y	Good	11	LKFLD	repeat sample, mix of frags
319	543338	7792499	12	Till	16-Sep	Y	CA33	A	I10	95	Y	Good	10	LKFLD	testing anomaly 50m W of lake
320	543052	7792914	12	Till	16-Sep	Y	CA33	A	I3 (A5)	95	Y	Good	9	LKFLD	mix of frags
321	543146	7793283	12	Till	16-Sep	Y	CA33	A	I3 (A5)	95	Y	Good	8	LKFLD	swampy to the S
322	544803	7794144	12	Till	16-Sep	Y	CA34*	A	I2	95	Y	Good	8	LKFLD	mix of frags, possible alluvium nearby
330	547945	7773322	12	Till	19-Sep	Y	CA15	A	140355	95	Y	Good		LKFLD	
	Notes:	Anomalies: see list of magnetic anomalies													
		Processing: LKFLD= Lakefield Research Ltd, CFM= CF Minerals Ltd													

APPENDIX B

B.1 SIAL helicopter magnetic survey anomalies (J.L.Lebel)

B.2 Magnetic anomalies from surveys prior to 2000 (J.L.Lebel)

APPENDIX B.1 SIAL HELICOPTER MAGNETIC SURVEY ANOMALIES (J.L. LEBEL)					
Anomaly no	Easting NAD83	Northing NAD83	Project name	UTM Zone	Comments
I10	543568	7792561	Y	12	
I16	540919	7790898	Y	12	Same as A1
I2	545287	7794114	Y	12	Low
I3	543558	7792960	Y	12	3 lines low

APPENDIX B.2 MAGNETIC ANOMALIES, INTERPRETED BY J.L.LEBEL FROM 1993-1998 AIRBORNE SURVEYS

Anomaly no	Easting NAD83	Northing NAD83	UTM zone	Project name	Claim name	Data *Source	Priority rating	Location	Grids made	Comments
A1	546527	7785298	12	Y	CA35	A		Land	Y	
A2	547839	7789627	12	Y	CA36	A		Shore		
A28	546030	7792100	12	Y	CA30	A		Land		
A3	547726	7788583	12	Y	CA36	A		Shore		
A4	547044	7788408	12	Y	CA36	A		Shore		
A5	543397	7792825	12	Y	CA33	A	H	Water		
A6	540728	7793520	12	Y	CA30	A		Land		
A7	541100	7790708	12	Y	CA30	A	H	Water		
A8	544868	7780109	12	Y	CA23	A		Land	Y	

Data sources	A=	Fixed-wing survey by Aeroquest in 1993
	B=	Helicopter mag survey by High Sense in 1995 for Monopros Ltd
	C=	Helicopter mag survey by High Sense in 1998 for Monopros Ltd
	D=	Helicopter mag survey by Geoterrex-Dighem in 1997 For Monopros

APPENDIX C

MICROSCOPIC EXAMINATIONS OF TILL HEAVY MINERALS

C.1 Heavy minerals examined at Lakefield Research Ltd

C.2 Heavy minerals examined at CF Mineral Research Ltd

C.3 Heavy minerals examined at I & M Morrison Geol Services Ltd

LakefieldResearch

Mineralogical Services

Results of Diamond Indicator Mineral Processing

Submitted by
Major General Resources Inc.

Project Managed by: Bruce Craig Jago, Ph.D.

Submission Date: February 26, 2001

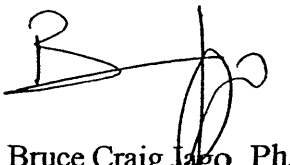
Project No.: 8901-276/LIMS#OCT1000-1007.R00

Summary of Diamond Indicator Mineral Processing Results

Diamond indicator mineral extraction and selection was performed on 158 samples of prescreened (~1.0 mm) glacial till to produce sized, heavy mineral concentrate (3.1 g/cc) fractions (-20 +35, -35 +60 mesh) for diamond indicator mineral selection. Concentrates were produced through a combination of wet screening and heavy liquid separation (3.1 g/cc). Binocular microscope observation of mineral concentrates was used for the selection of the standard diamond indicator mineral suite. The reporting of electron microprobe analyses will follow under a separate cover.

Diamond indicator selection results are given in Appendix A and a generalised sample processing flow sheet in Appendix B.

LAKEFIELD RESEARCH LIMITED



Bruce Craig Jago, Ph.D.
Manager-Mineralogical Services

February 26, 2001
Technical Support: Jeff Voyer, Carrie O'Mara-Latimer, Maria Mezei, Tracey Gill.

Diamond Indicator Mineral Extraction and Recovery

As-Received Sample	Secure Chain of Custody
Wet Screen	Equipment: Vibrating Kason Screens Purpose: Size material between 20 and 65 mesh for optimum diamond indicator mineral concentration and selection. (80 or 100 mesh lower screen size can be used if indicators are fine-grained).
Density Pre-concentrate	Equipment: Wilfley table, Separation Column, Mineral Jigs Purpose: Pre-concentrate diamond indicator minerals by removing lower specific gravity minerals (example: quartz, feldspar, etc.).
Final Density Concentrate	Equipment: Methylene Iodide (also Lithium-silica-tungstate, Sodium-polytungstate and Magstream). Purpose: Final density concentration of diamond indicator minerals in a heavy mineral concentrate with a specific gravity greater than 3.3g/cc
Paramagnetic Separation	Equipment: Inprosys Permanent Roll Magnetic Separator, Frantz, Carpco Purpose: Separate heavy minerals according to their magnetic susceptibility, concentrating the diamond indicator minerals into the non-magnetic fraction.
Binocular Microscope Selection of Diamond Indicator Minerals	Equipment: Binocular Microscope. Purpose: Select diamond indicator minerals from the concentrate. Minerals, selected, will include pyrope and eclogite garnet, chrome-diopside, omphacitic clinopyroxene, ilmenite, chromite, olivine and orthopyroxene (Others minerals will be selected at client's request).

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E-mail: bjago@lakefield.com

Lakefield Research

DIAMOND INDICATOR MINERALS

February 20, 2001
Yanke

Project: 8901-276 **Client: Major General Resources Ltd.** **LIMS No. OCT1006.R00**

Size Fraction			PYR		ECL		CPX		ILM		CHR		OPX		OLI		OMP		KYN		GROSS		Other		INITIALS		
- 20 + 35 Mesh																											
No.	Sample ID	Sink Weight (g)	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Picker	Time to Pick (min)	QC Picker
9	T317	1.5	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-
10	T318	2.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM
11	T319	2.2	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-
12	T320	3.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM
13	T321	1.6	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-
14	T322	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM

Notes:

The selected grains must be chemically analysed to classify the minerals as diamond indicators.

Bruce Craig Jago, PH.D Manager -Mineralogical Services

Accredited by the Standards Council of Canada to the ISO/IEC Guide 25 standard for specific registered tests.

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Lakefield Research

DIAMOND INDICATOR MINERALS

February 20, 2001

Project: 8901-276 **Client: Major General Resources Ltd.** **LIMS No. OCT1006.R00**

Size Fraction			PYR		ECL		CPX		ILM		CHR		OPX		OLI		OMP		KYN		GROSS		Other		INITIALS		
-35 +60 Mesh																											
No.	Sample ID	Sink Weight (g)	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Picker	Time to Pick (min)	QC Picker
9	T317	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM
10	T318	5.0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-
11	T319	3.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM
12	T320	5.0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-
13	T321	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM
14	T322	4.1	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-

Notes:

The selected grains must be chemically analysed to classify the minerals as diamond indicators.

Bruce Craig Jago, PH.D Manager -Mineralogical Services

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LakefieldResearch

DIAMOND INDICATOR MINERALS

February 8, 2001

Project: 8901-276 **Client: Major General Resources Ltd.** **LIMS No. OCT1007.R00**

Size Fraction			PYR		ECL		CPX		ILM		CHR		OPX		OLI		OMP		KYN		GROSS		Other		INITIALS		
- 20 + 35 Mesh																											
No.	Sample ID	Sink Weight (g)	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Picker	Time to Pick (min)	QC Picker
2	T330	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TG	-	MM

Notes:

The selected grains must be chemically analysed to classify the minerals as diamond indicators.

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Lakefield Research

DIAMOND INDICATOR MINERALS

February 8, 2001

Project: 8901-276 **Client: Major General Resources Ltd.** **LIMS No. OCT1007.R00**

Size Fraction			PYR		ECL		CPX		ILM		CHR		OPX		OLI		OMP		KYN		GROSS		Other		INITIALS		
-35 +60 Mesh																											
No.	Sample ID	Sink Weight (g)	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Pick 1	QC Pick	Picker	Time to Pick (min)	QC Picker
2	T330	3.3	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	TG	-	-

Notes:

The selected grains must be chemically analysed to classify the minerals as diamond indicators.

Bruce Craig Jago, PH.D Manager -Mineralogical Services

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C.F.MINERAL RESEARCH LTD.

HEAVY MINERAL GEOCHEMICAL CONCENTRATION AND ANALYTICAL SERVICES FOR DIAMOND EXPLORATION

The processes to evaluate the quality of potential diamond mineral indicators in given samples are briefly described by the following:

- HEAVY MINERAL CONCENTRATION
- OPTICAL PICKING DIAMOND INDICATOR MINERALS
- MINERAL MOUNTING
- MINERAL SCANNING
- MINERAL X-RAY MICROANALYSIS AND CLASSIFICATION
- MINERAL GRAIN MORPHOLOGICAL EXAMINATION

Although the above by no means includes all the services available for diamond exploration, it does describe a cost effective yet comprehensive process of confidently extracting, identifying and classifying the required minerals from any given sample.

HEAVY MINERAL CONCENTRATION

(i) WET SIEVING - Sizing and semigravimetry concentration by passing samples using water through specified meshes in a proprietary jig under computer controlled mechanical cycling. This enables the samples to be efficiently and reproducibly cleaned, disaggregated, concentrated and sized.

(ii) DRY SIEVING - The specified sized and concentrated fractions are selected for drying thoroughly followed by sieving into sized fractions. This allows efficient and cost effective maintenance of the disaggregation of the mineral grains to allow optimal separation in the heavy liquid process.

(iii) HEAVY LIQUID SEPARATION - The dry sieved fractions are injected in a proprietary fashion first through full strength tetrabromoethane and then through a specified density of methylene iodide (low viscosity) heavy liquid using 0.5 - 1.0 micron triple filtration. This allows extraordinarily efficient and high capture of those mineral grains required. Diamond indicator minerals < 0.5 mm in size contain the large majority of information for sample assessment and must be completely captured for reliable and full sample evaluation.

(iv) ELECTROMAGNETIC SEPARATION - The heavy mineral fractions from the heavy liquid separations are further concentrated by multiple pass electromagnetic separations to yield several diamond indicator mineral concentrates of various specified grain sizes. This process is required so that the subsequent mineral picking operation is very complete and cost effective.

OPTICAL PICKING DIAMOND INDICATOR MINERALS

The appropriate fractions from the previous concentration processes are binocular microscope picked for a given time by experienced personnel for specified diamond indicators. Typical mineral indicators associated with kimberlite, lamproite and diamond are purple pyrope, chrome diopside (cpx), orange eclogitic garnet, chromite, picroilmenite, olivine, orthopyroxene, tourmaline and zircon. The effectively complete capture of all the indicator grains using heavy liquid separation allows this picking operation to potentially fully extract all the diamond indicators present in the original sample. All possible diamond indicator grains are rapidly picked. No time is wasted on extensive optical assessments, since confident mineral and indicator quality typing is next to impossible optically. These uncertain candidates must be included as possibles, and more cost effectively identified with certainty by use of mineral scanning.

MINERAL MOUNTING

All (or a specified number) of the candidate indicator mineral grains are mounted in an ordered fashion and epoxyed, preserving their identity with respect to sample name, fraction, mineral type and so on. The grains are then exposed by grinding after mount sectioning, polished flat to at least ~1 micron, followed by carbon coating to ~200 Angstroms thickness. The epoxy used is prepared, poured and cured in a manner which gives it optimal optical properties for any consequent microscopy of the original grain colours, textures and morphologies.

MINERAL SCANNING

All the indicator grains mounted can be electron microscope scanned for definitive mineral identification and diamond indicator quality comparisons. This operation is rapid, accurate and cost effective in surveying large numbers of indicator candidates, allowing only the best of their types to be selected for consequent detailed, but relatively costlier analyses. Without this step the certain identification of diamond indicator grains can otherwise only be made by use of the more expensive electron microprobe.

MINERAL X-RAY MICROANALYSIS AND CLASSIFICATION

From the indicator mineral scans, together with optical microscope assessments of the mounted in-situ grains, any required number of the best specified indicators are identified for x-ray microanalysis using either of 2 Cameca SX-50 electron microprobes. The oxide concentrations of up to eleven major and significant minor elements are then determined for each selected grain. An appropriate suite of elements is chosen for each indicator type together with optimum counting and analytical conditions. The standards used are all well characterised and cross-referenced. Reference standards, comprising the same mineral types and compositions to those of the major indicators, are analysed periodically during the determination of the unknowns for quality control. This strict control is essential for good diamond indicator classification. After analysis is complete, the indicator grain oxide concentrations are fully classified using proprietary comprehensive computer based techniques. This allows diamond propensity and rock source identity of the sample to be assessed. Plots of pertinent diamond inclusion indicator compositions are made together with those of the grains analysed to assist in this process.

MINERAL GRAIN MORPHOLOGICAL EXAMINATION

Favourably classified grains can be targeted for morphological and textural examination to obtain information concerning their transport or pipe histories. Instead of examining all types of grains prior to analysis, the high optical quality of the epoxy in which they are mounted allows detailed microscopy and photography of only the useful grains to be made in a cost effective manner. The colour, surface texture and morphologies of each analysed grain can be viewed and faithfully recorded. Any micrographs so obtained are fully annotated with text and scale.

METHODOLOGY

Heavy Mineral Concentration

A total of 171 till samples were submitted to C.F. Mineral Research Ltd. in Kelowna, B.C., for heavy mineral processing. The samples were first washed and disaggregated through hand screening, followed by custom washing, wet sieving and dry sieving. These steps were designed to allow optimal separation in the consequent heavy liquid processes.

The sieved samples were injected into two types of heavy liquids, tetrabromoethane and methylene iodide, to recover particles with +3.2 specific gravity. Heavy minerals from the heavy liquid separations were then washed and screened into +20, -20+35, -35+80 and -80 mesh sizes. The -20+35 and -35+80 fractions were further concentrated by multiple pass electromagnetic separation to yield several diamond indicator concentrates.

Picking and Microanalysis of Diamond Indicators

Potential diamond indicators were manually extracted from the heavy pyrope and Cr-diopside fraction (HPy-CrD) and the heavy ilmenite (HIl) fraction in the -20+35 and -35+80 mesh sizes using a binocular microscope. The selected grains were then carefully mounted, epoxyed, polished and carbon coated. The epoxy used was prepared, poured and cured in a manner which gave it optimal properties for any consequent microscopy of the original grain colours, surface textures and morphologies.

All the indicator grains were scanned by a Scanning Electron Microscope (SEM) for mineral identification and diamond indicator quality comparisons. This operation ensured that only the best indicator candidates were selected for microanalysis. Oxide concentrations of up to eleven major and minor elements were determined for each of the selected grains using a Cameca SX-50 electron microprobe. The analytical results were then classified using proprietary computer programs to identify the grains that contained diamond-inclusion type chemical compositions.

C.F. Mineral Research Ltd.

DIAMOND INDICATOR FRACTION DESCRIPTIONS

-m+n	- the size fraction, where m defines the upper size (based on Tyler sieve size) limit and n the lower size limit. Grains found in this size fraction possess dimensions somewhere between these limits.
-m	- the size fraction, where m defines the upper size limit (based on the Tyler sieve size). Grains found in this size fraction possess dimensions m and smaller.
+n	- the size fraction, where n defines the lower size limit (based on the Tyler sieve size). Grains found in this size fraction possess dimensions n and larger.
H	- High density fraction ('heavies') consisting of grains which possess specific gravities normally greater than ~3.1.
I	- Intermediate density fraction ('intermediates') consisting of grains which possess specific gravities less than the H fraction, but greater than the L fraction.
L	- Low density fraction ('lights') consisting of grains which possess specific gravities less than that of the I fraction, normally less than ~2.9.
M	- Magnetite magnetic fraction, consisting of grains which are ferromagnetic (e.g. magnetite).
IL	- Ilmenite magnetic fraction, consisting of grains which possess strong magnetic susceptibilities (e.g. picroilmenite, chromite).
PYCRD	- Pyrope/Chrome Diopside magnetic fraction, consisting of grains which possess weak magnetic susceptibilities.
D	- Diamond magnetic fraction consisting of grains which possess weak or no magnetic susceptibilities.

EXAMPLE -20+60 H PYCRD

C.F. MINERAL RESEARCH LTD.

PICKING DATA SHEET CODE DESCRIPTIONS

PP	potential peridotitic garnets
OR	potential eclogitic garnets
CD	potential diatreme clinopyroxenes
OLV/OPX	potential diatreme orthopyroxenes or olivines
SAP/OTH	sapphires or other garnets
BLKS	potential diatreme picroilmenites or chromites

15-Mar-2001

C.F. Mineral Research Ltd. - W.O. BA03MAJGEN

PICKING RESULTS

	Sample Name	Batch	OR.WT	+20H Weight (gms) Sample	+20H Weight (gms) Picked	+20H PP	+20H OR	+20H CD	+20H OLV/ OPX	+20H SAP/ OTH	+20H BLKS
1	T86	01-1655	10.36	0.49	0.49	0	0	0	0	0	0
2	T87	01-1655	8.56	0.36	0.36	0	0	0	0	0	0
3	T88	01-1655	7.14	0.13	0.13	0	0	0	0	0	0
4	T89	01-1655	6.60	0.47	0.47	0	0	0	0	0	0
5	T90	01-1655	6.00	0.16	0.16	0	0	0	0	0	0
6	T91	01-1655	9.12	0.23	0.23	0	0	0	0	0	0
7	T92	01-1655	9.60	0.38	0.38	0	0	0	0	0	0
8	T93	01-1655	9.02	0.17	0.17	0	0	0	0	0	0
9	T94	01-1655	10.52	0.45	0.45	0	0	0	0	0	0
10	T95	01-1655	9.48	0.31	0.31	0	0	0	0	0	0
11	T96	01-1655	6.88	0.40	0.40	0	0	0	0	0	0
12	T97	01-1655	9.46	0.38	0.38	0	0	0	0	0	0
13	T98	01-1655	11.10	0.26	0.26	0	0	0	0	0	0
14	T99	01-1655	10.20	0.44	0.44	0	0	0	0	0	0
15	T100	01-1655	8.26	0.25	0.25	0	0	0	0	0	0
16	T101	01-1655	10.06	0.55	0.55	0	0	0	0	0	0
17	T102	01-1655	8.40	0.26	0.26	0	0	0	0	0	0
18	T103	01-1655	13.10	0.14	0.14	0	0	0	0	0	0
19	T104	01-1655	10.40	0.16	0.16	0	0	0	0	0	0
20	T105	01-1655	6.66	0.36	0.36	0	0	0	0	0	0
21	T106	01-1655	9.28	0.32	0.32	0	0	0	0	0	0
22	T107	01-1655	7.86	0.19	0.19	0	0	0	0	0	0
23	T108	01-1655	6.30	0.08	0.08	0	0	0	0	0	0
24	T109	01-1655	7.70	0.35	0.35	0	0	0	0	0	0
25	T110	01-1655	8.58	0.22	0.22	0	0	0	0	0	0
26	T112	01-1655	8.50	0.44	0.44	0	0	0	0	0	0
27	T113	01-1655	10.14	0.27	0.27	0	0	0	0	0	0
28	T114	01-1655	11.22	0.45	0.45	0	0	0	0	0	0
29	T115	01-1655	8.18	0.22	0.22	0	0	0	0	0	0
30	T116	01-1655	9.16	0.21	0.21	0	0	0	0	0	0
31	T117	01-1655	7.78	0.27	0.27	0	0	0	0	0	0
32	T118	01-1655	7.04	0.26	0.26	0	0	0	0	0	0
33	T119	01-1655	4.32	0.06	0.06	0	0	0	0	0	0

15-Mar-2001

C.F. Mineral Research Ltd. - W.O. BA03MAJGEN

PICKING RESULTS

	Sample Name	Batch	OR.WT	-20+35H IL Weight (gms) Sample	Picked	-20+35H IL PP	OR	CD	OLV/ OPX	SAP/ OTH	BLKS	-20+35H PYCRD Weight (gms) Sample	Picked	-20+35H PYCRD PP	OR	CD	OLV/ OPX	SAP/ OTH	BLKS
1	T86	01-1655	10.36	1.64	1.64	0	0	0	0	0	0	1.38	1.38	0	0	1	2	0	0
2	T87	01-1655	8.56	1.24	1.24	0	0	0	0	0	0	0.65	0.65	0	0	0	0	0	0
3	T88	01-1655	7.14	0.16	0.16	0	0	0	0	0	0	0.41	0.41	0	0	0	0	0	0
4	T89	01-1655	6.60	1.88	1.88	0	0	0	0	0	0	0.78	0.78	0	0	0	0	0	0
5	T90	01-1655	6.00	0.39	0.39	0	0	0	0	0	0	0.28	0.28	0	0	0	0	0	0
6	T91	01-1655	9.12	1.28	1.28	0	0	0	0	0	0	0.32	0.32	0	0	0	0	0	0
7	T92	01-1655	9.60	1.52	1.52	0	0	0	0	0	0	1.22	1.22	0	0	1	0	0	0
8	T93	01-1655	9.02	0.92	0.92	0	0	0	0	0	0	0.54	0.54	0	0	0	0	0	0
9	T94	01-1655	10.52	2.69	2.69	0	0	0	0	0	0	0.75	0.75	0	0	0	0	0	0
10	T95	01-1655	9.48	1.37	1.37	0	0	0	0	0	0	0.92	0.92	0	0	0	0	0	0
11	T96	01-1655	6.88	1.31	1.31	0	0	0	0	0	0	0.36	0.36	0	0	0	0	0	0
12	T97	01-1655	9.46	1.34	1.34	0	0	0	0	0	0	0.98	0.98	0	0	0	0	0	0
13	T98	01-1655	11.10	0.96	0.96	0	0	0	0	0	0	0.63	0.63	0	0	0	0	0	0
14	T99	01-1655	10.20	1.34	1.34	0	0	0	0	0	0	0.75	0.75	0	0	0	0	0	0
15	T100	01-1655	8.26	1.25	1.25	0	0	0	2	0	0	0.3	0.3	0	0	0	0	0	0
16	T101	01-1655	10.06	1.82	1.82	0	0	0	0	0	0	1.09	1.09	0	0	0	0	0	0
17	T102	01-1655	8.40	0.89	0.89	0	0	1	0	0	0	0.62	0.62	0	0	0	0	0	0
18	T103	01-1655	13.10	0.55	0.55	0	0	0	0	0	0	0.68	0.68	0	0	0	0	0	0
19	T104	01-1655	10.40	0.81	0.81	0	0	0	0	0	0	0.21	0.21	0	0	0	0	0	0
20	T105	01-1655	6.66	1.09	1.09	0	0	0	0	0	0	0.71	0.71	0	0	0	0	0	0
21	T106	01-1655	9.28	2.42	2.42	0	0	0	0	0	0	0.43	0.43	0	0	0	0	0	0
22	T107	01-1655	7.86	1.18	1.18	0	0	0	0	0	0	0.33	0.33	0	0	0	0	0	0
23	T108	01-1655	6.30	0.40	0.4	0	0	0	0	0	0	0.25	0.25	0	0	0	0	0	0
24	T109	01-1655	7.70	1.11	1.11	0	0	0	0	0	0	0.45	0.45	0	0	0	0	0	0
25	T110	01-1655	8.58	0.94	0.94	0	0	0	0	0	0	0.28	0.28	0	0	0	0	0	0
26	T112	01-1655	8.50	1.36	1.36	0	0	0	0	0	0	0.82	0.82	0	0	0	0	0	0
27	T113	01-1655	10.14	0.88	0.88	0	0	0	0	0	0	0.98	0.98	0	0	0	0	0	0
28	T114	01-1655	11.22	1.48	1.48	0	0	0	0	0	0	0.89	0.89	0	0	0	0	0	0
29	T115	01-1655	8.18	1.13	1.13	0	0	0	0	0	0	0.66	0.66	0	0	1	0	0	0
30	T116	01-1655	9.16	0.06	0.06	0	0	0	0	0	0	0.22	0.22	0	0	0	0	0	0
31	T117	01-1655	7.78	1.43	1.43	0	0	0	0	0	0	0.38	0.38	0	0	0	0	0	0
32	T118	01-1655	7.04	0.66	0.66	0	0	0	0	0	0	0.49	0.49	0	0	0	0	0	0
33	T119	01-1655	4.32	0.24	0.24	0	0	0	0	0	0	0.09	0.09	0	0	0	0	0	0

15-Mar-2001

C.F. Mineral Research Ltd. - W.O. BA03MAJGEN

PICKING RESULTS

	Sample Name	Batch	OR.WT	-35+80H IL Weight (gms) Sample	Picked	-35+80H IL PP	OR	CD	OLV/ OPX	SAP/ OTH	BLKS	-35+80H PYCRD Weight (gms) Sample	Picked	-35+80H PYCRD PP	OR	CD	OLV/ OPX	SAP/ OTH	BLKS
1	T86	01-1655	10.36	7.25	7.25	0	0	0	0	0	0	1.89	1.89	3	0	9	0	0	1
2	T87	01-1655	8.56	2.97	2.97	0	0	0	0	0	0	1.61	1.61	1	0	2	3	0	0
3	T88	01-1655	7.14	0.46	0.46	0	0	0	0	0	0	0.68	0.68	0	0	0	0	0	0
4	T89	01-1655	6.60	5.07	5.07	0	0	0	0	0	0	1.05	1.05	0	0	1	0	0	0
5	T90	01-1655	6.00	1.09	1.09	0	0	0	0	0	0	0.22	0.22	0	0	1	2	0	0
6	T91	01-1655	9.12	3.57	3.57	0	0	0	0	0	0	1.46	1.46	0	0	6	0	0	0
7	T92	01-1655	9.60	4.81	4.81	0	0	0	0	0	0	1.42	1.42	0	0	2	0	0	0
8	T93	01-1655	9.02	3.38	3.38	0	0	0	0	0	0	0.83	0.83	0	0	1	0	0	0
9	T94	01-1655	10.52	7.69	7.69	0	0	0	0	0	0	1.75	1.75	0	0	3	0	0	0
10	T95	01-1655	9.48	4.72	4.72	0	0	0	0	0	0	1.04	1.04	0	0	0	0	0	0
11	T96	01-1655	6.88	2.21	2.21	0	0	0	0	0	0	2.20	2.20	0	0	2	0	0	0
12	T97	01-1655	9.46	4.09	4.09	0	0	0	0	0	0	1.37	1.37	0	0	4	0	0	0
13	T98	01-1655	11.10	3.38	3.38	0	0	0	0	0	0	2.20	2.20	0	0	0	0	0	0
14	T99	01-1655	10.20	3.60	3.60	0	0	3	0	0	0	1.73	1.73	0	1	5	0	0	0
15	T100	01-1655	8.26	1.69	1.69	0	0	0	0	0	0	1.25	1.25	0	0	10	2	0	0
16	T101	01-1655	10.06	5.66	5.66	0	0	3	2	0	0	2.34	2.34	0	0	0	0	0	0
17	T102	01-1655	8.40	2.33	2.33	0	0	0	0	0	0	1.36	1.36	0	0	1	2	0	0
18	T103	01-1655	13.10	2.11	2.11	0	0	1	0	0	0	1.34	1.34	0	0	9	0	0	0
19	T104	01-1655	10.40	2.25	2.25	0	0	0	1	0	0	0.77	0.77	0	0	3	0	0	0
20	T105	01-1655	6.66	2.90	2.90	0	0	0	0	0	0	0.85	0.85	0	0	3	0	0	0
21	T106	01-1655	9.28	2.72	2.72	0	0	0	0	0	0	1.99	1.99	0	0	1	0	0	0
22	T107	01-1655	7.86	3.95	3.95	0	0	0	0	0	0	0.83	0.83	0	0	4	0	0	0
23	T108	01-1655	6.30	1.30	1.30	0	0	0	0	0	0	0.58	0.58	0	0	0	0	0	0
24	T109	01-1655	7.70	2.63	2.63	0	0	0	0	0	0	0.85	0.85	0	0	0	0	0	0
25	T110	01-1655	8.58	2.83	2.83	0	0	0	0	0	0	0.66	0.66	0	1	2	0	0	0
26	T112	01-1655	8.50	4.56	4.56	0	0	4	0	0	0	1.72	1.72	0	0	3	0	0	0
27	T113	01-1655	10.14	2.74	2.74	0	0	0	0	0	0	2.18	2.18	0	1	3	0	0	0
28	T114	01-1655	11.22	5.74	5.74	0	0	0	0	0	1	1.46	1.46	0	0	9	0	0	0
29	T115	01-1655	8.18	3.66	3.66	0	0	0	0	0	0	1.02	1.02	0	0	5	0	0	0
30	T116	01-1655	9.16	4.80	4.80	0	0	3	0	0	0	1.08	1.08	0	0	0	0	0	0
31	T117	01-1655	7.78	3.68	3.68	0	0	0	0	0	0	1.41	1.41	0	0	1	0	0	0
32	T118	01-1655	7.04	2.53	2.53	0	0	1	0	0	0	1.27	1.27	0	0	7	0	0	0
33	T119	01-1655	4.32	0.98	0.98	0	0	0	0	0	0	0.32	0.32	0	0	1	0	0	0

MINUS 80 MESH PICKING RESULTS																									
		-80 HIL								-80 HPYCRD								-80 HD							
Sample	Project	Sample	Picked	PY	OR	CD	OLV/	SAP/	BLK	Sample	Picked	PP	OR	CD	OLV/	SAP/	BLK	Sample	Picked	PY	OR	CD	OLV/	SAP/	BLK
Batch		wt gram	Wt gram				OPX	OTH		wt gram	Wt gram				OPX	OTH		wt gram	Wt gram				OPX	OTH	
T86 01-1655	Y	3.85	3.85	0	0	0	0	0	2	3.56	3.56	2	0	3	12	0	5	11.85	11.85	0	0	0	0	0	0
T99 01-1655	Y	3.99	3.99	0	0	0	0	0	0	1.03	1.03	0	0	0	0	0	0	1.39	1.39	0	0	0	0	0	0
Y= Yankee			Pp= peridotitic pyrope								HIL= heavy ilmenitic magnetic fraction														
M= Washburn			Or=Potential eclogitic pyrope								PYCRD= Pyrope/chrome diopside magneic fraction														
			Cd=Potential diatreme cpx								HD= heavy low/no mag fraction														
			Olv/opx= potential diatreme olivine/orthopyroxene																						
			Sap/oth=sapphire or other mineral																						
			BLKS= potential diatreme picroilmenites or chromites																						

APPENDIX C.3 HEAVY MINERALS EXAMINED AT I & M MORRISON GEOLOGICAL LTD

Sample No	Fraction	Mesh Size	Weight gram	PYROPE	Total	ECLOGITE	Total	ILMENITE	Total	CHROMITE	Total	CLINOPYROX	Total	OLIVINE	Total	Comments
T01	H-IL	-35+80	9.05	0	0	0	0	0	0	0	0	0	0	0	0	
T01	H-PYCRD	-35+80	1.70	0		0		0		0		0		0		
T02	H-IL	-35+80	6.45	0	0	2	2	1	1	0	0	0	0	0	0	
T02	H-PYCRD	-35+80	1.66	0		0		0		0		0		0		
T03	H-IL	-35+80	7.41	0	0	2	2	3	3	0	0	0	0	1	1	
T03	H-PYCRD	-35+80	1.34	0		0		0		0		0		0		
T04	H-IL	-35+80	7.71	0	0	0	0	5	5	0	0	0	0	0	0	
T04	H-PYCRD	-35+80	2.12	0		0		0		0		0		0		chalcopyrite - 2
T05	H-IL	-35+80	6.41	0	0	2	2	6	6	0	0	0	0	0	0	
T05	H-PYCRD	-35+80	2.72	0		0		0		0		0		0		
T06	H-IL	-35+80	4.59	0	0	2	2	1	1	0	0	0	0	0	0	
T06	H-PYCRD	-35+80	2.95	0		0		0		0		0		0		
T07	H-IL	-35+80	3.89	0	0	0	0	2	2	0	0	0	0	0	0	
T07	H-PYCRD	-35+80	1.06	0		0		0		0		0		0		
T08	H-IL	-35+80	4.06	0	0	0	0	2	2	0	0	0	1	0	0	
T08	H-PYCRD	-35+80	1.09	0		0		0		0		1		0		CD: likely low Cr
T09	H-IL	-35+80	1.71	0	0	0	0	0	0	0	0	0	0	0	0	
T09	H-PYCRD	-35+80	0.45	0		0		0		0		0		0		
T10	H-IL	-35+80	2.95	0	0	0	0	0	0	0	0	0	0	0	0	
T10	H-PYCRD	-35+80	1.72	0		0		0		0		0		0		
T11	H-IL	-35+80	4.36	0	0	0	0	0	0	0	0	0	0	0	0	
T11	H-PYCRD	-35+80	1.13	0		0		0		0		0		0		
T12	H-IL	-35+80	3.54	0	0	0	0	1	1	0	0	0	0	0	0	
T12	H-PYCRD	-35+80	1.05	0		0		0		0		0		0		
T13	H-IL	-35+80	6.34	0	0	0	0	3	3	0	0	0	4	0	0	
T13	H-PYCRD	-35+80	1.23	0		0		0		0		4		0		
T14	H-IL	-35+80	1.05	0	0	0	0	0	0	0	0	0	0	0	0	
T14	H-PYCRD	-35+80	0.91	0		0		0		0		0		0		
T15	H-IL	-35+80	7.25	0	0	0	1	0	0	0	0	0	1	0	0	
T15	H-PYCRD	-35+80	3.96	0		1		0		0		1		0		
T16	H-IL	-35+80	2.49	0	0	0	0	0	0	0	0	0	0	0	0	
T16	H-PYCRD	-35+80	1.59	0		0		0		0		0		0		limonite

Sample No	Fraction	Mesh Size	Weight gram	PYROPE	Total	ECLOGITE	Total	ILMENITE	Total	CHROMITE	Total	CLINOPYROX	Total	OLIVINE	Total	Comments
T17	H-IL	-35+80	2.99	0	0	0	0	1	1	0	0	0	2	0	0	
T17	H-PYCRD	-35+80	0.68	0		0		0		0		2		0		CD: 1 excellent
T18	H-IL	-35+80	2.16	0	0	0	0	0	0	0	0	0	0	0	0	
T18	H-PYCRD	-35+80	0.04	0		0		0		0		0		0		
T19	H-IL	-35+80	1.53	0	0	0	0	0	0	0	0	0	2	0	0	
T19	H-PYCRD	-35+80	1.47	0		0		0		0		2		0		CD: 1 excellent
T20	H-IL	-35+80	1.33	0	0	0	0	0	0	0	0	0	0	0	0	
T20	H-PYCRD	-35+80	0.38	0		0		0		0		0		0		
T21	H-IL	-35+80	0.21	0	0	0	0	0	0	0	0	0	1	0	0	limonite
T21	H-PYCRD	-35+80	0.93	0		0		0		0		1		0		
T22	H-IL	-35+80	0.46	0	0	0	0	0	0	0	0	0	0	0	0	limonite
T22	H-PYCRD	-35+80	0.68	0		0		0		0		0		0		limonite
T23	H-IL	-35+80	0.67	0	0	0	0	0	0	0	0	0	1	0	0	
T23	H-PYCRD	-35+80	0.47	0		0		0		0		1		0		
T24	H-IL	-35+80	1.74	0	0	0	0	0	0	0	0	1	1	0	0	
T24	H-PYCRD	-35+80	0.80	0		0		0		0		0		0		
T25	H-IL	-35+80	3.23	0	0	0	0	0	0	0	0	0	2	0	0	
T25	H-PYCRD	-35+80	1.63	0		0		0		0		2		0		
T26	H-IL	-35+80	3.92	0	0	0	0	4	4	0	0	0	5	0	0	
T26	H-PYCRD	-35+80	0.90	0		0		0		0		5		0		
T27	H-IL	-35+80	1.58	0	0	0	0	5	5	0	0	0	1?	0	0	
T27	H-PYCRD	-35+80	1.25	0		0		0		0		1?		0		
T28	H-IL	-35+80	1.31	0	0	2	2	3	3	0	0	0	0	0	0	
T28	H-PYCRD	-35+80	0.27	0		0		0		0		0		0		
T29	H-IL	-35+80	3.36	0	0	3	3	3	3	0	0	0	4?	0	1?	
T29	H-PYCRD	-35+80	1.20	0		0		0		0		4?		1?		
T30	H-IL	-35+80	3.11	0	0	4	4	2	2	0	0	1	1	0	0	
T30	H-PYCRD	-35+80	0.58	0		0		0		0		0		0		
T31	H-IL	-35+80	2.34	0	0	0	0	12	12	0	0	0	1	0	0	
T31	H-PYCRD	-35+80	0.68	0		0		0		0		1		0		
T32	H-IL	-35+80	1.07	0	0	0	2	3	4	0	0	0	4	0	0	
T32	H-PYCRD	-35+80	2.70	0		2		1		0		4		0		
T33	H-IL	-35+80	2.46	0	0	0	0	9	9	0	0	0	0	0	0	
T33	H-PYCRD	-35+80	0.40	0		0		0		0		0		0		
T34	H-IL	-35+80	2.39	0	0	3	4	1	1	0	0	0	1	0	0	

Sample No	Fraction	Mesh Size	Weight gram	PYROPE	Total	ECLOGITE	Total	ILMENITE	Total	CHROMITE	Total	CLINOPYROX	Total	OLIVINE	Total	Comments
T34	H-PYCRD	-35+80	0.92	0		1		0		0		1		0		
T35	H-IL	-35+80	3.62	0	0	3	3	14	14	6	6	0	1	0	0	
T35	H-PYCRD	-35+80	0.90	0		0		0		0		1		0		
T36	H-IL	-35+80	2.15	0	0	1	3	2	5	0	0	0	10	1	1	
T36	H-PYCRD	-35+80	4.18	0		2		3		0		10		0		
T37	H-IL	-35+80	2.12	0	0	0	0	3	3	4	4	0	0	0	0	
T37	H-PYCRD	-35+80	0.52	0		0		0		0		0		0		
T38	H-IL	-35+80	4.30	0	0	0	0	4	4	1	1	1?	4?	0	0	
T38	H-PYCRD	-35+80	1.05	0		0		0		0		3?		0		
T39	H-IL	-35+80	4.12	0	0	0	0	8	8	10	10	1	2	0	0	
T39	H-PYCRD	-35+80	0.94	0		0		0		0		1		0		
T40	H-IL	-35+80	3.28	0	0	0	0	0	0	0	0	0	1	0	0	
T40	H-PYCRD	-35+80	1.04	0		0		0		0		1		0		
T41	H-IL	-35+80	5.73	0	0	2?	2?	3	3	4	5	0	1	0	0	
T41	H-PYCRD	-35+80	0.58	0		0		0		1		1		0		
T42	H-IL	-35+80	4.59	0	0	2	2	2	2	0	0	0	0	0	0	
T42	H-PYCRD	-35+80	3.19	0		0		0		0		0		0		
T43	H-IL	-35+80	4.66	0	0	0	0	5	5	7	7	0	0	0	0	
T43	H-PYCRD	-35+80	0.94	0		0		0		0		0		0		
T44	H-IL	-35+80	3.67	0	0	0	0	0	0	0	0	0	1?	0	0	
T44	H-PYCRD	-35+80	4.24	0		0		0		0		1?		0		
T45	H-IL	-35+80	4.88	0	0	1	2	8	8	4	5	2	2	0	1	
T45	H-PYCRD	-35+80	1.07	0		1		0		1		0		1		
T46	H-IL	-35+80	2.21	0	0	0	1	0	0	1	1	0	2	0	0	
T46	H-PYCRD	-35+80	4.37	0		1		0		0		2		0		
T47	H-IL	-35+80	3.96	0	0	0	0	5	5	7	9	0	2	0	0	
T47	H-PYCRD	-35+80	0.94	0		0		0		2		2		0		
T48	H-IL	-35+80	5.81	0	0	0	0	0	0	0	0	0	1	0	0	
T48	H-PYCRD	-35+80	2.05	0		0		0		0		1		0		
T49	H-IL	-35+80	1.13	0	0	0	0	3	3	0	0	0	0	0	0	
T49	H-PYCRD	-35+80	0.36	0		0		0		0		0		0		
T50	H-IL	-35+80	2.35	0	0	0	0	1	1	0	0	0	1	1	1	
T50	H-PYCRD	-35+80	0.49	0		0		0		0		1		0		
T51	H-IL	-35+80	5.30	0		0		2		0		0		0		

Sample No	Fraction	Mesh Size	Weight gram	PYROPE	Total	ECLOGITE	Total	ILMENITE	Total	CHROMITE	Total	CLINOPYROX	Total	OLIVINE	Total	Comments
T51	H-PYCRD	-35+80	2.06	0		0		0		0		0		0		
T52	H-IL	-35+80	2.76	0	0	1	1	11	11	0	0	0	0	0	0	
T52	H-PYCRD	-35+80	0.62	0		0		0		0		0		0		
T53	H-IL	-35+80	6.27	0	0	0	0	6	6	0	0	0	0	1?	1?	1 blue mineral
T53	H-PYCRD	-35+80	0.98	0		0		0		0		0		0		
T54	H-IL	-35+80	1.69	0	0	0	0	4	4	0	0	0	0	0	0	
T54	H-PYCRD	-35+80	0.56	0		0		0		0		0		0		
T55	H-IL	-35+80	4.58	0	0	0	0	15	16	0	0	3	6	1	1	
T55	H-PYCRD	-35+80	0.91	0		0		1		0		3		0		
T56	H-IL	-35+80	5.39	0	0	0	0	6	6	0	0	0	2?	0	0	
T56	H-PYCRD	-35+80	1.11	0		0		0		0		2?		0		
T57	H-IL	-35+80	2.61	0	0	0	0	1	1	0	0	0	1	0	0	
T57	H-PYCRD	-35+80	0.71	0		0		0		0		1		0		
T58	H-IL	-35+80	1.82	0	0	2	2	4	4	0	0	0	11	0	0	
T58	H-PYCRD	-35+80	0.78	0		0		0		0		11		0		
T59	H-IL	-35+80	4.34	0	0	0	0	0	0	0	0	0	0	0	0	
T59	H-PYCRD	-35+80	1.06	0		0		0		0		0		0		
T60	H-IL	-35+80	6.05	0	1	0	2	18	18	0	1	3	10	0	0	
T60	H-PYCRD	-35+80	3.34	1		2		0		1		7		0		
T61	H-IL	-35+80	12.95	0	0	7	8	12	12	0	0	1	7	0	0	
T61	H-PYCRD	-35+80	4.18	0		1		0		0		6		0		
T62	H-IL	-35+80	2.57	0	1	1?	1?	7	7	0	0	0	0	0	0	
T62	H-PYCRD	-35+80	0.52	1		0		0		0		0		0		
T63	H-IL	-35+80	9.57	0	0	3	3	6	6	0	0	3	7	0	0	
T63	H-PYCRD	-35+80	3.05	0		0		0		0		4		0		
T64	H-IL	-35+80	6.43	0	0	0	0	3	3	0	0	0	0	0	1	
T64	H-PYCRD	-35+80	2.26	0		0		0		0		0		1		
T65	H-IL	-35+80	5.95	0	0	4	4	0	0	1	1	1	1	1	1	
T65	H-PYCRD	-35+80	0.71	0		0		0		0		0		0		
T66	H-IL	-35+80	4.38	0	0	2	2	1	1	1	1	0	0	0	0	
T66	H-PYCRD	-35+80	2.41	0		0		0		0		0		0		
T67	H-IL	-35+80	3.77	0	1	0	0	5	5	0	0	0	1	0	0	
T67	H-PYCRD	-35+80	1.08	1		0		0		0		1		0		
T68	H-IL	-35+80	8.04	0	0	3	3	9	9	7	7	1	2	0	2	
T68	H-PYCRD	-35+80	1.74	0		0		0		0		1		2		

Sample No	Fraction	Mesh Size	Weight gram	PYROPE	Total	ECLOGITE	Total	ILMENITE	Total	CHROMITE	Total	CLINOPYROX	Total	OLIVINE	Total	Comments
T69	H-IL	-35+80	5.63	0	0	1	1	8	8	0	0	1	7	0	0	
T69	H-PYCRD	-35+80	1.99	0		0		0		0		6		0		
T70	H-IL	-35+80	13.35	0	0	1	1	6	6	10	10	0	3	0	2	
T70	H-PYCRD	-35+80	3.60	0		0		0		0		3		2		
T71	H-IL	-35+80	3.75	0	2	0	0	3	3	0	0	0	0	0	0	
T71	H-PYCRD	-35+80	1.16	2		0		0		0		0		0		
T72	H-IL	-35+80	0.51	0	0	0	0	1	1	0	0	0	0	0	0	
T72	H-PYCRD	-35+80	0.14	0		0		0		0		0		0		
T73	H-IL	-35+80	2.39	0	0	0	0	0	0	0	0	0	1	0	0	
T73	H-PYCRD	-35+80	0.56	0		0		0		0		1		0		
T74	H-IL	-35+80	3.92	0	0	1	1	6	6	1	1	0	2	0	0	
T74	H-PYCRD	-35+80	0.84	0		0		0		0		2		0		
T75	H-IL	-35+80	3.83	0	0	2	2	3	3	0	0	0	2?	0	0	
T75	H-PYCRD	-35+80	1.20	0		0		0		0		2?		0		
T76	H-IL	-35+80	2.85	0	0	1	1	2	2	1	1	0	0	0	0	
T76	H-PYCRD	-35+80	1.22	0		0		0		0		0		0		1Au?
T77	H-IL	-35+80	3.04	0	0	0	0	2	3	0	0	0	2	0	0	
T77	H-PYCRD	-35+80	1.23	0		0		1		0		2		0		
T78	H-IL	-35+80	5.84	0	0	1	1	3	3	0	0	0	0	0	0	
T78	H-PYCRD	-35+80	2.13	0		0		0		0		0		0		
T79	H-IL	-35+80	2.79	0	0	1	2	0	0	0	0	0	1	0	0	
T79	H-PYCRD	-35+80	1.21	0		1		0		0		1		0		
T80	H-IL	-35+80	5.48	0	0	0	0	3	3	2	2	0	2	0	0	
T80	H-PYCRD	-35+80	1.91	0		0		0		0		2		0		
T81	H-IL	-35+80	3.10	0	0	2	2	2	2	0	0	0	3	0	0	
T81	H-PYCRD	-35+80	1.74	0		0		0		0		3		0		
T82	H-IL	-35+80	1.59	0	0	0	0	3	4	0	0	0	1	0	0	
T82	H-PYCRD	-35+80	0.95	0		0		1		0		1		0		
T83	H-IL	-35+80	6.92	0	0	0	0	0	0	0	0	0	1	0	0	
T83	H-PYCRD	-35+80	2.28	0		0		0		0		1		0		
T84	H-IL	-35+80	6.29	0	0	3	3	11	11	0	0	0	12	0	1	
T84	H-PYCRD	-35+80	5.18	0		0		0		0		12		1		
T85	H-IL	-35+80	0.63	0	0	0	0	1	1	0	0	0	2	0	0	
T85	H-PYCRD	-35+80	0.61	0		0		0		0		2		0		

APPENDIX D

MICROPROBE ANALYSES OF POTENTIAL KIMBERLITIC INDICATORS

D.1 Summary of picked and probed minerals from Major General tills

D.2 Probe analyses

D.3 Interpretation of Victoria Island indicator mineral Chemistry(G.H.Read)

APPENDIX D.1 SUMMARY OF PICKED AND PROBED MINERALS FROM MAJOR GENERAL TILLS

TILL		SAMPLE DATA					PROCESS DATA			PICKED		ANALYZED GRAINS								KIMBERLITIC GRAINS						
No	E NAD83	N NAD83	Zone	Type	Proj	Claim	Wt kg	Proc	Pick	No grains	PY	ECL	CPX	ILM	CHR	OL	Other	Total	PY	ECL	CPX	ILM	CHR	OL	Other	Total
1	538279	7763755	12	T	Y	CA1	12	CFM	MM									0								0
2	538303	7764286	12	T	Y	CA1	13	CFM	MM	3								0								0
3	538399	7764816	12	T	Y	CA1	11	CFM	MM	6								0								0
4	537943	7765358	12	T	Y	CA1*	16	CFM	MM	5								0								0
5	537893	7765862	12	T	Y	CA1*	13	CFM	MM	8								0								0
6	538213	7766451	12	T	Y	CA1	11	CFM	MM	3								0								0
7	538767	7767001	12	T	Y	CA2	8	CFM	MM	2								0								0
8	539052	7767331	12	T	Y	CA2	9	CFM	MM	3								0								0
9	539095	7767899	12	T	Y	CA2	5	CFM	MM									0								0
10	540091	7764940	12	T	Y	CA1	9	CFM	MM									0								0
11	540724	7765389	12	T	Y	CA6	9	CFM	MM									0								0
12	540460	7765911	12	T	Y	CA6	7	CFM	MM	1								0								0
13	540653	7766251	12	T	Y	CA6	8	CFM	MM	7								0								0
14	541044	7766486	12	T	Y	CA6	4	CFM	MM									0								0
15	541018	7767040	12	T	Y	CA5	12	CFM	MM	2								0								0
16	540822	7767760	12	T	Y	CA5	8	CFM	MM									0								0
17	540854	7768229	12	T	Y	CA5	8	CFM	MM	3				1				1								0
18	540707	7768791	12	T	Y	CA5	7	CFM	MM									0								0
19	540802	7769202	12	T	Y	CA5	8	CFM	MM	2			2					2			2					2
20	540806	7769740	12	T	Y	CA5	6	CFM	MM									0								0
21	540753	7770208	12	T	Y	CA5	5	CFM	MM	1			1					1			1					1
22	540755	7770707	12	T	Y	CA5	5	CFM	MM									0								0
23	540838	7771105	12	T	Y	CA5	6	CFM	MM	1			1					1			1					1
24	540787	7771630	12	T	Y	CA4	6	CFM	MM	1			1					1			1					1
25	540397	7772209	12	T	Y	CA4	10	CFM	MM	2			2					2			2					2
26	540449	7772787	12	T	Y	CA4	7	CFM	MM	9			3	1				4			3					3
27	540780	7773200	12	T	Y	CA4	10	CFM	MM	6			1					1			1					1
28	540631	7773830	12	T	Y	CA4	7	CFM	MM	5		1						1		1						1
29	540662	7774251	12	T	Y	CA4	10	CFM	MM	11		1	3					4			3					3
30	540814	7774684	12	T	Y	CA4	11	CFM	MM	7		1						1								0
31	540663	7775152	12	T	Y	CA4	10	CFM	MM	13			1	1				2			1					1
32	540524	7775737	12	T	Y	CA4	11	CFM	MM	10			3					3			3					3
33	540634	7776227	12	T	Y	CA19	10	CFM	MM	9				1				1				1				1
34	540752	7776694	12	T	Y	CA19	9	CFM	MM	6			1					1			1					1
35	540451	7777257	12	T	Y	CA19	9	CFM	MM	24			1	1				2			1	1				2
36	540480	7777761	12	T	Y	CA19	7	CFM	MM	19		1	5					6			5					5
37	540613	7778273	12	T	Y	CA19	9	CFM	MM	6								0								0

TILL		SAMPLE DATA					PROCESS DATA			PICKED		ANALYZED GRAINS								KIMBERLITIC GRAINS						
No	E NAD83	N NAD83	Zone	Type	Proj	Claim	Wt kg	Proc	Pick	No grains	PY	ECL	CPX	ILM	CHR	OL	Other	Total	PY	ECL	CPX	ILM	CHR	OL	Other	Total
38	540663	7778770	12	T	Y	CA19	9	CFM	MM	9			1					1			1					1
39	540901	7779310	12	T	Y	CA19	10	CFM	MM	20			2	1			1	4			2	1				3
40	540734	7779805	12	T	Y	CA19	9	CFM	MM	1								0								0
41	540456	7780267	12	T	Y	CA19	10	CFM	MM	11		1						1		1						1
42	540553	7780858	12	T	Y	CA18	9	CFM	MM	4				1				1								0
43	540962	7781229	12	T	Y	CA18	8	CFM	MM	12								0								0
44	541116	7781707	12	T	Y	CA18	9	CFM	MM	1			1					1			1					1
45	541007	7782185	12	T	Y	CA18	11	CFM	MM	18		1						1		1						1
46	540719	7782825	12	T?	Y	CA18	11	CFM	MM	4			2					2			2					2
47	540698	7783278	12	T?	Y	CA18	10	CFM	MM	16			1	1				2			1					1
48	540880	7783844	12	T	Y	CA18	10	CFM	MM	1			1					1			1					1
49	540762	7784360	12	T	Y	CA18	5	CFM	MM	3								0								0
50	540714	7784831	12	T	Y	CA18	6	CFM	MM	3			1					1			1					1
51	540784	7785310	12	T	Y	CA31	9	CFM	MM	2								0								0
52	540667	7785816	12	T	Y	CA31	9	CFM	MM	12								0								0
53	540616	7786334	12	T	Y	CA31	11	CFM	MM	8								0								0
54	540912	7786949	12	T	Y	CA31	7	CFM	MM	4								0								0
55	540857	7787454	12	T	Y	CA31	9	CFM	MM	23			1	1				2			1					1
56	540958	7788018	12	T	Y	CA31	9	CFM	MM	6			1					1			1					1
57	540792	7788682	12	T	Y	CA31	7	CFM	MM	2			1					1			1					1
58	540586	7789302	12	T	Y	CA31	8	CFM	MM	17			2				1	3			2					2
59	540678	7789847	12	T	Y	CA30	11	CFM	MM									0								0
60	540445	7790362	12	T	Y	CA30	13	CFM	MM	32	1		6					7	1		6					7
61	540456	7790566	12	T	Y	CA30	13	CFM	MM	26	1		2	1				4			2	1				3
62	540301	7790697	12	T	Y	CA30	10	CFM	MM	9	1							1	1							1
63	540441	7790917	12	T	Y	CA30	15	CFM	MM	16				1				1								0
64	540510	7791179	12	T	Y	CA30	14	CFM	MM	4								0								0
65	540570	7791721	12	T	Y	CA30	13	CFM	MM	7		1						1		1						1
66	540038	7792312	12	T	Y	CA30	10	CFM	MM	4		1						1		1						1
67	539909	7793029	12	T	Y	CA30	12	CFM	MM	7	1		1					2	1		1					2
68	539957	7793776	12	T	Y	CA30	14	CFM	MM	24		1	1	1	1			4		1	1					2
69	540019	7794332	12	T	Y	CA30*	14	CFM	MM	16			2	1				3			2					2
70	543297	7793788	12	T	Y	CA33	13	CFM	MM	22			1					1			1					1
71	543281	7793285	12	T	Y	CA33	7	CFM	MM	5	2							2	2							2
72	542704	7784904	12	T	Y	CA21	5	CFM	MM	1								0								0
73	542796	7785356	12	T	Y	CA32	8	CFM	MM	1								0								0
74	542839	7785798	12	T	Y	CA32	9	CFM	MM	10				1	1			2				1	1			2
75	543137	7786407	12	T	Y	CA32	8	CFM	MM	7		1						1		1						1
76	543197	7786872	12	T	Y	CA32	11	CFM	MM	4								0								0

TILL		SAMPLE DATA					PROCESS DATA			PICKED		ANALYZED GRAINS								KIMBERLITIC GRAINS						
No	E NAD83	N NAD83	Zone	Type	Proj	Claim	Wt kg	Proc	Pick	No grains	PY	ECL	CPX	ILM	CHR	OL	Other	Total	PY	ECL	CPX	ILM	CHR	OL	Other	Total
77	543003	7787397	12	T	Y	CA32	9	CFM	MM	5								0								0
78	543041	7787852	12	T	Y	CA32	10	CFM	MM	4		1		1				2		1		1				2
79	543100	7788399	12	T	Y	CA32	7	CFM	MM	3		1	1					2			1					1
80	543249	7786277	12	T	Y	CA32	10	CFM	MM	7								0								0
81	543465	7789379	12	T	Y	CA32	9	CFM	MM	7		1						1								0
82	543517	7789920	12	T	Y	CA33	7	CFM	MM	5				1				1								0
83	543298	7790516	12	T	Y	CA33	10	CFM	MM	1								0								0
84	543138	7790935	12	T	Y	CA33	17	CFM	MM	27		1	1	1				3		1	1					2
85	543245	7791465	12	T	Y	CA33	10	CFM	MM	3								0								0
86	543186	7791840	12	T	Y	CA33	16	CFM	CFM	39	6		6	1	8	1		22	5		5			1		11
87	543353	7792336	12	T	Y	CA33	14	CFM	CFM	13	1		1			1		3	1		1			1		3
88	543249	7792746	12	T	Y	CA33	11	CFM	CFM	2								0								0
89	543961	7769758	12	T	Y	CA8	11	CFM	CFM	3			1					1								0
90	543620	7770230	12	T	Y	CA8	10	CFM	CFM	3			1				1	2			1					1
91	543787	7770739	12	T	Y	CA8	15	CFM	CFM	7			1					1			1					1
92	543514	7771316	12	T	Y	CA9	15	CFM	CFM	3								0								0
93	543518	7771745	12	T	Y	CA9	14	CFM	CFM	1								0								0
94	543297	7772299	12	T	Y	CA9	16	CFM	CFM	3								0								0
95	543185	7772843	12	T	Y	CA9	15	CFM	CFM									0								0
96	543335	7773305	12	T	Y	CA9	11	CFM	CFM	2			2					2			2					2
97	543316	7773710	12	T	Y	CA9	14	CFM	CFM	4			1					1			1					1
98	543460	7774181	12	T	Y	CA9	17	CFM	CFM	1								0								0
99	543342	7774650	12	T	Y	CA9	15	CFM	CFM	18		1	1					2		1	1					2
100	543310	7775248	12	T	Y	CA9	15	CFM	CFM	86			2	2				4			2					2
101	543212	7775769	12	T	Y	CA9	16	CFM	CFM	5							1	1								0
102	543271	7776245	12	T	Y	CA20	14	CFM	CFM	4								0								0
103	543302	7776832	12	T	Y	CA20	20	CFM	CFM	44			2	1			1	4			2					2
104	543295	7777384	12	T	Y	CA20	11	CFM	CFM	8			1				1	2			1					1
105	543295	7777946	12	T	Y	CA20	7	CFM	CFM	5			1					1			1					1
106	543275	7778382	12	T	Y	CA20	10	CFM	CFM	1								0								0
107	543313	7778784	12	T	Y	CA20	9	CFM	CFM	6								0								0
108	543468	7779384	12	T	Y	CA20	6	CFM	CFM	2								0								0
109	543456	7779894	12	T	Y	CA20	9	CFM	CFM	2								0								0
110	543437	7780359	12	T	Y	CA20	9	CFM	CFM	3		1						1		1						1
112	543349	7780889	12	T	Y	CA21	9	CFM	CFM	7			1					1			1					1
113	543331	7781322	12	T	Y	CA21	11	CFM	CFM	5		1	1					2		1	1					2
114	543421	7781792	12	T	Y	CA21	12	CFM	CFM	56			1	1	1		1	4			1					1
115	543479	7782356	12	T	Y	CA21	9	CFM	CFM	6			1					1			1					1
116	543508	7782823	12	T	Y	CA21	10	CFM	CFM	7				2				2								0

TILL		SAMPLE DATA					PROCESS DATA			PICKED		ANALYZED GRAINS								KIMBERLITIC GRAINS						
No	E NAD83	N NAD83	Zone	Type	Proj	Claim	Wt kg	Proc	Pick	No grains	PY	ECL	CPX	ILM	CHR	OL	Other	Total	PY	ECL	CPX	ILM	CHR	OL	Other	Total
117	543347	7783410	12	T	Y	CA21	9	CFM	CFM	1								0								
118	543257	7783917	12	T	Y	CA21	8	CFM	CFM	13			1					1			1					1
119	543145	7784391	12	T	Y	CA21	4	CFM	CFM	4			1					1			1					1
317	539142	7793816	12	T	Y	CA29	6	LKF	LKF									0								0
318	538974	7791701	12	T	Y	CA29	11	LKF	LKF									0								0
319	543338	7792499	12	T	Y	CA33	10	LKF	LKF									0								0
320	543052	7792914	12	T	Y	CA33	9	LKF	LKF									0								0
321	543146	7793283	12	T	Y	CA33	8	LKF	LKF									0								0
322	544803	7794144	12	T	Y	CA34*	8	LKF	LKF									0								0
330	547945	7773322	12	T	Y	CA15		LKF	LKF									0								0
										973	**13**	**17**	**80**	**24**	**11**	**2**	**7**	**154**	**11**	**12**	**78**	**6**	**1**	**2**	**0**	**110**
	LKF	=Lakefield				PY	= Peridotitic pyrope																			
	CFM	=CF Minerals				ECL	=Eclogitic pyrope																			
	MM	=I&M Morrison				CPX	=Clinopyroxene																			
						ILM	=Ilmenite																			
						CHR	=Chromite																			
						OL	=Olivine																			

APPENDIX D. 2 PROBE ANALYSES , CF MINERAL RESEARCH LTD

MICROPROBE ANALYSES OF GARNET

Sample	Claim	Lab	Min	Fraction	SiO2	TiO2	Al2O3	Cr2O3	MgO	FeO	MnO	CaO	Na2O	NiO	TNa20	K2O	Total
T028	CA4	CFM	GNT	-35+80IL	38.07	0.07	21.74	0.05	7.23	25.09	0.87	6.88		0	0.024	0	**100.02**
T029	CA4	CFM	GNT	-35+80IL	37.82	0.08	21.40	0.04	5.97	27.14	0.99	6.70	0.01	0		0	**100.15**
T030	CA4	CFM	GNT	-35+80IL	37.75	0.05	21.41	0.01	6.44	26.63	1.05	6.58	0.00	0		0.01	**99.93**
T036	CA19	CFM	GNT	-35+80PY	38.23	0.07	21.72	0.00	7.25	26.16	0.73	6.55	0.03	0.01		0	**100.75**
T041	CA19	CFM	GNT	-35+80IL	38.64	0.11	22.07	0.04	8.30	23.85	0.57	6.95		0	0.028	0.01	**100.57**
T045	CA18	CFM	GNT	-35+80PY	39.09	0.14	22.18	0.03	8.85	23.07	0.74	6.79		0	0.02	0	**100.91**
T060	CA30	CFM	GNT	-35+80PY	41.25	0.10	20.12	4.76	18.37	8.90	0.51	6.03	0.02	0.03		0.01	**100.10**
T061	CA30	CFM	GNT	-35+80IL	38.39	0.13	21.92	0.02	7.36	25.55	0.85	6.38	0.01	0.01		0	**100.62**
T062	CA30	CFM	GNT	-35+80PY	41.18	0.01	20.23	5.09	18.87	8.10	0.57	5.93	0.01	0		0	**99.99**
T065	CA30	CFM	GNT	-35+80IL	38.11	0.06	21.91	0.03	7.18	25.74	0.87	6.58	0	0.01		0	**100.49**
T066	CA30	CFM	GNT	-35+80IL	39.77	0.10	22.71	0.02	11.50	18.68	0.50	7.25		0	0.07	0	**100.60**
T067	CA30	CFM	GNT	-35+80PY	41.7	0.16	21.28	3.41	20.42	7.84	0.39	4.79	0.02	0.01		0	**100.02**
T068	CA30	CFM	GNT	-35+80IL	38.66	0.07	22.09	0.00	8.66	22.92	0.72	7.36		0.06	0.03	0	**100.57**
T071	CA33	CFM	GNT	-35+80PY	40.91	0.38	18.70	6.69	19.68	6.99	0.39	5.75	0.06	0.04		0.01	**99.60**
T071	CA33	CFM	GNT	-35+80PY	41.31	0.25	17.44	8.01	19.46	7.19	0.41	6.26	0.03	0.01		0	**100.37**
T075	CA32	CFM	GNT	-35+80IL	38.16	0.12	21.89	0.00	6.56	25.42	0.60	7.44		0.04	0.07	0	**100.30**
T078	CA32	CFM	GNT	-35+80IL	38.39	0.10	21.98	0.05	7.32	25.62	0.90	6.38	0	0		0.01	**100.75**
T079	CA32	CFM	GNT	-35+80PY	38.22	0.08	21.94	0.03	7.11	25.72	0.71	6.45	0.01	0.02		0	**100.29**
T081	CA32	CFM	GNT	-35+80IL	37.94	0.09	21.48	0.03	6.55	26.73	0.75	6.36	0	0		0	**99.93**
T084	CA33	CFM	GNT	-35+80IL	38.32	0.09	21.71	0.00	7.20	25.92	0.78	6.37	0.03	0		0	**100.42**
T086	CA33	CFM	GNT	-35+80PY	41.49	0.16	20.50	4.19	19.69	8.06	0.44	5.07	0.03	0		0	**99.63**
T086	CA33	CFM	GNT	-35+80PY	41.2	0.15	19.80	5.14	19.67	7.87	0.42	5.28	0.02	0		0.01	**99.56**
T086	CA33	CFM	GNT	-35+80PY	41.68	0.20	20.28	4.61	20.01	7.94	0.42	5.18	0.03	0.02		0	**100.37**
T086	CA33	CFM	GNT	-80HPY	41.36	0.20	20.42	4.46	19.48	8.21	0.40	5.29	0.04	0.04		0.01	**99.91**
T086	CA33	CFM	GNT	-80HPY	41.26	1.02	18.96	4.38	19.37	8.74	0.37	5.78	0.06	0.03		0.01	**99.98**
T086	CA33	CFM	GNT	-35+80PY	38.26	0.09	21.53	0.03	6.71	26.82	0.84	6.53	0	0		0	**100.81**
T087	CA33	CFM	GNT	-35+80PY	40.98	0.05	16.46	9.20	18.77	7.05	0.39	6.69	0	0.01		0	**99.60**
T099	CA8	CFM	GNT	-35+80PY	38.29	0.10	21.83	0.05	7.29	25.31	1.15	6.68		0	0.011	0	**100.71**
T110	CA20	CFM	GNT	-35+80PY	40.09	0.11	22.84	0.07	11.72	17.03	0.31	8.21		0.01	0.007	0	**100.40**
T113	CA21	CFM	GNT	-35+80PY	38.05	0.09	21.86	0.05	6.50	25.31	0.74	7.61		0.01	0.001	0	**100.22**

MICROPROBE ANALYSES OF CHROMITE																	
Sample	**Claim**	**Lab**	**Min**	**Fraction**	**SiO2**	**TiO2**	**Al2O3**	**V2O3**	**Cr2O3**	**Fe2O3**	**FeO**	**MgO**	**CaO**	**MnO**	**NiO**	**ZnO**	**Total**
T068	CA30	CFM	CHR	-35+80IL	0.02	0.26	13.67	0.24	40.03	14.29	26.72	4.67	0.00	0.42	0.06	0.20	**100.58**
T074	CA32	CFM	CHR	-35+80IL	0.00	0.04	39.61	0.07	25.92	2.40	17.67	13.13	0.00	0.25	0.13	1.17	**100.39**
T086	CA33	CFM	CHR	-35+80PY	0.02	0.01	14.03	0.28	56.43	1.03	15.25	12.08	0.00	0.26	0.05	0.22	**99.66**
T086	CA33	CFM	CHR	-80HPY	0.00	0.01	8.57	0.22	60.64	2.96	15.91	11.14	0.02	0.29	0.05	0.21	**100.02**
T086	CA33	CFM	CHR	-80HPY	0.00	0.21	8.86	0.15	49.73	9.41	24.92	5.02	0.00	0.49	0.05	0.49	**99.33**
T086	CA33	CFM	CHR	-80HPY	0.00	0.33	11.57	0.14	46.22	9.65	23.47	6.09	0.00	0.59	0.08	0.53	**98.67**
T086	CA33	CFM	CHR	-80HPY	0.00	0.11	11.08	0.12	44.98	12.03	24.12	5.70	0.00	0.39	0.14	0.49	**99.16**
T086	CA33	CFM	CHR	-80HIL	0.00	0.15	8.35	0.19	47.58	10.03	31.09	0.73	0.00	0.76	0.04	0.70	**99.62**
T086	CA33	CFM	CHR	-80HIL	0.00	0.55	8.61	0.13	46.60	11.08	27.60	3.31	0.00	0.57	0.10	1.07	**99.62**
T086	CA33	CFM	CHR	-80HPY	0.28	0.22	21.91	0.12	35.12	10.50	21.91	8.37	0.01	0.32	0.23	0.38	**99.37**
T114	CA21	CFM	CHR	-35+80IL	0.00	0.48	7.95	0.12	42.42	17.51	27.14	3.75	0.01	0.56	0.10	0.41	**100.45**

MICROPROBE ANALYSES OF ILMENITE															
Sample	**Claim**	**Lab**	**Min**	**Fraction**	**TiO2**	**Al2O3**	**Cr2O3**	**Fe2O3**	**FeO**	**MgO**	**CaO**	**MnO**	**ZnO**	**Nb2O5**	**Total**
T017	CA5	CFM	ILM	HIL	46.55	0.03	0.00	11.66	40.14	0.77	0.01	0.35	0.00	0.03	**99.54**
T026	CA4	CFM	ILM	-35+80IL	49.98	0.05	0.01	4.67	43.55	0.50	0.00	0.53	0.04	0.00	**99.33**
T031	CA4	CFM	ILM	-35+80IL	48.59	0.03	0.00	7.24	42.52	0.33	0.00	0.60	0.02	0.00	**99.33**
T033	CA4	CFM	ILM	-35+80IL	52.10	0.00	0.08	0.58	44.72	0.89	0.00	0.58	0.00	0.03	**98.98**
T035	CA19	CFM	ILM	-35+80IL	49.58	0.03	0.03	5.34	42.94	0.59	0.00	0.62	0.06	0.06	**99.25**
T039	CA19	CFM	ILM	-35+80IL	54.65	0.04	0.03	1.90	25.95	6.84	0.00	10.91	0.03	0.03	**100.38**
T042	CA18	CFM	ILM	-35+80IL	53.59	0.08	0.00	0.00	41.46	0.71	0.01	0.57	0.05	0.00	**96.47**
T047	CA18	CFM	ILM	-35+80IL	48.62	0.02	0.02	7.16	42.68	0.02	0.00	1.02	0.02	0.04	**99.60**
T055	CA31	CFM	ILM	-35+80IL	56.03	0.18	0.05	0.00	32.91	0.30	0.03	2.60	0.00	0.02	**92.12**
T061	CA30	CFM	ILM	-35+80IL	48.91	0.04	0.01	6.54	42.70	0.41	0.00	0.57	0.05	0.03	**99.26**
T063	CA30	CFM	ILM	-35+80IL	49.89	0.05	0.02	5.01	42.88	0.34	0.00	1.40	0.00	0.16	**99.75**
T068	CA30	CFM	ILM	-35+80IL	49.21	0.03	0.00	5.79	43.05	0.24	0.01	0.78	0.03	0.15	**99.29**
T069	CA30	CFM	ILM	-35+80IL	49.30	0.05	0.00	5.33	43.25	0.30	0.00	0.58	0.08	0.01	**98.90**
T074	CA32	CFM	ILM	-35+80IL	51.88	0.01	0.13	1.27	44.88	0.28	0.00	1.32	0.00	0.02	**99.79**
T078	CA32	CFM	ILM	-35+80IL	49.60	0.00	0.00	5.21	43.89	0.01	0.01	0.69	0.00	0.18	**99.59**
T082	CA33	CFM	ILM	-35+80IL	55.63	0.08	0.00	0.00	36.28	0.37	0.02	1.26	0.09	0.04	**93.77**
T084	CA33	CFM	ILM	-35+80IL	47.92	0.06	0.00	8.47	41.78	0.53	0.00	0.41	0.02	0.03	**99.22**
T086	CA33	CFM	ILM	-20+35HI	51.38	0.01	0.01	2.79	44.38	0.71	0.00	0.56	0.02	0.07	**99.93**
T100	CA8	CFM	ILM	-35+80IL	56.41	0.13	0.01	0.00	37.55	0.30	0.02	0.28	0.06	0.00	**94.76**
T100	CA8	CFM	ILM	-35+80IL	49.48	0.03	0.05	6.09	42.26	0.11	0.00	2.05	0.00	0.00	**100.07**
T103	CA20	CFM	ILM	-35+80IL	55.57	0.14	0.01	0.00	35.94	0.53	0.02	1.08	0.00	0.07	**93.36**
T114	CA21	CFM	ILM	-35+80IL	56.94	0.11	0.02	0.00	33.36	0.24	0.04	2.04	0.00	0.20	**92.95**
T116	CA21	CFM	ILM	+20H	51.62	0.10	0.01	2.38	45.60	0.16	0.01	0.60	0.10	0.01	**100.59**
T116	CA21	CFM	ILM	-35+80IL	55.57	0.12	0.05	0.00	35.16	1.29	0.00	1.56	0.11	0.05	**93.91**

MICROPROBE ANALYSES OF OLIVINE																
Sample	**Claim**	**Lab**	**Min**	**Fraction**	**SiO2**	**TiO2**	**Al2O3**	**Cr2O3**	**FeO**	**MgO**	**CaO**	**MnO**	**NiO**	**Na2O**	**K2O**	**Total**
T086	CA33	CFM	OLV	-20+35PY	41.01	0.00	0.00	0.05	8.24	49.86	0.05	0.08	0.39	0.00	0.01	**99.69**
T087	CA33	CFM	OLV	-35+80PY	40.79	0.05	0.00	0.02	8.40	49.80	0.03	0.12	0.40	0.02	0.01	**99.64**

MICROPROBE ANALYSES OF CLINOPYROXENE																
Sample	**Claim**	**Lab**	**Min**	**Fraction**	**SiO2**	**TiO2**	**Al2O3**	**Cr2O3**	**FeO**	**MgO**	**CaO**	**MnO**	**NiO**	**Na2O**	**K2O**	**Total**
T019	CA5	CFM	CPX	HPY	53.34	0.03	1.30	0.40	4.28	15.63	23.63	0.16	0.16	0.52	0.01	**99.46**
T019	CA5	CFM	CPX	HPY	53.49	0.07	0.89	0.54	4.55	15.91	23.46	0.12	0.08	0.36	0.00	**99.47**
T021	CA5	CFM	CPX	HPY	53.00	0.03	2.02	0.39	4.29	16.46	22.64	0.29	0.11	0.35	0.00	**99.58**
T023	CA5	CFM	CPX	HPY	53.80	0.03	1.57	0.66	2.95	15.70	23.75	0.11	0.10	0.96	0.00	**99.63**
T024	CA4	CFM	CPX	HIL	53.60	0.02	1.42	0.94	3.68	16.13	22.27	0.19	0.09	0.63	0.00	**98.97**
T025	CA4	CFM	CPX	HPY	53.62	0.05	0.73	0.53	5.23	15.35	22.84	0.29	0.00	0.66	0.00	**99.30**
T025	CA4	CFM	CPX	HPY	52.98	0.15	2.21	0.92	4.48	14.84	22.37	0.21	0.03	1.24	0.01	**99.44**
T026	CA4	CFM	CPX	-35+80PY	53.28	0.05	0.82	0.10	5.48	14.56	24.63	0.30	0.02	0.41	0.00	**99.65**
T026	CA4	CFM	CPX	-35+80PY	52.28	0.09	2.35	0.33	4.41	15.53	23.06	0.14	0.03	0.45	0.08	**98.75**
T026	CA4	CFM	CPX	-35+80PY	52.70	0.25	3.07	0.62	2.83	15.37	23.76	0.11	0.03	0.77	0.01	**99.52**
T027	CA4	CFM	CPX	-35+80PY	53.20	0.02	0.40	0.45	6.87	14.37	22.19	0.27	0.01	1.36	0.00	**99.14**
T029	CA4	CFM	CPX	-35+80PY	53.41	0.05	0.77	0.34	4.33	15.75	23.76	0.20	0.00	0.35	0.00	**98.96**
T029	CA4	CFM	CPX	-35+80PY	53.37	0.04	0.66	0.49	5.16	15.79	23.15	0.15	0.06	0.52	0.01	**99.40**
T029	CA4	CFM	CPX	-35+80PY	53.09	0.05	1.04	0.49	5.62	15.23	22.66	0.22	0.00	0.58	0.00	**98.98**
T031	CA4	CFM	CPX	-35+80PY	53.25	0.04	1.42	0.63	3.47	16.30	23.33	0.12	0.16	0.61	0.00	**99.33**
T032	CA4	CFM	CPX	-35+80PY	53.78	0.12	0.51	0.19	3.38	17.92	22.67	0.11	0.03	0.30	0.00	**99.01**
T032	CA4	CFM	CPX	-35+80PY	53.28	0.04	1.37	0.15	4.19	16.04	23.30	0.16	0.04	0.52	0.00	**99.09**
T032	CA4	CFM	CPX	-35+80PY	53.41	0.03	1.26	0.35	5.20	15.57	22.74	0.19	0.00	0.53	0.01	**99.29**
T034	CA19	CFM	CPX	-35+80PY	53.37	0.07	1.04	0.41	5.29	15.11	23.56	0.21	0.05	0.50	0.00	**99.61**
T035	CA19	CFM	CPX	-35+80PY	53.47	0.09	1.50	0.84	7.79	16.97	17.19	0.24	0.06	1.35	0.00	**99.50**
T036	CA19	CFM	CPX	-35+80PY	53.28	0.00	1.15	0.20	5.38	14.44	23.97	0.25	0.01	0.69	0.00	**99.37**
T036	CA19	CFM	CPX	-35+80PY	53.27	0.04	1.38	0.35	4.95	15.29	23.46	0.16	0.04	0.63	0.00	**99.57**
T036	CA19	CFM	CPX	-35+80PY	52.89	0.06	1.66	0.42	4.75	15.24	23.70	0.16	0.05	0.57	0.00	**99.50**
T036	CA19	CFM	CPX	-35+80PY	53.11	0.06	1.40	0.27	4.92	15.77	23.13	0.19	0.03	0.49	0.00	**99.37**
T036	CA19	CFM	CPX	-35+80PY	52.89	0.22	2.04	0.81	4.91	14.97	22.28	0.12	0.07	0.85	0.00	**99.16**
T038	CA19	CFM	CPX	-35+80PY	53.00	0.03	0.86	0.29	6.39	15.02	22.62	0.20	0.03	0.49	0.00	**98.93**
T039	CA19	CFM	CPX	-35+80PY	53.96	0.03	1.43	0.89	3.05	16.56	23.32	0.11	0.05	0.62	0.00	**100.02**
T039	CA19	CFM	CPX	-35+80IL	54.06	0.23	1.93	2.14	2.08	16.34	20.95	0.07	0.01	1.68	0.00	**99.49**
T044	CA18	CFM	CPX	-35+80PY	52.89	0.10	1.28	0.54	6.17	14.70	23.12	0.19	0.05	0.51	0.01	**99.56**
T046	CA18	CFM	CPX	-35+80PY	53.42	0.03	1.39	0.40	4.81	15.67	22.73	0.13	0.01	0.71	0.00	**99.30**
T046	CA18	CFM	CPX	-35+80PY	54.07	0.03	1.39	0.50	3.88	15.98	23.46	0.15	0.07	0.50	0.00	**100.03**
T047	CA18	CFM	CPX	-35+80PY	53.55	0.03	1.30	0.51	4.01	16.40	23.02	0.17	0.08	0.49	0.00	**99.56**
T048	CA18	CFM	CPX	-35+80PY	53.05	0.11	1.62	0.73	4.94	15.87	22.16	0.20	0.13	0.65	0.00	**99.46**
T050	CA18	CFM	CPX	-35+80PY	53.00	0.07	1.66	0.48	4.54	14.68	24.10	0.21	0.06	0.75	0.00	**99.55**
T055	CA31	CFM	CPX	-35+80PY	53.45	0.03	1.17	0.40	5.58	14.39	23.35	0.26	0.00	0.89	0.01	**99.53**
T056	CA31	CFM	CPX	-35+80PY	53.72	0.00	1.16	0.16	5.18	15.87	22.87	0.21	0.09	0.50	0.00	**99.76**
T057	CA31	CFM	CPX	-35+80PY	53.53	0.13	1.18	0.27	3.24	16.05	24.45	0.06	0.03	0.51	0.01	**99.46**
T058	CA31	CFM	CPX	-35+80PY	52.63	0.10	1.71	0.06	5.72	14.26	24.28	0.25	0.02	0.55	0.00	**99.58**

Sample	Claim	Lab	Min	Fraction	SiO2	TiO2	Al2O3	Cr2O3	FeO	MgO	CaO	MnO	NiO	Na2O	K2O	Total
T058	CA31	CFM	CPX	-35+80PY	53.30	0.06	1.22	0.66	4.20	15.88	23.88	0.12	0.06	0.46	0.00	**99.84**
T060	CA30	CFM	CPX	-35+80PY	53.33	0.07	0.45	0.12	6.35	14.63	22.47	0.24	0.01	1.22	0.04	**98.93**
T060	CA30	CFM	CPX	-35+80PY	52.46	0.10	1.57	0.47	7.14	14.56	21.71	0.27	0.04	0.61	0.00	**98.93**
T060	CA30	CFM	CPX	-35+80PY	53.08	0.04	1.71	0.99	4.41	15.45	22.91	0.31	0.09	0.65	0.00	**99.64**
T060	CA30	CFM	CPX	-35+80IL	51.84	0.06	1.60	0.60	6.46	13.45	23.80	0.98	0.10	0.46	0.00	**99.35**
T060	CA30	CFM	CPX	-35+80PY	53.65	0.04	1.28	0.53	3.69	15.77	23.74	0.19	0.11	0.50	0.00	**99.50**
T060	CA30	CFM	CPX	-35+80PY	52.43	0.16	2.22	0.73	5.95	14.35	23.11	0.15	0.05	0.62	0.01	**99.78**
T061	CA30	CFM	CPX	-35+80IL	52.84	0.04	1.54	0.31	6.34	14.70	22.97	0.30	0.09	0.48	0.00	**99.61**
T061	CA30	CFM	CPX	-35+80PY	52.14	0.10	1.81	0.73	6.26	14.48	22.88	0.19	0.06	0.59	0.00	**99.24**
T067	CA30	CFM	CPX	-35+80PY	52.69	0.15	1.69	0.62	5.26	15.04	23.14	0.21	0.00	0.58	0.01	**99.39**
T068	CA30	CFM	CPX	-35+80IL	53.68	0.02	1.11	0.37	5.19	15.98	22.81	0.27	0.04	0.58	0.00	**100.05**
T069	CA30	CFM	CPX	-35+80PY	53.41	0.06	1.45	0.35	4.26	15.46	23.62	0.33	0.15	0.38	0.01	**99.48**
T069	CA30	CFM	CPX	-35+80PY	52.54	0.12	1.97	0.62	4.85	15.41	22.92	0.20	0.05	0.57	0.01	**99.26**
T070	CA33	CFM	CPX	-35+80PY	53.76	0.06	1.34	0.78	3.45	16.20	23.40	0.11	0.12	0.69	0.00	**99.91**
T079	CA32	CFM	CPX	-35+80PY	53.17	0.04	1.57	0.19	5.36	15.17	23.31	0.20	0.05	0.48	0.00	**99.54**
T084	CA33	CFM	CPX	-35+80PY	53.50	0.05	1.44	0.28	5.93	15.37	22.88	0.18	0.09	0.41	0.00	**100.13**
T086	CA33	CFM	CPX	-35+80PY	53.68	0.05	0.56	0.23	4.79	15.97	23.83	0.12	0.05	0.36	0.00	**99.64**
T086	CA33	CFM	CPX	-80HPY	53.28	0.11	1.52	0.03	3.59	15.79	25.22	0.13	0.00	0.29	0.00	**99.96**
T086	CA33	CFM	CPX	-35+80PY	52.99	0.22	1.93	0.53	3.45	15.62	24.08	0.11	0.00	0.56	0.02	**99.51**
T086	CA33	CFM	CPX	-35+80PY	52.78	0.11	1.56	0.73	5.03	15.82	22.45	0.17	0.08	0.58	0.00	**99.31**
T086	CA33	CFM	CPX	-80HPY	53.22	0.06	1.67	0.93	4.42	15.36	22.92	0.18	0.06	0.77	0.00	**99.59**
T086	CA33	CFM	CPX	-80HPY	50.72	0.48	3.61	0.90	6.78	16.22	19.98	0.15	0.09	0.22	0.00	**99.15**
T087	CA33	CFM	CPX	-35+80PY	52.49	0.22	1.49	0.02	3.83	15.58	24.46	1.06	0.03	0.13	0.00	**99.31**
T089	CA8	CFM	CPX	-35+80PY	52.28	0.11	3.50	0.27	4.85	14.91	23.15	0.14	0.04	0.51	0.00	**99.76**
T090	CA8	CFM	CPX	-35+80PY	52.83	0.06	1.29	0.59	6.57	14.71	22.82	0.29	0.05	0.49	0.00	**99.70**
T091	CA8	CFM	CPX	-35+80PY	53.39	0.08	0.85	0.81	5.64	15.59	22.03	0.18	0.05	0.71	0.00	**99.33**
T096	CA8	CFM	CPX	-35+80PY	52.49	0.11	1.34	0.60	4.35	14.30	24.75	1.18	0.02	0.36	0.00	**99.50**
T096	CA8	CFM	CPX	-35+80PY	53.06	0.10	1.83	0.88	3.98	15.44	22.78	0.18	0.05	0.79	0.00	**99.09**
T097	CA8	CFM	CPX	-35+80IL	52.81	0.06	1.38	0.41	5.65	15.04	23.36	0.19	0.00	0.41	0.01	**99.32**
T099	CA8	CFM	CPX	-35+80IL	53.74	0.08	1.58	0.97	4.94	14.89	21.48	0.12	0.04	1.55	0.00	**99.39**
T100	CA8	CFM	CPX	-35+80PY	52.41	0.09	1.81	0.20	7.65	14.62	21.98	0.28	0.02	0.59	0.00	**99.65**
T100	CA8	CFM	CPX	-35+80PY	52.11	0.11	1.24	0.07	9.61	12.08	22.80	0.45	0.02	0.90	0.00	**99.39**
T103	CA20	CFM	CPX	-35+80PY	53.51	0.05	1.25	0.35	5.07	15.90	22.97	0.19	0.09	0.34	0.00	**99.72**
T103	CA20	CFM	CPX	-35+80PY	53.51	0.13	1.49	0.57	6.13	14.95	22.70	0.20	0.06	0.70	0.01	**100.45**
T104	CA20	CFM	CPX	-35+80PY	53.51	0.08	1.32	0.18	4.64	16.19	22.77	0.14	0.00	0.58	0.00	**99.41**
T105	CA20	CFM	CPX	-35+80PY	53.46	0.07	1.38	0.25	5.73	14.41	23.77	0.37	0.03	0.67	0.00	**100.14**
T112	CA21	CFM	CPX	-35+80IL	52.82	0.04	1.58	0.53	5.56	15.39	22.28	0.17	0.07	0.54	0.01	**98.99**
T113	CA21	CFM	CPX	-35+80PY	53.44	0.10	1.02	0.48	5.78	15.11	23.07	0.18	0.06	0.47	0.00	**99.71**
T114	CA21	CFM	CPX	-35+80PY	53.55	0.05	1.36	0.18	5.81	14.48	23.11	0.19	0.03	0.83	0.00	**99.59**
T115	CA21	CFM	CPX	-35+80PY	53.28	0.00	1.84	0.41	5.11	15.29	23.05	0.21	0.07	0.48	0.00	**99.74**

Sample	Claim	Lab	Min	Fraction	SiO2	TiO2	Al2O3	Cr2O3	FeO	MgO	CaO	MnO	NiO	Na2O	K2O	Total
T118	CA21	CFM	CPX	-35+80PY	54.64	0.18	1.03	1.08	5.46	17.31	18.71	0.13	0.07	1.32	0.01	**99.94**
T119	CA21	CFM	CPX	-35+80PY	53.23	0.06	1.70	0.27	4.65	15.58	23.10	0.13	0.04	0.45	0.00	**99.21**

MICROPROBE ANALYSES OF ORTHOPYROXENE AND PSEUDOBROOKITE																		
Sample	Claim	Lab	Min	Fraction	Class	SiO2	TiO2	Al2O3	Cr2O3	FeO	MgO	CaO	MnO	NiO	ZnO	Nb2O5	Na2O	Total
T039	CA19	CFM	OTH	-35+80IL	PSBK-FE		59.26	0.17	0.03	28.55	0.71	0.05	1.71		0.08	0.02		**90.58**
T058	CA31	CFM	OTH	-35+80IL	PSBK-FE		57.92	0.11	0.02	33.73	0.15	0.02	0.85			0.01		**92.81**
T090	CA8	CFM	OTH	-35+80PY	OPX	53.66	0.05	5.76	0.01	10.75	29.78	0.07	0.07	0.01			0.01	**100.17**
T101	CA8	CFM	OTH	-35+80IL	OPX	56.82	0.00	1.25	0.20	7.49	33.30	0.10	0.11	0.26			0.01	**99.54**
T103	CA20	CFM	OTH	-35+80IL	PSBK-FE		58.76	0.10	0.03	32.18	0.42	0.01	0.79			0.03		**92.32**
T104	CA20	CFM	OTH	-35+80IL	OPX	54.44	0.01	1.51	0.17	16.96	26.31	0.49	0.40	0.09				**100.38**
T114	CA21	CFM	OTH	-35+80IL	PSBK-FE		57.66	0.08	0.03	33.45	0.16	0.03	0.60			0.02		**92.03**

MAJOR GENERAL RESOURCES LTD.
VICTORIA ISLAND INDICATOR MINERAL CHEMISTRY
NUYANK DATA SET

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MAJOR GENERAL RESOURCES LTD.
VICTORIA ISLAND INDICATOR MINERAL CHEMISTRY
NUYANK DATA SET

1. Introduction

The author was provided with a digital data set (NUYANK) of electron microprobe data of indicator minerals. The data set include analyses for the following minerals:

Minerals	NUYANK Data
Garnet	30
Chromite	11
Ilmenite	24
Olivine	2
Clinopyroxene	80
Other	7 (3 Opx, 4 Pseudo-Brookite)

The author was requested to examine the dataset and comment on the kimberlitic nature and suggested diamond potential of the indicator minerals. This report reviews the composition of the indicators but does **not** interpret the number of kimberlitic indicators per sample or the geographic distribution of the indicators.

2. NUYANK Data

The **garnet** population includes peridotitic and eclogitic garnets. No subcalcic (G10) or high-Cr_2O_3 lherzolitic garnets are present in the peridotitic population, but the dataset is small. The eclogitic garnet population does not include any garnets with compositions that have elevated Na_2O and TiO_2 consistent with inclusions in diamond. Most of the low Cr_2O_3 garnets with Mg# < 0.4 are probably crustal garnets and not eclogitic. Only two low-Cr_2O_3 garnets are definitely eclogitic in origin (Sample # T066 and T110).

The **chromite** population includes only low TiO_2 (< 1.0 wt%) chromites. Four chromites have MgO > 6.0 wt% and may be derived from kimberlites.

None of the **ilmenites** is derived from a kimberlitic source.

The **olivines** are probably derived from kimberlite source rocks.

Most of the **clinopyroxenes** are from mafic source rocks and not from kimberlites. One clinopyroxene is potentially a peridotitic chrome diopside derived from a kimberlite source (Sample T039).

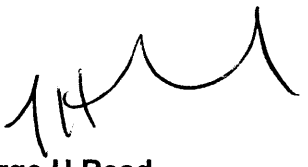
The **other** minerals include 3 orthopyroxenes and 4 pseudo-brookites.

The NUYANK data include indicators (garnet, chromite, olivine and possibly clinopyroxene) that are derived from kimberlite source rocks. No high interest indicators that indicate derivation from

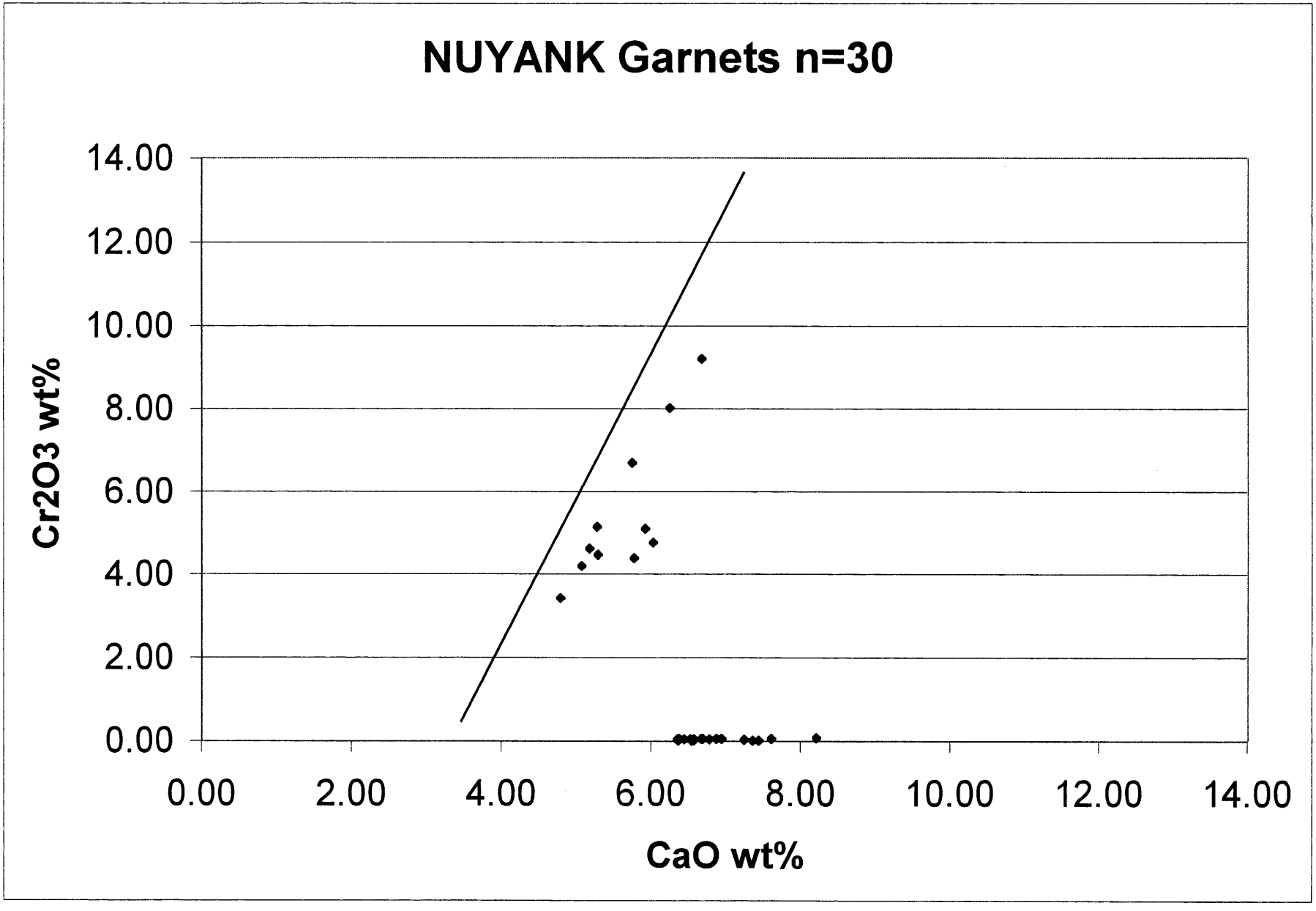
a potentially diamondiferous source are present in the dataset, but the number of indicator minerals is limited.

Note

This report represents the best professional opinion of the author based on the information available and the time constraints of the project. There may be other information not available to the author, which may change this opinion.



George H Read **May 15, 2001**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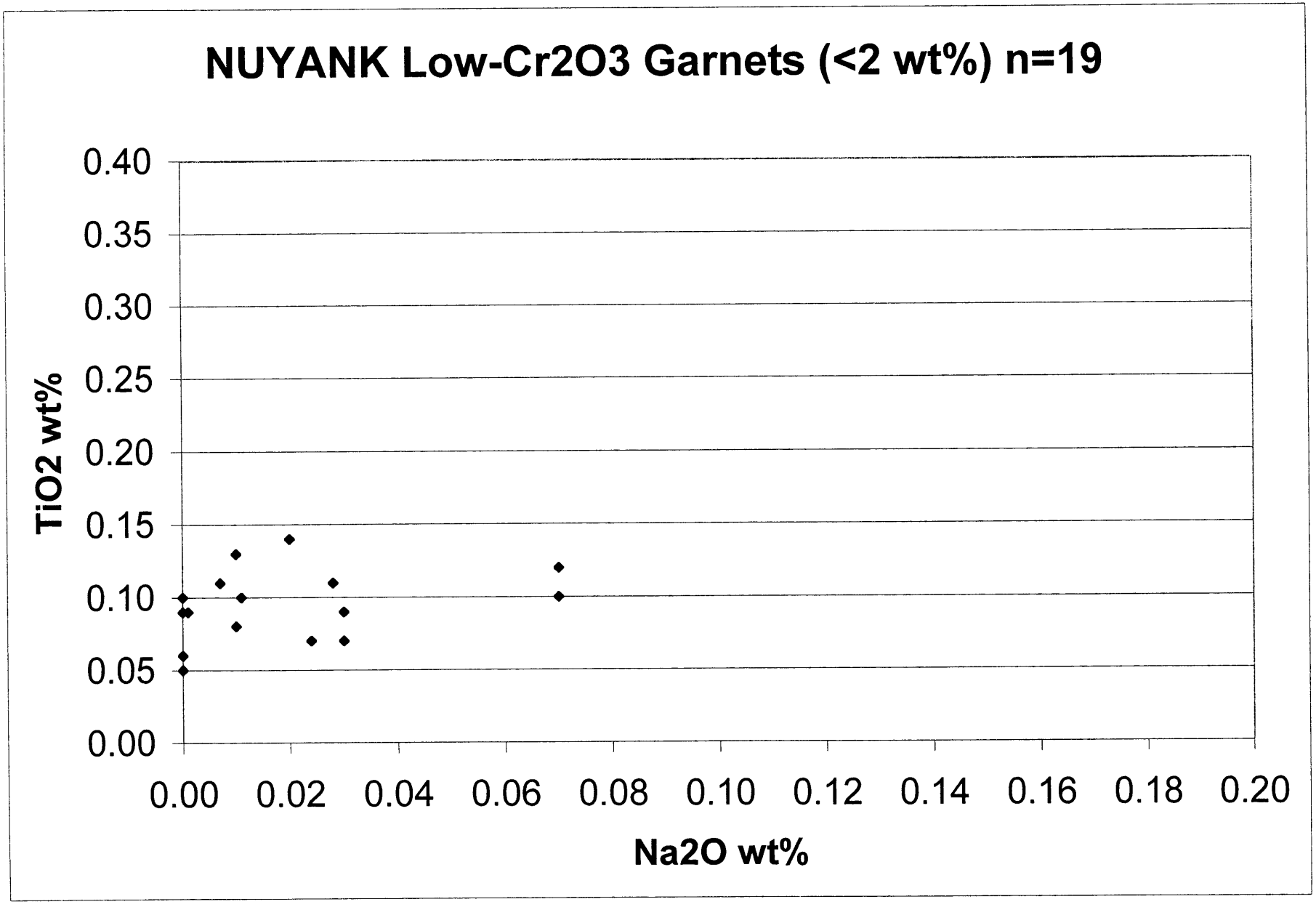
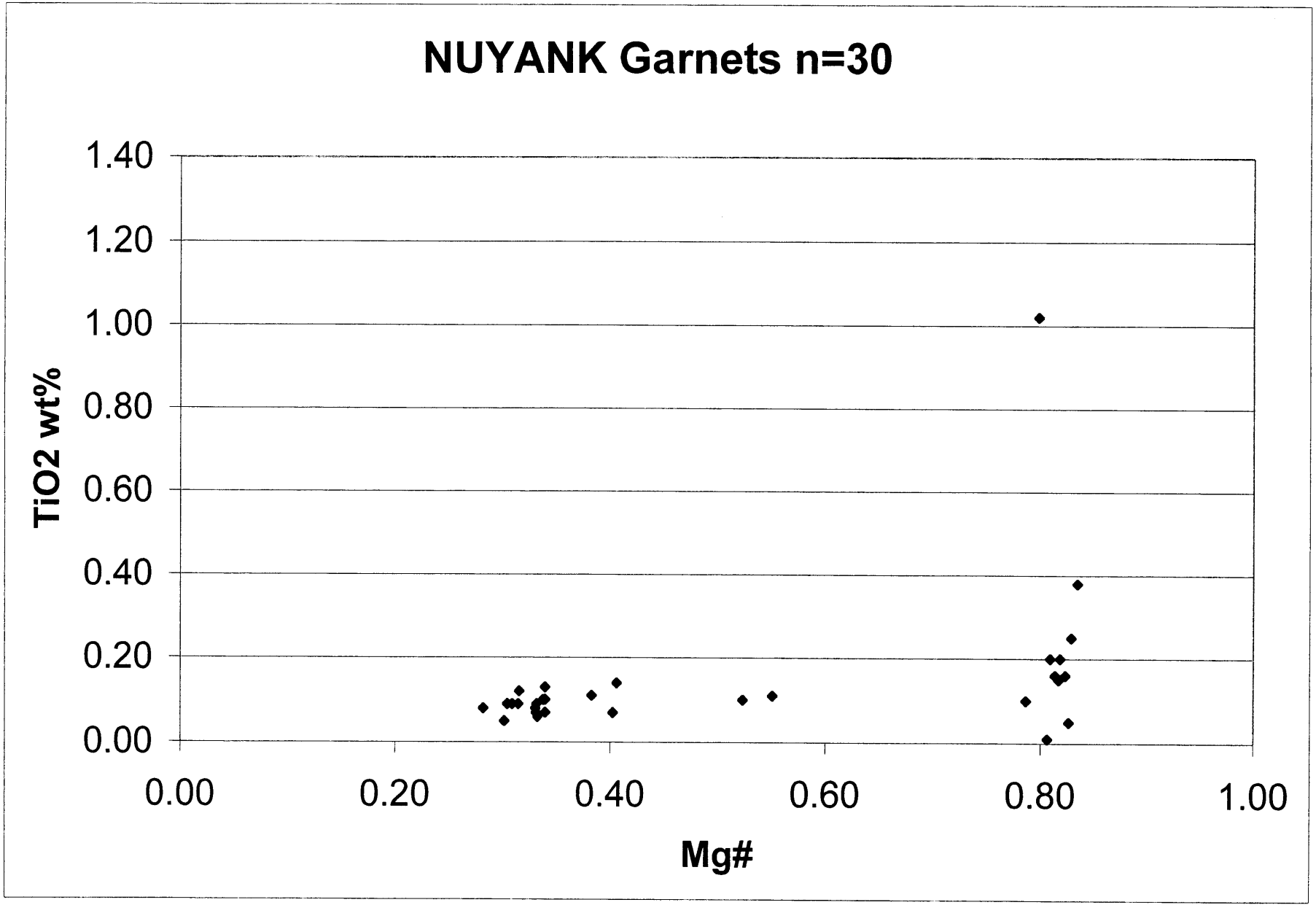
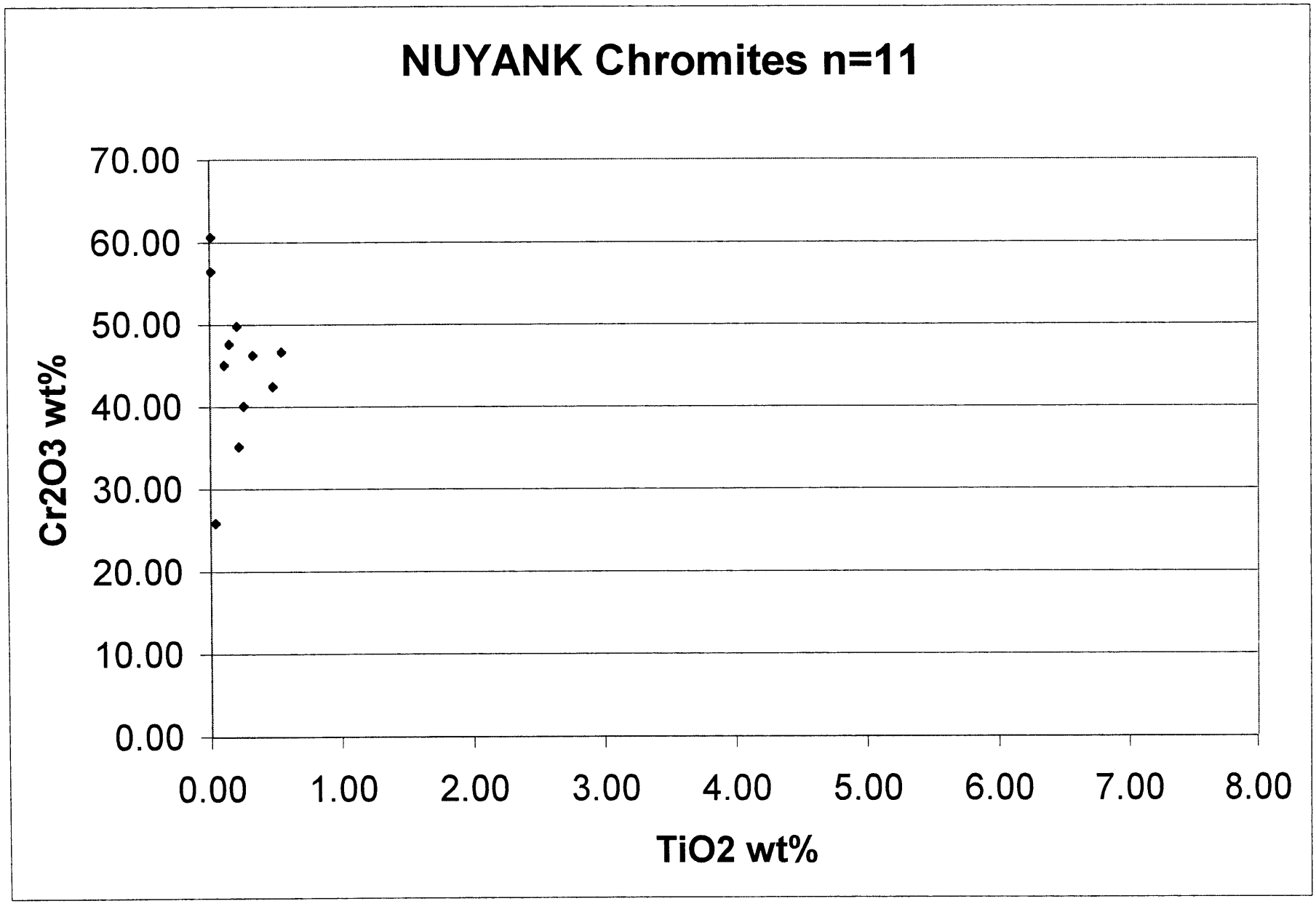
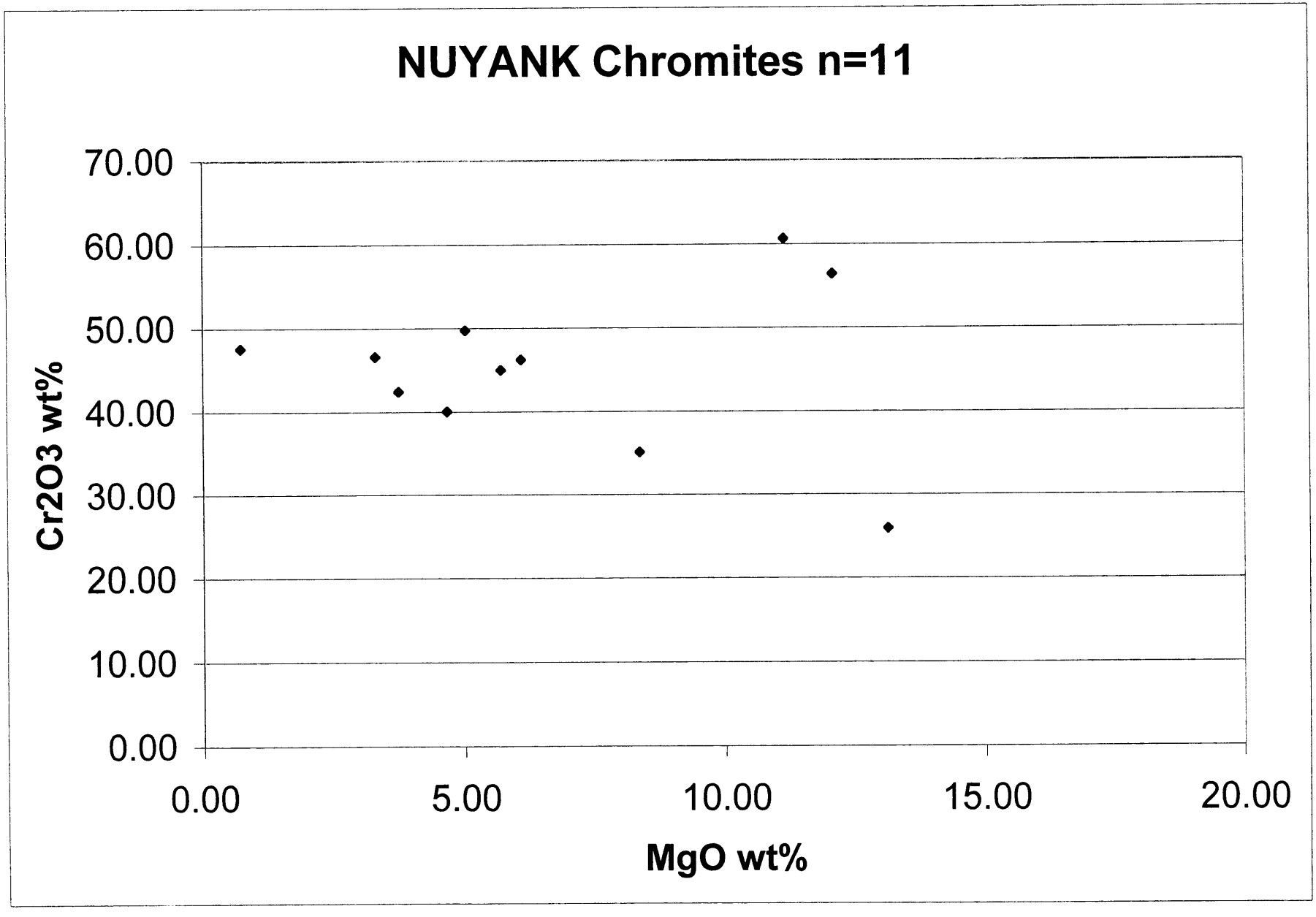
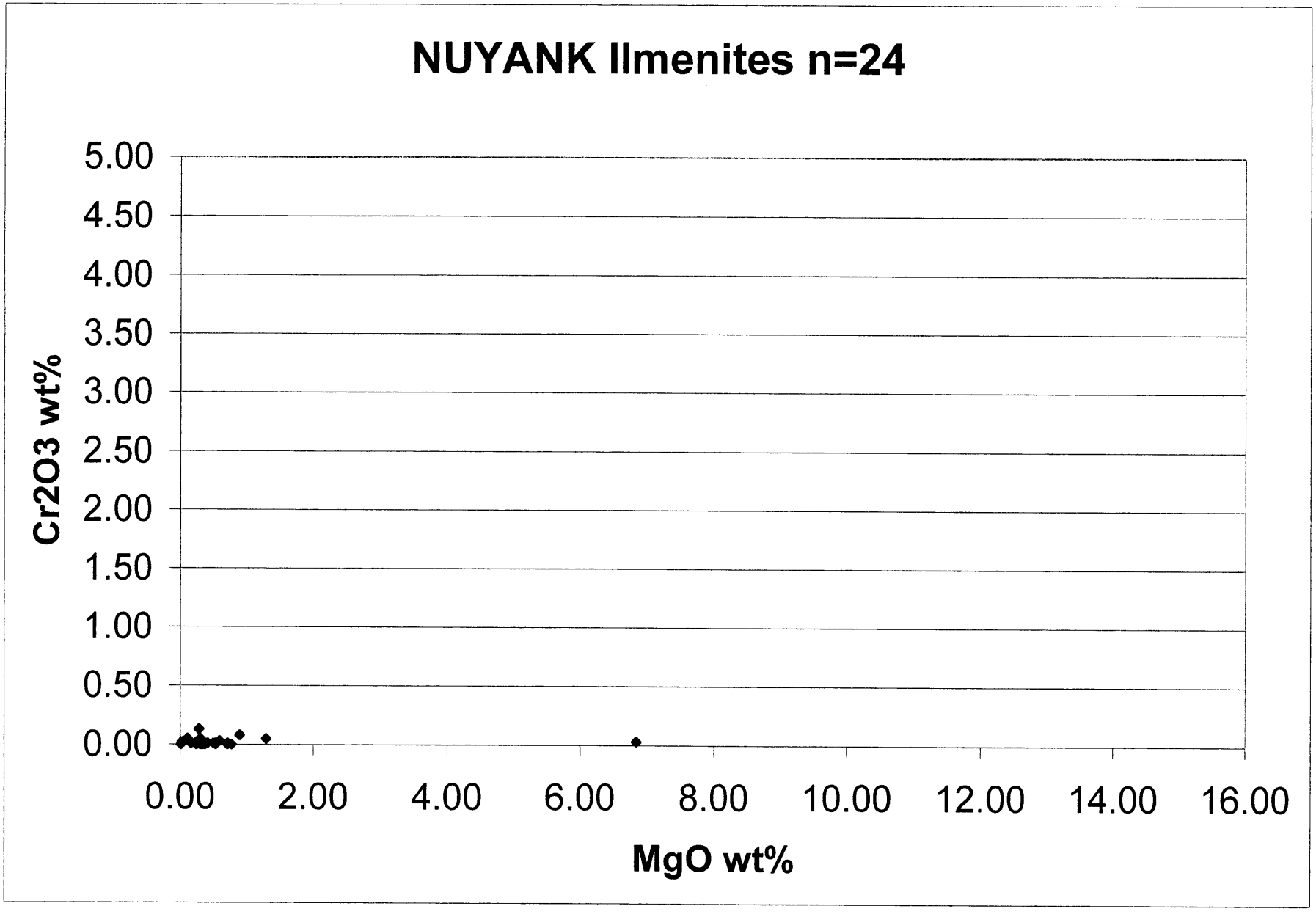
Cr2O3 wt%
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
CaO wt%

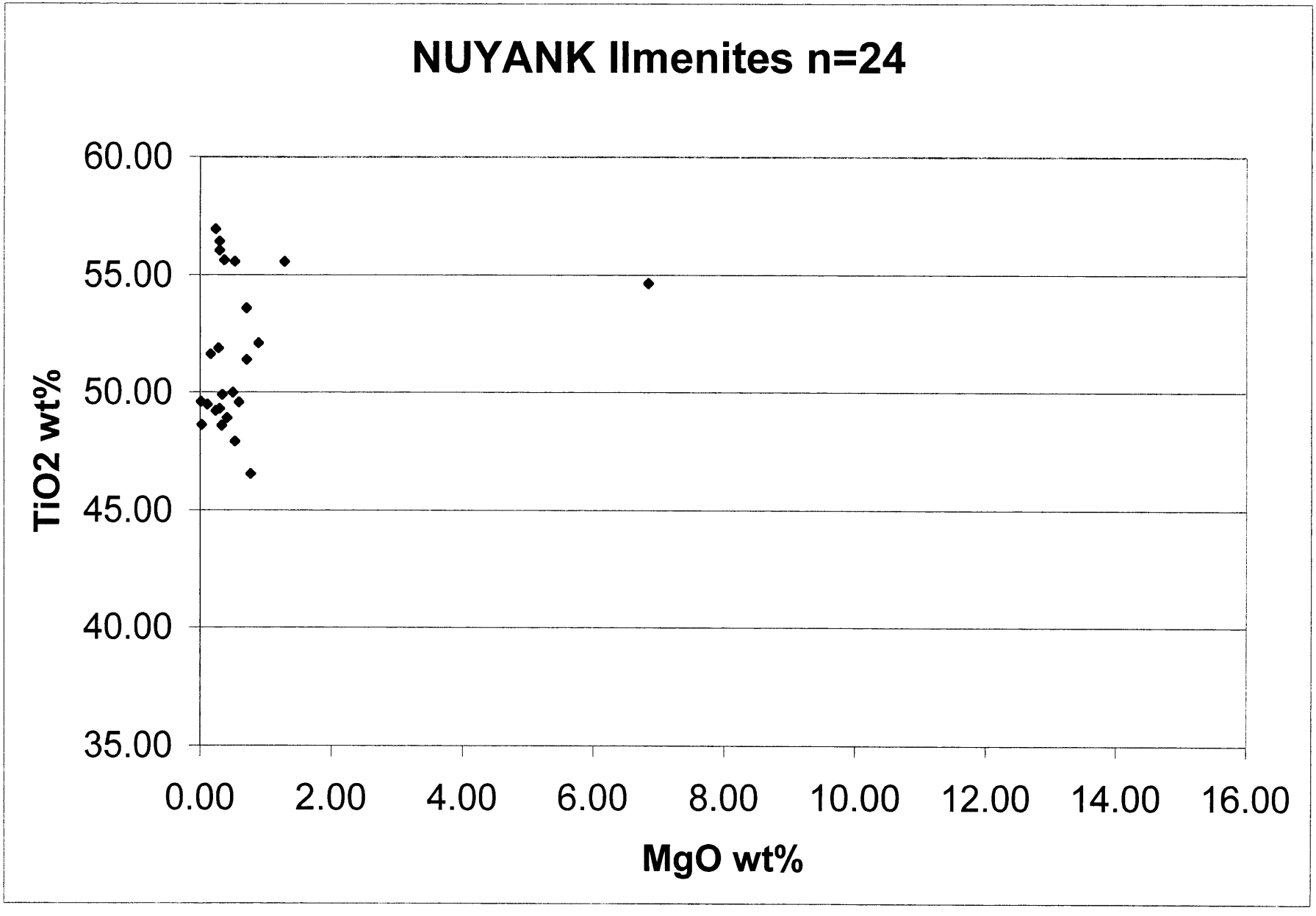

NUYANK Low-Cr2O3 Garnets (<2 wt%) n=19
TiO2 wt%
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
Na2O wt%

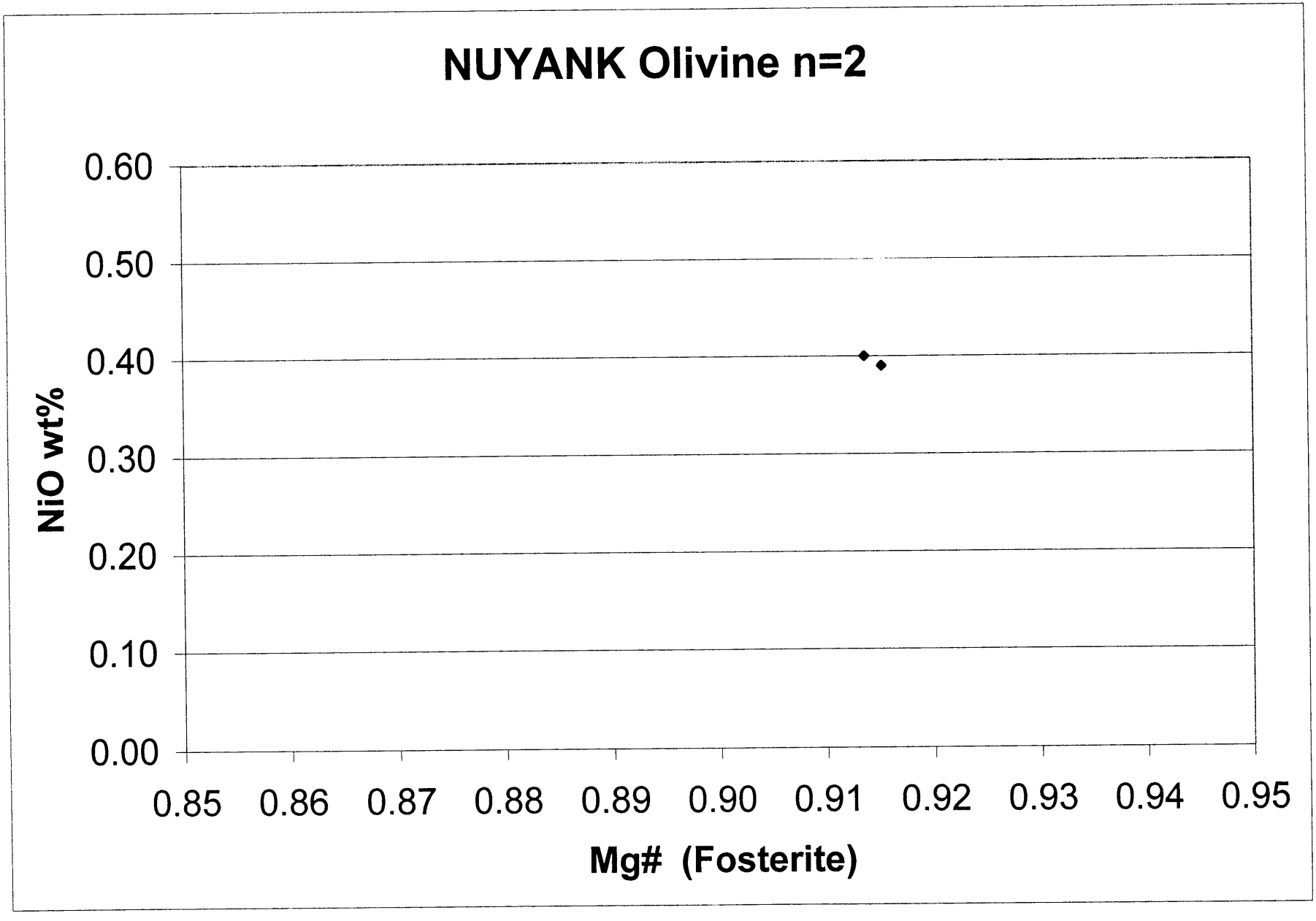

NUYANK Garnets n=30
TiO2 wt%
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.20
0.40
0.60
0.80
1.00
Mg#

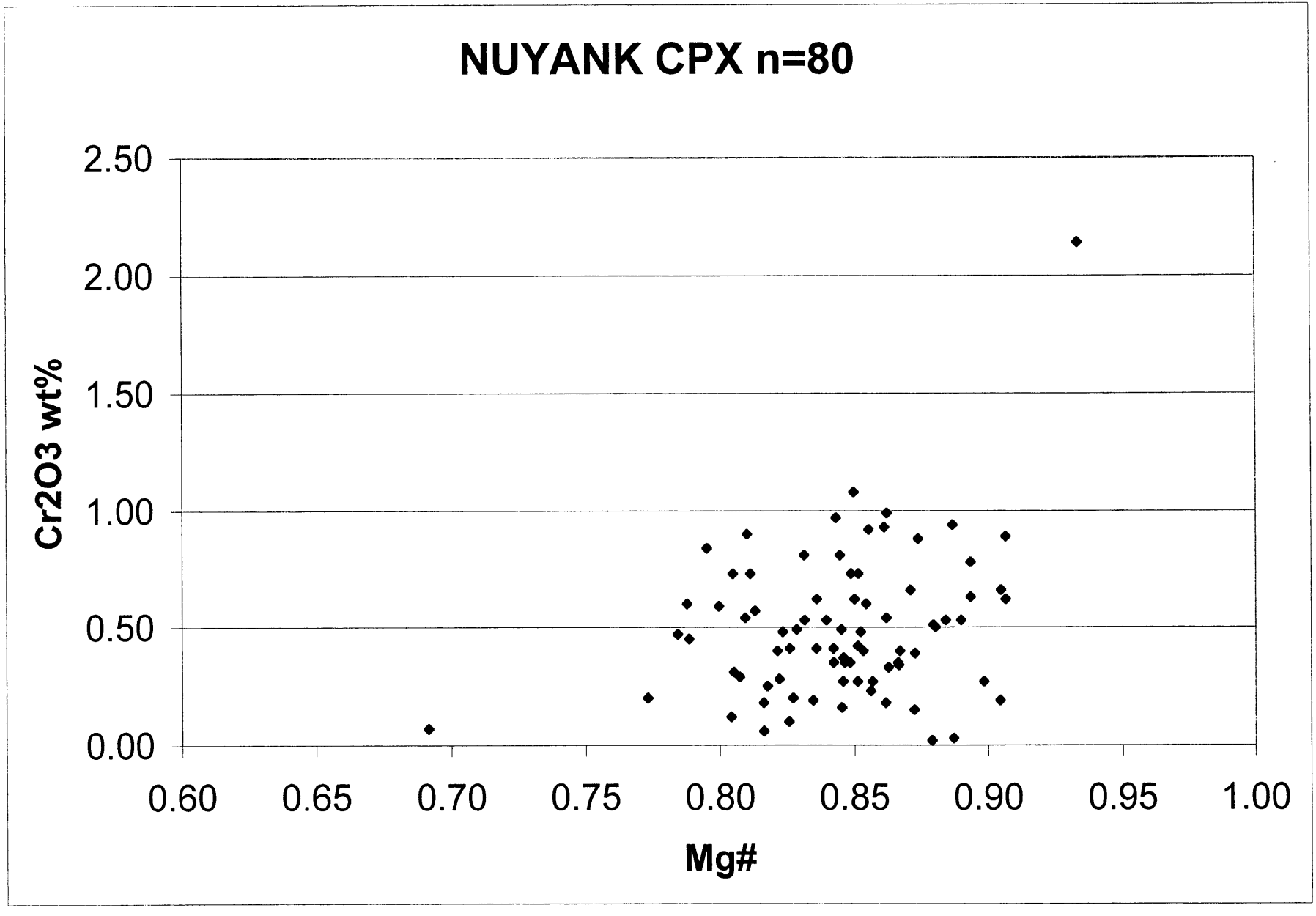

NUYANK Chromites n=11
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Cr2O3 wt%
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
TiO2 wt%


NUYANK Chromites n=11
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Cr2O3 wt%
0.00
5.00
10.00
15.00
20.00
MgO wt%


NUYANK Ilmenites n=24
Cr2O3 wt%
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
MgO wt%


NUYANK Ilmenites n=24
60.00
55.00
50.00
45.00
40.00
35.00
TiO2 wt%
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
MgO wt%


NUYANK Olivine n=2
NiO wt%
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.85
0.86
0.87
0.88
0.89
0.90
0.91
0.92
0.93
0.94
0.95
Mg# (Fosterite)


NUYANK CPX n=80
Cr2O3 wt%
2.50
2.00
1.50
1.00
0.50
0.00
0.60
0.65
0.70
0.75
0.80
0.85
0.90
0.95
1.00
Mg#