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MANY LAKES EXPLORATION COMPANY LTD.

SCHRYBURT LAKE CLAIMS

SCHRYBURT LAKE AREA

Patricia Mining Division,

Ontario

FINAL REPORT FOR YEAR 1961

December 1961

G. E. Parsons



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Page

CONTENTS

Summary, Conclusions and Recommendations	1
General -	
Froperty	2
Location and Access	2
Vegetation and Climate	2
Local Inhabitants	2
Government Mapping	2
Exploration Activity in the Area	3
History of Claim Block and Work Done	3
Assessment Credits Accumulated in 1961	4
Geology -	
General	5
Topography and Glacial Geology	5
Description of Rock Types -	
Country Rocks	5
Carbonatite	6
Sampling and Columbium Mineralization	6
Other Mineralization	10
Ground Magnetometer Survey -	
General	11
Interpretation of Magnetic Data	11
Considerations regarding Columbium Possibilities	
and Additional Exploration	13

Maps Attached:

No.1	Geology and Topography
No.2	Magnetic Data
No.3	Contoured Magnetic Data

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A circular carbonatite plug, one and one-half to two miles in diameter, is indicated by rock exposures and magnetic data. The carbonatite consists of varying proportions of calcite, apatite, vermiculite, magnetite, perovekite, and locally pyrochlore. The magnetic pattern is remarkably similar over the whole plug and consists of relatively narrow-ring-like zones of alternating higher and lower magnetic intensities. No sizeable magnetically anomalous units exist. Fyrochlore in interesting quantities has been located in only one trench, - No.28; it is associated with high radioactivity, with apatite-rich material and in close proximity to a near-massive magnetite band.

Although only approximately 1/35th of the area of the plug has been spot-sampled by pits and trenches, the magnetic pattern is so similar over the whole plug that one would not expect the pyrochlore content of the untested portion to be better than that already tested. The area tested by pits is restricted to the outer 2,400 feet of the circular plug. Although the writer does not expect that the central portion will be much different in its pyrochlore content, such a possibility does exist.

The writer considers that the chances of locating a columbium ore body of the size and grade required are not good, but he concedes that some additional work in the vicinity of trench 28 and anomalies A and B (see Map 3) might be advisable; particularly this would be the case if the drill results on the Big Beaver House claims are favourable.

The additional work considered advisable for the above area is as follows:-

- (1) additional prospecting, probing, scintillation checking, and digging of pits;
- (2) closer spaced picket lines over the anomalies to define more clearly their outline and internal pattern.

The time required for such would be from one to two weeks by a three-man crew at a total cost of between \$2,000 and \$3,000. If such work should be done and should indicate significant columbium-bearing zones, then it could be followed by X-ray drilling for the purpose of expanding the zones into areas not within reach by pits.

GENERAL

2.

Property

The property consists of 34 claims (approximately 1,360 acres) recorded on Schryburt Lake claim map, Patricia Mining Division, Ontario. Thirty claims, namely PA 28118-26 incl., PA 28140-44 incl., PA 28162, PA 28178-89 incl., and PA 28423-25 incl. were recorded on December 21,1960. Four claims, PA 29515-18 incl. were recorded on June 30, 1961.

Location and Access

The claim block is centered at longitude 89° 36' and latitude 52° 36', and immediately northwest of Schryburt Lake. It is approximately 80 miles N18° E of Pickle Lake, - the closest air-base. Schryburt Lake is suitable for any size of pontoon or ski-equipped plane.

Vegetation and Climate

The tree growth consists of jack pine, spruce, balsam, tamarack, poplar and birch. Some fair stands of merchantable-size spruce are present.

The area is on the south fringe of the permafrost zone and relatively small areas of permanently frozen ground exist on the claim block.

Local Inhabitants

There are no permanent residents in the area, although a trapper is active in the area during the winter months. The closest settlement is Big Beaver House, - a distance of 27 miles.

Government Mapping

There is no published geological map of the area covered by the claim block. An extensive area that included the claim block was being mapped this past summer in a reconnaissance fashion by the Geological Survey of Canada. One of their crews was camped on the south shore of Schryburt Lake early in June but had left before we arrived. Preliminary maps of this area are expected to be released early in 1962.

3.

Aeromagnetic Map No. 938G, entitled Ababigan Lake, covers the claim block and was released in October 1960; it is available from the Geological Survey of Canada and the Ontario Department of Mines.

Exploration Activity in the Area

The Indian trappers, - Robert and Alex Indian, tied on claims to the east of the claim block in the spring of 1961, but failed to record them. They were apparently intrigued by mica, magnetite and some sulphides in slabs of carbonatite in the rapids in the river as it leaves Schryburt Lake. No other prospecting activity was noted in the immediate area of the claims. Geologists for Rio Tinto and Steep Rock Iron Mines called into our camp during the summer, but in both cases the writer was in the bush and did not see them.

International Nickel and a number of other companies were active at Forester Lake, which is twenty miles to the southwest.

History of Claim Block and Work Done

The circular Schryburt aeromagnetic anomaly was drawn to du Pont's attention, along with the Big Beaver House anomaly, in October 1960 by the writer.

Thirty claims were staked on it between December 8 and 12, 1960, by a four-man crew and the writer.

Field investigations were carried out by this crew and the writer from June 16 to June 30, and from August 5 to August 19, 1961. The programme was interrupted in the intervening period by a travel ban due to forest fires.

Following is a summary of the work completed during this programme:-

Linecutting -	- 32.5 miles
Magnetometer readings	- 2371
Geological mapping of	- 34 claims
Pits dug -	22 (1-6' deep)
Trenches -	6 (329 linear feet)
Samples submitted to du Pont	- 50
" " " Ont. Dept.	Mines 10

Assessment Credits Accumulated in 1961

Linecutting Geology - field w	• ' ork • .	i a a i	61 days 60 "
- office	work - '		7 "
Magnetometer - 1	field work -	· · ·	37 "
	office work -		12 "
· · · ·			4 888
•	Total		177 days

Taking field days as 10-hour days, and office days as 8 hours, this gives a total of 1,732 hours. An 8-hour day on technical surveys is equivalent to 4 assessment days. This gives a total of 866 assessment days, or sufficient to hold 21.6 claims for one year.

GEOLOGY

General

A circular carbonatite plug, one and one-half to two miles in diameter, is indicated by outcrops and by the magnetic data. One small outcrop area indicates the country roc¹ for the plug is in part at least granite; however, the linear aeromagnetic pattern suggests that it is mostly gneiss. Carbonatite has been exposed in pits and trenches in two relatively large areas (several hundred feet across) and three small areas in the north and west part of the plug. The carbonatite consists of varying amounts of calcite, apatite, mica (vermiculite), magnetite, perovskite and pyrochlore. Except for two trenches, the columbium values are low and only in one of these is there evidence that this columbium is mostly contained in pyrochlore. Perovskite is common to all samples, and in a good number in sufficient amount to explain the columbium value.

5.

Topography and Glacial Geology

For the most part the terrain is near; flat and swampy. Sand and boulder ridges and knolls, silty outwash plains, and carbonatite rubble areas are scattered throughout the claim block. The maximum relief above the general flat terrain is about 25 feet. The carbonatite rubble areas are characterized by brown, micaceous, radioactive soils of slight relief.

The overburden is believed to be generally light. Although the summer was abnormally dry, the water-table remained relatively close to surface and prevented a number of pits from reaching solid carbonatite.

Two streams radiate from the centre of the claim block, and a third starts just off the claims to the north. Bumpy areas of permafrost are common throughout the claim block.

Description of Rock Types

<u>Country Rocks</u>. In the northeast part of the claim block, in claim PA 29518, three outcrops of granite were found. Alteration of the granite was not particularly pronounced and mainly in the form of pyroxenitization. One narrow carbonatite dike cuts across one outcrop. Carbonatite. The carbonatite consists of varying proportions of calcite, magnetite, apatite, mica, amphibole, and generally as minor accessories, - perovskite, fluorite, pyrochlore and sulphides. It varies from nearly pure calcite to almost pure apatite. Bands of nearly massive magnetite several feet across are also present, and in some cases carrying up to 10% perovskite. Green streaky fragments and bands consisting mostly of apatite and mica are common features in the carbonatite.

Except for the outcrop and boulder area in the river running out of Schryburt Lake on the east boundary of the property, all the carbonatite found is a granular type. In the river it occurs as slabs and as a solid outcrop in its floor. Where the granular carbonatite is near surface, it is covered with residual soils, - generally brown, micaceous and radioactive.

Sampling and Columbium Mineralization

Forty-five samples were assayed for columbium by du Pont. Six of these were check-assayed by the Ontario Department of Mines, as well as one other sample assayed. The Ontario Department of Mines also performed one qualitative spectrographic analysis and two X-ray diffraction mineral identifications. Fifty samples were examined by the writer under the microscope, and a rough estimate of their mineral content as well as the columbium assays are given on pages 7 and 8.

A black non-magnetic mineral, identified as perovskite in sample 20D by X-ray diffractometry, is common to most of the samples. It is particularly abundant in the samples from pit No.4 where it is close to 15% of the sample. Although there appears to be no direct correlation between the amount of visible perovskite and the columbium assay, it probably is the chief source of most of the low columbium assays.

Pyrochlore, as olive-green crystals, was noted in three samples (pit No.3 and trench samples 21B and 28D). In the latter sample, these crystals are quite common and probably account for most of the columbium in that assay $(1.82\% \text{ Cb}_20_5)$. This sample was a composite from patches of highly radioactive material in carbonatite. The material is mostly apatite and the radioactivity here was the highest located on the claim block. The trench was dug on the evidence of radioactivity, and is in a dry 'island' about 75 feet square surrounded by swamp. Additional trenching could be done here to prove whether these higher columbium values are part of a zone or merely occurring in localized pockets. The size of the dry area prevents the opening up, by trenching alone, a zone of sufficient size to constitute an ore body; however, trenching combined with X-ray diamond drilling could possibly determine whether such a sized zone was probable or not.

6.

Р. т	%	Location		Min	erols		Remori
No	Cb205		, Møjor	I	n termed	Minor	
1	. 069	LBE, 37+00N, 0+00E	С	A	, M	V, Per ≈%	<
2	.054	T. L. 52 N, 11+75E, 0+10N	C			Μ	• • •
3	.14	T.L 52N, 13+00E, 0+355	C	1		M, Pyr.	
4	.081	LBE, 51+05N, 2-10 W		M	, A,V,Per(ys•∕,) ⊂	
5	.024	LBE, AS+BSN, 0+1.5W		c,	A, M, V		}
6	.035	L16E, 50+BON, 0100W		С,	A, M, V		
ל	No 3	omple 116E, 27+25N 0+00W	С.		•		
8	.021	LIGE, 22+80N, 0+25E	C	•			
୬	.010	1.12E, 25+15N, 0+25E	C	'Α		M, V.Par	
10	.052	LIRE, 26+BON, O+00E	C			M, A, V, Per	
11		LIZE, ABTION, OTOOR	C			•	
12		LBE, 37+00N, 0+75E		. :			Cerbono7
13	<.05	L32E, \$4+00N, 1+20W	С	, A	٩	M, V, Per.	
14	1	L32E, AA+00N, 0+35W	(V .	MA	
15	.025	1325, 44+00N	C	· .	V	MA	
16	.048	128E, 38+66 N, 0+20E	C	: F	A, M .	V. Per	10 1
17	.086	128E, 38+70N, 0+95E	C		٩, ∨	M, Per.	•
18	1,19.	20 2.1, 22, 28 ore Tr	enches	sed n	next sh	e c. T	
23	No Sample	-J2 E, 13+803, 1+10E		1			in grave
24	.043	132W, 7+00N, 0+43E	С				
25	086	132W, 7+00N, 0+00E	С	A	N	M V Per	•
26	. 11	L32W, 1+20N, 0+26E	M. Fin	. Morilius	۰ د	V, Per.	N+T radio
27	.072	120W, 7+55N 1+29E	C	M		V, A Per	5./.
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SCHRYBURT LAKE PIT SAMPLES

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For Mineral abbreviations see next sheet * Assayed by ont. Dept. of Mines; all other assays by dupont SLHRYBURT LAKE TRENCH SAMPLES

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SAMPLE	Width	70	. OCTIVITY in Trench;	Maler	Intermod	Minor	Remarks
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Trene	- h #	18	128W	9+09N	, .	,	· ·
IRA	10	.057	50	C		A, M, Per	
I B	16	.086	50	C	•	", Per	
C C	14	. //	75-100	C	A,M	Per	<i>i</i> .
D	Greb	.15	175	M 80%	Á	Per	
E	6	.043	100	C	A, M,V		and the second second
F	6	057	150-250	M 70.	6 A,		magnatite de carde porones
G	23	072	50.75	C	A		eperite in errents
H	24	.057	50	<u> </u>	<u>IA</u>		
1			•				•
Trer	nch '	19	1	11	ł	1	
19A	16	.057	100-150			A, M, V	
B	9		75.100	C		AMV	more D. MEV, Then other edjacent
C	13	.072	50-75		1	AMV	Semples
	28	10	15.100			A.M.V	
	22	.014		C		A.M.V	1
		.00	3 75.100		C, A, M,	V	
Tre	nch	#20			•	1	
204	4 5	1.08	6 25-50	10	M, A		magnatite & apatite às sires as
	3 12	19	150.25	OM,V		A, C	mognetite coorde
	3 6	.04	3 50-75	C	M,A		manality from Man
	0 600	0 .31	150	M BO	1/0 Per 10	4. <u>C</u>	1110551041114
				•			
Tre	nch	"21		1	1.	104	Treach almost along strike
21	A //	.05	7 100-15	0 6	M 18.		
ł	B 5	.07	2 150-25	OCM		A, V, Y	
1	C 6	.07	2 100.15	o C		A, M, V	orcanetite course
- i - i	D /	• 3 :	3 500	MY	0%	A V Per	
	E 24	<u>''</u> 2	6 100			Trank of a state	
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11	enci		1 70 -15	OLAM	c	V, Per	
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	13		0 4.5.20	AV		jc, M,	Por yellow suil sample
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SOME CLARIFICATION OF
TREAKH #18 SKEECHER AND DEENCH
- INTERIAL AND A
WEATHERED CARS FULL LENGTH
EF 13-6A1
BLACK - DK PURILE GARBONATITE OF GREY WHITE MIN. ABUNDANT
? LITTLE BIOTITE SOME BROWN GRAINED? ZIRCON? OR
PYR?.
EF13-6A2 ASSAY
EF 13-7 · KIDTIT I an addition
LAMPEROTARY
EF 15-8: F. GV BIOTITE LAMP W/CARBONATITE. STRIPE MAYBE A DIRE
EF 13-9: U.C. GRAINED. ? POLOMITE BARRIER.
EF 13-10: F.? GR. CALCITE CARBONATITE
EFI3-11: E? CALSITE RIDTE ADD
CHAD.
I RENCH 19: ENTIRE TRENCH IS HIGHLY WEATHERED CARB. ??
TAKEN @ TOP OF TRENCH. MO OK. ? ? SURFACE.
TRENCH 20: (TR ? FILLED & CAVED).
EF13-16 MAGNETIC VEINS IN BI, MAY CARE ON EDGE OF TP
EF 13-17 BLACK DEMSE FI GR POCK ON EDGE OF TR
TRENCH DI. FUTURE TREAM
EN 12 11 2 TAGEN IN WEATHERED OARS.
EF. 15-4 : MASSIVE IN. GR. WHITE CARBONATITE, STRIKE 320.
EF. 13-5 DEEPLY WEATHER CARBONATITE GNEISS, MAGNETITE, AU
BIOTITE, CALCITE, BROWN GRAINS.
TRENCH 22: ENTIRE TRENCH IN CARB. SOME ? ?

2 ARIFICATION CONT'D. TRENCH 28: OC SEF 13-13AI IN GR. BI MAY? AP(?) SAVITE. EF 13-13A2 ASSAY المراجع والمراجع والم (EF 13 - 14 AI F. GR BI- CARB VOLC. DR. MAFIC FROM والمرور والمرور والمرار المرورين المراويين والمراري والمراري والمراري والمراري والمراجع والمراجع والمراجع والم EF 13-14A2 ASSAY LIP DF TR EF 13-14B EF-15 COMPOSITE SPL? OF WEATHERED CAN? SULVEY 1

Sample 21E in trench number 21 gave $0.26 \text{ Cb}_{205}/24 1/2$ feet. An examination of the sample under the microscope failed to locate any pyrochlore although some was noted in the same trench in sample 21B. Perovskite is present in sample 21E, but it is doubtful if it accounts for all the columbium.

Other Mineralization

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10.124

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12.52

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A qualitative spectrographic analysis of a massive magnetite-rich 'boulder' in carbonatite in trench 20 gave:-

> L-M (0.5 - 5%) - Ti L (0.1 - 1%) - Cb, Zr, Mn T (.01 - 0.1%) - U, Th, Ni, P'), Cr Not detected - Be, Ce, Co, Cu, Ge, Li, Mo, Ag, Ta, Sn, W, Y, Zn

This assay fails to indicate any element of interest other than columbium.

Although magnetite is present throughout the plug, the magnetics deny any sizeable deposit of this mineral. Apatite is also common, although only locally in sufficient quantity to be classed as a major constituent in the carbonatite. It is most consistently abundant in trench 28 where the best columbium assays were obtained.

Most of the mica present appears to be vermiculite. It is common to most samples; it is a light yellowish green colour and rather fine. In some areas, it may constitute 50% of the carbonatite. It is a mineral to which a little attention should possibly be given if we are back in the area.

GROUND MAGNETOMETER SURVEY

General

The survey was made with an Askania Vertical Intensity Torsion Magnetometer. The instrument is capable of recording magnetic variations of as little as 3 gammas. The normal procedure was followed for the survey, with regular check-ins to base stations, and corrections made to the readings to compensate for diurnal changes in the magnetic field. The picket lines for the survey were spaced 400 feet apart, and the readings along these lines were taken at intervals of 50 or 100 feet, depending on the amount of change in the intensity observed. A total of 2,371 individual readings were made; they are recorded on Map No.2 and contoured on Map No.3.

Interpretation of Magnetic Data

The contoured magnetic data are presented on Map No.3. A distinctly circular plug one and one-half to two miles in diameter is indicated, with a magnetic intensity generally in excess of 2,000 gammas above that of the immediate area.

Pits and trenches indicate the higher magnetics are due to disseminated magnetite-rich areas in carbonatite and near-pure bands of massive magnetite. The magnetics are sufficiently similar over the whole plug to deduce with reasonable certainty that the rock types throughout the plug are similar to those already exposed.

The magnetics over the plug are characterized by frequent, narrow and Magnetic data are required along more closely spaced lines isolated highs. than the present 400-ft. line spacing before the contour-pattern may be accurately The present data indicate discontinuous ring-like bands paralleling established. Possible exceptions to this pattern exist in the circular outline of the plug. the central and the central west part of the plug where there are areas of magnetics with a slightly north of west trend. In the latter area, i.e. the one mostly in claim PA 28126, this trend is confirmed by the overall banding pattern Although ring-like banding is characteristic of the carbonatite in the trenches. of carbonatites, it is often of a crude discontinous type, and exceptions in trends to the overall pattern are to be expected.

The magnetics indicate no sizeable anomalous zone that might be

definitely considered as a uniform body with a relatively constant mineral content. Anomalies marked A, B, C and D on Map No.3 are the only ones that take on any semblance of the magnitude required for a columbium ore body. Anomalies C and D probably owe their apparent size to the combined effect of several narrow bodies that are covered by heavier overburden than some of the other areas.

In the area of trench 28, a number of linear magnetic zones are occurring sufficiently close together to constitute a definable zone of possible economic interest. However, a banded type zone with a <u>variable</u> pyrochlore content is more than probable for this type of zone.

The sharpness of the magnetics in the north and west part of the plug indicates light overburden, which is confirmed by residual soils and rock in pits.

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CONSIDERATIONS REGARDING COLUMBIUM POSSIBILITIES AND ADDITIONAL EXPLORATION

Since the spot-sampling by pits and trenches of two substantial areas on the outer 2,000 to 2,400 feet of the plug failed, except in trench 28, to indicate significant columbium, and since the magnetic pattern over the remaining outer portion of the plug is rather similar, it is considered that further work in this outer zone of the plug is not justified except in the immediate vicinity of trench 28; additional work here could modify or nullify the above conclusion.

No rock has been located in the central part of the anomalous area. Two anomalous zones here probably merit some additional attention. One is in the north part of claim PA 28144 and marked "A" on Map No. 2; the other (marked "B") is in the central part of claim PA 28150 and trends in a northwestwardly direction into the northeast part of PA 28124. The peak of the latter is in a water-soaked swamp and probing here failed to locate solid ground. The northwest part of this anomalous zone is in dry ground. No carbonatite soil was noted here, and the magnetics indicate it may not be close enough to surface to test by pits.

Anomaly A is quite sharp, indicating that it should be close to surface; however, no carbonatite rubble was noted here while mapping. The peak of the anomaly is in very gently sloping ground between a sand ridge to the east and a swamp to the west. It is covered by thick secondary growths of spruce, birch and pine. . No pits were attempted here last summer due to the lack of time, The peak of the anomaly itcelf, between lines although some had been planned. L8W and L12W, is not large enough to constitute an ore body, and in fact additional magnetometer readings between the lines are required to prove it actually is continuous between the two lines, as contoured on Map No.3. On the other hand, if columbium mineralization is present, it will likely extend well out from the peak so that the anomalous zone from L8E to west of L12W (i.e. a 2200-ft. long zone) could have columbium possibilities. Test pitting is justified here to try to get samples for assay.

If additional trenching should be undertaken, and possible zones of columbium mineralization of merit indicated, then it is probable that X-ray drilling would be sufficient to determine if widths of this mineralization exist. Such equipment is capable of holes to 175 feet and is operated by two men.

G. E. Parsons.

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RESUME

Schryburt Lake Carbonatite

- Ref (1) Geol. Surv. of Can. Geoph Paper 938 G, Obabigan Lake
 - (2) Many Lakes Exploration Co Ltd., Schryburt Lake Claims, Final Report for Year 1961 by G.E. Parsons
- Location: Long 89°36', lat 52°36', immediately northeast of Schryburt Lake and approximately 80 miles NNE of Pukle Lake, the colsest air asc.
- History: A carbonatite plug was indicated by aeranagosatic(?) map ref(1) issued late in 1960. The writer staked same in mid-Dec of the same year. This was followed by linecutting, geological mapping, a ground magnetic survey and trenching in 1961.
- Description: The carbmatite, as indicated by rock exposure and magneties(?), is a circular plug 1½ to 2 miles in diameter. The carbmatite consists of varying proportions of calite(?), magnetite, apatite, vermisculite(?), amphibole, and generally as minor accessories perovskite, fluoits, pyrochlore and sulphides.

Green streaky bands and pods consisting chiefly of apatite and vermisculite are common features; pods and bands of magnetite up to several feet across are also present and in some cases, the magnetite has up to 10% perovskite associated with it.

The magnetic pattern is remarkably similar over the whole plug and consists of relatively narrow ring-likzmes(?) of alternating higher and lower magnetic intensity. No sizeable magnetically anomalorcs(?) units exist.

Approx. 1/35 th of the area of the plug was spot sampled by pits and trenches. The areas test fall in the outer 2500 ft width of the plug. There is no indication from the magnetics that the other portions of the plug are mineralogically different from those tested.

The carbmatite only occurs in exposures as rubble ? solid rock is readily ? under such(?) rubble.

DUPLICATE COPY POOR QUALITY ORIGINAL TO FO!LOW

Recune 5 chryburt Lake Carbonatile

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Arreste

Ref 11) Sert. Surv. of Can burgh Paper 938 B, ababagan Luke (2) Many Lakes Explantion Colta, Schapburt Lale Claune, Final Report for year 1961 by B.P. Parsone

Location : Long 89°36', lat 52°36'; monaduately sorthand of Schupbert dale and approx 80 meda NNE of Packle Lales the closest airbase

Stistoy: a carbonatile plug war indicated by alranagardic map ref 11) sourced late in 1960. The inster staked same in mid- Dec of the same year. This was followed by linecatting, geological mapping, a ground magnetic survey and treaching in 1961.

Description The Carbonatile, as indicated by noch exposure and magnetics, is a circular plang 12 to 2 miles in diameter. The carbonatite consists of varying proportions of achite, magnetile, apatite, vermiculite, amphibole, and generally as minor accessories perovokite, fluorite, pyrahlae and sulphides

Green sheaky bands and pode of Consisting Chiefly of aprilie and verniculite are common fistures; pode and bunds of magnetite up to several fect ecros are also present and in some Cases, has up to 10% perovskite associated with it.

The magnetic pattern is remarkably semilar over The whole plug and courses of relatively manow ring-like 3 men of alternating higher and lover magnetic interisty. no sizeable magnetically anomalous units exist.

Approx 1/35 the of the area of the plug was not sampled by pite and Trenches. The areas test fall in The outer retor 2500 ft width of the plug. There is no indication from the magnetics that the other portions of the plug are membrally different from ithre tested.

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Schryburt Cont'd

The carboactive rubble areas are always slightly radioactive and range up to 20 x background.

Columbium Mineralization

Fifty-five samples from 28 test pits and trenches were assayed for columbium. Of these 43 samples were below 0.1% Cb_20 , 8 between 0.1 and 0.3% and four from 0.3 - 1.82%.

Perovskite appears to be the chief source of the columbium values in all the low grade samples. Pyrochlore as olive green cuptals(?) was noted only in this e samples and is quite common in the sample assaying 1.82% Cb₂O. Apatite is a major constituent(?) of most of the samples with higher columbium values; magnetite is a major constituent of some of the biottic(?) grade samples however there is no direct(?) condostion(?) between amounts of magnetite and pyrochlore.

No direct condation between the amount(?) of pepachlore(?) and radioactivity was detected, however the most radioactive sample gave the highest columbium value.

OTHER MINERALIZATION

Vermiculite is common to most of the carbmatite and locally may be up to 50%. It is rather fine grained.

Apatite is also common, but only locally could it be classified as a major constituent. It is generally more prevalent in sections with magnetite and/or vermiculite.

One spectrographise(?) anal?pis of the most highly radioactive material revcalled(?) mky(?) a trace of rare earths.

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Columbium Minerolization

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One spectrographic analyses of the most highly radionative material revealed may a trace of save carthe .

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MANY LAKES EXPLORATION COMPANY LTD.

(3) 1961

BIG BEAVER HOUSE CLAIMS

MISAMI KWASH LÄKE AREA

Patricia Mining Division,

Ontario

FINAL REPORT FOR YEAR 1961

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December 1961

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G. E. Parsons

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MANY LAKES EXPLORATION COMPANY LTD.

BIG BEAVER HOUSE CLAIMS

MISAMIKWASH LAKE AREA

Patricia Mining Division,

Ontario

FINAL REPORT FOR YEAR 1961

December 1961

G. E. Parsons



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CONTENTS

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Sumr	nary and Conclusions	1
Gene	ral -	
	Property	2
	Location and Access	2
	Vegetation and Climate	2
	Local Inhabitants	3
	Government Mapping	3
	Exploration Activity in the Area	3
	History of Claim Block and Work Done	4
	Assessment Credits Accumulated in 1961	5
	Summary of Claim Numbers and Recording Dates	6
Geol	ogy -	
	General	7
	Glacial Geology and Topography	. 7
	Description of Rocks -	
	Pyrochlore Point, Camp Lake	9
	Camp Point	9
	West of Camp Point	10
	Sampling Results, Pyrochlore Point	11
	Economic Geology	13
Grou	nd Magnetic Survey -	
	General	14
	Interpretation of the Magnetic Data	14
Drill	Programme -	
,	Non-Geological Considerations re Drill Hole	
	Locations	16
	Geological Considerations	16
	~	

SUMMARY AND CONCLUSIONS

A carbonatite-type columbium-bearing complex approximately two miles in diameter is indicated.

The magnetic data suggest substantial quantities of magnetite are present, but the distance to markets at the present time denies exploitation of this ore. Apatite, pyrochlore and sulphides are the other economic minerals most likely to be present. The anomalies are of such a size and extent to constitute major ore bodies.

Although the area at the moment is rather inaccessible for exploitation, this situation could change literally over night.

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The writer considers the planned exploratory drill programme of 3,000 feet to be definitely justified.

GENERAL

Property

The property consists of 64 claims (approximately 2,560 acres) recorded on the Misamikwash Lake Area claim map, Patricia Mining Division, Ontario. The claim numbers and dates of recording are tabulated on page 6.

Location and Access

The claim block is centered at longitude 89° 55' and latitute 52° 54'. It is three miles south of the Trading Post of Big Beaver House, and 103 airmiles north of the air-base at Pickle Lake Landing. Trans Air Ltd., in addition to operating a charter air service, fly on a weekly schedule (every Tuesday) from Sioux Lookout and Pickle Lake Landing to a number of Trading Posts of which Big Beaver House is one. Air freight rate from Pickle Lake to Big Beaver House is 9¢ a pound. This rate is halved for in-going flights if fish is available for back-haul.

Camp Lake, on the north boundary of the claim group, is large enough for a Norseman aircraft (carries 1600 lbs.) in spring, - i.e. during high water, but only for a Cessna 180 (carries 600 lbs.) in late summer and fall. Likewise, the claim group is accessible via canoe from Big Beaver House during high water, but only with considerable difficulty during low water in the late summer and fall.

Vegetation and Climate

The tree growth consists of jack pine, spruce, balsam, tamarack, poplar, and birch. Some good stands of merchantable-size spruce and pine are present on the claim block. A good portion of the ground was burnt over several years ago and is now covered by thick secondary growth.

The lakes become free of ice around May 24th and freeze over around October 20th. The area is on the south fringe of the permafrost zone, and small isolated areas of apparently permanently frozen ground exist in the claim block. No irosts were noted during the three months (June, July and August) that we were in the area; the summer, however, was an abnormally warm and dry one. The local inhabitants at Big Beaver House plant gardens and successfully grow such vegetables as potatoes, carrot^{*}, calbage, lettuce, raddish, beans, etc.

Local Inhabitants

Big Beaver House has a Hudson Bay Store, an Anglican Mission, and a school. The population is approximately 125 Cree Indians. They make a living by trapping and fishing. They are superstitious and religious. Church services are held twice a day seven days a week. They are good, willing workers but tire of extended periods of employment. They understand only a little English; they are cheerful and honest.

Government Mapping

There is no published geological map of the area covered by the claim block. An extensive area that embraces the claim block was being mapped this past summer in a reconnaissance manner by the Geological Survey of Ganada. One of their crews was camped near Big Beaver House in late June; however, we did not meet any of them. Although we did not see any evidence that they examined the anomaly covered by the claim block, it is more than prohable that they did so. Preliminary copies of their maps are expected to be released early in 1962.

Aeromagnetic Map No.939 G entitled 'Big Beaver House' was released in October 1960. It is available from the Geological Survey of Canada and the Ontario Department of Mines.

Exploration Activity in the Area

In February of this year, International Nickel Company cut a base line and one cross line into the claim group. A check with their field man this summer revealed that they had planned to stake the ground in the belief that it represented a basic plug. They have a base camp at Forester Lake, some thirty miles to the south of Big Beaver House, and they worked out from there last January and February and again from July to September. One would be a little suspicious that they had already flown the Big Beaver House anomaly from the air and picked up E.M. anomalies and were proceeding to do ground checks. At Forester Lake a staking rush developed during the summer. Apparently Inco did not do any staking in the winter, but when they returned in July they found that Rio Tinto had made a nickel find and staked. At one time, it is reported that there were eighteen canoes on ForesterLake. A substantial find here could bring transportation a lot closer to Big Beaver House. Heath & Sherwood report they will be drilling for Inco in the Forester Lake area this winter.

No companies were noted or reported in the immediate area of the claims during the summer. Several well-known companies planned on examining and/or staking the Big Beaver House anomaly, but their plans were foiled by our staking.

There was no evidence that the rocks we found on Camp Lake were previously prospected or examined.

History of Claim Block and Work Done

The Big Beaver House anomaly was drawn to du Pont's attention in October 1960 by the writer. The opinion was expressed that it was a carbonatite-type, or closely related type, plug.

An agreement was made for the writer to examine and stake the anomaly.

Fifty-four claims were staked between December 1-7 by a party of five and the writer and recorded on December 21, 1960.

The period March 4th to April 4th inclusive was spent on the property by a four-man crew cutting lines and doing a magnetometer survey. The writer spent the period March 18th to April 4th with the crew. Two additional claims were staked at this time.

The period May 30th to June 15th was spent prospecting, mapping, linecutting and doing additional magnetometer work. Four claims were staked to cover outcrops at Camp Lake. The crew for this period averaged 4.5 men and the writer. Work was suspended at this time to permit investigation of the Schryburt claims.

The period August 20-29 was spent trenching and completing geological and magnetometer coverage of certain claims to meet basic requirements for assessment reports. The trenching was concentrated on Pyrochlore Point, Camp Lake. Nine chip samples were taken from these trenches. Four more claims were staked to give more protection to the showing on Pyrochlore Point.

4.

The following summarizes the work done:-

- 64 claims staked

- 63 1/4 miles of picket line cut, magged and mapped

- 4740 magnetometer readings taken

- 58 claims sufficiently covered by geologic and magnetic surveys to meet assessment standards (time requirements accumulated to date are only sufficient for 48 claims) 5.

 about 800 feet of earth removed in trenches (105 linear feet)

Assessment Credits Accumulated in 1961.

Linecutting ·	-	190 daув
Magnetic Survey (field work)	-	78 "
(office work)	-	45 U
Geology (field work)	•	67 "
(office work)	-	17 "
Total	•	397 dave

Taking field days as 10-hour days, and office days as 8 hours, this gives a total of 3,846 hours. An 8-hour day on technical surveys is equivalent to 4 assessment days. This gives a total of 1,923 assessment days, or sufficient to hold 48 claims for one year.

Summary of Claim Numbers and Recording Dates

Claim Numbers	No. of Claims	Date of Recording
28109-17	9	Dec. 21,1960
281 27 - 39	13	Dec.21,1960
28145-61	17	Dec.21,1960
28163-77	15	Dec.21,1960
29388-89	2	April 6,1961
29513-14	· 2	June 30,1961
29522-23	2	June 30,1961
29524-27	4	.Sept.8, 1961
•••••	64	

6.

GEOLOGY

General

The only rock located on the claim block was along the south shore of Camp Lake in claims PA 29513 and PA 29527. This rock consists of carbonatite and gneiss; the latter shows the characteristic pyroxenitization and biotitization encountered adjacent to carbonatite intrusions. Carbonatite boulders are scattered along the full south shore of Camp Lake and also up the east shore. Pyrochlore was only noted in the carbonatite outcrops and boulders in the vicinity of Pyrochlore Point and in the boulders on the east shore. The remainder of the claim block is covered with glacial drift.

Glacial Geology and Topography

Glacial deposits dominate the topography. High hills of boulders, gravel and sand with silty outwashes rise above a general flat-lying terrain. The high hills are essentially terminal moraine types and the flat-lying terrain composed of till and clay deposits.

The sketch on the next page roughly illustrates the main topographical features and outlines the areas of estimated deep overburden. The chief economic significance of the glacial deposits is in the depth and character of the overburden. Heavy overburden will certainly detract from the value of the ground due to the cost of stripping for open pit mining, and the cost of penetrating with exploratory diamond drilling. The area coloured in red, and possibly also that in purple, will be very expensive to drill through because of the preponderance of boulders in sand. No drill holes should, initially at least, be laid out to collar in these areas.

Certain features in the topography are possibly diagnostic of underlying structures. A river to the south of the property flows northeasterly along the dominant glacial fluting until it reaches the Big Beaver House anomaly and then turns eastward as if it had encountered a topographical obstruction. No less than five small streams originate on the claim block and flow outward from it; this also tends to indicate a topographically high area.

Trending in a northwestwardly direction, - i.e. at right angles to the glacial fluting, are a number of distinct lineaments. These are particularly prominent on the aerial photographs south and east of 40E Lake. They are not restricted to the anomalous area and, since they parallel the



regional strike of the gneissic country rocks, they are probably largely an expression of those rocks. On the other hand, some coincide with interpreted faults.

Description of Rocks

Pyrochlore Point, Camp Lake. A carbonatite dike crosses L 48E between 50 + 70N and 51 + 00N along the south shore of Camp Lake. It is exposed in trenches and outcrops for a 130-ft. length, and widths up to 30 feet. It strikes northwest-southeast and dips 35° to 60° to northeast. Its footwall or south contact with altered gneiss is exposed in three trenches, but its north contact lies under Camp Lake.

This carbonatite dike consists of compact calcite with light, brigh green amphibole and colourless apatite along slips and seams. The weathe 'ngout of the apatite along the slips and seams has created loose slabs of carbonatite scattered along the lake shore. Magnetite is common in the east part of the dike but absent in the west part. Another shiny black non-magnetic mineral is present.

Pyrochlore is visible throughout most of the dike. It is fairly abundant along apatite-amphibole seams and can be readily panned from these weathered seams. The pyrochlore occurs as small discrete crystals. On the weathered surface, the pyrochlore varies from a light olive green to dark brown. Internally the crystals are dark brown and sometimes with a lighter coloured border.

The outcrops of this carbonatite dike are only slightly radioactive (approximately twice background) and in this respect show little difference to the altered gneiss.

Gneiss is exposed to the south of the above carbonatite dike in three trenches. It is highly fractured and brecciated and is now more in the form of solid blocks and fragments in a granular matrix of biotite, pyroxene and calcite. Some of the blocks of gneiss show little alteration with quartz, feldspar and epidote distinctly recognizable. Narrow seams of carbonatite cut this gneiss. One carbonatite seam in the most westerly trench is more radioactive than normal (4 times background); it has a pinkish-red mineral resembling eudyalite as well as some barite.

 $\frac{\text{Camp Point.}}{\text{of L 44E.}}$ The tent camp is immediately west of Pyrochlore Point, at the end of L 44E. The tent camp is immediately south of this point. Carbonatite boulders as slabs are common between low and high water marks.

9.

Although the evidence suggests bedrock must be close, probing failed to establish it above water level. The carbonatite rubble is rather pure calcite with only minor amounts of magnetite and mica. No pyrochlore was noted in this carbonatite rubble except for one or two slabs on the east side of the point; these slabs resembled so much the material from Pyrochlore Point that they are considered to originate from this dike.

West of Camp Point. On the point that lies between L36E and L40E, carbonatite rubble is abundant and two possible outcrops exist. There is less amphibole and more magnetite (5-10%) in these exposures than at Pyrochlore Point. Apatite is also common plus some mica and sulphides. No pyrochlore was noted although the radioactivity is similar to that on Pyrochlore Point.

Further west between L32E and L36E is a rubble area along the shore line composed entirely of highly pyroxenitized and altered gneiss boulders. These indicate that bedrock is quite close at this point.

Sampling Results, Pyrochlore Point

The sketch on page 12 shows the geology and the location of samples taken on this point. The samples and assay results are tabulated on page 11.

The samples are not too satisfactory because of the difficulty experienced in cutting a representative sample. The pyrochlore tends to be concentrated along thin apatite-amphibole seams which have weathered out to form depressions. This has created a slab-like weathered surface. It is quite easy to pan samples relatively rich in pyrochlore from the weathered soils in the cracks.

The assay results are lower than expected, and doubt might be cast as to whether all the mineral interpreted visually as pyrochlore is actually that mineral. A sample consisting of the pyrochlore-rich portion (19C) of a soil sample was submitted to du Pont in October for the primary purpose of determining the character of the pyrochlore. It should also indicate whether all the mineral visually considered pyrochlore is actually pyrochlore.

The limited spectrographic analyses of a black non-magnetic mineral indicate the presence of a titanium-rich mineral with a small amount of columbium. A similar black mineral from Schryburt gave a perovskite pattern by X-ray diffraction.

Portion of pyraklar nimeral is now know to de given PS

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Big Beaver House Claims

Chip Samples Taken from Trenches on Pyrochlore Point, Camp Lake. (for location see sketch following)

Somple H	Width In Feet	0% Cb2O5	Remarks
B. B. H. 16	7	0.003	Fragments of gneiss in Distite - calcite - Pyroxene matrix
Bri 11	7	0.009	Carbonatite; minor apatite, mica and amphibole
B. B H 12	9	0.047	Carbonatite with seams of amphibule and apatite - some with pyrochlore; very minor magnetite a sulphices.
BBH 13	5	0.02	ditto
8 B H 14	7	0.47	ditto more visible pyrochlore than normal
BBH15	6	0.02	as BBH 11
BBH16	3	0.12	as BBH 10
BBHIT	14	0.038	Carbonatite; more amphibole-apatite scams than normal; some pyrochlore; 50% magnetite
BBH18	7	0.02	ditto

- A	Ti over 10% (ND 0.1-1.0%	Spectographic Andlysis)	Flat black non- - magnetic crystal
- B.*	Ti 0.5-5.0% ND 0.1-1.0%	n	Rough magnetic concentrate from BB 19
- C		pyrochlore-rich concentrate delivered To Dypont 310-161	


Economic Geology

The sampling of rock on Pyrochlore Point indicates that it is not of ore grade. Even if it were, the writer considers it is part of a dike and its width may be not much more than that exposed, - namely about 30 feet, and hence of little value.

The chief significance of the showing is that it indicates we are dealing with a pyrochlore-bearing carbonatite complex. It also indicates that the pyrochlore is associated with apatite-amphibole mineralization. The latter is more likely to occur in the border phase of carbonatite zones or the border phase of a carbonatite core.

Although the major economic possibility of the complex is columbium, other possibilities should not be entirely discarded. The fact that International Nickel Company cut lines into the property may indicate that they had picked up E.M. anomalies over the complex from airborne They, and a number of other companies, were quite active this surveys. past year at Forester Lake, thirty miles to the south, and it is a safe assumption that they previously flew this Forester Lake area. Inco have a drill programme laid on for here starting in the new year using the tractor-If a major nickel find should be made here resulting train road for access. in smelting operation, not only would access to the Big Beaver House complex be radically altered, but also it might create an outlet for apatite and/or carbonate.

The one spectrographic analysis of a rough magnetite concentrate indicates a titanium content between 0.5 - 5.0%. Although a more accurate analysis is required to be certain, the magnetite could be sufficiently low in titanium to make iron ore. There are certainly substantial quantities of magnetite present, but the location of the complex denies just now any hope of its economic exploitation.

GROUND MAGNETIC SURVEY

General

The survey was made by an Askania Vertical Intensity Torsion Magnetometer. The instrument is capable of recording intensity variations as low as 3 gamma, - an accuracy far in excess of that required for this type of survey. The readings were taken at intervals of 100 or 50 feet along the picket lines, depending on the amount of change in the intensity observed. A total of 4,740 individual readings were taken. General data on the method of survey, etc. were given ina previous report dated April 1961 and will not be repeated here.

Interpretation of the Magnetic Data

An interpretation of the magnetic data must be tentative until additional clues are obtained from drilling. The isolated and roughly circular outline of the anomalous area indicates it is an intrusive or injected complex. Its size, about two miles in diameter, falls in the general size bracket of diatreme-carbonatite plugs. The carbonatite outcrops and rubble on the shore of Camp Lake confirm its carbonatite character.

Although the complex is distinctly circular in outline, internally there is a marked absence of ring-zoning. The writer knows of no other complex that is sufficiently similar from which one could with reasonable certainty draw conclusions to its internal character.

Magnetically the complex breaks into two segments, - a northwest one with a more uniform magnetic relief averaging about 5,000 gamma above base level, and a southeast segment with a highly variable magnetic relief ranging up to 16,000 gamma. Two of the most likely conditions producing such a magnetic pattern are:-

- the northwest segment is a carbonatite mass and the southwest segment is carbonatite zones interbanded with magnetite-rich pyroxenitic zones and/or apatite zones;
- (2) the northwest segment is early emplaced pyroxenitic intrusion and the southeast segment is this rock cut by apatite-magnetite zones and carbonatite.

Originally the writer considered that the anomalous southeast segment

was essentially composed of a magnetite-bearing ijolite breccia. This was based on the high degree of disorder in the magnetic pattern and the intersecting of linear magnetic trends suggesting rupturing, brecciation, etc. that were apparent in the magnetics of last spring. Since then, additional magnetic data have eliminated some of this apparent disorder and now suggest that most of the anomalies may actually have a linear trend in a northeasterly direction. Additional magnetic data are required to confirm fully this possibility.

13

An interpretation of the magnetic data has been attempted and presented as Map No.4. This is based on the assumption that the complex is essentially of a type noted (1) above, - i.e. a carbonatite, and that the magnetic anomalies are essentially linear and trending in a northeasterly direction. Considerable liberty has been taken in this interpretation and certain anomalies have been forced into the northeasterly trend to conform with the overall pattern although the present magnetic data do not indicate that that is their trend.

There is a good deal of evidence to suggest that the continuity of the anomalies is interrupted by cross-faulting. A number of anomalies appear to be cut off or terminate along straight lines, strongly suggesting faulting. Some of the magnetic lows associated with interpreted faults are too wide to consider as a simple fault and have to be considered as fault zones. The possibility exists that they are in part filled by late non-magnetic dikes and/or are deeply eroded gorges.

In the interpretation, the anomalous zones are numbered in an attempt to illustrate a possible correlation across the interpreted faults. There is sufficient correlation in the amount of apparent offsetting of the anomalies and the contact of the complex to give considerable credence to such a fault pattern. One fault that does appear definitely to exist is one trending northwestwardly about 500 feet southwest of Zero Lake. The contacts of the anomalous southeast segment are offset approximately 1,000 feet to the west on the south side of the fault. South of this fault the magnetics are more depressed, suggesting the causative bodies may be more deeply buried.

Although the writer is not prepared to vouch for the accuracy of the fault pattern in the interpretation, he is reasonably convinced that block faulting is present, and that a variety of "vertical horizons" in the complex are likely present in the fault blocks.

The interpretation indicates the need for additional magnetic data on certain anomalies to define more definitely their shapes. No anomaly should be drilled before its outline is completely tied down.

Non-Geological Considerations re Drill Hole Locations

(1) Proximity to Water. For winter drilling, extra costs and delays will result if the water line is much over one-quarter rile in length. Zero and 40E Lakes are considered as possible water sources; both are the head waters for small streams, but from the evidence along the shores both are shallow. If the winter is severe and there is little snow, one or both may freeze to the bottom. The possibility exists that some of the drill holes may inake water in sufficient quantity for subsequent holes.

(2) Depth and Type of Overburden. Silt, sand and gravel can be troublesome to penetrate if in excessive thicknesses. Such areas should be avoided where possible. The topography-geology map and sketch page 8 indicate the sections of higher relief underlain by sand and gravel and adjacent silt outwash areas.

(3) Distance between Holes. Drill contractors absorb costs for moves between holes of generally less than one-quarter mile. Where possible, drilling should be done in a sequence to keep moves to a minimum distance.

(4) Assessment Requirements. Since it is planned to submit the drilling for assessment credits, the holes should be distributed where possible to give maximum credits. Three years credits (120 feet) in addition to that already accumulated will be required for each claim to be patented; the amount of drilling in a claim should be multiples of 120 feet. Since only eighteen contiguous claims may be grouped together, the amount of drilling in one claim should not exceed (18 cls. x 120 ft.) or 2,160 feet. It is preferable to spread the drilling into as many claims as possible in order to have a number of groups to which additional claims can be added, if required, at a later date.

Geological Considerations

(1) Initial hole should test conditions that will give maximum clues to geology and mineralogy so that the magnetics may be re-interpreted and subsequent holes located on the best indicated features.

(2) An initial programme such as this should sample as wide a range of geological conditions as possible.

(3) Holes should test features that in themselves are large enough

or with similar adjacent features large enough to constitute an ore body.

(4) Some crude form of zoning is to be expected from the core to the flank of the complex, so that there could be a marked difference in the mineralogy of the inner and outer anomalies.

(5) The rocks are expected to dip inwardly. This may be revealed by magnetic profiles at right angles to the axii of the anomalies; such profiles should be run before drilling a hole.

(6) Pyrochlore is to be expected with apatite-magnetite-pyroxene zones in carbonatite. It will not necessarily be in the peaks of the magnetic anomalies, but the peaks will likely be the core of such zones.

(7) Some or all of the magnetic highs could be magnetite veins, etc. in pyroxenite or ijolite and carry little pyrochlore.

(8) Sulphides, if present, will likely be directly associated with magnetic highs.

Drill Programme

3

A number of suggested drill locations are shown and lettered on Map No.4. The results in the initial hole will have considerable bearing on the location of subsequent holes. In fact, only by utilizing the information from previous holes to decide the location of subsequent holes, are we going to get the maximum information from the drill programme. The following comments and suggestions are the writer's thoughts on the matter.

Hole #1, Location "A". This hole is designed to test the magnetic zone No.3 and its immediate southeast flank. This anomaly is situated approximately halfway between the interpreted core and the flank of the complex. It is also the strongest anomaly and one with which sulphides might be expected if they are present in the complex. It should give valuable clues as to the importance of the magnetic anomalies as well as the lows between these anomalies.

If this hole definitely indicates ore, consideration should be given to drilling another hole to cut 100 feet above or below the ore in order to determine its dip and continuity; especially would such be the case if a sulphide-type ore is encountered.

Subsequent Holes. The information in hole #1 should furnish the information that will permit us to decide on a location for the next hole. It

will likely be a case of picking a location towards the centre or towards the flank of the complex. For instance, if hole #1 should prove anomaly 3 to be uninteresting magnetite mineralization in pyroxenite or ijolite, then doubt should be cast on the advisability of drilling any holes closer to the rim of the complex, - i.e. through anomaly 4. Instead, attention should be directed towards the centre of the complex. It is possible that hole #1 will prove that anomaly 3 is due to apatite-magnetite mineralization favourable for columbium, in which case the anomalies closer to the rim as well as towards the core would have to be tested.

A number of possible locations for drill holes are listed below, with comments, to cover a variety of conditions.

> Locations B, C, D, E, F - These are alternative locations designed to test a portion of the "carbonatite" core, the border phase of the core and anomaly immediately adjacent to the core. Regardless of results in other holes, a hole at one of these locations seems desirable.

Location G_{-} If the results in hole #1 are decidely encouraging, then a hole at this location appears desirable as the anomaly here could be a faulted segment of one tested by hole #1.

Locations H, I, J, K, L - If the results in hole #1 indicate anomalous zone No.4 merits testing as well as the flank of the complex, then these are suggested alternative positions for this purpose.

Location M - If 40E Lake should freeze to the bottom, and it becomes necessary to pump water from Camp Lake, then this is a possible location for the first hole. Such a hole should give us a clue to the type of mineralization associated with the magnetic highs and their immediate environments and possibly also the carbonatite core. It would be a hole testing a weaker anomaly which could have a higher apatitepyrochlore content; it is possibly a hole that should be planned for drilling in any case. The reason for drilling it firstly would be that the hole might make sufficient water for the drilling of the rest of the holes further south.

P. Parma

G. E. Parsons.

Toronto, Ont. December 1961

MAPS ATTACHED

(all at a scale of 1 inch equals 400 feet)

Map No.1 Geology and Topography

Map No.2 Magnetometer Survey - Basic Data

Map No.3 Contoured Magnetic Data

Map No.4 Interpretation of Magnetic Data and Proposed Drill Hole Locations



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MANY LAKES EXPLORATION CO. LTD.

BIG BEAVER HOUSE CLAIMS,

Misamikwash Lake Area,

Patricia Mining Division,

Ontario

REPORT ON DIAMOND DRILLING 1962.

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March 1962

J.

G. E. Parsons



53A12SE0002 53A13NW0012 SCHRYBURT LAKE

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CONTENTS

	Page
Introduction	1
Comments on Holes, - Reasons for Location and Results	2
Comments on the Columbium Mineralization	6
Magnetometer Survey	. 7
Summary, Conclusions and Recommendations	8

Appendices

- (1) Drill logs, Holes 1 to 7
- (2) Vertical Sections, Hole 1, Hole 2, Holes 3-4-5-6, Hole 7
- (3) Sheets showing Distribution of Core and Split Samples

(4) Recommended Distribution of Drill Credits

INTRODUCTI ON

This report assembles the pertinent data on the drill programme completed during January and February, 1962.

The drilling started on January 28th and terminated on February 28th. A total of 3207 feet of drilling was completed, of which 736 feet was in overburden and 2471 feet in rock. The drillers experienced some delays due to very cold weather freezing up their water lines, etc., and a delay of two days waiting on more casing.

1.

The overburden was readily penetrated up to around 90 feet, then difficulties developed as the casing tended to sand-in and break beyond that depth. The rock drilling was exceptionally good with very little bit wear.

Ample water was available both in 40E Lake and Zero Lake. The stream running out of Zero Lake supplied water for holes 3, 4 and 5.

Sigfusson's Transportation gave good service once they got their tractor-road established. A good deal of credit must be given to the drill foreman, - L. MacPherson, for the rapidity with which the programme was completed; he was good at getting through the overburden and keeping the equipment working.

COMMENTS ON HOLES, -

REASONS FOR LOCATION AND RESULTS

2.

Hole 1

Purpose - The hole was laid out to test the strongest magnetic anomaly on the claim group, and the immediate environment of the rocks causing that anomaly.

Results - The hole indicated the portion of the magnetic anomaly over 12,000 gammas to be caused by an apatite-magnetite rock, and the adjacent lower magnetics caused by carbonatite.

No significant columbium values were obtained in typical sections of core assayed. The apatite-magnetite rock is being assayed for P_2O_5 , Fe, and checked for evidence of other metals. The size of the anomaly indicates 10,000 tons per vertical foot of this rock.

Hole 2

Purpose - This hole was laid out to test the outer flank of the complex. It tested a steep magnetic gradient from 11,000 to 7,000 gammas.

<u>Results</u> - The core was a mixture of so-called mafic rock and carbonatite. Fragments of partly replaced gnelss in the former indicate that this rock is a fenite, - i.e. a replaced country rock. No significant columbium values were obtained in this hole.

Hole 3

<u>Purpose</u> - This hole was laid out to test the border phase of what the writer considered to be the core of the complex. Previous holes indicated the foliation in the carbonatite to be essentially vertical, so that it was immaterial whether the hole was drilled northwest or southeast. Consequently, it was drilled northwest so that it could be continued towards the core of the complex if required. Hole 3 cont'd,

Results - The hole was abandoned at 110 feet when difficulties in penetrating the overburden developed.

Hole 4

Purpose - This hole was a second attempt to test in part the conditions for which Hole 3 was planned. The hole was collared 138 feet northwest of Hole 3 on a magnetic peak; it was steepened to 60° in contrast to the previous attempt at 45° in Hole 3 as a precautionary move in case the overburden was deep.

Results - The hole was stopped at 267 feet when it became apparent it was not going to reach the border phase of the central core, and was cutting the rock at a small angle to the indicated dip. The core was a massive dark green rock consisting of varying amounts of mica, pyroxene, magnetite, apatite, calcite, disseminated pyrrhotite, and locally chalcopyrite.

There was a marked lack of carbonatite dikes in the core. Three narrow zones and a number of slips were cut which were rich in apatite, plus calcite, amphibole, a black platy non-magnetic mineral, - ilmenite?, pyrrhotite, chalcopyrite and considerable very light yellowish to amber-coloured pyrochlore-like crystals. Some of the pyrochlore-like crystals were zoned while others were not. Assays on three sections $(1.46\% \text{ Cb}_{205}/0.4 \text{ ft.},$ $3.05\% \text{ Cb}_{205}/1.0 \text{ Ft.}$ and $5.30\% \text{ Cb}_{205}/5.5 \text{ ft.}$ confirmed the presence of local and significant concentrations of columbium. The latter two assays with lower grade intervening assays average $3.16\% \text{ Cb}_{205}$ over 10.5 feet of core. The true width of this zone assaying 3.16% is estimated to be 5.5 feet.

Hole 5

Purpose - When Hole 4 failed to cut a significant number of carbonatite dikes, the possibility that the interpreted core of the complex to the west was a basic rock, like that in Hole 4, and not carbonatite, had to be considered. Possibly too the carbonatite might be restricted to the lower magnetics in the anomalous zone in the southeast half of the property. Also when Hole 4 returned what appeared to be considerable pyrochlore in apatite-rich zones with no magnetite, there was the possibility that the low magnetic zone between the collars of holes 3 and 4 might be due to this type of mineralization. The difference in the depth of overburden between holes 3 and 4 indicated a depression in the rock surface over this low magnetic zone which might be due to the weathering out of granular apatite. Consequently, hole 5 was drilled to test this magnetic and rock-topographic low.

<u>Results</u> - The magnetic low was found to be due to carbonatite and a mica-rich rock which would not core. The carbonatite locally appeared to carry significant amounts of pyrochlore; however, assays later failed to indicate economically significant amounts. The rock on either side of the carbonatite-mica-rich zone was similar to that in Hole 4. The evidence now indicated that these rocks were similar to the s6-called mafic rocks in holes 1 and 2, - i.e. fenites. The possibility that the core of the complex was dominantly carbonatite and not a basic rock now seemed more probable.

Hole 6

. . .

<u>Purpose</u> - Since there was a marked improvement in the visual evidence of pyrochlore in holes 4 and 5 over holes 1 and 2, and also since possibly the core of the complex was carbonatite, it seemed best to drill a hole still further west. Therefore, hole 6 was collared far enough west to test a portion of the more subdued magnetics of the northwest half of the property (the core) to determine its character as well as to test the contact between the core rocks and mafic rocks in holes 4 and 5.

<u>Results</u> - The first attempt at 45° dip (6A) was lost in overburden, and the second attempt at 60° dip (6B) was drilled to 570 feet. This hole proved the core to be carbonatite and its contact phase with the mafic rock to carry pyrochlore-like mineralization across 100 feet of core. Although visually narrow sections looked good, assays since have proved the amount of columbium present was relatively small. Some of the pyrochlore-like minerals are suspected of being not pyrochlore but possibly zircon, and also apatite.

Although the hole failed to return ore values, nevertheless with holes 4 and 5 it indicates that the border phase of the carbonatite core and immediately adjacent rocks are likely the best areas to prospect further for columbium.

Hole 7

Purpose - All previous holes carried traces of chalcopyrite. In a number of cases in holes 1 and 2 this mineralization was along fault slips. A possibility exists that such mineralization might be concentrated along fault zones. Additional detail magnetics completed while the other holes were

4,

being drilled strongly indicated that one of the previously interpreted faults existed (see attached map No. 2). The width of the low magnetic zone along this interpreted fault was a reason for concern. This width could be interpreted as due to -

- (1) alteration along a fault zone destroying magnetite;
- (2) a deep gorge or other depression in bedrock along a fault zone;
- (3) a radiating-type dike rock less magnetic than surrounding rocks.

The fact that Inco had seen fit to consider staking the plug suggested that they may have had airborne electromagnetic evidence of sulphides.

Hole 7 was consequently drilled to test the interpreted fault zone for possible sulphides. The collar was located in a magnetic peak in the hope that such location would have the least overburden.

<u>Results</u> - The hole failed to detect any fault zone or sulphide mineralization of note. The core war largely mafic rock (fenite) with fragments of variously replaced gneiss cut by numerous carbonatite dikes. The foliation in the carbonatite indicates the dikes are paralleling the strike of the magnetic low and interpreted fault. The evidence indicates the magnetic low is not a late fault, as interpreted, but a band of gneiss brecciated, fenitized and cut by carbonatite dikes. It may in part represent an original band of gneiss as the strike of the low is the regional strike of the country rock.

The evidence of columbium was negligible and the carbonatite not as lively-looking as in the holes towards the core of the complex.

COMMENTS ON THE COLUMBIUM MINERALIZATION

The high grade soctions of core in Hole 4 are distinctly characterized by an abundance of aratite, actinolite and an unidentified platy black metallic The apatite is generally pink-tinged and not green, as mineral (ilmenite?). normal to the rocks of the area. Magnetite is absent or nearly so; pyrrhotite, chalcopyrite, and brown mica are present but are not distinctive of high grade Light coloured crystals that are considered to carry the columbium sections. Zoned pyrochlore-like crystals are present, values are distinctly visible. The colour of these crystals ranges from but the majority are unzoned. light yellow, to amber, to olive green, to dark brown. Some of the crystals tend to be dull, while others are quite vitreous and most of them appear to be octahedrons. The above variations have tended to cause confusion in Mineralogical studies are attempting to evaluate macroscopically the core. required to positively identify the columbium mineral or minerals, and to determine if there are others similar present, such as zircon, that might be The platy black mineral should also be positively mistaken for pyrochlore. identified as it is distinctly characteristic of these zones.

ADE.LAKE The carbonatites in Hole 6 (central core of complex) are much coarsergrained than in holes 1, 2 and 7 around Zero Lake. It is a more typical Two possible pyrochlore-like minerals carbonatite than in the other holes. were noted in this core, - one dark brown and the other light tan to amber-The assays were disappointing on most of the core and the writer coloured. These two minerals are liberally suspects the dark brown ones are zircon. scattered throughout sections of the core, - generally as isolated crystals. In several cases the lighter coloured ones were concentrated along the borders No macroscopic difference could be detected in of narrow carbonatite dikes. the carbonatites that carried the pyrochlore-like crystals and the carbonatite If these crystals were not visible, the carbonatite aswayed little that did not. more than a trace in columbium.

The lack of any significant columbium mineralization, except in the coarse carbonatite of the central core and in apatite-rich zones and carbonatite dikes immediately adjacent to the core, suggests that this is the only area in which there is hope of locating commercial concentrations of columbium.

MAGNETOMETER SURVEY

During the drill programme, picket lines were run and magnetometer readings taken along the drill lines. Additional picket lines were cut and magged in an effort to clarify further the structure of the complex.

A total of 7.4 miles of line and 872 magnetometer readings were taken. This brings the totals for the property up to 70.6 miles of line and 5212 readings.

This additional basic data is presented on Map No.1 and the contoured data on Map No.2 (attached).

This new data denies any linear pattern to the anomalies in the southeast half of the property, AB suggested in the writer's final report for 1961. Some of the interpreted northwest-striking faults on Map No.4 accompanying that report appear mode definite on the new data; however, hole 7 certainly indicates that they are not late fault structures, if faults at all. It is possible that they are early fault structures now filled by carbonatite, but it seems more likely that the northwest trending lows and highs are expressions of variations in the original bands of gneiss as this is the regional strike of the gneissic country rocks. Their magnetic properties could be accentuated by metasomatism and their continuity interrupted by rupturing associated with the carbonatite intrusion and by injection of carbonatite dikes.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The drilling proved the complex consists chiefly of carbonatite, a mafic rock (fenite) and an apatite-magnetite rock. The columbium content of the rocks is low and probably lower than most carbonatites. The most favourable locale for columbium is indicated to be in the border phase of the carbonatite core and in the zone immediately adjacent to this core. The relatively rich sections cut in hole 4 are associated with narrow, fine-grained granular apatite-rich zones. The section from 229.5-240 in hole 4, which averages 3.16% Cb₂0₅, is estimated to have a true width of 5.5 feet. It is considered to be a near vertical zone and if continuity could be proven it is wide enough to be minable by underground methods.

Generally speaking, in a columbium-bearing structure of merit, there is aniple evidence of columbium mineralization, and from the amount of drilling on these claims one would have expected more evidence of it, - i.e. If important ore bodies are present. On the other hand, it might be argued that the high grade sections indicate the columbium is concentrated in zones and not dissipated throughout the whole complex. When one considers that the indicated favourable contact of the carbonatite core is 4 to 5 miles around, and that the drilling only cross-sectioned that contact once and only in part crosssectioned the adjacent rocks, one appreciates the fact that this potential zone has hardly been scratched. The writer considers the high grade zone in hole 4 is more than likely a zone that can be expanded in lateral and in vertical extent. and that other such zones exist. However, unless they prove to be wider than the zone in hole 4, they will only be minable by underground methods and the tonnage potential relatively small.

The apatite-magnetite zones are too small to be considered economically important. Assays on some of this material were not completed at the time of writing this report.

Chalcopyrite is common as traces and closely associated with pyrrhotite in a good deal of the core. It is more common than in any carbonatite that the writer has examined to date. Although no concentrations approaching near economic quantities were found, the possibility of copper ore existing cannot be denied.

The writer recommends:-

no further exploration unless the columbium market shows
 a marked improvement;

DIAMOND DRILL RECORD

SHEET NUMBER	1	SECTION FROM 0 TO	рания 17 17	STA			, Q)
	0 + 725 of Page 1 inc					Feb. 1. 19	62	
	0 + 125 of Base Line	DATUM	···	_ CON	APLETED_	1 0000000		
DEPARTURE 3	41+ 72 E'S 207 Make	BEARING N 45W (Picket Li	ne Grid)	บบา	IMATE DI	EPTH_720_	ft	
ELEVATION 2.	t. above 40E Lake	At collar 48°; at 100 fr DIP_at 300 ft. 46°; at 500 f	t. 46° t. 46°	_ PRC	POSED DE	EPTH		
DEPTH PEET	FO	RMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD #	BLUDGE GOLD S		
080	0-80Overburden							
80 - 177.5	Carbonatite - rather u	niform with 15 to 40%						
	combined light green	mica, magnetite, amphibole						
********	and apatite; fragmen	ts and narrow dike-like masse	\$					
+		yroxeno-carbonate-rock						┟───┨╼
P	Danding at various ar	gles to core. No pyrochlore	<u> </u>					; ∤
	noted but black non-n	netallic possibly perovskite						·
B . 1997 - 19	and/or innenite,							
177.5 - 195	Mafic Rock - dark fir	e to medium grained: consist						
	of mica, calcite, may	anetite, pyroxene, apatite]					·
	and locally dissemina	ted pyrrhotite; narrow zones						
	replaced with fine ma	gnetite.						
		rhotite and minor chalco-	4					
	pyrite as disseminati	on and stringers.	1					
	186.2-187 magnetit	e-apatite zone plus some	·					
	pyrrhotite							
			~					·
195 - 217	Carbonatite - varies ir	om near pure calcite to carbon	atite					
	with considerable light	nt green minerals (apatite,						
	pyroxene, etc.) mica	, and traces of disseminated	· · ·					
the state of the s	pyrrhotite and few sp	ecks of chalcopyrite; scattered	4					
	fragments of malle re	cks.						

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W.M.P., TORONTO-STOCK FORM NO. BOI REV. 12/51

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DRILLED BY Heath & Sherwood

C	DIAMOND DRILL REC	ORD				(
	PROPERTY Many Lakes Exploration; Big Beaver Hous Clair	^{Бе} Н(DLE NO	1			æ,	
SHEET NUMBER	2 SECTION FROMTO	275	_ STA	RTED				•
LATITUDE	DATUM			APLETED.				
DEPARTURE	BEARING			 ת הדאמני	FDTH			
ELEVATION	DIP	···	_ PRO	POSED D	EPTH			
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	92X9X®	SULPSE X			
217 - 231.7	Mafic Rock - dark; fine to medium grained; locally							-
	semi-fragmental; biotite and black metallic minera	18						
	(magnetite plus) in light green matrix; iew calcite							
	specimen at 225	1-225						
· · · · · · · · · · · · · · · · · · ·	At 225.5 1/2" calcite filled fault slip with 5% pyrr	ho-	<u> </u>					
B-4444-44	tite; 15° to long axis of core.							
	227-227.5 grab of above	1	0.54t.	Tr.	Nickel			
Britesin								
231.7 - 247	Carbonatite - nearly pure calcite with few fragments	of						
	previous rock type; 5% mica; no magnetite; minc	r			••••••••••••••••••••••••••••••••••••••			
	pyrrhotite; few seams with amphibole.							
247 - 254	Carbonatite - up to 20% mica plus pyroxene and/or							
	amphibole, minor pyrrhotite; banding 45° to long							
	axis of core.						· ·	
								_
254 - 275	Mixed Zone - Mafic Rock and Carbonatite - mafic							
	rock mostly quite magnetic, and with varying							
	amounts bronze mica, magnetite, apatite, calcite and pyroxene; carbonatite as before.							
		1				1 1	1 1	

N.M.P., TORONTO-STOCK FORM ND. BOI REV. 12/81

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SIGNED

)	DIAMOND DRILL REC	ORD)			C.	م
	PROPERTY Many Lakes Exploration; Big Beaver Hour Cla	ims HC	dle no	1			
SHEET NUMBER _	<u>3</u> SECTION FROM <u>275</u> TO	389.2	STA	RTED			,
LATITUDE	DATUM			MPLETED_			
DEPARTURE	BEARING		ULT	rimate d	EPTH		
ELEVATION	DIP		_ PRC	POSED D	EPTH		
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD 8	BLUDGE GOLD		
275 - 326	Mixed Zone - Mafic Rock and Dark Carbonatite -			4			
	intergrading and intermingling of types; both types	8					
	with considerable magnetite especially locally.			,			
	294-295 irregular splashes of pyrrhotite with		3				
	traces of chalcopyrite						
	314.8-315.3 30% pyrrhotite; magnetite-rich;						
	no chalcopyrite.						
			-				
326 - 350	Mafic Rock - with minor carbonatite zones; dark gro	en;					
	fine to medium grained; mica, calcite, apatite and						
	mostly with considerable fine magnetite; minor disseminated pyrrhotiter						
	Mired Zono Contonatite and Mafie Deals a similar	,					
-350	to 254-275					11	
	At 368 1/4" pyrrhotite seam with galena at several places; seam at 15* to long axis of core.						
	377-378 apatite-magnetite						
379.3-389.2	Apatite-Magnetite Zone - fine grained; apatite, magn	e -					
6	tite, mica, minor calcite, scattered disseminated						
	pyrrhotite.						

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	PROPERTY Many Lakes Exploration; Big Beaver Ho	<u>uso</u> HC	DLE NO.	1		••••
SHEET NUMBER	4 SECTION FROM <u>389.2</u> TO_	⁸ 720	STA	RTED		•
LATITUDE	DATUM		_ CON	IPLETED_		
DEPARTURE	BEARING		ULT	IMATE DI	EPTH	
ELEVATION	DIAMOND DRILL REC PROPERTY_Many Lakes Exploration; Big Beaver Ho Claim HEET NUMBER 4 SECTION FROM 389.2 TO_ ATITUDE DATUM DEPARTURE BEARING LEVATION DIP		_ PRO	POSED DE	EPTH	
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF BAMPLE	GOLD #	SLUDOR Gold S	
389.2-396.5	Carbonatite - with 20% accessory minerals, - magnetite, mica and apatite 389.2-390.2 50% mafic rock and magnetite-apatite rock. 395-396.5 contact along core				· · · · · · · · · · · · · · · · · · ·	
396.5-720	Magnetite-Apatite Zone - fine to coarse grained varia	able				
End	amounts of apatite and magnetite plus mica, pyroxe calcite and pyrrhotite; narrow zones of mafic rock and lamprophyre dikes: scattered grains of yellowi to chocolate brown minerals.	ne, sh				
•	At 475 specimen of medium grained magnetite rock 462.7-463.6 lost core	1-479				
	At 502 specimen of magnetite-apatite rock with pyrrhotite At 625 specimen of coarse magnetite-apatite rock At 665 " " fine mica-magnetite-apatite ro	1-502 1-625				
	At 710 " " mica-magnetite-apatite rock	1-00				
 Construction of the second section of the section of the second section of the section of						

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HEET NUMBER	Claim SECTION FROM TO	8	STA	RTED		Ĩ	Ì.,	
ATITUDE Re-	vised List of Split Core							
	Samples - Feb. 18/62			MPLETED				
EPARTURE	BEARING	_ 	UL'	TIMATE D	EPTH			
LEVATION	DIP		_ PRC	POSED DI	EPTH			
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	XXXXXXX	X314044	Assa or lo	yed cat	b
227,0-227,5	1" calcite filled fault slip: 5% pyrrhotite specks of		<u></u>	205				Γ
	chalco	1	0.5		Tr	X-R:	LY I	6
79-397	5' carb. and 13' Ap-Mag grading to mafic rock	14	18			GEP	To	F
97-405	apatite-magnetite; 2' of mafic rock; brown grains	2	8	.057		du P	ont	
05-420	11 11 41 of 11 11	3	15	.047		du P	ont	
20-460	fine to med. apatite-magnetite; considerable mica;				,			
	5' of mafic rock	4	40			GEP	То	r
60-500	fine to coarse magnetite apatite	15	40			GEP	То	F
00-516	coarse apatite-magnetite; locally brown grains plentifi	1 18	16	.02		X-Ra	iy I	1 8
16-555	fine to coarse magnetite apatite plus mica	19	39			GEP	То	r
55-609.4	78 11 16 15 38 18 39 39 -	22	54.4			GEP	To	r
09.4-610.4	coarse apatite (85%), magnetite; considerable reddish	6	1.0	0.8		X-R:	v_J	
10.4-625	coarse apatite 60%, magnetite 30%; scattered reddish-	7	14.6	.04		X-R	LY_A	LE LE
25-640	coarse to fine mag, ap; some mafic rock; some	8	15.0	.04		X-Ra	<u>ıy /</u>	s
40-655	coarse to fine magap; considerable reddish brown	9	15.0	.03		X-Ra	N.	15
55-670	" " " ; 3' magnetic lamp.dike	10	15.0	.06		X-Ra	LY I	s
70-720	fine to coarse mag, -ap; 5' lamp, and mafic zone	11	50			GEP	To	rg
******	a comparte sample of samples. 7 8+9 research	20.9%	oluble is	n				
<u>W-F </u>	and 1,210/2 P= 05							
	a Di The Tetal a transmith	. 7 +	12/15	1.1.	1.11		•••••••	Γ



LATITUDE <u>10</u>	+ 003				5-00-5-1-96	,2
DEPARTURE	DATUM		CON	APLETED	Feb. 5, 196	52
DEFARIORE	Line 39 + 00E BEADING S45* E (Picket Line	Grid)		THATE D	CDTU 445	; {+
ELEVATION	about 3 ft. above 40E Lake DIP @ Collor 45°; @ 500	44°	_ PRO	POSED DI	EPTH	
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	00LD \$	SLUDOR GOLD	
0 - 80	Overburden, - clay, sand and boulders		,			
30 - 215	Mafic Rock (Fenite) , - dark green; mostly guite					
	magnetic: variable but normally medium texture;					
	consists of varying proportions of magnetite,					
	pyroxene, apatite, mica, calcite, remnant and					
	pyrrhotite, some pyrite and chalconvrite; appears					
	to be gneiss that is almost completely replaced:					
	locally approaches apatite-magnetite type rock					
	At 112 specimen of rock type	2-112				
	148-150 fault slip almost along core with calcite.					
	pyrrhotite, pyrite and traces of chalcopyrite					
	181-192 carbonatite-calcite with minor magnetite.					
	mica, a light green silicate, and pyrrhotite					
	150-175 coarser than normal and could be classed					
	as apatite-magnetite rock					
	At 157 ft. specimen	2-157			1	
	200-215 mostly coarse magnetite-pyroxene-calcite					
	male with nink folgers and for folgerst all all for				1	
	fock with plac leispar and/or leispatholdal tragment	o			1	· ·

N.M.P., TORONTO-STOCK FORM NO. BOI REV. 12/51

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SIGNED G. E. Parsons

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່ ງ	DIAMOND DRILL REC	ORD)					
	PROPERTY Many Lakes Exploration: Big Beaver	но	DLE NO	2			•	
SHEET NUMBER	2 SECTION FROM 215 TO	aims 425	STA	RTED				
LATITUDE	DATUM COMPLETED							
DEPARTURE	BEARING			TIMATE DEPTH				
ELEVATION	DIP	PROPOSED DEPTH						
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD S	SLUDGE GOLD S			
215 - 445	Carbonatite plus, - carbonatite with a variable							
End	content of fragments; carbonatite consists of calcito	3						
	with 5 to 25% combined bronze to dark green mica,	:					_	
	magnetite, apatite, a light green silicate and pyrrho tite: barding generally 45° to long axis of core	-		······································				
	215-325 5 to 10% fragments of a dark green rock					·		
•	(mica, magnetite, apatite, calcite, etc.), odd lamp.							
	dike, and odd fragments of altered gneiss							
#10-1 221-1221-2221-222-2222-2222-2222-22	At 227 specimen of carbonatite	2-227						
	325-359 approx. 20% dark green magnetic fragment:	\$						
	up to l' across.					-		
	Pyrochlore grains ? 325-326 and 346 all associated with fragments.							
	359-375.5 only minor carbonatite: remnant areas		+			-		
	of gneiss surrounded by a bright green pyroxene alteration which in turn is altered to a dark green							
	biotite-rich rock, magnetite and apatite not as prevalent as before.							
	Specimen at 366 showing above alteration of gneiss	2-366						
	375.5-400 carbonatite; 20% fragments of dark green							
	rock, - mica, pyroxene, etc. but only locally magne		+i					
	tite; evidence that fragments are replaced gnciss.		+		+	+		
	400-425 carbonatite with 50% fragments as above.					1		

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N.M.P., TORONTO-STOCK FORM NO. 501 REV. 12/51

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	DIAN	AOND DRILL	REC	ORD				J .	
	PROPERTY Many Lab	es Exploration; Big B	leaver Ho	use HC	dle no	2		-	
SHEET NUMBER _	3	SECTION FROM425	TO		STA	RTED			
LATITUDE	analar kan kan ang dan dalamat dan separahan kan paka dan pangan sa kangang separahan pangan pangan pangan pan	DATUM			_ CON	APLETED_			
DEPARTURE		EEARING			_ · UL1	IMATE DI	EPTH		
ELEVATION		DIP			_ PRC	POSED DE	EPTH		
DEPTH PEET	FC	RMATION		BAMPLE NO.	WIDTH OF SAMPLE	GOLD S	SLUDGE GOLD S		Τ
	425-436.5 magnetite 436.5-445 carbonati	-apatite-biotite rock; te; 1' of above magnet	dark gre	en					
	rock; pyrochlore	? at 443.							
Te									

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Base								+	
<u></u>									
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								<u> </u>	+
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N.M.P., TORONTO-STO	CK FORM NO. BOI REV. 12/51			<u> </u>	L	L	I		

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	PROPERTY Many Lakes Exploration: Big Beaver Hour	se HC	DLE NO.	2		
HEET NUMBER	SECTION FROMTO	.IIIB 	ST/			
	DATUM	·····	_ co	MPLETED_		
EPARTURE	BEARING			TIMATE DE	PTH	
EVATION	DIP		_ PRO	OPOSED DE	PTH	
DEPTH PEET	FORMATION	BAMPLE NO.	WIDTH OF SAMPLE	% CB205	SOLD S	
81.5-100	dark green; apatite, magnetite, mica; few pyrochlore grains	26	18.5	.05		
300-310	6' carbonatite; 4' dark green mag-ap-mica fragments; little pyrochlore	29	10	.02		
310-321	10' '' ; l' dark green mag-ap-mica fragmonts; little pyrochlore	30	11	.02		
321-322,3	dark mica-apatite fragments; considerable pyrochlore:	27	1.3	.12		
322.3-330	carb; 1' of dark green fragments; pyrochlore in					
	two places	31	7.7	.01		
	· · ·					
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DIAMOND	DRÍLL	RECORD

PROPER	TY Many Lakes Exploration; Big E	Claims	HOLE NO.	2			
SHEET NUMBER	SECTION FROM	то	ST/	ARTED			
LATITUDE Liet of Sludge	Samples DATUM		co	MPLETED_			
DEPARTURE	BEARING		· UĽ	TIMATE DE	PTH		
ELEVATION	DIP		PRO	OPOSED DE	PTH		
DEPTH PEET	FORMATION	SAMPLE	NO. OF BAMPLE	7 901 201 0	SLUDGE GOLD S		T
80 -100		S19	720	2)	by du Pc	ont
100-120		. S20	· 20			11	
120-140		521	2.0			11	
140-160		527	20			11	Τ
160-180		\$23	20			13	
180-200		524	20			11	
200-220		S25	20		····	11	
220-240		\$26	20			11	
240-260		S27	20	.014		11	
260-280		S28	20	.036		11	
280-300		S29	20	.018		11	
300-320		S30	20	,24			
320-340		S31	20	, 025		11	
340-360		\$32	20	, 021			
360-380		៩35	20	.035			
380-400		S34	20	030		11	
400-420		\$35	20	, 032		11	
420-445		\$36	25	• 035			+
		· · · · · · · · · · · · · · · · · · ·					- -
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N.M.P., TORONTO-STOCK FORM NO. SUI REV. 12/51

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Claim PA 281	DIAMOND DRILL RE PROPERTY Many Lakes Exploration: Big Beaver F) DLE NO.	3		
SHEET NUMBER LATITUDE DEPARTURE ELEVATION	One SECTION FROM O TO 2 + 25N 0 3 + 18NW of 14 + 0 3 + 18NW of 14 + BEARING N45? W (Picket Lister	110 00E on c Linc nc Grid)	- STA - CO - UL' - PR(ARTED MPLETED_ TIMATE DI	Ecb. 7, 19 Feb. 8, 1 EPTH 11	62 962
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH	GOLD .	SLUDOK	
0 - 110	Clay, Silt, Sand and Boulders A-Casing seized at 90 ft; drilled ahead with drill rods to 110 ft. In an effort to release A-Casing, drilled over it with B-Casing. B-Casing seized at 65 ft. but was freed and removed. In an attempt to loosen A-Casing it broke off at 40 ft. Sand had previously filled the A-Casing up to 70 ft. Hole abandoned.					

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N.M.P., TORONTO-STOCK FORM NO. 501 REV. 12/51

IEET NUMBER	SECTION FROM 0 TO	laims 76	JLE NO.	ARTED	 Feb. 9. 196	52	
ATITUDE 3+ 20N or 4+56NW of 14+00E on Base Line DATUM DEPARTURE 10 + 80E BEARING N45* W (Picket Line Grid) BEARING approx. Zero Lake DIP 60*			- co	MPLETED_	Feb. 10, 1962		
		ULTIMATE DEPTH 267 ft.					
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH	XHERE	BLUDOK		
0 - 54	Overburden		It.	The Chy of	GOLD	<u> </u>	
	0-42 silt and sand		<u> </u>				
	42-54 boulders and sand		+				
				 			
54-267	Mica-Pyroxene-Magnetite-Calcite-Anatite Rock						
	dark green, massive, compact and mostly distinctly			<u> </u>			
	magnetic; normally fine to fine-medium grained					-	
	altho' locally coarse. The mineral content is variable and approx. in order of abundance as listed					! 	
	above plus minor disseminated sulphides. Locally						
	calcite is the major constituent. Some sections are						
	identical to phases of the aparite-magnetite zone in hole #1.						
	At 70 specimen of rock type	4-70	- 1				
	72.5-77.6 carbonatite dike; compact medium						
	graineu; centre near pure calcite; 'order phase with magnetite, mica, apatite, amphibole, non-						
	magnetic black platy crystals (ilmenite?), pyrrhotite		1				
	and light porcelain-like crystal grains; slightly radioactive; contacts 20° to long axis of core,						
	75-77.6 porcelain-like grains with apatite-rich portions in first foot: two specimens below taken	67	2.6	. 29			
	from core before it was split.		+				
	• · · · · · · · · · · · · · · · · · · ·		1				

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DIAMOND DRILL RECORD

SHEET NUMBER	SECTION FROM TO	215.9	_ \$7%	ARTED					
ATITUDE	DATUM	· · ·	CO	MDI ETED	an an an the second		i Provinske		
EPARTURE	BEARING								
EVATION	DIP	PROPOSED DEPTH							
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH COLD & BLUDGE						
	At 77 carbonatite with up to 5% pyrrhotite and		ft.	% Cb_0		<u> </u>	Γ		
	distinct chalcopyrite	4-77		1 2 - 8			┝		
	83-84.5 coarse apatite-magnetite At 83 specimen of apatite-magnetite with brown mineral or mineral aggregates	4-83							
r'.	/+ At 96 some coarse magnetite with pyrrhotite and chalcopyrite.						 		
	At 100 specimen of rock type	4-100							
	At 125 11 11 11 11	4-125							
	At 135 11 11 11 11	4-135							
	135,5-138,5 mostly coarse magnetite -apatite rock grading into rock normal to the hole								
	At 145 specimen of rock type	4-145							
	145.5-147.5 coarse dark green mica in apatite and magnetite.								
	At 160 specimen of rock type	4-160							
	At 180 " " " "	4-180							
	At 195 11 1. 11 11	4-195							
	At 198 some pink silicate mineral (felspathoids) in coarser phase adjacent to a carbonatite dike								
	mica plus apatite, calcite and magnetite; at 211 some	en 60	15.9	.05					
	along a narrow irregular seam at a small angle to cor	e.							

M.M.P., TORONTO-STOCK FORM NO. SOI REV. 12/51

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•	DIAMOND DRILL REC		>	_				
	PROPERTYMany Lakes Exploration: Big Beaver Ho	use H	DLE NO.	4		,		
HEET NUMBER	SECTION FROMTO	240	_ ST			•		
AT: IUDE	DATUMCOMPLETED							
DEPARTURE	BEARING							
LEVATION								
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH	_X810XX	, YOURKOYE			
	215.9-216.3 fine calcin with seams of light groon	27	OFRANCE	7 Cb 205	7 boin Cu	····		
	apatite, actinolite and light brown pyrochlore;	56	U. 4	1.40				
	radioactivity about twice background; minerali-							
	right angles to the core.							
	216.3-229.5 similar to sample 60 with narrow							
	slips at 65° to core at 223, 224 and 227 with light							
****	green apatite, light coloured pyrochlore and black non-magnetic platy crystals (ilmenite?)							
	229, 5-230, 5 pink apatite-rich scams with very	33	1 0	3.05				
	light yellow (often zoned) crystals plentiful;							
	platy ilmenite ?; very slight radioactivity;					i		
	contacts 30° to long axis of core							
	230.5-231 continuation and contact of mineralization	62	0.5	0,83	. 01			
	in sample 33; splash of pyrrhotite with more				······			
	copper than normal.							
	231-234, 5 as sample 60; at 332 1/4" seam of	63	3.5	0.17				
	granular apatie, black platy ilmenite ?, pyrrhotite,							
	chalcopyrite and considerable light pyrochlore?							
	234,5-240 fine grained; pink; rich in granular	64	5.5	5.30				
	apatite plus calcite, amphibole, platy ilmenite,							
	sulphides and considerable light yellow to amber							
	coloured octahedrons; radioactivity up to twice							
N.H.P., TORONTO-STO	L background; contacts 20 to 40° to long axis of core,			l				

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	DIAMOND DRILL RE)			Ô						
	PROPERTY Many Lakes Exploration: Big Beaver Ho	use u	DIE NO	4								
SHEET NUMBER	SECTION FROM 240 TO	267	ST/	ARTED	·	9						
LATITUDE	DATUM	COMPLETED										
DEPARTURE	DEPARTURE BEARING					ULTIMATE DEPTH						
ELEVATION	PROPOSED DEPTH											
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF BAMPLE	% Cb o	SLUDGE GOLD \$	[
	240-241 1/4" seam part way around the core with considerable pyrochlore - magnetite	65	1.0	0.19								
	241-250 as sample 60 plus coarse mica and magnetite with some pyrrhotite and chalco from 245 to 247	66	9.0	50.0								
	At 238.5 specimen of apatite-pyrochlore zone At 225 specimen of rock type	4-238, 1 4-225		(5.15))(Du	nó unhus) PONT VA	Luces						
End												
				· · · · · · · · · · · · · · · · · · ·								
		-	·									
			<u> </u>									
			· · · · · · · · · · · · · · · · · · ·									
N.M.P., TORONTO-STOC	K FOAM NO. BOL BEY 12/51	ll	··									

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G. E. Parsons
)	DIAMOND DRILL R	Ecord			1 se + se	C	ar Creation The Contact
Claim PA 26133	PROPERTY Many Lakes Exploration: Big Beaver I	H <u>sauol</u>	ole no	5A			•
SHEET NUMBER	DIAMOND DRILL RECORD PROPERTY_Many Lakes Exploration: Big Beaver House Claims HOLE NO_5A PA 28133						
ELEVATION app	10 + 25E BEARING545* E (Picket Lin rox.elevof Zero Lake DIP45*	e Grid)	- ULI - PRC	TIMATE D	ерт <u>н 79</u> ертн	<u> ft.</u>	
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF BAMPLE	GOLD .	SLUDGE GOLD S	<u> </u>	<u> </u>
0 - 66	Overburden, - mostly sand						
66 - 69	Magnetite-Apatite Zone, - coarse magnetite and mica in apatite; 1/2 ft. of carbonatite						
<u>6972.7</u>	Mafic Rock, - dark green, mostly quite magnetic, fine-grained: consists of dark mica, magnetite, apatite and other green minerals			****		· · · · ·	
	Boulder, granitic gneiss						
73.6 - 79 End	Mafic Rock , - as 69-72.7						
	(Core left on property)						

M.P., TORONTO-STOCK FORM NO. SOI REV. 12/51

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DIAMOND DRILL RECORD

Claim PA 281 SHEET NUMBER	33 Many Lakes Exploration: Big Beaver Ho 1 Claims 1 SECTION FROM 0	<u>иве</u> М 135	OLE NO	5B		3
LATITUDE3_ DEPARTURE10	or 5+35NW of + 75N 14+00E on DATUM Base Line +25E BEARING S45E (Picket Line (Grid)	- COM	MPLETED_	Feb. 15,	2 1962 5 ft.
LEVATION app	rox.elev.as Zero Lake DIP_at Collar 45°; at 100 ft	. 42•	PRC	POSED DI	EPTH	
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH	GOLD #	SLUDOR	
0 - 62	Overburden sand					
62 -72.5	Magnetite-Apatite Zone, - dark green; quite coarse mica and magnetite in apatite; disseminated pyrrhotite and pyrite; cut by two narrow carbonatite dikes; contact at 72.5 is 60° to lon axis of core					
	At 70.5 type specimen	5-70.5				
72.5-148.5	Maric Ross - dark green; fine to medium grained; varies from apatite-rich to apatite-poor; calcite is prevalent in apatite-poor sections; variable magnetite content; normal content of dark green mica; pyroxene suspected but not definitely identified; scattered disseminated sulphidus.					
	At 80 specimen of rock type At 97.5 " " " " 95.5-100.4 fault slips 30° to long axis of core; soft, weathered dark green microsocue	5-80 5-97.5				
	104.5-105, 125.6-127.2 and 138.8-140.2 carbonatite dikes					
	At 135 specimen of rock type	5-135				

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DIAMOND	DRILL	RECORD	

	Clair	ms H	OLE NO.	5B		
HEET NUMBER _	SECTION FROMTO	193.7	_ ST/	ARTED		
ATITUDE	DATUM		· · · ·	VDI ETED		
DEPARTURE	PEADING	· ·	_ 00			· · · · · · · · · · · · · · · · · · ·
	DEARING			TIMATE DE	EPTH	
LEVATION	DIP			OPOSED DE	PTH	
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	% Cb 20 c	SLUDGE GOLD \$	
	145-146.4 carbonatite dike. 70° to long axis of core; pyrochlore-like mineral and brown mica	37	1.4	0.31		
	146.4-147 fault slips 45° to long axis of core;	,				
	weathered dark green micaceous rock					
	147-148.5 lost core		·			
148.5.193.7	Carbonatite and Lost Core, - carbonatite compact; rather pure calcite with apatite and actinolite					
	seams; some pyrrhotite and brown mica;					
	yellow and brown pyrochlore-like and zircon- like-octahedrons-and-grains-locally,					
	At 164 specimen with octahedrons	5-164	Grab	0.09		
	156.5-158.5 lost core					
	148.5-162.5 split core (includes above 2' of	36	14	0.09		
	162,5-171,5 " " - carbonatic	35	9	0.06		
	171.5-172 dark green vuggy weathered core;					
······	172=188.5_lost_core	ا				
	188.5-190 split core - carbonatite	34	1.5	0.34		
	At 189 specimen showing considerable brown-	5-189	Grab	0.80		
	190-193.7 lost core					
	An examination of sludge from 160-200 reveals			·····		
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	DIAMOND DRILL REC	ORD)	•		\sim
	PROPERTY Many Lakes Exploration: Big Beaver Hou	se Ko	DLE NO.	5B		
SHEET NUMBER	Cla 3 SECTION FROM 193.7 TO	ims 275	ST	ADTED		

LATITUDE	DATUM		- co	MPLETED_	<u></u>	
DEPARTURE	BEARING		UL	TIMATE DI	EPTH	
ELEVATION	DIP		_ PR	OPUSED DE	EPTH	
DEPTH FEET	OFIC FORMATION	BAMPLE No.	WIDTH OF BAMPLE	7, 330304	SLUDGE Gold S	
193.7-282	dark green; fine to medium-coarse grained;		It.	1/0 00 20 5		
	generally magnetic; consists of varying amounts of dark green mica, apatite, calcite, magnetite					
	and locally pyroxene.					
	193.7-200 medium grained; scattered pyrrhotite	50	6.3	0.02	/	
	with traces of chalcopyrite					
	200-224.6 cut by numerous carbonatite dikes					
	varying from near pure calcite to ones with					
	magnetite etc.					1
	208.3-210.9 pink tinted compact carbonatite	51	2.6	0.29		
	A quarter of the core has light tan to yellow				,	1
	crystals that appear to be of two types, - soft					
	light yellow, vitreous ones that are possibly apatite, and duller, partly zoned, more opaque		·			
	ones that are probably pyrochlore; the apatite ones locally constitute 10% of the core.		· · · · · · · · · · · · · · · · · · ·			
No	224, 6-233.5 medium-coarse grained with	ļ			······································	
*** **********************************	pyrrhotite and traces of chalcopyrite in every			1		
	piece of core; locally definite pyroxene.					
	At 230 specimen of core	5-230				
	233.5-275 varies from fine to medium grained;					
	locally narrow magnetite-rich bands; pyrrhotite and chalcopyrite not obvious except where noted					
	below.					1

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HEET NUMBER _	4	SECTION FROMTO	295	STA		· · · · · · · · · · · · · · · · · · ·		
ATITUDE	l	DATUM		COI	MPLETED_			
EPARTURE		BEARING		UL	TIMATE DE	PTH		
LEVATION	· x	DIP		PROPOSED DEPTH				
DEPTH FEET		FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	% Cb-0-	SLUDGE GOLD \$		
	At 241.5 pyr	rhotite-chalcopyrite seam at 50° to		It.	6 3			
	long axis of	core; specimen	5-241.5					
······································	At 242, 2-242	.8 grey carbonatite dike at 45° to c	ore;					
	minor pyrrl	otite and chalcopyrite		·		•		
	At 246.7 pyr:	rhotite-chalcopyrite seam at 60° to	core,					
	At 26 4.8 spla	sh of pyrrhotite with chalcopyrite						L_
	275-282 fine	to medium grained; scattered	52	7	0.01			
	disseminate	d pyrrhotite with traces of chalco-						
	pyrite.							
202 205	Loot Coxo	a sended in hele and some last						
End	<u>1.051 (.076</u> , - F05	s sanges in hore and core tost.						
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	Claims	BC HC	LE NO.			
SHEET NUMBER _	SECTION FROMTO		. STA	RTED	•	,
LATITUDE	DATUM		. coi	MPLETED_		
DEPARTURE	BEARING			TIMATE D	EPTH	
ELEVATION	DIP		PRO	DPOSED DI	ЕРТН	
DEPTH PEET	FORMATION	BAMPLE NO.	WIDTH OF BAMPLE	XXXXXXX		
	Sludges Hole 5B			Assay	ed by	
			•	%-Cb ₂ 05	% Cb205	
100 - 120		539	·	0.038	, ,	
120 - 140		S40		0.067		
140 - 160		S41		0.23		
1 <u>60 - 180</u>		537		0.28	0.30	
1 <u>80 - 200</u>		538		0.026	0.17	
2 <u>00 - 220</u>		542	·	0.09		
2 <u>20 - 240</u>		S43		0.11		
240 - 260		S44		0.11		
260 - 280		S45		0.16		
2 <u>80 - 295</u>		S46		0.14		
·	N.B. It is possible that the sludges beyond 180 ft.					
	are in part salted by "sand" washing in from some	1q				
	the lost core area in section 156.5-193.7					
		+				

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5		DIAMOND	DRILL	RECORD	· .

~	DIAMOND DRILL REC	ORD			•			
aim PA 28133	PROPERTY Many Lakes Exploration: Big Beaver Hous Claims	e HC	LE NO	<u>6</u> B				
SHEET NUMBER _	1 SECTION FROM TO	150	STA	RTED	Feb. 19, 1	.962		
LATITUDE5 +	70N or 1+00NW of 5+00N on Picket Line 4+00E			MPLETED_	Feb.23,	1962		
DEPARTURE 3 +	30E BEARING S45° E (Picket L	ine Gid)	UL:	rimate di	EPT <u>H 570</u>	_ <u>ft.</u>		
	DIP at Collar 60°; at 100' 4 at 400	9°: PROPOSED DEPTH						
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF BANFLE	% CD	SLUDGE GOLD S	<u> </u>		
0 - 91	Overburden, - mostly sand with scattered boulders		260	C 3				
91-105.5	Calcite-Magnetite Rock, - dark, uniform, rather fine							
	grained; mostly fine magnetite and calcite plus							
	mica and apatite; a few yellowish brown mineral grains.		· · · · · · · · · · · · · · · · · · ·					
	91-100 split core	53	9	Tr.				
	At 95 specimen of ock type	6B-95						
105,5-358,5	Carbonatite, -			· ·				
	105.5-150.2 rather uniform medium grained							
	carbonatite; 5% magnetite and mica; disseminate pyrrhotite and green apatite; cut by basic dikes?	d Z						
	Kt 132-136.2, 142.7-143.7, 147.5-148.5; these			l				
	dikes ? consist of numerous small light to dark							
	green amorphous fragments in a fine mica-							
	magnetite matrix; contacts vary from 20 to 45° to long axis of core.	,						
	At 125 specimen of carbonatite	6B-125				_ _		
	At 131.5 specimen of carbonatite with thin seam of very weakly magnetic pyrrhotite	6B-131	. 5			-		
	At 134.5 1/4" seam of pyrrhotite, pyrite and							
	At 137 specimen of basic dike	6B-137						
••••••••••••••••••••••••••••••••••••••	At 150 specimen of carbonatite	6B-150			[

N.M.P., TORONTO-STOCK FORM NO. 501 REV. 12/31

	PROPERTY Many Lakes Exploration: Big Beaver Hou	ISO HO	LE NO.	6B		,
HEET NUMBER	2 SECTION FROM150	_252	STA	RTED		
			CO 1			
	DATOM					******
DEPARTURE	BEARING		UL:	TIMATE DE	PTH	
ELEVATION	DIP	ртн	<u>,</u>			
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	MOLXX	SOLD B	
	150.2-167 varies from fairly coarse pure		fr.	25		
***********	carbonatite to fine grey carbonatite with up to					
	25% accessory minerals; approx. 30% fine dark					
	and calcite.					-
	167-176 coarser than average: up to 50% magne					
	tite and mica; disseminated and odd fine seams	F				
	of pyrrhotite; some pyrite.					1
	At 175 specimen of rock type	6B-175				
· · ·	176-196.5 mostly quite dark; coarse magnetite					
	and locally also apatite in a dark grey matrix of					-
	calcite, apalite and tine magnetite.	(7.) 00				
	At 185 11 11 11 11	6B-189				
	106 5 225 non nume calcite combonatite inter-					+
·····	mixed with a dark carbonatite with fine magentite	<u> </u>				
	mica and apatite.					
	At 218.5 seams of pyrrhotite across 4"; 50° to	6B-218	5			1
	225-235 split core	54	10	.01		
	235-252 near pure calcite. few local sections					
	with normal accessory minerals					
	235-245 enlit core	55	10	Tr.		
	245-252 scattered light olive green pyrochlore-	42	7	.07		

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	DI	AMOND	DRILL	REC	ORD	•				*****
	PROPERTYMany	V Lakes Explora	ation: Big Ber	aver Ho	nac HO	DLE NO	6B	۰.	· .	•
SHEET NUMBER	3	SECTION	FROM	TO	15 313.5	STA				,
LATITUDE		DATUM_				CO	MPLETED_			-
DEPARTURE		BEARING				UL'	TIMATE DI	EPTH		-
ELEVATION		DIP				PRO	OPOSED DE	PTH	•	-
DEPTH PEET		FORMATION			SAMPLE No.	WIDTH OF JAMPLE	****	SLUDGE GOLD #		•
······	252-260.5 vari to banded type v	es from near pu vith magnetite,	ire calcite ca apatite, mica	rbonatit , and	e 43	8.5	.08			•
	actinolite; folia l ft. of mica-zi light brown crys	tion 60° to long ch fragment; r stals present.	g axis of core mall-ambor a	nd						-
	260.5-271 mos plus mica, tufts disseminated py	tly coarse; uni of radiating gr rrhotite; 1 It.	form, 5% mag een apatite, of mica-rich	inetite, Iragmei	44	10.5	03		-	-
	271-275 simila locally present.	r to 252-260.5;	amber-brow	n crysta	1s 45	4	.17			-
	275-279 as abo mostly dark bro	ve with locally wn pyrochlore-	considerable. like crystals.	and		4	41			-
	<u>279-284 as abo</u> noted.	ve_with_no_pyro	chlore-like cu	ystals_						-
	284-302 coarse; pockets and sea no pyrochlore-1	2% coarse ma ms of apatite, lo ike crystals not	gnetite, mino ocally little py ed except at	r mica. vroxene: 298.						-
6	At 285 specimer	h of rock type			6B-285	· • • · · · · · · · · · · · · · · · · ·				-
	At 295 "	13 13 11			6B-295			, ,		-
	<u>279-300 split c</u> 302-313 5 for m	ore	nure calette		56	1215	.02			-
	carbonatite; no 300-313.5 split	pyrochlore-lik	e grains noted	l.	57	13.5	01			-

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	DIAMOND DRILL REC	ORD	• •	8. 988 x 1 x 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ъ			
	PROPERTY Many Lakes Exploration: Big Beaver Hous	<u>ве</u> НС	DLE NO.	6B		,		
SHEET NUMBER	SECTION FROM 313.5	358.5	_ ST/					
LATITUDE	DATUM		CO	MPLETED_				
DEPARTURE	BEARING		UL	TIMATE DE	EPTH			
ELEVATION	DIP		PROPOSED DEPTH					
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	% Cb Q	COLD .			
	 313.5-325 grades from near pure calcite in first 7 to 8 ft. to fairly coarse carbonatite with up to 5% magnetite, plus mica, apatite, pyrrhotite and light-opaque fairly hard-green silicate mineral; dark brown pyrochlore-like crystals scattered throughout all the core. 325-340 continuation of above coarse carbonatite; 1-10% magnetite, amber and dark green mica, pockets and seams of apatite, and disseminated pyrrhotite; except for first two feet and last foot 	38	11.5	.16				
·	conspicuous and locally may be up to 2%; foliation 45° to long axis of core.		· · · · · · · · · · · · · · · · · · ·					
	340-349 ground and lost core 349-354.5 first two feet fine grained; semi-foliated no pyrochlore-like crystals noted; rest of section coarse carbonatite as above; brown pyrochlore-like crystals conspicuous and locally up to 1%. 354.5-358.5 fine grained pink-tinged carbonatite.	and 40	5, 5	.13				
	light green seams of apatite; foliation 50 to 60° to long axis of core; brown to very light tan or amber coloured crystals; light variety more plentiful and locally abundant.		•					

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	DIAMOND DRILL REC	ORD	• •			5	
· · · ·	FROPERTY Many Lakes Exploration: Big Beaver Hou	80 U.		6B		·• .	•
CHEET NUMBER	5 SECTION EDOX 358 5 TO	105 NC					
SHEET NOMBER	SECTION FROM	402	. 51A	RTED			
LATITUDE	DATUM		_ CON	MPLETED_			
DEPARTURE	BEARING			LIMATE DI	EPTH		
ELEVATION	DIP	_ PRC	POSED DE	EPTH			
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF BAMPLE	00LD 9	SLUDGE GOLD .		Τ
358.5-363	Mafic Rock, - very dark, fine grained, mica, magnetit	e					
	pyroxene, apatite and calcite; contacts with						
	carbonatite sharp.						
	· ·						
363 - 378	Carbonatite, - fine grey carbonatite grading to medium	1-				1	
	coarse grained type; a higher accessory mineral					1	
	content than normally and ranging up to 50%, - black and dark green mica, green pyroxene.						
	magnetite, apatite and disseminated sulphides; only	-					
·	one possible pyrochlore crystal noted.						
	At 369 specimen of rock type	6B-369				•	
	At 374.5 " " " "	6B-374	.5				
378 - 405	Mafic Rock dark: fine grained, mica-rich:						
	magnetite, apatite, pyroxene and calcite; cut by a						
	number of carbonatite dikes.				·		
	379.2-379.7 a narrow carbonatite dike with minor						
	magnetite and apatite; contacts 70° to long axis of core; bright-vellow pyrochlore-like crystale						
*	scattered along both contacts.					ļļ	
	381.2-381.6 narrow carbonatite dike with consideration					ļ	
	magnetite and apatite plus pyrrhotite and mica;						
	considerable bright yellow pyrochlore-like crystals.						

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	DIAMOND DRILL REC		•			3	1
	PROPERTY Many Lakes Exploration: Big Beaver Hou	LEO KO	DLE NO	<u>6</u> B		~	
SHEET NUMBER _	6 SECTION FROMTO	474.7	. STA	RTED			
LATITUDE	DATUM			APLETED_			
DEPARTURE	BEARING			IMATE D	EPTH		
ELEVATION	POSED DI	EPTH					
DEPTH PEET	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	GOLD \$	SLUDGE Gold S		
	388-389.5 50% for grey carbonatite; no pyrochlo: noted.	e					
Bernstand. Andre andre i Andre gebieter eine einen einen gese	392.5-396 mostly rather fine grey carbonatite	1					
Note: Note: <td< td=""><td>especially at contacts; similar to 363-378; foliation 70° to core; no pyrochlore noted,</td><td></td><td></td><td></td><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td></td<>	especially at contacts; similar to 363-378; foliation 70° to core; no pyrochlore noted,				· · · · · · · · · · · · · · · · · · ·		
405-428	Carbonatite, - grey carbonatite with mica-rich band	£					
	and approx. 30% mica-rich fragments; old isolated semi-pyrochlore-like brown grains						
Benefit filmen in de service de s	422-428 grey to near pure calcite carbonatite						
<u></u>	At 419.5 specimen with semi-pyrochlore-like crysts	1_6 B-4 1	9.5				
428 - 463	Carbonatite and Mafic Rock, - fine-medium grained						
	carbonatite grading into a fine dark mica-magnetite	+					
(pyroxene-calcite rock with pyrrhotite; foliation averages about 50° to core; more magnotic than	· · · · · · · · · · · · · · · · · · ·					
	normally; odd chocolate brown grain; from 447-44 rock similar to next type, i.e. from 463-474.7	8					
463 - 474 . 7	Magnetite Rock, - medium-coarse grained; magnetite	>		, ,			
	averages 30%, mica, pyroxene, disseminated pyrrhotite and apatite in calcite matrix; no						
	At 4%5 specimen of rock type	6B-46	5				

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	PROPERTY Many Lakes Exploration: Big Beaver Hou		OLE NO	6B		<u>`</u>	,
SHEET NUMBER	7	532.8	STA	RTED			
LATITUDE	DATUM			MDI ETED			
DEPARTURE	BEARING			TIMATE D	EDIL		
ELEVATION	DIP		- OD	POSED DI	cr <u>in</u>		
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH		SE ITI	 T	
474,7-500,5	Mafic Rock dark, rather uniform, fine grained:		OF TAMPLE		GOLD \$		
	consists mostly of mica and pyroxene plus calcite and variable magnetite content						
	At 495 specimen of rock type	6B-495					
_500.5-510.5	Magnetite-rich Rock, - medium-coarse to locally						
	fine; magnetite-rich up to 60%; plus pyroxene, mica, calcite and apatite; dieseminations and stringers of pyrrhotite; last-foot mostly mafic rock replaced by fine magnetite						
	At 503 specimen of rock type	6B-503				·	
	At 510 " " mafic type	6B-510					
510.5-517	Carbonatite, - mostly grey foliated carbonatite; ioliation averages 45° to long axis of core; no pyrochlore-like grains noted.						
-517525	-Mafic-Rock,similar_to_474.7-500.5						
525-532.8	Carbonatite, - pink tinged-type; green alteration						
	no pyrochlore-like grains noted.	· · ·					-+-
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·····	PROPERTY Many Lakes Exploration: Big Bea	REC iver Hou) DIE NO	6B			•		
HEET NUMBER _	8 SECTION FROM 532.8	Clair	лв 570							
ATITUDE		······································		- 517	AKIED					
FPARTINE	· · · · · · · · · · · · · · · · · · ·			- co	MPLETED_					
	BEARING	······		_ UL	TIMATE DE	PTH		-		
LEVATION	DIP		PROPOSED DEPTH							
DEPTH PEET	FORMATION		SAMPLE NO.	WIDTH OF SAMPLE	or KOUDNEY	SLUDQE GOLD B				
532, 8-544, 2	Mafic Rock, - Bimilar to 548, 5-570 describe	d below		It.	70 2.0 2 5					
F44 2 540 5						* ************************************				
544.2-548.5	Carbonatite, - pink tinged, varies from near	pure ca	lcite					• • • • • • •		
	to medium grained type with approx. 10% m	agnetit	, 47	4.3	. 04					
	mica, and apatite; dark brown pyrochlore-	like								
	grains locally visible.		•	*****			<u>}</u> }			
							<u> </u>			
548.5-570	Mafic Rock, - dark green, massive, rather u	niform.		+						
End	fine to medium grained; consists mostly of	mica			•					
	and pyroxene plus calcite, apatite and a var	iable								
	magnetite content; some magnetite as narro		i							
	fine grained seams									
	At 550 specimen									
			6B-550							
	No-sludge-recovered						· ·			
·····						;				

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	DIAMOND DRILL REC PROPERTY Many Lakes Exploration: Big Beaver Hou	ORD				Э.				
Claim PA 2	8111 Claim		DLE NO.	(
SHEET NUMBER	SECTION FROM 0 TO	186	_ ST/	ARTED Fe	b.24/62		,			
LATITUDE 11	+ 325 on Line 34+00E DATUM		COMPLETED_Fob. 26/62							
DEPARTURE	34 + 68E BEARING S45* W (Picket Lin	e Grid)	i UL	TIMATE D	_{ЕРТН} 611	l ft.				
ELEVATION	ft. above 40E Lake DIP at Collar 45°; at 100' at 400'	42 12.	PROPOSED DEPTH							
DEPTH PEET	FORMATION	BAMPLE NO.	WIDTH OF SAMPLE	XXLDCK	SUDGE GOLD S		T			
0 - 83	Overburden		ft.							
83-131	Carbonatite plus a fine to fine-medium grained									
	grey-green carbonatite; 5 to 10% accessory						Τ			
	minerals, - green mica, fine magnetite, locally	•					-			
	apatite: foliation 45° to long axis of core: approx						1			
	20% fragments of dark green mafic rock, - mica,									
	pyroxene, calcite, apatite, magnetite	•								
	83-84.5 medium grained mafic rock						1-			
	92-100.5 medium to coarse grained mica-calcite-				,		+			
	apatite rock grading into carbonatite at both contacts		<u></u> };							
	At 115 specimen of carbonatite	7-115								
	126.4-128.5 fine grey, slight pink tinged carbonatite	; 48	2.1	.08			+-			
	minor amber mica and pyrrhotite; few brown									
	pyrochlore-like grains; foliation 40° to long axis of core.	· · ·								
131-186	Mixed Zong of Mafic Rock and Magnetike Arestike Dealer									
	dark green: fine to connos greinels Minthe									
	Coarse magnetite-apatite-pyroyene rock intermined									
	with a finer mica-pyroxene-calcite-apatite rock with	····								
	a variable magnetite content; zones rich in fine brow	n				<u> </u>				
	few narrow grey carbonatite dikes			·						

N.M.P., TORONTO-STOCK FORM 40, SOI REV. 12/51

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G. E. Parsons signed

DIAMOND DRILL RELORD

	PROPERTY Many Lakes Exploration: Big Beaver Hou	18 6 I I	OLE NO	7						
SHEET NUMBER	2 SECTION FROM 186 TO	aims 275	VLE RU	RTED						
LATITUDE	DATUM						,			
DEPARTURE	BEADING		- COr	MPLETED_						
ELEVATION				TIMATE D	EPTH					
			- PRC	PROPOSED DEPTH						
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD .	SOLD S					
	At 135 specimen of mafic rock type	7-135								
	At 162 " " coarse magnetite-rich type	7-162								
186-200.5	Carbonatite plus									
	83-131 ft; foliation 45° to core: 15% motion					·				
	fragments									
	At 194 specimen with pyrrhotite seam and trace of	7-194								
	chalcopyrite									
				`						
	Mixed Zone of Carbonatite and Green Mafic Rock, -									
		n								
	disseminated mica, pyroxene plus calcite, apatite,									
			1	·						
	grains in carbonatite									
	At 205 specimen carbonatite with possible pyrochlo	e7-205	+							
	At 222 II II II II II	7-222	5							
			+							
261-275	Carbonatite, - grey foliated type as before: foliation									
	50-70° to long axis of core; 5% mafic fragments:		·							
	no pyrochlore-like grains noted.		+							
	At 265 specimen of rock type	7-265								
N.M.F. TORONTO-STOC	FORM AND SALE PERMIT					1				

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•	PROPERTY_Many Lakes Exploration: Big Beauer He	CORE			•	J				
HEET NUMBER	SECTION FROM 275		ole no	7		,				
ATITUDE	DATUM	10_3/6.5STARTED								
EPARTURE	BEARING	COMPLETED								
LEVATION	DIP		_ OL.	DPOSED D	EPIH					
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH	GOLD 8	subge	T				
275-376.5	Mafic Rock, - fine-medium grained, hard, massive, mostly quite magnetic, dark green; mica, pyroxen magnetite plus variable calcite apatite content; locally minor purphetite with the state content;	¢,			COLD					
	cut by narrow grey-green carbonatite dikes of which wider ones are listed following.									
	281.7-283 "									
	At 290 specimen of fine mafic type	7-290								
	305.2-306.2 scattered pyrrhetite with	7-305								
	chalcopyrite in mafic rock and narrow carbonatite	7-306								
	At 307 some red iron staining 320.5-323.5 carbonatite; some fine green actinolite in slips; possible minor pyrochlore.									
	324.5-327.8 carbonatite; foliation at 55° to core 334-341 carbonatite plus from the first state of the second state of the sec									
	45° to core At 340 specimen of carbonatite At 349 evidence of remnant gneiss fragment	7-340								
	353.4-355 disseminated pyrrhotite plus traces of 355.7-357 grey green carbonatite: fallette (as	7-354								

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	FROPERTY Many Lakes Exploration: Big Beaver House			_							
SHEET NUMBER	4 SECTION FROM 376.5 TO	452 Η	OLE NO. ST.	7							
LATITUDE	DATUM		CO	MPLETED							
DEPARTURE	BEARING										
ELEVATION	DIP PROPOSED DEPTH										
DEPTH PEET	FORMATION	SAMPLE NO.	WIDTH OF BAMPLE	CH, U, GOLD S	SLUDGE						
	358.2-359.5 disseminated pyrrhotite plus chalcopyri	te 7-359		0.011 2	Paul volum	<u> </u>	r				
	367-371.4 grey green carbonatite; some pyrrhotite	· · · · · · · · · · · · · · · · · · ·				+	├				
	572.8-376.5 grey green carbonatite; foliation 45° to core.	, -					·				
376.5-452	Mafic Rock, - a continuation of previous mafic rock										
	locally bright green pyroxenitized gneiss fragments, some with relic felspars in centres:	-									
	content variable and fine grained, locally in narrow seams; cut by carbonatite dikes, the wider ones of which are listed below.										
	381.5 specimen of gneiss fragment	7-381.5									
	foliation 75° to core										
	405-407 tight fault slip plus carbonatite, pyrite, rust; slips almost along the core.										
	421-422 grey carbonatite 430-433 if foliation 50° to core										
	441-444.7 " " ; some fine pyrrhotite seams; foliation 60° to core										
N.M.P., TORONTO-STOCK	FORM NO. 501 REV. 12/31		l								

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	PROPERTI Many Lakes Exploration : Big Beaver Hou	se HC	dle no.	7			
REET NUMBER	5 SECTION FROM 452 TO	550	ST				
ATITUDE	DATUM		_ co	MPLETED_			
EPARTURE	BEARING		UL	TIMATE DE	PTH		
LEVATION	DIP		_ PRO	OPOSED DE	PTH		
DEPTH PEET	FORMATION	BAMPLE No.	WIDTH OF SAMPLE	J ODCH X	SLUDGE GOLD S	[
452-515	Mafic Rock dark green mafic rock as previously in		It.	76-012-05			
	hole; mica, pyroxene plus; fine-medium grained;	· · · · · · · · · · · · · · · · · · ·	, 19 ()				
	mostly magnetic; cut by carbonatite dikes of which the larger ones are noted below.						
	At 490 specimen of mafic rock	7-490	·····				
	452-455.4 grey carbonatite with fragments					İ	
• .	455.4-462.0 grey to pink tinged carbonatite yellow to amber coloured crystal grains locally plentiful	49	6.6	.16			
	462-468 grey carbonatite with fragments						
	472-478.2 11 11 11 11						
	480.7-481.3 " "						
	497-506.7 " " with fragments; evidence of				*		
	faulting in strong chloritic fault slips almost along the core from 500-504.		·				
	-						
515-527	Mafic Rock , - as before with a number of green						
	pyroxenitic gneiss fragments						
	516.4-517.5 grey to white carbonatite						
	518.7-519.5 " " " "				· · · · · · · · · · · · · · · · · · ·		
527-550	Carbonatite grey to slightly pink well-foliated					<u> </u>	
	carbonatite; foliation 45 to 60° to core; accessory minerals all fine, mostly dark mica and magnetite a	nd :			•		
	up to 20%; odd small fragment.	·····			·····		

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	rkoperti big bea	ver Hou -Claim	ве в Н	OLE NO	7				
HEET NUMBER	6 SECTION FROM550	TO	611	_ STA	RTED				
ATITUDE	DATUM								
EPARTURE	BEARING				WPLEIE!				
EVATION				- UL1	TIMATE D	EPTH			
		PROPOSED DEPTH							
550-575	FORMATION		SANPLE NO.	WIDTH OF SAMPLE	GOLD .	SLUDGE GOLD S	1		
	Mixed Zone - Carbonatite and Mafic Rock, - ap	oprox.					+		
	rock; both types with green pure venitized for	maric					++		
	Mafic rock is mostly a pyroxene-biotite type	agment							
	rather a hodge-podge of varieties.	but					<u> </u>		
575-594.5	Carbonatita								
	minerals moetly doubt arbonatite; access	sory					┨────┼╸		
	small yellowish brown mineral aggregates a	e; d/or				·····	<u> </u>		
	crystal grains at 579-579.5, 580.5, 581.5	and 591.		·					
594.5-601	Mafia Deck								
	Maile Rock, - as previously described								
601-611	Corbonation								
End	distinctly folloted and the								
	blotchy pattern for according with a more patchy and								
	possible pyrochlore erustel at (62]							
	producte pyrochiore crystal at 603.								
	No sludge recovered								

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APPENDIX 4

Recommended Distribution of Drill Credits

Grou	<u>up 1</u> (Blue on sketch following) - 11 claims for	r 4 years
	Hole 1 720 ft. AXT	•
	ⁿ 2 445 ⁿ	
	" 7 611 " "	
	Total 1776 ft. or assessment days	
	Distribution - 1 ft. each to claims PA 28110.	28111 and 28153
	160 ft. "" " PA 28128.	28130, 28132, 28134,
	28136, 28138, 28155, 281	58, 28172, 29522, 29389
	13 ft. undistributed	F1
Grou	1p 2 (Red on sketch following) - 8 claims for	4 years
	Hole 3 110 ft.	
	" 4 267 "	
	" 5A 79 " (under minimum length; good	only for 19.8 days)
,	" 5B 295 "	
	" 6A 110 "	
	" 6B 570 "	
	Carteria and Carte	
	Total 1371.8 assessment days	
	·. ,	· •
	Distribution - 160 ft. each to PA 28129, 2813	1, 28133, 28135,
	28137, 28154, 28158,	29524
	91.8 ft. undistributed	
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The claims recommended for retention above are those distributed along the interpreted carbonatite core.

Drilling may be distributed over 18 contiguous claims. As long as the above claims are not patented, future drilling on any of thim may be distributed into other contiguous claims that may be staked prior to this drilling. By arranging the presently grouped claims in irregular elongated strings, as here done, rather than in solid groups, it makes possible the spreading of any future drill assessment credits over a wider area.

CA 29527 29523 29525 29514 29513 29526 Interpreted 29524 Contact of 29388 29522 29389 28147 Carbonatil ${}^{\odot}$ ④ Core 5 28146 28176 28175 28172 28128 28135 28145 • Ø 28177 28150 ${}^{\textcircled{3}}$ 28174 28149 28173 CORE (\mathfrak{D}) 28151 OLARYTE 28134 28129 28148 ${}^{\odot}$ 28161 CARO 28152 28127 28133 0 28139 28/36 28130 2/2/53 9 4. 4 @ 28109 troa <u>ک</u> 28/37 (3) 12 0 2840 \$160 28131 28138 2)8132 58111 28114 6 28113 28154. 28159 28/12 $(\tilde{})$ 30 28169 28168 28163 28115 \overline{O} 28116 28117 28164 28158 28155 28170 28167 28157 28166 28156 28171 28165 BIG BEAVER HOUSE CLAIMS Scale : lin = 14 mi. 11 cls., 160 each 4yrs Gpl WITH D.D.H's 1, 2, 87 3 cls., I'each and abandon Gpt 177 when Footoge distributed Bels, 160'eah ie 4yrs N.B. Cladre numbered Gp 2 WITH D.D.H' 3,4, 58,6A8(by groups in order of importance

AREA OF MISAMIKWASH LAKE REPORT #10

Big Bonnham.

This file contains work performed by Many Lakes Exploration on claims:

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PA.28153	Hole #1;	January,	1962
PA.28110	Hole #2;	February,	1962
PA.28111	Hole #7 ;	February,	1962



Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

HOLE No. 3

Location:	7 + 30S and 3 + 80W of No. 1 Post, Claim PA 28133, Misamikwash Lake Area, Patricia Mining Division					
Bearing:	N53W (Magnetic)	Dlp: 45*				
Length:	110 ft.	Started: Feb.7, 1962				

Completed: Feb.8,1962 Drilled by: Heath & Sherwood Logged by: G. E. Parsons

0 - 110

Overburden - silt, cand and boulders; hole lost by casing getting sanded-in and breaking off.

Location of Core

All overburden, - no core.

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Many Lakos Exploration Co. Ltd., Big Boa

Big Beaver House Claim Group

HOLE No.4

Location:

-267

End

6+45S and 4+90W of No.1 Post, Claim PA 28133, / Misanikwash Lake Area, Patricia Mining Division.

Bearing:	N53W (Magnetic)	Dip: 60*
Length:	267 ft.	Started: Feb.9,1962 Completed: Feb.10,1962
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons

Overbuiden 0-42 silt and sand; 42-54 boulders and sand

Pyroxche-Mica-Magnetite-Calcite Rock, - dark green, massive, compact and mostly distinctly magnetic; fine to fine-medium grained; mineral content variable and in order of abundance dark mica, pyroxene, magnetite, calcite, apatite, disseminated pyrrhotite and locally chalcopyrite. Narrow apatite zones carrying up to 10% pyrochlore.

Location of Core

54 - 75	Near collar of hole No. 1
100 - 200) property
· 250 - 267)
.75 - 100 .) 136 Chatsworth Drive,
200 - 250) Toronto 12, Ont.

Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

HOLE No. 5A

Location:	6 + 00S and 5 + 50W of No.1 Post, Claim PA 28133, Misamikwash Lake Area, Patricia Mining Division		
Bearing:	S53E (Magnetic)	Dip: 45*	
Length:	79 ft.	Started: Feb.12,1962 Completed: Feb.12,1962	
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons	

0 - 66

Overburden, mostly sand

66 - 79 End

Magnetite-Apatite Zone

66-69 coarse magnetite and mica in apatite matrix 69-72.7 fine grained; mica, magnetite, apatite plus 72.7-73.6 granitic gneiss boulder (overburden) 73.6-79 as 69-72.7

Location of Core

66 - 79 Near collar of hole No.1 on property



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Many L	akes Exploration Co. L	d., Big Beaver House Claim Group	
	HOLE No.	<u>B</u>	
•	•		
Location:	6 + 00S and 5 + 50W of No.1 Post, Claim 28133, Misamikwash Lake Area, Patricia Mining Division		
Bearing:	S53E (Magnetic)	Dip: 45 1/2*	
Length:	295 ft.	Started: Feb.12,1962 Completed: Feb.15,1962	
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons.	
•	•		
0 - 62	Overburden, mostly	sand	
62-72.5	Magnetite-Apatite Zo in apatite.	ne-quite coarse mica and magnetite	
72.5-148.5	Mafic Rock - dark green; fine to medium grained; varies from apatite-rich to apatite-poor; calcite prevalent in apatite-poor sections; variable magnetite content;; dark green mica major constituent; disseminated pyrrhotite.		
148.5-193.7	Carbonatite & Lost C calcite with apatito a brown mica and pyro	Core - carbonatite is compact, nearly pure ind actinolite seams; minor pyrrhotite and chlore.	
	171.5-172 dar 172-188.5 lo 190-193.7	k green vuggy micaceous core st core 1 11	
193.7-295 End	Mafic Rock - dark green, fine to medium-coarse grained; generally magnetic; consists of varying amounts of dark green mica, apatite, calcite, magnetite and locally pyroxene; disseminated pyrrhotite common with traces of chalcopyrite 282-295 lost core		
Location of Cor	·0		
62 - 150)	At Nipissing Works,	Expl. Dept., 150 - 200) 136 Chatsworth Dr	
200 - 275)	DuPont of Canada Lt North Bay, Ont.	d., 275 - 282) Toronto 12, On:.	

Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

HOLE No. 6A

Location:	5 + 00S and 12 + 60W of No.1 Post, Claim PA 28133, Misamikwash Lake Area, Patricia Mining Division		
Bearing:	S53'E	Dip: 45*	
Length:	110 ft.	Started Feb. 16, 1962 Completed Feb. 19, 1962	
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons	

0 - 110 End Overburden, sand and gravel. Hole lost.

Location of Core

0 - 110 All overburden, - no core
Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

HOLE No. 6B

Location:

5 + 00S and 12 + 60W of No.1 Post, Claim PA 28133, Misamikwash Lake Area, Patricia Mining Division

Bearing:	S53E	Dip 60*
Longth:	570 ft.	Started: Feb.19, 1962 Completed: Feb.23, 1962
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons

0-91 Overburden, mostly sand with scattered boulders

91-105.5 Calcite-Magnetite Rock, dark uniform, rather fine grained, mostly fine magnetite and calcite plus mica and apatite.

405.5-358.5 Carbonatite, - varies from a medium-coarse grained type with about 5% magnetite and mica, plus apatite, and disseminated pyrrhotite to nearly pure calcite type. Pyrochlore present from 220 to 358.5.

358.5-363 Mafic Rock very dark; fine grained; consists of mica, magnetite, pyroxene, apatite and calcite.

363-378 Carbonatite, fine grey carbonatite grading to medium-coarse grained type; accessory minerals ranging up to 50% consist of dark mica, pyroxene, magnetite, apatite and disseminated sulphides.

378-405 Mafic Rock, as 358.5-363; cut by narrow carbonatite dikes.

Hole No.6B - Page 2

105-463

Carbonatite and Mafic Rock, - fine modium grained carbonatite grading into a fine dark mica-magnetite-pyroxene-calcite rock; foliation 50° to long axis of core.

Mafic Rock varies from a fine grained type as previously described to a coarse grained magnetite-rich (up to 60%) type.

510.5-570 End Mafic Rock cut by Carbonatite Dikes, - mafic rock is dark, massive, generally uniform, fine to medium grained; consists mostly of mica and pyroxene plus calcite, spatite and magnetite.

Location of Core

91 - 100 225 - 358)	136 Chatsworth Drive, Toronto 12, Ont.	•
100 - 225		Nipissing Works, Explosive Dept., DuPont of Canada Ltd., North Bay,	Ont.
		• -	

253 - 570 McNear collar of hole No.1 on property





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28/33	28130	28153	28152
28132	28131	28111	28110

О 0

DIAMOND DRILL HOLE LCG



Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

1100

HOLE No.1

Location:	9 + 70S and 1-0 + 30W (N Misamikwash Lak	fagnetic) of No.1 Post, Cla o Area, Patricia Mining Div	Im PA 28153, 🗸 vision
Bearing:	N53• W (Magnetic)	Dip: 48*	
Length	720 ft.	Started: Jan. 28, 1962 Completed: eb.1, 196	52 · .
Drilled by:	Heath & Sherwood	Logged by: G. E. Pa	reone
)		•	•
0 - 80	Overburden		
80-177.5	Carbonatite calcite plus apatite; fragments and a rock below.	s 15 to 40% combined mica, narrow dike-like masses of	magnetite, mafic
177.5-195	Mafic Rock (Fenite) da calcite, magnetite, pyro pyrrhotite; narrow zon chalcopyrite.	rk, fine to medium grained exene, mica, apatite and di es replaced by fine magnet	; consists of sseminated ite; locally
195-217	Carbonatite varies from described above.	near pure calcite to carbo	natite a.
217-231.7	Mafic Rock (Fenite), a	s 177.5-195	•
231.7-247	Carbonatite nearly pure minor pyrrhotite.	calcite; 5% mica; no mag	netite;
247-254	<u>Carbonatite</u> calcite with foliation 45° to core.	up to 20% mica; minor py	rrhotite;
254-275	Mixed Zone (Mafic Rock quite magnetic and cons spatite, calcite and pyro	and Carbonatite) - mafic r isting of varying amounts o exene; carbonatite as befo	ock mostly f mica, magnetite re.

Mixed Zono (Mafic Rock and Dark Carbonatite) - an intorgrading and intermingling of types; both types with considerable magnetite; pyrrhotite and chalcopyrite locally present.

326-350 Mafic Rock, as 177.5-195

5-326

350-379.3 Mixed Zone (Mafic Rock and Carbonatite) similar to 254-275

379.3-389.2 Apatite-Magnetite Zono fine grained; consists of magnetite and apatite plus mica, calcite, and disseminated pyrrhotite.

389.2-396.5 Carbonatite calcite plus 20% combined magnetite, mica and apatite.

396.5-720Magnetite-Apatite Zonefine to coarse grained;variable amountsEndof apatite and magnetite plus mica, pyroxene, calcite anddisseminated pyrrhotite.

Locat	ion	of	Core	

80 - 275	Near collar of hole on property
275 - 720	At Nipissing Works, Explosive Dept
	DuPont of Canada Ltd., North Bay,

Ont.



0

28133 28130 28153 28152 28132 28131 28111 28110

DIAMOND DRILL HOLE LOG



Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

HOLE No. 2

Location:	7 + 80'S and 5 + 60W (Magnetic) of No.1 Post, Claim PA 2811 Misamikwash Lake Area, Fatricia Mining Division		
Bearing:	S53E (Magnetic)	Dip: 45*	
Length:	445 ft.	Started Feb. 3, 1962 Completed: Feb. 5, 1962	
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons	

0 - 80 Overburden, - clay, sand and boulders

80-215 <u>Mafic Rock</u> (Fenite) dark green; grain size variable but normally medium; mostly quite magnetic; consists of varying proportions of magnetite, pyroxene, apatite, mica, calcite and. disseminated pyrrhotite; locally chalcopyrite.

215-445 End Carbonatite with fragments; carbonatite consists of calcite with 5 to 25% combined bronze to dark green mica, magnetite, apatite and disseminated pyrrhotite; foliation 45° to long axis of core; fragments of mafic rock and gneiss partly altered to mafic rock constitute 5 to 40% of the section.

Location of Core

81.5 - 300 Near collar of hole No.1 on property

300 - 445 At Nipissing Works, Explosive Dept,, DuPont of Canada Ltd., North Bay, Ont.

Many Lakes Exploration Co. Ltd., Big Beaver House Claim Group

HOLE No. 7

Location:

5 + 30S and 2 + 75W (Magnetic) of No.1 Post, Claim PA 28111, Misamikwash Lake Area, Patricia Mining Division

Bearing:	S37W	Dip: 45*
Length:	611 ft.	Started: Feb. 24, 1962 Completed: Feb. 26, 1952
Drilled by:	Heath & Sherwood	Logged by: G. E. Parsons

0 - 83

Overburden, sand and gravel

83-1-31

Carbonatite, - fine to fine medium grained, grey-green carbonatite; 5-10% accessory minerals, - mica, fine magnetite, pyroxene, apatite and disseminated sulphides; 20% fragments of mafic rock; foliation 45° to long axis of core.

131-186

186-376.5

Mixed Zone of Mafic Rock and Magnetite-Apatite Rock, dark green, fine to coarse grained; highly variable; coarse magnetite-apatite-pyroxene rock intermixed with a finer mica-calcite-pyroxene-apatite rock.

Mixed Zone of Carbonatite and Mafic Rock, - carbonatite as previously described and as dikes cutting mafic rock; mafic rock is fine-medium grained, hard, massive, dark green and mostly quite magnetic; consists of mica, pyroxene, magnetite, plus variable calcite and apatite content; locally pyrrhotite and traces of chalcopyrite.

Holo No.7 - Page 2

376.5-452

Mafic Rock (Fenite) a continuation of previous mafic rock except more variable and with relict fragments of pyroxenitized gneiss; cut by narrow carbonatito dikes.

452-515 Mafic Rock, as 186-376.5; cut by carbonatite dikes.

515-527 Mafic Rock (Fenite) as 376.5-452

527-550

Carbonatite, grey carbonatite with up to 20% fine accessory minorals, - magnetite, dark mica, etc.

550-575

Mixed Zone of Carbonatite and Mafic Rock, approx.40% a grey foliated carbonatite as 527-550 and 60% mafic rock; both types with green pyroxenitized gneiss fragments.

575-594.5 Carbonatite, grey foliated type as 527-550

594.5-601 Mafic Rock, as 186-376.5

601-611 Carbonatite, grey type as before but lacking marked foliation. End

Location of Core

525 - 600

82 - 300 350 - 425 450 - 525 600 - 611)))	Near collar of hole No.1 on property
300 - 350)	Nipissing Works, Explosive Dept.,

DuPont of Canada Ltd., North Bay, Ont.



GEOLOGY

General

The only rock located on the claim block was along the south shore of Camp Lake in claims FA 29513 and PA 29527. This rock consists of carbonatite and gneiss; the latter shows the characteristic pyroxenitization and bictitization encountered adjacent to carbonatite intrusions. Carbonatite boulders are scattered along the full south shore of Camp Lake and also up the east shore. Pyrochlore was only noted in the carbonatite outcrops and boulders in the vicinity of Pyrochlore Point and in the boulders on the east shore. The remainder of the claim block is covered with glacial drift.

Glacial Geology and Topography

Glacial deposits dominate the topography. High hills of boulders, gravel and sand with silty outwashes rise above a general flat-lying terrain. The high hills are essentially terminal moraine types and the flat-lying terrain composed of till and clay deposits.

The sketch on the next page roughly illustrates the main topographical features and outlines the areas of estimated deep overburden. The chief economic significance of the glacial deposits is in the depth and character of the overburden. Heavy overburden will certainly detract from the value of the ground due to the cost of stripping for open pit mining, and the cost of penetrating with exploratory diamond drilling. The area coloured in red, and possibly also that in purple, will be very expensive to drill through because of the preponderance of boulders in sand. No drill holes should, initially at least, be laid out to collar in these areas.

Cortain features in the topography are possibly diagnostic of underlying structures. A river to the south of the property flows northeasterly along the dominant glacial fluting until it reaches the Big Beaver House anomaly and then turns eastward as if it had encountered a topographical obstruction. No less than five small streams originate on the claim block and flow outward from it; this also tends to indicate a topographically high area.

Trending in a northwestwardly direction, - i.e. at right angles to the glacial fluting, are a number of distinct lineaments. These are particularly prominent on the aerial photographs south and east of 40E Lake. They are not restricted to the anomalous area and, since they parallel the 7.



regional strike of the gnelssic country rocks, they are probably largely an expression of these rocks. On the other hand, some coincide with interpreted faults.

Description of Rocks

Pyrochlore Point, Camp Lake. A carbonatite dike crosses L 48E between 50 + 70N and 51 + 00N along the south shore of Camp Lake. It is exposed in trenches and outcrops for a 130-ft. length, and widths up to 30 feet. It strikes northwest-southeast and dips 35° to 60° to northeast. Its footwall or south contact with altered gneiss is exposed in three trenches, but its north contact lies under Camp Lake.

This carbonatite dike consists of compact calcite with light, bright green amphibole and colourless apatite along slips and seams. The weatheringout of the apatite along the slips and seams has created loose slabs of carbonatite scattered along the lake shore. Magnetite is common in the east part of the dike but absent in the west part. Another shiny black non-magnetic mineral is present.

Pyrochlore is visible throughout most of the dike. It is fairly abundant along apatite-amphibole seams and can be readily panned from these weathered seams. The pyrochlore occurs as small discrete crystals. On the weathered surface, the pyrochlore varies from a light olive green to dark brown. Internally the crystals are dark brown and sometimes with a lighter coloured border.

The outcrops of this carbonatite dike are only slightly radioactive (approximately twice background) and in this respect show little difference to the altered gneiss.

Gneiss is exposed to the south of the above carbonalite dike in three trenches. It is highly fractured and brecciated and is now more in the form of solid blocks and fragments in a granular matrix of biotite, pyroxene and calcite. Some of the blocks of gneiss show little alteration with quartz, feldspar and epidote distinctly recognizable. Narrow seams of carbonatite cut this gneiss. One carbonatite seam in the most westerly trench is more radioactive than normal (4 times background); it has a pinkish-red mineral resembling eudyalite as well as some barite.

<u>Camp Point</u>. This point is immediately west of Pyrochlore Point, at the end of L44E. The tent camp is immediately south of this point. Carbonatite boulders as slabs are common between low and high water marks. Ithough the evidence suggests bedrock must be close, probing failed to establish it above water level. The carbonatite rubble is rather pure calcite with only minor amounts of magnetite and mica. No pyrochlore was noted in this carbonatite rubble except for one or two slabs on the east side of the point; these slabs resembled so much the material from Pyrochlore Point that they are considered to originate from this dike.

West of Camp Point. On the point that lies between L36E and L 40E, carbonatite rubble is abundant and two possible outcrops exist. There is less amphibole and more magnetite (5-10%) in these exposures than at Pyrochlore Point. Apatite is also common plus some mica and sulphides. No pyrochlore. was noted although the radioactivity is similar to that on Pyrochlore Point.

Further west between L32E and L36E is a rubble area along the shore line composed entirely of highly pyroxenitized and altered gneiss boulders. These indicate that bedrock is quite close at this point.

Sampling Results, Pyrochlore Point

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The sketch on page 12 shows the geology and the location of samples taken on this point. The samples and assay results are tabulated on page 11.

The samples are not too satisfactory because of the difficulty experienced in cutting a representative sample. The pyrochlore tends to be concentrated along thin apatite-amphibole seams which have weathered out to form depressions. This has created a slab-like weathered surface. It is quite easy to pan samples relatively rich in pyrochlore from the weathered soils in the cracks.

The assay results are lower than expected, and doubt might be cast as to whether all the mineral interpreted visually as pyrochlore is actually that mineral. A sample consisting of the pyrochlore-rich portion (19C) of a soil sample was submitted to du Pont in October for the primary purpose of determining the character of the pyrochlore. It should also indicate whether all the mineral visually considered pyrochlore is actually pyrochlore.

The limited spectrographic analyses of a black non-magnetic mineral indicate the presence of a titanium-rich mineral with a small amount of columbium. A similar black mineral from Schryburt gave a perovskite pattern by X-ray diffraction.

10.

Big Bannahom

AREA OF MISAMIKWASH LAKE REPORT #11

This file contains work performed by Many Lakes Exploration on claim:

PA.28133

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Hole d	₿3 ;	February,	1962	
Hole #	¥4;	February,	1962	
Hole #	₽5A;	February,	1962	
Hole #	₿5B;	February,	1962	
Hole #	₿6A;	February,	1962	
Hole #	₿6B;	February,	1962	



RESUME

MANY LAKES EXPLORATION CO. LTD.

BIG BEAVER HOUSE CLAIMS

Misamikwash Lake Area

Patricia Mining Division, Ontario

P.S. Subsqueet to this service Teck long in Feb - Man 1966 Completed 3002 ft of drelling in seven holes (# 8-14 mel) 5.5P

Property

19 claims (PA 28128-38, 28154-55, 28158-59, 28172, 29389, 29522, 29524)

Location

Access

Lat. 52° 55', Long. 89° 55' 100 air miles north of Pickle Lake Landing 3 miles south of Big Beaver House (Hudson Bay Co.Post)

Camp Lake on north edge of claims suitable for planes up to Norseman-size except during low water.

Sigfusson's tractor-train road from Pickle Lake to Big Beaver House passes along east bounday.

New government road, as planned, from Pickle Lake to Lingman Lake and Manitoba boundary passes fifty miles SSW of group.

History

54 claims staked and recorded on Dec.21, 1960 on evidence of government-released aeromagnetic maps. Ground magnetic and geological surveys carried out plut 10 additional claims staked in 1961.

Diamond drilling in winter of 1962. Assessment credits from drilling applied to 19 claims, giving 4 years for each claim; remainder of claims allowed to lapse.

Work done to date (1961-1962) 70.6 miles of picket lines

5212 ground magnetometer readings Magnetic, geologic and topographic maps at 1" = 400' Some trenching 3207 ft. of diamond drilling (Jan. 28-Feb. 28 1962); 736 ft. of this was in overburden; 9 holes, of which 3 were abandoned in overburden. Overburden

In the seven locations drilled, the overburden depth varied from 40-75 ft. and averaged 58 ft.

Other Activity in the Area

Early in 1961, Inco drove a base line and cross line into the claim block. The Mining Recorder had located Many Lakes Exploration claims on the wrong claim map, giving Inco the impression that the ground was still open for staking. This prompted speculation that Inco may have airborne E.M. anomalies on the ground. Inco have been active for several years at Forester Lake, some thirty miles to the south.

The G.S.C. mapped the area in 1961 (same summer as Many Lakes Exploration's surface work); they located no rock and interpreted the anomaly as due to an ultrabasic plug.

Magnetics and Geology

The magnetics indicate a circular complex slightly over two miles in diameter. A few small outcrops on the south shore of Camp Lake and diamond drilling indicate the complex is a carbonatite.

The rock types forming the complex are calcite carbonatites, mafic rocks and fenitized gneisses. The mafic rocks are composed of varying amounts of pyroxene, mica, titaniferous magnetite, apatite, pyrrhotite, and calcite.

The ground magnetics indicate a hodge-podge pattern of anomalies more-or-less surrounding a more uniformly and less magnetic core. The exploratory drilling indicates the hodge-podge pattern is caused by a mixed zone of all three rock types and the core to be a rather pure calcite carbonatite. Anturthinn Kling- Winnicht

The columbium values obtained are with a few exceptions quite low. They were not obtained unless pyrochlore-like grains were distinctly visible.

The significant values obtained are as follow:-

	Footage in Core	Core Width	<u>% Cb205</u>
		ft.	
Hole 4	229.5 - 230.5	1.0	3.05
	230.5 - 231.0	0.5	0.83
	231.0 - 234.5	3,5	0.17
	234.5 - 240.0	5,5	5.30
		10.5	3.16
Hole 5B	at 189 ft.	grab	0.80
Hole 6B	275.0 - 279.0	4.0	0.41
	354.5 - 358.5	4.0	0.42

In hole 4, the mineralization cuts the core at about 30° so that the true width of the 10.5-ft. section is 5.5 ft. The high grade sections are with apatite-rich mineralization cutting a dark green, massive and compact rock consisting of mica, pyroxene, magnetite, calcite, apatite plus pyrrhotite and traces of chalcopyrite. The writer considers that the chances are quite good that this apatite-pyrochlore mineralization will have continuity although it may pinch and swell along strike and dip.

With pyrochlore concentrates at approximately \$1.00 per pound of contained Cb_20_5 , the 3.16% Cb_20_5 assay has a potential value of \$60.00 per ton. There is no apparent reason why the pyrochlore could not be mechanically concentrated from this mineralization.

Columbium Mineralization

The columbium values obtained are with a few exceptions quite low. They were not obtained unless pyrochlore-like grains were distinctly visible.

The significant values obtained are as follow:-

	Footage in Core	Core Width	% Cb205
Hole 4	229.5 - 230.5 $230.5 - 231.0$ $231.0 - 234.5$ $234.5 - 240.0$	ft. 1.0 0.5 3.5 5.5	3.05 0.83 0.17 5.30
	637.3 - 210.0	10.5	3.16
Hole 5B	at 189 ft.	grab	0.80
Hole 6B	275.0 - 279.0	4.0	0.41
	354.5 - 358.5	4.0	0.42

In hole 4, the mineralization cuts the core at about 30° so that the true width of the 10.5-ft. section is 5.5 ft. The high grade sections are with apatite-rich mineralization cutting a dark green, massive and compact rock consisting of mica, pyroxene, magnetite, calcite, apatite plus pyrrhotite and traces of chalcopyrite. The writer considers that the chances are quite good that this apatite-pyrochlore mineralization will have continuity although it may pinch and swell along strike and dip.

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Copper Mineralization

Pyrrhotite mineralization ranging up to 5% is common to all the core. Chalcopyrite as fine specks and segregations was noted in all the holes but nowhere in quantities to approach even ore grade. On the other hand, it was frequent enough not to be ignored. It was most frequently observed in the same general area as the pyrochlore. In hole 4, chalcopyrite was in the core immediately adjacent to the pyrochlore-rich minerali-In hole 5B, a medium-grained massive coarse mafic rock with zation. pyrrhotite showed specks of chalcopyrite in every piece of core from 224.6 - 233.5. Chalcopyrite was also noted in this hole at 241.5, 242.5, 246.7, 261.8 and from 275.0 - 282.0.

Summary, Conclusions and Recommendations

The high grade intersection of 3.16% Cb₂0₅ over 10.5 ft. of core (indicated true width 5.5 ft.) in hole 4, and the generally quite low values in the other holes, suggest that the columbium is more highly concentrated in narrow zones in this carbonatite than is customary in carbonatites. These columbium values are in apatite-rich mineralization with readily visible, uniformly distributed pyrochlore grains. Based on past experience, it is reasonable to assume these apatite-rich leads will have continuity in dip and strike although they may pinch and swell.

The limited amount of exploratory drilling done indicates that the most favourable area for columbium, and also chalcopyrite, is on the border zone and the rocks in the flank of the carbonatite core. This zone has an indicated length of four to five miles; it has been only partially cross-sectioned in one area to date.

The probability of outlining zones of minable size and grade of columbium is good. A small high grade underground operation is considered mont likely. The possibility of locating economic concentrations of copper should not be ignored. A programme of 3,000 - 5,000 ft. of drilling to test the favourably indicated zone, and especially that portion on strike and dip of the high grade in hole 4, is recommended. It should be possible to hold the total costs of such a programme to around \$6.00 per foot.

G. E. Parsons.

References:

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- (1) G.S.C. Aeromagnetic Map 939G, Big Beaver House
- (2) G.S.C. Wunnummin Lake Geol. Map 1 1962
- (3) Many Lakes Exploration Company Report by G.E. Parsons

(a) Final Report for year 1961

(b) Report on Diamond Drilling 1962



3412SE0002 53413NW0012 SCHRYBURT LAKE

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MANY LAKES EXPLORATION CO. LTD.

BIG BEAVER HOUSE CLAIMS

MISAMIKWASH CLAIM MAP AREA

Patricia Mining Division, Ont.

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REPORT

on

THE DIAMOND DRILLING BY TECK CORPORATION, 1966

May 1966

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G. E. Parsons.

CONTENTS



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General -

Introduction

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Property

Location and Access

History

Diamond Drill Hole Results -

D.D.H.No.8, - Purpose and Results

Vertical Section of Holes 8, 9 and 10

D.D.H.No.9, - Purpose and Results

D.D.H.No.10, ditto

D.D.H.No.li, ditto

Vertical Section of Holes 11 and 12

D.D.H.No.12, Purpose and Results

D.D.H.No.13, ditto

Vertical Section of Hole 13

D.D.H.No.14, Purpose and Results

Vertical Section of Hole 14

Plan of Diamond Drill holes

List of Core Samples and Assays

Sketch showing position of holes with reference to claim group as a whole and the complex

Summary and Conclusions

Attachment:

Diamond Drill Logs of D.D.H.Nos.8-14 incl.

INTRODUCTION

This report presents the pertinent data on a drill programme conducted by Teck Corporation on the Big Beaver House claims of Many Lakes Exploration Co. Ltd., - a wholly-owned subsidiary of E.I. DuPont de Nemours & Co.Inc.

The purpose of the programme was primarily to determine if a high grade intersection of pyrochlore obtained in a previous hole (No. 4) had sufficient extension to make possible an operation.

The drilling was done under contract by Boyles Bros. Drilling (Eastern) Ltd. The drill arrived on the property on February 8th, started drilling on February 15th, and completed the programme on March 26th. Delays were experienced but these must be classed as of the contractor's own making and not due to the drilling conditions. A total of 3,002 feet of drilling was completed in seven holes, numbers 8 to 14. The drilling costs, i.e. contractor's charges, were \$17,783.45 or \$5.92/foot.

The writer supervised the programme in the field until March 8th; from then until the end of the programme, Louis Shaff of Geophysical Engineering & Surveys Ltd. was field supervisor.

- 1 -

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GENERAL

Property

The property presently consists of nineteen claims held under a 21-year mining lease as of January 1, 1966, by Many Lakes Exploration Co. Ltd., - a wholly-owned subsidiary of E.I. DuPont de Nemours & Co. The claims are in the Misamikwash Lake Claim Map Area, Patricia Mining Division, Ontario; their numbers are:- PA 28128 to PA 28138, PA 28154, PA 28155, PA 28158, PA 28159, PA 28172, PA 29389, PA 29522 and PA 29524.

Location and Access

This claim group is at latitude 52° 55' and longitude 89° 55', -100 miles north of Pickle Crow, and three miles south of Big Beaver House, - a recently abandoned Hudson Bay Co. Post and Indian settlement. Sigfussons' winter tractor-train road passes across the east part of the property. A government access road presently under construction north from Pickle Crow is planned to pass fifty miles to the southwest of the property.

History

1

In December 1960, fifty-four claims were staked by the writer for DuPont to cover a portion of an aeromagnetic anomaly interpreted as a carbonatite plug. DuPont subsequently formed a wholly-owned subsidiary, - Many Lakes Exploration Co. Ltd., to hold and explore the claims. Ten additional claims were staked in 1961, and ground magnetic and geological surveys performed over the full claim group. Also in 1961. a programme of diamond drilling (3, 207 ft.) was carried out to give a preliminary sampling of the complex. One hole (No.4) returned an encouraging columbium value (3.16% Cb_0_/10.5 ft.): however, the assay results were not known until the drill was off the property. The assessment credits from this drilling were applied to nineteen claims and the remaining claims in the group were allowed to elapse. In 1965, the nineteen claime were surveyed and 21-year mining leases covering these claims as from January 1, 1966, were obtained.

On January 11, 1966, Teck Corporation entered into an option agreement with Many Lakes Exploration Co. which, among other things, called for 3,000 feet of diamond drilling. This drilling was completed in the period February 8 to March 28, 1966.

DIAMOND DRILL HOLE RESULTS

D.D.H. No.8

Location: 1 + 91 ft. NW on D.D.H. section 0 + 00

- 3 -

Bearing: S 59° E Ast.

Dip: 75*

Depth: 502 ft.

Purpose: The hole was designed to pass 100-150 ft. below the high-grade intersection in hole No.4 and to establish the dip of this zone.

Results: The hole failed to flatten with depth, as it would normally be expected to and as required to perform its purpose. The hole was stopped at 50? ft. when it was uncertain whether it was chasing after the zone or had actually passed through it and it was weak. Subsequent holes indicated low grade columbium mineralization near the bottom of the hole in probably the downward extension of the zone cut in the previous hole No.4.

This hole 8 cut another high grade section from 113-118' averaging 2.92% Cb₂0₅ over 5 ft. The evidence in the core suggested the high grade pyrochlore streaks were from 15-20° to the long axis of the core so that the true width of the intersection is probably one and one-half to two feet.

Chalcopyrite as disseminated traces was common to parts of the core; however; no concentrations were encountered to justify assaying.

A vertical section of the hole follows.

Location: 1+19 NW on D.D.H. Section 0+00

Bearing: S 59° E. Ast.

Dip: 50•

Depth: 244 ft.

<u>Purpose:</u> With the uncertainty of whether hole 8 had actually cut the down-dip extension of the high grade zone in hole No.4, hole 9 was designed to test above the latter hole and test the up-dip extension of the zone.

Results: This hole cut a carbonatite dike from 169.7-175.7; the last 8 inches of this dike contained streaks of actinolite, apatite and about 5% brown pyrochlore and/or zircon crystals. A 1.5-ft. length of care assayed 1.06% Cb₂0₅. This intersectio.. is approximately 70 ft. above the high grade intersection in hole 4, and the angle of the dike to the core strongly suggests it is the same zone as in that hole.

The evidence from this hole suggests the zone dips 80° northwest, and that its pyrochlore content is variable, - probably high grade streaks and pods of pyrochlore-rich material in and along the contacts of a carbonatite dike.

A vertical section including this hole followed D.D.H. No.8 summary.

Location: As D.D.H. No.9'

Bearing: ditto

Dip: 68*

Length: 309 ft.

<u>Purpose</u>: This hole was planned to cut immediately below the high grade intersection in hole 4 to obtain another cut through the zone.

Results: The hole cut a carbonatite dike from 244.5-251.0 of which the last one and one-half feet carried about 1% pyrochlore with apatite and actinolite. A 1.5-ft. section of core assayed 0.30% Cb₂0₅.

This hole tends to prove the zone has continuity in dip, buts it pyrochlore:content at this location is not sufficient to constitute ore grade.

A vertical section including this hole followed D.D.H.No.8 summary.

Depth:

729 ft.

Location: 5 + 00 NW on D.D.H. Section 3 + 00 NE Bearing: S 59°E Dip: 55°

<u>Purpose:</u> This hole was planned to test the flank of the carbonatite core of the complex, the area between this core of the complex and that tested by previous holes 4, 8, 9 and 10, and also to test 300 ft. northeast on the postulated strike from the latter holes.

Results: The evidence is not clear whether the hole collared in the main carbonatite core or in a carbonatite dike.

Three carbonatite dikes with pyrochlore were encountered. The first dike (127.9-141.3 ft.) carried streaks of relatively coarse pyrochlore, up to one-eighth inch across, varying from a light brown to light drab green colour and generally associated with apatite and magnetite. The calcite, like that in the core of the complex as encountered in previous hole 6, is relatively coarse-grained. This dike assayed as follows:

128.5-133.6	$0.50\% \text{ Cb}_20_5/5.1 \text{ ft.}$	
133.6-135.0	not assayed - 1.4 ft.	
135.0-141.0	0.35% Cb ₂ 0 ₅ /6.0 ft.	

The other two dikes were lower in grade, - namely 0.28%/3.6 ft. and 0.32%/2.1 ft. Their locations suggest they could be the northeastward extensions (300 ft.northeast) of the zone in hole 8 (2.95\%/5.0 ft.) and the zone in hole 4 (3.16\%/10.5 ft.); the intersections in this hole are also approximately 300 ft. deeper than in the two former holes noted.

A vertical section of this hole follows.

513 ft.

3 + 00 NW of D.D.H. Base Line on Section 3 + 00 NE Location: Bearing: S 59° E Dip: 55. Length:

Purpose: Shaff notes that the purpose of this hole was to prove the dip of two lower carbonatite dikes with pyrochlore and to obtain another The hole is approximately 300 ft. vertically above hole 11. intersection.

Only one intersection with significant pyrochlore was Results: encountered; this was from 509 to 51? ft. and it assayed 0.30% Cb 05.

In retrospect with the assays now known, a hole to check the continuity of the first pyrochlore-bearing dike rather than the second two would have been a better bet.

A vortical section including this hole followed hole 11.

Location: 2 + 00 NW on D.D.H. Section 5 + 00 NE Bearing: S 59° E Dip: 55° Length: 401 ft.

- 8 -

Purpose: Shaff notes the purpose of this hole was to test further to the east the pyrochlore-bearing dikes encountered in the lower parts of holes 11 and 12.

Results: The hole cut two narrow zones of pyrochlore mineralization in carbonatite; the lower intersection has some relatively coarse pyroch ore and gave interesting but narrow intersections, - namely:

 375.0-378.2
 0.62% Cb₂0₅/3.2 ft.

 378.2-380.2
 some small patches of pyrochlore, not assayed /2.0 ft.

 380.2-383.0
 0.76% Cb₂0₅/2.8 ft.

This intersection appears to be in the same zone as the 0.30/3.0 ft. assay near the end of hole 1? (see section of hole 11 for correlation in holes 11, 12 and 13).

A vertical section of this hole follows.

Location: 1 + 50 NW on D.D.H. Section 2 + 00 SW

Bearing: S 59° E

Dip: 55*

Length: 309 ft.

Purpose: Shaff notes the purpose of this hole was to check the southwestward extension of the zone in hole 4.

Results: The hole encountered a carbonatite dike from 241.0-246.3 with two fine seams of apatite, actinolite and pyrochlore. It plots in the approximately projected position of the zone in hole 4.

A vertical section of the hole follows.

LIST OF CORE SAMPLES AND ASSAYS

Sample No.	Hole No.	Position in Core	Core Length	% Cb 205
68	8	112.0-113.0	1.0	0.90
69	. 8	113.0-115.5	2 5	3.00
7 0 ⁻	8	115, 5-118, 0	2.5	3.00
71	8	232.0-234.0	2.5	7.05 0.10 ÷
72	8	132.2-135.0	2.0	0.10-
73	9	169.2-174.2	5.0	0.18
74	9 [`]	174.2-175.7	1.5	0.02 -
75	10	249.5-251.0	1.5	1.06
76	10	244.5-249.5	1.5	0.30
77	10	110.0-112.0	3.0	0.01-
78	10	114.2-115.7	· 2.0	0.15-
79	10	303.7-307.5	20	0.20
80	. 8	271.6-274.1	2+0 2 E	0.42
81	8	453 5_456 0	6. J	0.43
82	• 8	463 5-466 5	<i>c</i> , 5	0.15 -
83	n	128 5-133 6	5.0	0.12
84	11	135 0 141 0	5.1	0.50
85	11	505 5-500 1	0.0	0.35
86	.11	678 5-680 6	3.0	0.28
87	12	479 6-433 0	2.1	0.37
. 88	12	509 0.512 0	3.4	0.09-
89	13		3.0	0.30
90	13	300 0 211 4	1.5	0.16
91	13	309.9-311.0	1.7	0.29
92	12	JIJ.4-JIJ.0	2,2	0.44
03	10	313.0-318.2	3.2	0.62
75	13	380.2-383.0	2.8	0.76

All assays were made by X-Ray Assay Laboratories Ltd., Toronto; both the rejects from the assay laboratory and the other halves of the core are stored at the residence of G.E. Parsons, - 136 Chatsworth Drive, Toronto 12.

SUMMARY AND CONCLUSIONS

The diamond drill programme of 3,002 feet checked for extensions of the high grade columbium zone that was indicated by the intersection of 3.15% Cb₂0₅/10.5 ft. of core in previous hole 4; it also tested in the general area of this intersection for additional zones. An area 700 ft. along strike, and widths up to 500 ft. and depths close to 600 ft, was tested with seven holes. This area lies near the contact of the carbonatite core and the 700-ft. strike-length tested constitutes approximately one-twentieth of the indicated length of this contact zone.

The evidence from this new drilling indicates that the zone in hole 4 is associated with a carbonatite dike that has vertical and lateral ' continuity, but that the pyrochlore mineralization is not plentiful enough to constitute ore grade over minable widths. Other carbonatite dikes carrying interesting pyrochlore mineralization were encountered in the drilling. The best intersection was 2.9% Cb₂0₅/5 ft. in hole 8; however, the angle of the mineralization to the core indicates its true width is only one to two feet.

The pyrochlore mineralization encountered in the core tended to be concentrated in streaks and patches in the border phases of the carbonatite dikes and generally closely associated with actinolite and apatite. It varies in grain size from fine to relatively coarse, - up to one-eighth inch across.

Traces of disseminated chalcopyrite occur in the core, - however, nowhere in sufficient quantity to merit assaying.

A question remains whether the relatively small area tested, namely about one-twentieth of the indicated strike length of the carbonatite core, is an adequate testing, or whether more drilling is justified. It is doubtful if it is an adequate test, but until the complex is more accessible, and hence in a more competitive position that an present, the justification for more testing is questionable.

The point also might be raised whether we are testing the most favourable zone in the complex for columbium. In carbonatite complexes, the pyrochlore concentrations are in the carbonatite-rock phase of these complexes and in general in the border phases of the carbonatite core and/or where the carbonatite core is polluted with wallrock fragments. In the Big Beaver House complex, this condition also appears to exist but the 1966 drilling was in an area adjacent to the core rather than in the core itself. Although this zone adjacent to the core will probably be the locale for the higher grade carbonatite dikes, any substantially large volume of ore will probably be found in the carbonatite core itself. The writer is of the opinion that the most likely zone of the complex for high grade ore is in the one tested along a limited length, - namely that immediately surrounding the carbonatite core; the present conditions of access demand high grade ore. An improvement in access as well as in the columbium market could justify diamond drill testing of the carbonatite core itself, and especially its border phase where large volumes of low to medium grade ore are most likely to be located.

Toronto, Ont. May 1966. G. E. Parsons.
COMPANY Teck Corporation

OPTION Many Lake Exploration Aptim PROPERTY Big Beaver House Claims

TOWNSHIP Misamikwash Lake Area, Ontaric

CLAIM NO. PA 28133

s s c	SHEET NO STARTED COMPLETED	1 15 Feb. 1966 26 Feb 1966	REFERENCE 1+91'NW of LOCATION or 3+10'NW of same drill	0+00 on DD of previous line ax pre	H Base Li hole #4' vious	ne s	BE DI	HOLE NO ARING SS P 75°	. 8 59E Ast. @ COLLAR ^{75°}	+@ 75'			
D	DEPTH 50)7	ELEVATION holes 3,4	s 5 in 1962					75°+@2	50'			
FROM	то	DI	ESCRIPTION		SAMP	LES							
0	62	Casing		NO	FROM		WIDTH	1					
62	104	Mafic Rock; fine to so locally coarse; of quite magnetic; cons plus magnetite, calc C pyrihotite, pepite coarse phase with bo magnetite locally al black metallic miner or rimmed with titar	medium grained, last 10 for dark green; massive usually sists of pyroxene, dark bio cite, apatite, $\frac{1}{3}$ onlyhides e(?) and traces of chalcopy poks of biotite and more ap ltered to a dark brownish ral which in turn is alterentite.	t or y ptite, s(?) yrite; patite; ed									
104	105.0	Carbmatite Dike: fir calcite fluked with last contact 70° to	ne grained, grey colour; fine amber coloured mica; core.										
105.5	109	Biotite-Apatite Pegm in apatite or apatit few inches magnetic; cuptal(?) aggressite brownish black miner runs as before; diss pyrrhotite plus trac Spec @ 107 Mafic Rock as 62-104	natiod; coarse books of bio ce-pegmatiod- calute matrix ; last foot or so with es(?) of a non-magnetic dan cal with altered titanite seminated pyrite and ces of chalcopyrite	otite k; first ck			UPL		'E COP Y ORIGIN	Y AL			

DRILLED BY

Boyles

CORE SIZE AXT

LOGGED BY G. E. PARSONS

Many Lake Gelorale aptim COMPANY Tech Corporation PROPERTY Beg Beamethouse Classing Township Misamikurash Lake ana, ant Cloim No. PA 28133 SHEET No. / Reference 1+91 NW of 0 +00 m D. D.H. Bass Since HOLE No. 8 15 Feb- 1966 Started Location pr 3+10 NW of previous hal # 4: Bearing 559F Ast. 26 Feb- 1966 Finished Are dull lense are prevonin Dip: 75 @ Collar; 75 4 @ 75 _502 Elevation Adlan 3, 4 4 5 m 1962 Depth 75 + Q 250' 77 & 350 8450 SAMPLES ASSAYS FROM TO DESCRIPTION NO FROM TO WIDTH Casing_ 0-62 Mafin Rocki fine to medium gramed last 10 from 62-104 so locally correr; dark green; massure userally quite magnetic; consule of gry dene, doch brotile pluse magnetite, calete, apatite, 's of and phide 6 pyrihotite, pipite and traces of chalopypute; course phase with books of distite and more sporting magnetite totally attered to a dark formal black metallis oneneral which an Turn mattered or sime nest with Titante Carbonistete Debe for granding and colonistic 104-105.5 last initant 70° to Core 05.5-109 Biolile - apartile Permatoria: Come books of biolite in apatite or a catile = propriene - calute mating; find Comptal aggregates of a non-magnetic dark Warnend Wark monard with altered Titanite rema as before; accommasted popute and synhotite plan traces of chalcopyrite Spec. Q. 10.7. 109 - 112.1matre Rick as 62-104

Drilled by Boyles____

Core Size <u>AX7</u>

Logged by _ S. P. Parsons

									a statuta	
C	OMPANY	TECK CORP.			PROPERTY	BIG	BEAVER	HOUSE CLS.		
T	OWNSHIP	Misamikwash Lake Area			CLAIM NO	PA	28133		•	
SI	HEET NO.	2	REFERENCE				 	HOLE NO.	8	
S	TARTED]	LOCATION				 	BEARING		
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					Chup		;			
F ROM		DESCRIPT		NO	FROM	TO	WID	CH 90 Cb. Os	ASSAYS	
112.1	117.7	Pyrochlore Zone 112.1-112.2 clean cut sear magnetite, brown pyrochlor	n of apatite, re 5 - 10% at	68	112 -	113	1.0	0.8		
		60° to core; small gash-ve off the(?) seam	ein along core	69	113 -	115.	5 2.5	3.0		
		112.2-113.3 rather coarse pyroxene(?), biotite, magn 113.3-117.7 starts with py rock scam, then 1 inch of then remassades(?) of sect (40%), light green apatite up to 10%, calcite, more py chalcopurite than normal, non-magnetic metallic mine resinous brown pyrochlore	mafic rock; neitte; no pyrochlore <u>yrochlore-apatite</u> calcite and tion magnetite e, brown pepochlore(?) pyrrhotite and platey black eral. The	70	115.5-	118	2.5	2.85		
		appear on part to meander First contact 15' to core,	along the core second 20'				DU	PLICA	TE C	ΟΡΥ
117.7	132.5	Mafic Rock as previshly(?) chalcopyrite especially wi filled fractures; spec @ 1	; traces of th some calcite- 123				POC	TO F	DLLOW	GINAL
132.5	135.0	Mineralized Cone resembles better pyrochlor lacks any volum of this mi apatite pyroxene, fulrous magnetite, some amber colo isolate grains and one pat Fulcation 65° to 75° to co	re sections however ineral; calcite, actinolite, bured mica; few ach of pyrochlore. bre.	72	132.5-	135	2.8	0.18		
DR	ILLED BY_	Boyles	CORE SIZE AXT			LOGGI	ED BY	G.E.Parson:	S	

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	COMPANY Teck Corp	-	PROPERTY	Ber 1	Ben . Ma	
	Township Mesamekwash Luke area		Claim No.	281	33	
SHEET Storted	No Reference Location		B	earing	HOLE No.	8
Depth	Elevation		D	ip:	_@ Collor;	@
FROM TO	DESCRIPTION	1	SAMPLES	······	T	
112.1 -117.7	Provallas Zara	NO	FROM TO	WIDTH	7.00.05	
	112.1-112.2 clean cut seam of upstill magnetile, from somally, 5- and at	, <u> </u>	112 -113	1.0	0.8	
	60° to core; amall gast verine along con	69	113 - 115,5	2.5	3.0	
	- 112.2-113.3 saller Course mapurahis prostere protite magnitite; no prodular 113.3-117.7 starte work popular apartite	70	115.5-118	2.5	2.85	
	- suche scan there is such of cality and 					
	chalcopyrite share normal platey black			· · · · ·		
	Alsenous from provide - not here	7				
7.7- 132.5	Enstant 15 to can ; seemd 20					
	- Charles in a pleasant in the off	· · · · · · · · · · · · · · · · · · ·	-	· · · · ·		
32.5 - 135.0	minerali i 2m				•	
	lache any volume of estis manual; Colules	72	132.9-135	2.8	0.18	
	magnitite, come ander Coloned musi-fs					
	Folgation 65 t. 75 the Core					
Dri	illed by Bryles Core Size	9×T	Loggo	d by	5. Poum	

	COMPANY	Teck Corporation Misamikwash Lake Area, Ontario		PROPERTY	Many L Big Be	ake Explora	OPTION ation Aptim Claims	
				CLAIM NO.	, PA	28133		
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	COMPLETED	LOCATION				BEAF	RING @ COLLJ	AR@
		ELEVATION				+		
FROM	TO	DESCRIPTION		SAME	LES		ASSA	AYS
135	135.6	grey lampcophyre(?) dike		FROM	TO	WIDTH		
135.6	137	Carbmatite Dike with inclusions(?) of wallrock; some actimolite, apatite, magnetite, ambes mica, traces of brown pyrochlore, contacts 60°	to core		•			
137	201	Igolite(?) medium to coarse grained; scattered fairly uniform contact of clowdy white to pissl nephiline(?) and/or feldspar-10% general and cc 25%; pyroxene mostabundant mineral; books of black biotite- rep to 10%; sections with dalk b black metallic mineral partly to completely alt massive coloured mineral aggregatex(titciute et cop to ½ each across; patches of and dissemanat in matrix; spec @ 154 and @ 175, @ 185 & @ 186; 146.5-150 grey lamprophyre (?) dike; magnetic; contacts 25° to 30° to core 161.5-162.3 grev lamprophyre (?) dike	but e p to rownish ered to pi c) ed sulphic fine grain	inkish de ned		DUI	PLICATE	ECOPY
201	227	<u>Mafic Rock</u> fine to medium grained; dark green; magnetic; coarses phase due to books of black r	massive; piotite			POOF	TO FOLL	ORIGINAL .OW
227	241.3	Lyolite(?) as above; spec @230 232-235 ambmate dike; fine to medium grained; flucked into fine magnetite; some patches is light green apatite; pyrochlore (amber coloured) on first contact, very thinly scatter throughout the dike plus a patch near a fragment at 232.5; first contact 50° to core; 235-236.3,238-239 and 240.5-241.5 grey lamprop	ed 71 plyre(?) di	232 - ike	234	2.0	0.10	
	DRILLED BY_	BOYLES CORE SIZE AXT			LOGGE	D BY G.E	PARSONS	

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-	COMPANY Teck	Constant	ł	PROPERTY	m. B	eny di	al E	Maria) C.	gi-ten
	Township 2011.01.00	rekerrand Labe lien	, C.X	Claim No.	<u>P</u> A	281	33	1 2 - i. in test man	**************************************	A 1
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	- 25 Mai prodena so	cat abundand muneral.	Impland	-		+	+/	t/		
	- Inche byofile - non	to 10 h : sections with	Nach la - an		+	+	+	tJ	ł	-{
	- Hecke meaning pin	the to Constitute afteres	. The filmen	9	+	+	+	t1	<u> </u>	
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	and to "hand across	" Antele Hand dense	anne see		+	+		tl	t	_
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	116 5-150	Send the Clored Charles	Ce 133 7 101	186.			<u> </u>	II	1	
	P.J. T BI	Lamperfunger acht - m	agrictur; fine	pr und ;		·	<u>ا</u> '	I]	1	1
	161. E - 167 3	to 30 to core		1			· /	1!	1	Τ
201 - 227	m 1. D. R. 1920	y-lass plophyre dike		·		<u> </u> '	ļi	1	1	Τ
	- Miefers Kron for	to mention promilight	en greening	succession		['	[!	1	1	1
777- 7112	- manula l'aras	in phone due to box	to flack	broteti.	· · · · · ·	<u>ا</u>	[]	1	1	1
or 1 - deflig	- lealite as above	- Ster C 230				· · · · ·	[]	1	1	
	232-235_ Carlon	ste delas fine to me	alex grame	J .		í 1	1+	1	í	
	- Mached anthe fine	mametile ome pet	1.		·,	[1	1	·+	1	
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	Clating 30° to 50	· / n	carj	<u> </u>		łl	t	·	·'	_
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Drilled by Brilia

Core Size AXT Logged by SP. Para

	COMPANY	Teck Corporation Misamikwash(?) Lake Area Claim Map, Ontario		Ma PROPERTY	any Big PA	Lakes Exploration Beaver House Claims 28133
	SHEET NO	4 REFERENCE LOCATION				HOLE NO. 8 BEARING
	DEPTH	ELEVATION	·····			DIP @ COLLAR @
FROM	то	DESCRIPTION	NO	SAMPL	ES	ASSAYS
241.3 288 298.5	288 298.5 343.0	Mafic Rock dark green; fine medium grained; quartz magnetic; similar to previously in hole 248.2-249 grey carbnate dike @269 3" grey carbnate dike; 30° to core some fine yellow pyrchlore as in sample 80 271.6-274.1 grey carbnate dike; fine grained; fine magnetic, some apatite, fair amount of fine yellow pyrochlore; contacts 45° to core. 279.2-279.7 grey carbnate dike similar to sample #80 lit with much less light yellow pyrochlore; contact 35° to core Igolite(?) as previously described Mafic Rock mestly fine grained; possibly milude(?) some leonpcophye(?) dikes; 306-320 c?? up locally brecciated and cemented with carbnate, fault slips along the core and some carbonate dikes. 300.5-303.6 carbonate dike; centre new pure carbonite contact portions with some activolite (2) apatite and	30	271.6 -	274.	1 2.5 0.43
343 345.5 348	345.5 348 350	traces of pyrchlore; contacts 45° to core <u>Igolite(?)</u> as before; medium coarse grained <u>Mafic Rock</u> fine grained; durk green <u>Igolite(?)</u> as before, posibly more pyrrhotite with	L		D	
350 353.5	353.5 481	Mafic Rock as before Igolite(?) rather coarse grained; typical type;discri pyrrhotite pyrite and traces of chalcopyrite; spec @3	mina 94	ted	٢	TO FOLLOW
i	DRILLED BY_	Boyles CORE SIZE AXT			LOGGI	ED BYG.E.Parsons

COMPANY Micambroach Lake an PROPERTY _ Big Beau House Claime Township ____ Classon May, Out Claim No. PA 28133 SHEET No. 4 Reference _____ Storted HOLE No. 8 Location _____ Finished Bearing _______@ Collar; ______@_____ Depth Elevation _____ FROM TO DESCRIPTION SAMPLES ASSAYS 241.3 - 288 Matin Rock dark premi for meder NO FROM TO WIDTH 40 CB20grand j- Juste magneting accounting to preven shy subole 208' -/ 298.2-249 guy cartmate dike C 269 3" per Carbnate date; 30° to come some fine sjellow popullos an sample 80 271.6-274,1 grey carbonale debe; fore prained 80 271.6-274.1 fine magnetile, some agastile, fame amount of fine yellow pyroklore; entres. 2.5 0.43 45° To-Con-279,2-279.7 greg Cribmite dike emila to sample 30 but and much less light sellow poportions; costarte 35° to cone. 288-1298.5 solite an previously descended 98,5- 343.0 Cafe Rock monthly fine granned ; possibly milude some las prophyce dikes; 306-320_ churchup locally becasted and concented with carbounter fronte clips along the congride com castonate dikes 300:5-303.6 carbourte dabes; Constructions pare Carlomitic Contral contains with some activality e patite and tonin of spallar; contact 15 to car 343 - 345.5 Golite as he face; medun Come grand 3155-348 Matin Rocken from grand ; drach grean 348.0 - 350 Golite an hofne, possily man prohite such 350 - 353.5 maker Kale and spre 3535-481 Spalite salden Come granudi typical typic; Helderpynte; Kinc C. 340 Drilled by Bryles Core Sizo A-XT Logged by Selenion

	COMPANY	Teck Corporation	PROPERTY	Many La) Big Beav	ke Expl ver Hou	loration ise Claims		
	TOWNSHIP	Misamikwash Lake Area Claim Map Ontario	CLAIM NO.	PA 2813	33			
	SHEET NO	5 REFERENCE LOCATION		······	- BEA	HOLE NO	8	
	COMPLETED_ DEPTH	ELEVATION			DIP	· @	COLLAR	0
FROM	TO	DESCRIPTION	SAMPL NO FROM	JES TO W	VIDTH		ASSAYS	
481	502 END	362-363.3 Carbonatite dike; trace of pyrochlore; 368.2-370.1 " " " " " " 411-412.5 grey carbonatite dike; 18° to core 437.6-438.1 carbonatite dike pinkish to light gre carbonates; streaks of a?? and apatite with re and for pyrochlore up to 1/10th os an inch ??ps. @438.9 1 inch of white calute 75° to core; min p of cholcopyrite and pyrochlore. 439.3-440 grey carbonatite dike flexked with magn minor pyrhotite; traces of chalcopyrite and pyroc 445.2-445.7 carbonatite; rather dense similar min to 437.6-438.1 452-452.4 carbonatite; light pink to greenish; sc of pyrochlore 453.7-454.4 carbonatite; pink tinged(?) porcelin like carbonate; streaks of actinalite res? brown pyrochlore; pyrhotite with traces of chalcopyrit 455-466.5 carbonatite as above with streaks of apatite and actinolite with brown pyrochlore in c Mafic Rock fine grained; dark green; magneitc; s sections of ? olide plus a few narrow carbonate	contact 20° to cor "25° to cor een; porcelan like es?? brown zer?? pyrrhotite types netite; ochlore; 30° to co neralization as ome actinolite(?); 81 453.5-4 n zer? /or te 82 463.5-4 contact areas some narrow dikes.	re traces 56.2 66.5 3 UPLI ORQU TO	.5 .0 ALIT FOL	0.15 0.12 TECC YORIG	DPY AINAL	
	DRILLED BY_	BOYLES CORE SIZE AXT		LOGGED BY	G.E.	PARSONS		

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				•	220.	110	,, _)
•	COMPANY Teck Cope	ration		PROPERTY	By Br.	take cype	Charing	مر مع مربع مربع مربع مربع مربع مر
	Township Massouchur	A Lade lies Clam M	'ap	Claim No.	PA 2	9133		
SHEET Storted	No	Reference				HOLE	No. <u>8</u>	
Finished Depth	1	Elevation			Bearing . Dip :	@ Colla		***
FROM TO			1			······		
inom io	DESCRIP	TION	NO	FROM			ASSAY	5
*****	- 362 - 363. 3 Contonas	the dake there days	RI. Carto	+ 7.0 y			+	
	368.2-370.1		Acone Jermon	and the cone			+	
	- 411 - 412.5 gray Can	loute dehe: 18° to l	· · · ·	as no core			+	
	437.6-4.38.1 Contonate	to deter proched to be	St nee : 6	ind il				
	- Certmates streaker	chartmakte and an	tet with	- tana			+	
	- Alsona troum zene	numans for provallance.	in to lingth	Jame 1 des		/	ł	
	- CA38.9 lanch of an	lote cality 15° to lace."	Are Ar	1.1.7.1	3 de 1		+	
	- true of chale	mute and proche		haron			t	
	- +39.3- 440 grey Cart	matite date fleched a	with may	.7.7.			t	
	- monor popahatist	i trans of chalingy	1. and a	1 Ilas: 30°	7. 1.		1	
	-4.95.2- 445.7 carbonal	ite, sather deme on	willes mer	Le . T. al				
••••••••••••••••••••••••••••••••••••••	- to 137.6-438.1]	feer yacoment			1	
	452-452.4 Continuate	Eight pents the grees	Jul!	1			I	
	- come articulite; 1	incon of proschlar	The second secon	f			I	
	- 453.7 - 454.4 Carbona	tite; benk trined.	81	457.5-4.	=1 2		(
	poscelandele Cart	mate streaks of				2-1-0-1-2-1	ſ	
	- actionalite with see	man from Jun	hall	+			[
	- reprochlores popul	Tele unch transf					·	
	- Charles pipeter	v	,,	· · · · · · · · · · · · · · · · · · ·			(
	455 - 466.5 Carlonal	ite as above with	82	11.75-46	10 3.1		(
	- strachen of aparticu	and activabile wait	1		6.5		(
	- Bran poportlaca	" Contact arcon	,,	1			·	
481 - 307	-makirkak from	Bearred: dark	· · · · · · · · · · · · · · · · · · ·	1			·	
Ena	L-green magnetici	anne surant	1	1		+	·	
	-section of you to	plusa a fine Marson		1				
	- Contonate diken		ļ	1 . +			· }	
			1+	1			·	
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Drilled by Byfere Core Size AXT

Logged by SEPara

	COMPANY 1	PECK CORPORATION			PROPERTY	MANY BIG I	LAKES EXPI BEAVER HOUS	LOR. SE CLAIMS - APP	BON OPTION	
	TOWNSHIP _	MISAMIKWASH LAKE P	AREA CLAIM MAP ONTARIO		CLAIM NO.	. PA 2	28133		······································	
	SHEET NO.	1 March 1/66						HOLE NO. 9		
	COMPLETED	March 2/66	_ LOCATION 1+19N of DDH Ba	aseLine	; on Sec 0	/+00	BEA	ARING S 59	East.	
	DEPTH 24	4 ft	- Or /2 ft SE of D ELEVATION same as 588	2DH #8			DIP	<u>, 50°</u> @co)LLAR 48° @	1 100'
FROM	то		DESCRIPTION		SAMI	PLES		P	ASSAYS	
0	60.5	Augustan		NO	FROM	TO	WIDTH			
60.5	91.2	Mafic Rock dark highly magnetic; accessory calcit magnetite veins patches and rang Spec @64' shows 62-63.5 carbmati 72.1-74.2 " @89.5 and 90.5-9 lamprophyre dike	, to plus :e; s to co	re						
91.2	104 244 <i>END</i>	Pegmatoid unifor cuptak(?) in a ca content of black biotite in apatit magnetite; Spec (101.2-102.3 fine Mafic Rock as be carbonate seams	<pre>rmly coarse grained large pyroxene alcite-apatite matrix; variable biotite books, locally all te matrix; coarse patches of @99 ft; contacts may be at small a grained grey lamprophyre dike as fore; ?ully traces of nephchine; s or dikes some with purphetite and</pre>	ingle to before scatter(5 core ax: ed fine	is				
		tending to have a biotite 106.3-109 carbont flecked with fine 117-119 lost core	<pre>i dikes some with pyrrhotite and o i blot?ly appearance due to uneven tite dike, fine grained, grey colo: magnetite and sulphides; foliation ; no apparent reason in core in the ;</pre>	chalcop develo r on 55° he loss	yrite; 13 pment of to core ;.	9-161	DUPI	LICATE QUALITY TO FOLL	E COP ORIGIN .OW	Y AL

DRILLED BY BOYLES

CORE SIZE AXT

LOGGED BY G.E.PARSONS

		CONDANN T. P. P. T.	l l	. 7	nany dates	apen. (_ .
		CUMPANY 1903 Corporation	-	PROPERTY	Beg_Benner	House Classes C	Profes
	,	Township Mesomekwash Lake losen	Claim Map	Claim No.	PA2B13	3	
	SHEET N. Storted	o Chre Reference	HARDDHR		но	E_No9	
	Finished Depth	2 March 1966 Dr. 2 Arift Elevation J	12 ft SE of D and as 50 B	DH# 8_	Dip: @ C	ollor; <u>98° @ 100</u>	
		1	······································		**************************************		
FROM	TO	DESCRIPTION	NO	SAMPLES EDON		ASSAYS	
0 -	60.5	Cuertmolen		- FROM TO			
60.5	- 91.2	Topolo Pak of Para int					
		- angle manufer Constration of all	during grained	weaklyto			
		- accession calcute apartite mana	Tite and pros	plus			
		magnifile varies from finaly dis	semina tol to Ce	orene			
		- r tekes and Annyes up - 15-fo					
		62-63 5 Carlow the	nomed pipida	to te			
		- 7.2.1-7.4.2 "	egrand grey C	· · · · · · · · · · · · · · · · · · ·			
		0.89.5 and 90.5-91.2 fore ground	1. dark are, an	de à			
		- lamprophyre dekes; contactse about	ist at sight angles	to core			
71.2 -	101	Per Til III					
	1.V.*F	Comatoria demiformly Coarse gran	ed large pipo	l'ne			
		Central of black bight back	namy armat	<			
		distile in acatite matine: Coa	and not be al				
		magnetite; Space @ 99 H; Cont	Tarte man be at one	all and to core a			
		101.2-102.3 fine grained grey &	Comprophyse dit	e au before			
01	244						_
4	E 44	make Rack as before anally the	near of mersteling	•			
	FUC	Ocullered fine Continuale Olamo	Redikes Ame				
		to it it is and challeopyus	1. 1. 7-161	-			
		denerely developing tof Ditt	Thasue dull do	`-{			
		106.3-109 Carbonatite dike line	araund aren to				-
	1	Alsched with sine manuetit	and he liked	· 1.1.7 55°7			-
						· ·	

Drilled by Bryles

Core Size <u>AXT</u>

Logged by Serance.

	COMPANY	TECK CORP		P C	ROPERTY	Many Big 1 PA 28	Lakes E: Beaver He 8133	xploration ouse Clain	ns Mpoin C	OPTION!
	SHEET NO		EFERENCE				 BE	HOLE NO ARING	9	
	DEPTH	E	LEVATION			·····	DI	P @	COLLAR	<u></u>
FROM	TO	DESCRIPT	ION	NO	SAMPI FROM	ES TO	WIDTH	 T	ASSAYS	
		121.8-125 carbonatite dike; tinge; fine grained except at the contacts which have plus some actinolite, amb? a few grains of brown zucm @161.6 i" splach of pyrrhot @177.7 10% pyrrhotite plus 169.2-174.2 near pure white locally scattered brown pyr or zer? criptals(?); trace minor actinolite and light 174.2-175.7 greenish to pin carbmate; first 10 inches w cuptals and one patch of br and/or zi?? ; menn actinol apatite; last 8 inches stre actinalite and light green 5% brown pyrochlore and/or about 50 degrees to the cor 178.2-178.7 carbmatite dike tinged; rather de??; charoc by red rusty streaks that f apatite such streaks; some pyrchlore only noted at one the dike; folcation 50 degr 221-230 considerably more t than normal and ?? fine g END	<pre>slight green to pink for about six inches coarse magnetite mica, and and/or pyrochlore. tite with ½% chalcopyrite some chalcopyrite carbonte; cochlore and of fine magnetite green apatite wish tinged with scattered own pep??? ite and text of apatite;10% pyrrhotite; zu??; foliation e ; greenish terized ollows fine spot in ees to core iotite rained</pre>	(Spec) 73 74 trace c	169.2 - 174.2-1 of chol?;	174.2	5.0 1.5 DUP POOR	.02 1.06 LICA QUALI TO FO	TE CO TY ORIGOLLOW	DPY BINAL
	DRILLED BY	BOYLES	CORE SIZE AXT			LOGGED	BY	G.E.PARSON	٩S	

•		Township _					Cloim No.	PA	2813	3	and copy	: series
Si Si	HEET No torted inished .			Ref Loc	otion			B	earing	HOLE No	<u>, 9</u>	
D	epth			Elev	votion				·p :	_ e Collor;_	····· @ ·····	
ROM	то		- DESCRI	PTION			SAMPLES			T	ASSAYS	
		121 0 100				NO	FROM	то	WIDTH	0% 11- 0=		T
		121.8-125	Cartmate	a dates :	slight green	to pento	,			JE 18:445		+
		-tange-s	-fime gins	- ed lifes	Le facabout	in inder				1		
		_atelle	indante 10	ich san	2 Come ma	melite				f		
		-pluse a	one actin	le an	sherman.	and			1	1		
		- he frank	grand of	frances	ascon and/or on	halle.						
		(167.6	2-eplach	1 jonate	Tite work 1/ 1/	Chalcopyer,	(sin)		1	1		
		Cill.	10 Jo prom	Jught	a some chele	mite	/		,			
		169.2-174.	2 mean fis	measter	- Casbonster;	1						
		-locally_	scattered	tram-	synflorma	73	169.2 -	174.2	5.0	.0.2		
		- Migues	. Comptat	i Time	of fine manie	tite						-+
		menn-	artinolite	and leg	htgemacate	1						
		174.2-173.	7_greenwhe	the centre	in Tingede_							· •
		Cartma	te-j-ferst_l	O Inches	work scatteres	1_74	174.2 - 1	175.7	1.5	101		
		_motolou	and me p	atel of	home populle	4						
		_ani/n	Juna ;- m	une ant	instite and							-+-
		_apatele	; laste Bd	me in p	Treakarf							
		actional	te and la	1. sallen	aprilie 100	septette.	Tray of chales	····				
		-5 for Any	and and und	frequens	an for intern			5				
		about	50 degreece	Lo the la	ni.							
		78.2-178.	7_Carbonad	ile dite:	75 6 Cri							
		funca	Turede bro	zas pages	chlose suptube					·		
		07-211.5	Carbonati	C. Leki	germach							
		-inged	- salker de	mi chi	nontering							
·····		My sed	surty ste	untre th	at follows							
		-apartite	such stren	heig con	re fine		······································					
		-pspnll	re only ma	til at 1	ne spot in							
		the deke	-j-foleate	in 50 de	neis to core							
		21-230	Considical	La conne	beaute .			······				
	man.	Mary Os	oural and	oilithe 1	love grand							
		End		0-1-					and a second second	w		<u></u>

	COMPANY	Teck Corporation		1	PROPERTY	Many Big	y Lakes E Beaver E	Exploration Nouse Claim	n ng Option	
		Tisano.wash Lake Claim Map	Area Untario		CLAIM NO.	PA 28	3133			
	SHEET NO.	1	REFERENCE 1+20.5 N of DD	H BaseL	ine			HOLE NO,	10	
	STARTED 1	March 3/66	LOCATION on drill secti	on 0+00	;		BEA	RING S 59	E	
	COMPLETED 1	March 5/66	at DDH 9	<u> </u>			DIF	<u>68</u>	COLLAR 68+	@100 ′
	DEPTH	309	ELEVATION						68+	@250'
		······································		1	SAMPI	.ES			· ASSAYS	
FROM	то	DESCRI	PTION	NO	FROM	TO	WIDTH			1
0	50	Casing		-						_
121	158.4	hostly qu? magnetic; c biotite, calcite and apa and odd trace of chalcopy Spec @57 med. grained; S 54.5-56 grey carbonatite 62-63 " " 102.5-103.5 and 107.2-10 dikes; magnetic; light si dike 65° to long axis of 110-118.8 carbonate dike patches of apatite; scat and amber coloured mica; at 65° to core; 110-112 amber coloured pyrochlor -115.7 both amber and da and or zircons mostly di 115.7-116.2 mica? fra 116.2-118.8 darker grey be same dike as above. Mafic Rock continuation of	onsists of pyokene magnet tite; disseminated pyrrho yrite pec @77 fine grained; Spe dike; micaceous frap(?); " at right angles to 7.7 fine grey mica lampro mall calcite phons(?); se core white to pinkish to gree tered sections with magne first contact at 45 degr patches of light yellowis e in calcite; 1)4.2 rk brown pyrochlore sseminated gments? carbonate; may not	enish gravet and sh 77	barse im 50° to ey; small ctinolite second 110 - 1 114.2 -	core 12 115.7	2.0 1.5	0.15 0.26	ϽΡΥ	
	150.4	uniformly fine-medium gra 154-155 grey carbonate, 1 45 and 55 degrees to core	ained Spec @ 146 medium grained; contacts e.		PC			I E CC IY ORIG LLOW	JP Y AINAL	
	DRILLED BY	BOYLES	CORE SIZE A X T			LOGGEI) BY	G.E.PARS	ONS	

Many Lake Eplorate COMPANY Teck Corporation PROPERTY Big Bennen House Claims aption Township Misamikwash Lake Claim Map ana Claim No. PA28133 SHEET No. _ Chre Reference 1+20.5 N of D. D.H. Base Line HOLE No. 10 _3 mar 1966 Location on drill arction 0, too; Started Bearing 559E 5 mar 1966 Finished at D.D.H.g Dip: 6 B @ Collor; 6 B + @ 100 ft. 309 Deoth Elevation . 68+ C 250/7. FROM TO SAMPLES DESCRIPTION ASSAYS NO FROM TO WIDTH | C/2 05 0 - 50 Cacing 50 - 121 Malie Rock fine to corner grandis dark dive greening months quete magnotic; Commenter of prodene magnotite and wild Trace of chalcopyrite Sper C 57 med grand; Spec @ 77 fine ground; Jul C 07 Consec 5A.5-56 guy contratile debis missiones famps; pliation 50 lelose. 62-63 - at sught asyla to loe 102. 5-103.5 and 107.2-107.7 fore gry orise languply aches; magnetici; leghtomull Eakete fland; pleanel dile 65 to long agin of love 110-118.8 Carbonatile dife white to perfish to grand freij amall -particles of upatite; scattered centime with magnetite, actinolite and ancher Coloned micai first contact at 45 degrees and se at 65 to core; 110-112 patching dight collows 77 110 -112 2.0 0.15 umber coloned prochlar in Colecti; 114.2 -115.7 both amber and dash from printle 78 114.2 -115.7 1.5 0.26 . und N zisem mostly disseminatice 115.7-116. Britcauora fragmente? 116.2 - 116.8 ducker gry Castmating many not 121- 158.4 makin Rick continuation of above rock Grand Spece C. 1.46 159-155 grey Castorale, medium grand; Contaste A5 and 55 degrees to core

Drilled by Bryles Bro

Core Size <u>AXT</u>

Logged by D. C. Parame

0	MPANY	Teck Corporation			PROPERTY	Big Bea	aver Hous	se Claim	s Option	
TO	WNSHIP	Minamikwash Lake Cla	im Map Area Ontario		CLAIM NO	PA 28	133			······································
SH	ieet no	2	REFERENCE			***		HOLE N	0, 10	
ST	ARTED		LOCATION				BI	EARING		
CO	MPLETED						td		@ COLLAR	0
DE:	.PTH		ELEVATION							
ROM	то	DE	SCRIPTION		SAM	PLES			ASSAYS	
58.4	183	Mafic Rock coarser of vitreous to cloudy wi of felspar 158.4-159.4 medium gr	grained than previously; hite to pink tinged nephe cained grey carbonate dik	from 173-17 eline(?)	28					
		fine magnetite; some some dissesseminated contacts at 65° to 10 160.4-161.2 as above; @ 172.7 3 inch carbor tinge; disseminated m of chalcopyrite; poss @183.6 as above.	apatite; trace of actina amber colourd pyrochlore ong axis of the core contacts at 25 and 65° hate dike; slight pink to magnetite, pyrchotite, tr sible trace of pyrochlor;	ilite; ii to core green ace contacts 5	0° to co	re				

УУХ вод. За слование и се сталия узакловите на до средника и программата и прогото со стали средника и прого стали

	/	COMPANY	`	PROPERTY	Beg	Berne	bee Eiger	hatin	- Aptin	.
		Township Micamikewash Kake Claime Map le	rea	Claim No.	PA	8133				
	SHEET No Storted Finished Depth				Bec Dip	uring	HOLE }	lo/O_ ;@	P	·
FROM	 TO		Τ	SAMPLES			1	ASSA		
1.00		DESCRIPTION	NO	FROM	το	WIDTH	1 % 1h-D-			
158.9	- 163	maler Pak convey manual the mening 1:	1 178-1	+ p	╺┿┶╤╍╍╍┤		1-10-20-			
		critican to do d and to to b to it	- france is-	10						
		Di la na	- Mpallin	f		······································				
	********	15RA 15AA								·
		- Stis marine grand gry Castmate a	he							
		fine magneticte, come a partice; hours of Reter	aliter			<u> </u>				
		Rome descensionated ander Colomed poper	adlacion							
		Contarts at 65° to long again of the core	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·				
		160. 4-161.2 as above; Contactural 25 and 65	7. cne							
		C172.7 Bruch Carbonate dike: alert puch	To aneer							
		Trance Caseminated manutile simple	t. To and				1 1			
		Acharmate: possile trace of penalle	· Carla !!	5007,000						
		a 163.6 ca close				·····	<u> </u>			
		and the set of the Process of the CAN State State and an and the second s	· • • • • • • • • • • • • • • • • • • •							
183 -	309	mil Chart's las Ari								
1	F 1	- All and and mission of phones And lifes	F							
	E DR-	-game asse structly love out magnetic but	lesse abore	ł			Į			
		at the bigining of the love .								
		1925-194 pegmatihi with Cality Contra Contra	table Lica							
		-224.7-225.5 Avente Carbonale: Controla 60° tec	han							
		225.8-228.3 guy lamost ne dela: Consortion	comilar							
		to bat whe exect and sender and have a	and a							
	-	220.2 - 236 60 6 41 41 4					· · · ·			
			anne for	+		<u></u>		·		
	i	- amalance to allove low cut yhe fine magnet	te-dah_				╂╾╍╾╍╌┤			
		- Intil and divide filsworgest for levelen 35 d	Especa talo	yan spene			↓ ↓			
		144.5-251 costmatile dike; slightly pentin	ingeoligad	Ku			l			
•		- fine culomate; but land brown popular de	atala ale							
		-fant Contast; old popullus compalles succentre of	dele aron		<u> </u>					
		lofe dusti from popollo male last 1th and	1							
		asately estimate the at 250 A" me	76	244.5-21	9.5	5.0	0.01			
		hamed	75	2195-25	.,	/ K	0.30			
	na lin da de secono b			CTILL AND	é pennel	and the second second				

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Drilled by Byles Core Size AXT Logged by Strange

	COMPANY	Teck Corporation		PROPERTY	Many Big	Lakes I Beaver I	Exploratio House Claim	n Ma Option	
	TOWNSHIP _	Misamikwash Lake Claim Map Area Ontario		CLAIM NO.		PA 28	3133		
	SHEET NO	3 REFERENCE					HOLE NO	10	
	STARTED	LOCATION				I	BEARING	• <u>• • • • • • • • • • • • • • • • • • </u>	
	COMPLETED)IP	@ COLLAR	0
	DEPTH	ELEVATION				······ •			
FROM	то	DESCRIPTION		SAMPI	ES.			ASSAYS	
			NO	FROM	то	WIDTH	1		
		amber coloured pyrochlore mixed with amber coloured mica; contacts at 45° to core 267-275 rusty red to pink carbonate seam along core 282.5-286.6 grey lamprophyre dike as previously no 287 -287.6 " " " 292.5-293.7 " " " 299.6-300.6 carbonate dike, some fine amber mica and/or pyrochlore; contacts 30° to core 304.5-307.5 carbonate dike; some streaks of apatite relatively rock in amber coloured pyrochlore	oted 79	303,7-30	07.5	3.8	0.42		
		END							
				DUP POOR	LIC QUA TO		E COF ORIGIN OW	ΡΥ IAL	i
	DRILLED BY_	BOYLES CORE SIZE A X T			LOGGE	D BY	G.E.PARSC	DNS	

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		COMPANY Tak Corporation Township Missinghe Sale Cham Map	e . Thea	PROPERTY - Cloim No.	m Big PA	" Bennen 2813.	Chec E Morres 3	plani Blace	ZA pZi	·CH
	SHEET N Storted Finished Depth	o Reference Location Elevation	·		B D	earing ip :	HOLE @ Coil	No	<u> </u>	
FROM	ОТ	DESCRIPTION		SAMPLES	+					
		Dorid -"	NO	FROM	TO		+		-SSAYS	
		- with 4 920 - Ramprophyse dide	1	1	+		+			
		1255 6 Continute dide with some								
		- andes Coloured pyrodlas mised will		-	÷	- '				
		Asubis Coloned muni Cortagly 1755	J			'				
		267-275 most red to and the	pe			′	ſ			
		or the said	t		′	· · · · · · · · · · · · · · · · · · ·	[
		JR2.5- JR/ L A.	t		1	· · · · · · · · · · · · · · · · · · ·				
		207 2071 gray bromprophy date Rd proven	and noted	1		t+	t			
·		200- ADIO + "	1	1	+	11	t			
		×12,5-293.7 " "	1	+	- 	+J	+			
	·/	2996-300.6 contracted defen some fine ander	(+	- '	ll	·			
	'	misca and a provallas: contact. 30° X Com	·'		'	<u> </u>	1			
	'	1.304.5-307.5 Nistry I. dela . a. F	·'		/		1	1		
	'	aliant to and that	<u>, 79</u> '	303.7 - 307	. 5	3.8	1 1.42			
	· · · · · · · · · · · · · · · · · · ·	apalica allasitely arch use Amber Coloniel	·′		*T		1			
	1	- pypallar v	·,		++	r+	··		_	
	+		· · · · · · · · · · · · · · · · · · ·			r	· '			
		END		1		t	· '	1		1
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Drilled by Bryle

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Core Size <u>AXT</u>

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Logged by b. P. Parsone.



	TOWNSHIP	Misamilwash Lake Area -	Ont.		PROPERTY_ CLAIM NO.	PA	28133			
	SHEET NO. STARTED Ma COMPLETED	1 arch 8/66	REFERENCE ^{500'} NW of 3+ LOCATION	00 NE on	DD BaseLi	ne	BE DJ	HOLE NO ARING	0. 11 S 59°E @ COLLAR-54	° @100 ′
	DEPTH	.9	ELEVATION							
FROM	TO	DESCR	IPTION	NO	SAMP FROM	LES TO	1 WIDTH		ASSAYS	
0	77	Casing								
81.5 84.3 90.0 91.0 101.0	84.3 90.0 91.0 101.0 121.3	of black-brown mica and minerals arranged linear Mafic Rock: a fine-grain pyroxene magnetite, biot tered(?) to a brownish m bonate stringers at 82.1 Carbonatite: as before; Mafic Rock: as before; i Carbonatite, as before; 94.5,95.2 and 100.2 Mafic Rock; fine to medi hotite, pyroxene, magnet cite in small blebs and tite, biotite, minor mag	-grained light grey carr pyrochlotite along with ly in foliations @45° to ed malanscratic rock con ite, pyrrhotite and calc ineral in places. NOTE: and 84.0 slight pinkish tint but n contact @ 30°, out-cor fine-grained mafic inclu um-grained, containing h ite and traces of chalco stringers. Carbonate di) metite at 103.7, 109.7,	ponate wi minor app core nposed of cite. Magn 2 mall (<u>no pyroch</u> ntact @40° usions at prown mica pyrite; u ces conta: 111.2,114.	th patche atite. Da hetite is car- hlore p to 5% (hning apa- 5,116.3.	s rker al- cal- Widest			•	
-		one 0.6' wide (Spec 106)								
121.3	123.3	Carbonatite, as before								
121.3 123.3 127.9	123.3 127.9 141.3	Carbonatite, as before Mafic Rock; as beofre; f Carbonatite; as before;	ine-grained contacts at 30° and 20°							

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		COMPANY TECK CORPORATION LTD. Township Misamukwash LAKE AREA - ONT.		PROPERTY Cloim No.		LAKES (Bio 1 28133_	EXPLORA	TION OPTIM CLAMS)	· · ·
	SHEET N Started Finished Depth	0. Reference 500' NUL MARCH_1966 Location Baseling Elevation	(of 3+00 ^{NI} E	e D.D.	Bec Dip	oring	HOLE N S <u>59</u> • <u>F</u> _@ Collor;	0 -54° <u>3</u> 10	
FROM	то	DESCRIPTION		SAMPLES				ASSAYS	
		Casure	NO	FROM	то	WIDTH			1
	/	CASING.							
77	81.5	CARBONATATE: Mostly fine grained light grey carbouste with patche of block brown mice and pyschovide, along with orinos apatite. Dark minisels aranged linearly in foliations @ 45° to core	ю			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
<u>\$1.5</u>	84.3	MAFIC BOCK: A fine-grained malanocratic rock composed of poporgne, magnetick, biotike, pyrholiste, and cakile. Magnetite in fined to a brownish mineral in places. Note: 2 small a bonatile stringers at 821 and 84.0							
	70.0	CARBONATITE; as before; slight pertich tint but no pyracht	ve						
90.0		MAEK Rock, as before; in contact @ 30°, out - contact @ 40	•						
91.0	101.0	CARDONATITE, as before; fire-grained mafic inclusions at 94.5, 75.2 and 100.2							
;01.0	.121.3	MARIC ROCK: Fine to medium grained, containing bown saica, hotike, proxime, magnetile, and traces of chalcopyrite; up to 50 c cite in anall blads and aringers, Carbonatike Slikes containing of lite, biostike, minos magnetike at 103.7, 109.7, 111.2, 114.5, 116.3 lls one O. le unde (Spec 106).	ayss				•		
la1.3	123.3	CARCONATITE, ao Before							
12.3.3	127.9	MOFIC Rock, as before ; fine - grained							
12.7.9		CARBONATURE, no before; constants at 30° and ro.							

Drilled by Bornes Bros.

Core Size <u>AXT</u> Logged by <u>L.M. Shaff</u>

	COMPANY	Teck Corporation Ltd.		PROPERTY	Many La Big Be	akes Exp] aver Hou:	loration se Claim	1 Option ns		
	TOWNSHIP _	Misamikwash Lake Area - Ont		CLAIM NO.	PA 281.	33				
	SHEET NO	2 REFERENCE					HOLE NO). 11		
	STARTED	LOCATION		All de la constante de la const		 BE/	RING	•		
	COMPLETED					DII	1/411-)	A COLLAR	 A	
	DEPTH	ELEVATION						e connu	~~~~~	
FROM	то	DESCRIPTION		SAMP	LES	· · · · · · · · · · · · · · · · · · ·		ASSAYS		
			NO	FROM	TO	WIDTH	[
		128.5-133.6 Pyrochlore zone up to 3% pyroch in association with fibrous green mineral (olite) 135.0-141.0 Pinkish carbonate, green acting	nlore, much of (actin 83 olite,	it 128.5-	133.6	5.1	0.50			
141.3	177.3	coarse (up to 1/8") pyrochlore <u>Mafic Rock;</u> fine-grained, as before; carbor dikes or veinlets scattered throughout at 1 @30°, at 155.9 @60°, at 162.5 @10°, at 170.1	.84 natite 152.3 7 @35°,	135.0-1	1 41.0	6.0	0.35			
177.3	212.8	At 171.5 Carbonatite; varies in color from peasly(?) salmon pink; contains apatite, brown mica, and magnetite; minor pyrochlore (Spec 190) Pasic dyke @ 35°,211.2-212.2 mafic rock, ir	white to pyrite 206-207.0 ncciated(?)							
212.8	255.0	Mafic Rock; fine to medium-grained but loca "books" of mica. Carbonatite dikes at 255' @ 226.60.50° 228.0.075° 236.0.050°	ally contains c 0 50°,	coarse						
255.0	270.4	Carbonatite; as before, foliation at 60° tra inclusions of mafic rock at 257.3. 259.5-26	aces of pyrochl	lore;						
270.4	294.0	Mafic Rock; fine-grained massive, as before 281.0-284.6 carbonatite dike, pyrochlore ev	1.5, 209.4-209 9 Vident near in	1.8	r	וסווי	10 1		NOV	
294.0	311.0	Contact, but of too-low concentration Carbonatite; variable texture; some places : entirely calcite and elsewhere coarse with "books" of biotite and crystals of magnetite and green mineral (apatite)	fine, almost	·	PC	JOR Q T	UALIT O FO	ry origi Llow	NAL	
	DRILLED BY_	CORE SIZE		·	LOGGED	вү				

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	 , 	TO I	elmanı ibur - Virenberg	ine allesses the distance of the second s	MAA	IY LAK	es Ex	PLOR	Ορτιον
		CUMPANY JECK LORPORATION		PROPERTY	£	Зіс_Всл	VERHOUSE	ECLAIMS	······
		Township MISAMIKWASH LAKE AREA - ONT.		Claim No.	Pa	28133			
	SHEET N Storted	o Reference Location			Be	oring	HOLE	No//	
	Pinished Depth	Elevation			Di	p:	_@ Collor	;@	
FROM	то	DESCRIPTION		SAMPLES			Γ	ASSAYS	······
			NO	FROM	TO	WIDTH	% Ch. Or		
		128.5 - 133.6 Pyrochare gove up to 37. pyrochare, much of it			· +				
		olite)	83	1785	331		0.50		
		135.0- 141.0 Prolich carlossile, green activolite, coarse (up to			[<u>_</u>	0.50		
		18) pyrochlore	84		141.0	6.0	0.35	· · · · · · · · · · · · · · · · · · ·	
141.3	177.3	MEFIC ROSK: fine-grained, as before; cuelons the dikes on veinliss construed Throughout at 152.30 30; at 155.30							
		162; at 1625@10°; at 1707@35°; at 1715							
177.3	212.8	CARCONATITE: miles in color from pearly white to calmon pink; contains apartice, brook mice, price, and magnetic; minos			*				
		25°, 21(2-22.2 Mefic Rock bucidel mobily from			+ <u></u>				
A12.8		FIFIC Rock fine to medium grained, but locally contine course							
·	,£.,	2266 Q 50° 2200 Q 75° 2360 Q 50°			+	····			
	······································				÷				
		<u>CROONATITE</u> : as before, foliation at 60°, faces of pypochlore; inclusions of one fix sock at 2523, 257.5-261.5, 262.4 - 367.5	······································						
279.4	294.0	MEFIC ROCK: line orginal meaning on films							
		2810-284.6- Carbonatite dike, prochlore wibent near in-			+ +				
		contact, but of too low concentration	·						
294.0	311.0	CARBONATITE: might totus: some alread in almost			· · · · · ·				
		entirely calcite and elsewhere coarse							
		with "books" of biotite and crystels	·····		+				
		Josegnetic and green mundel (aprilite)			+			l	
	Dril	led by Core Size			Logge	d by			
				•					

	COMPANY	Teck Corporation Ltd.		PROPERTY	Many Big	Beaver House	oration Option 8 Claims	
	TOWNSHIP _			CLAIM NO.	•			
	SHEET NO	3 REFERENCE				нс		
	STARTED	LOCATION				BEARJ	ING	B ritaniyaan
	COMPLETED	ELEVATION				DIP	@ COLLAR	0
FROM	TO	DESCRIPTION	NO	SAMP	LES		ASSAYS	
311.0	382.3	(Spec 309') Mafic Rock inclusions 304-306,306. Mafic Rock; fine-grained, massive, in places of coarse-grained aggregates of mica and magnetit sulphides. Carbonatite dikes at 317.5, 319.5, 345, 348. NOTE: after 348, carbonatite has poor and grades into mafic rock in many places, sin	.5, 307.5 containing te, minor 322.5,341, or contacts milar to a	TROM		WIDTH	I	<u> </u>
382.3	390.2	transition zone. <u>Carbonatite</u> ; misable(?), as before traces of In-contact 70° out contact irregular at about foot contains high concentration of pyroxene a	pyrochlore, 20° last and sulph-	•				
390.2	428.0	Ides (35% and 10% respectively) Intermediate Rock; calcite pyroxene, magnetite in medium texture pyroxenes both-like and seem growing into calcite matrix. Pedisting aggraga nolite present (Spec 401). At 399.5 and 404.3 appears almost wholly calcite. Grades into fir	biotite a to be ates of act- rock ne-grained	-				
428.0	457.1	Mafic Rock; in contact @30° Varies in appearan intermediate rock where ? of carbonate is g Mostly fine-grained dark grey-green color, wit magnetite, biotite and minor sulphides 453.2-454.0 grey carbonatite contacts 6000	1 ice from freat. th pyroxene		DL	JPLICA	ΥΤΕ CO ΡΛ	,
457,1	461.0	<u>Carbonatite;</u> grey citite(?) along factures 8	ia 90° ¦"		POC	DR QUAL	ITY ORIGINAL	-
461.0	474.4	Mafic Rock; as before				TO FO	JLLOW	

DRILLED BY

CORE SIZE

LOGGED BY

		COMPANY TECK CORPORATION LTD.		PROPERTY Claim No.	Мант С	LAKES 316_Be	Explora aver t/su	TION C	LANS.	
	SHEET No Storted Finished Depth	5 Reference Location Elevation			Bear Dip	ing	HOLE I	No	 @	
FROM	TO	DESCRIPTION		SAMPLES				A	SAYS	Ale
		(SPEC 309') Mafic Rak inclusions 204.306, 304.5, 302.5	<u>NO</u>	FROM	TO	WIDTH				
11.0	312.5	MATIS, Rock: fine grinely mensive, in places containing course grinel appropriate of orice and suggestick, minor sufficience Carbonatile differ at 2125, 38.5, 3225, 381, 385, 388. Hore: affer 388, carbonatile hea poor contests and greater into mate rock in oneny places, similar is a frametion great						•		
2.3	390.2	Cartonatile active as life Tures of goodlos the contest 70° out. intert inequire at word 20° inst fast contains high concer- tation of goodnas and anglile (35% and 10% resustich)								
0.2	428.0	Internessiate Park: calcide pyrolan, magnetile, butile in medium day tole. Pyrolanes lith sites and allow to be growing into calcide metric Previations aggregates of activality purched (SPEC 40). at 339.5 and 459.3 rock appears almost allolly calcide Gradue into fine quick within law 5 feet. Wafe wet at 4235 + 4261								
8.0.	4571	MARIE Rock: in what @ 32° Veries in appendice from internel. internet der aller of contract is great. Marty fin greinel dark gruppeen cites, inthe graphere magnetite, histily and minor culptules 453 2 (452 0 Grup culoratile, contacts @ 80° and 90°								
7.1	461.0	CARRENETITE: que fucchite (?) along fuctures. 8" Mafie Park incluion @ 440								
0	474.4	MARIE Pres: no illere								
,	Drilli	ed by Core Size			Logged b		1			L _{acara}

	COMPANY			PROPERTY_ CLAIM NO.	Ma Bi Pi	ny Lakes g Beaver A 28133	s Explor House	ation Option Claims Option	
	SHEET NO	4 REFERENCE			+		HOLE	NO 11	
	STARTED	LOCATION			+		BEARING		
	COMPLETED			· · · · · · · · · · · · · · · · · · ·			DID		
	DEPTH	ELEVATION					D1P	@ COLLAR	6
FROM	то	DESCRIPTION		SAMP	LES			ASSAYS	
474 4	475 0		NO	FROM	TO	WIDI	Ъ		
		<pre>number (note) variable; fine-grained, massive, but grades into coarse-grained intermediate rock where there is an influx of carbonate . NOTE: Intermediate rock similar in appearance to ijolite, but nepheline is absent. 482.0-483.0 White coarse-grained carbonatite 491.0 ½" carbonatite stringer with pyrochlor 495.0-496.5 Intermediate rock</pre>	e e						
499.6	503.5	496.5-498.5 Carbonatite, grey, apparently banes Carbonatite; dike, contacts @20° and 30°. Apatite,							
503.5	505,5	Mafic Rock; fine-grained, as before							
505.5	509.1	Carbonatite; pyrochlore concentrated areas beginnin	a						
509.1	556.1	and end. End of drill run in pyrochlore <u>Mafic Rock;</u> fine to medium-grained, as before; pyroxene laths get large where carbonate has been intruded. 511.1 Carbonatite veinlet, irregular contacts 523.5 Carbonatite veinlet @40°	8-5	505.5 -	-509.1	3.6	0.2	8	
		 529.3 Carbonatite veinlet @45°, trace pyrochl 533 -536 Carbonaceous section, intermediate comp between carbonatite and mafic rock 537 -542 Carbonatite, 20% mafic ? ? pyrochle evident 544.7-547.7 Carbonatite zone, as above 549.0-552.3 Five small carbonaceous zones. 	ore ositior ore	n		DU POOI	PLIC RQUA TO	CATE CO ALITY ORIC FOLLOW	OP Y Sinal
	DRILLED BY	CORE SIZE			LOGGI	ED BY			,

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	``	COMPANY		PROPERT	м <i>а</i> , YВ_1	NY LA G BRA	KES EX VER HUI	PLORATIUN O	Р Тізл 10
		Tewnship	,	Claim No.	PA	28133	5		
	SHEET No Started Finished Depth	Reference Location Elevation		······································	Be Di	oring p :	HOLE N	0/] 	
FROM	TO.		1				Y		
		DESCRIPTION	NO	FROM		T WENT		ASSAYS	
474.4	<u>#75.8</u>	CARBONATITE, grey, times of any collone or since			10		70 Cb, Os		
4726	417.6	MARIE ROCK: minible; fine prinel, menine, but grades indo conservational indusmediate work where shere is an influx of carbonate. NOTE: Ontermediate rock similar in appearance to ijelide, but rephiling is about 482.0 - 4830 While, coarse-grained carbonatile 491.0 1/2" carbonadile chinger with pyrollore 335.0 - 496.5 Intermediate rock: 496.5 - 498.5 Contermediate rock: 496.5 - 498.5 Contermediate, gray, apparently barren CARDENATURE dike, contracts @ 20° and 20° Aputite, and. phides, minos pyroxies.							
503.5	505.5	MARIC Rock: fire-grained, as lefore							
505.5	509.1	CARBONATITE: prochlore concerpated near biginning and and. End of drill sur in pyrollore	8.5	505.5	509.1	3. 6	0.28		
509:1	554.1	MARIC BOCK: fine to orefine grained, as before; pyroxine latho get large when carbonade has here intrudid 511.1 Carbonatide orcialet, inregalas contacto 523.5 Carbonatide weight & 40° 523.3 Carbonatide weight & 40° 533 - 534 Carbonacions section, inter meliste composition below carbonatide and orafic rock 532 - 542 Carbonatile, 20% onefic remesalo, no pyrothere arilant 544.7.547.7 Carbonatile zone, an above 549.0-552.3 Fire orall carbonacions gones			· · · · · · · · · · · · · · · · · · ·				

Drilled by _____

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Core Size

Logged by _____

R'S

	COMPARY			PROPERTY_						
	TOWNSHIP	· · ·		CLAIM NO.	•				· · ·	
	SHEET NO	REFERENCE			· .		HOLE	NO	·····	
	STARTED	LOCATION				E	EARING			
	COMPLETED				:	E	IP	@ COLLAR	@	
	DEPTH	ELEVATION								
FROM	то	DESCRIPTION		SAMP	LES			ASSAYS		
		553.0-553.7 Carbonatite, contacts 045°+75°	NO	FROM	TO	WIDTH				
556.1	557.0	ently barren. Carbonatite; running along core appears to have h	- igh					·		
557.0	560.6	Mafic Rock; with several carbonatite study	ed							
560.6	565.3	Intermediate Rock; mostly fine-grained, composed of 50% calcite, apatite magnetite, pyroxene, biotite and sulphides. Seems to be mafic rock enriched with calcareous intrusion. 563.0 Carbontite veinlet @30° 563.8 Carbonatite veinlet @50°	of ,		:					
565.3	566.7	Carbonatite; traces of pyrochlore near contacts, p	pearly							
566.7	569.9	Intermediate Rock; as before								
569.9	583.0	Mafic Rock; fine-grained massive, as before								
583.0	595.3	Carbonatite; 80% calcite with mafic minerals uniformlly scattered throughout, traces of								
595.3	678.0	Mafic Rock; fine to medgrained as before in place very fine amber colored mica. Carbonatite intrusic throughout, little pyrochlore mineralization 624.2 Carbonatite irregular contacts trace pyroch 630.0-631.0 Carbonatite dike @60° apparently barre	ces ons nlore en	D PC	UP DOR	LICA QUALI TO FC	TE TY O DLLO	COPY RIGINAL W		
Ĩ	DRILLED BY_	CORE SIZE			LOGG	ED BY				

		CONDANY)					$\frown \Leftrightarrow$
				PROPERT	Y			
		lownship		Cloim No.	• ••••••	L		
	SHEET N Storted Finished	lo Reference Location			B	earino	HOLE No.	
	Depth	Elevation			D	lp:	@ Collar;_	
FROM	то	DESCRIPTION	1	SAMPLES				
		553.0-553.7 Costonatile, contacto @ 45° + 75° apparently barren	NO	FROM	то	WIDTH		
556.1	557.0	Caspoweritte: unning along core, operato to have high pycallore con- cantiation (27a). Thickness indeferminate		· · · · · · · · · · · · · · · · · · ·				
557.0	560.6	MASIC ROCK: with several carbon of ite shingers				+		
60.6	565.3	Intermediate Rock: mostly fin-grained, compoul of 50% calite, equite originative, programe, that tile, and antiphile. Same to be onfie- nal caricled with calconeous informing 563.0 Castomatide weinlet @ 30° 563.8 Carlossetile weinlet (250°	· · · · · · · · · · · · · · · · · · ·					
653	5667	CARCONATITE Traces of pyrochlore men contents, pearly white colour						
66.7	569.9	Intermediate Rock: as before 563.2 Carbonatite dike, inegular contacts						
69.9	583.0	MAFIC ROCK: fine grained, massine, as before. 579.8 2" Carbonatile, coarce, pearly while						
83.0	.595.3	CARBONATITE: 807a calcide with onfic oriseals unformly outtined Throughout, saces of pyrochlor associated with articolite						
25.3	<u>678.0</u>	MAFIS_ROCK: fine to ordinargening on type; in places, very fine amber colored mice Carbonetite intraione very little pyrochlore mines eligation						
	·····	- 630.0-631.0 Carbonstile dike @ 60° appointly daven						

						an a			
	COMPANY		F	ROPERTY_					
	TOWNSHIP		CLAIM NO						
	SHEET NO.	6 REFERENCE					HOLE NO	·····	
	STARTED	LOCATION				 Bl	EARING	•	
	COMPLETED				······	D:	IP	Ø COLLAR	 0
	DEPTH	ELEVATION	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·				
FROM	то	DESCRIPTION		Sampi	LES			ASSAYS	
-			NO	FROM	TO	WIDTH			
678.0 683.5 684.8	683.5 684.8	barren 644.0 2 Carbonatite Veinlet, 4", @50° apparently 644.0 2 Carbonatite veinlets @45°+70°, trace pyrochlore 646.0-647.5 Grey carbonatite, barren 648.0-652.5 Carbonaceous zone 657.5-658.0 Carbonatite @30° pyrochlore + trace chalcopyrite 658.5 5" carbonatite veinlet, pinkish, with green apatite, no pyrochlore 660.6-661.1 Carbonatite @40°, coarse and barren 666.0-673.0 Carbonatite calcite 70%, remainder 0?? minerals, apparently barren 673.8-674.1 2" carbonatite veinlet @30°, trace pyroc Carbonatite; 678.5-680.6 2% pyrochlore associated with fibrous green mineral (actinolite) Mafic Rock; fing-grained, as before	hlore 86	678.5-68	30.6	2.1	0.32		
684.8	686.8	Carbonatite; with magnetite, biotite, and fine amber-			,				
686.8	688.0	Mafic Rock; fing-grained, massive						·	
688.0	721.3	Carbonatite; variable, section is 70% carbonatite with mefic rock sections. Mostly lias(?), but con- tains some coarse megnetite and biotite crystals. Traces of pyrochlore 692.5-693.5 Mafic Rock @40° 697.2-697.5 Mafic Rock, irregular contact 700.0-701.0 Mafic Rock, irregular contacts] P	OOF	PLICA RQUAL TO I	ATE (LITY OI OLLOV	COPY RIGINAL W	
		/05.0-/06.0 Matic Rock, irregular contacts			,				
	DRILLED BY	CORE SIZE		·····	LOGGE	D BY			

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)	COMPANY	C.	PROPERTY				-9	
	SHEET N Started Finished Depth	o.			B	earing ip :	HOLE N _@ Collar;	o//	
FROM	T0	DESCRIPTION 642.2 Carbonatik visit 4, Q50° apparents bars 6440 2 Carbonatik visits @ 45° + 70°, thace pyrochil 646.0.647.5 Grey carbonatike, barren 648.0.652.5 Carbonacions gong 657.5-658.0 Carbonatike @ 30°, operatike + trace chalempre 658.5 5° Carbonatike minist, pickich, with gues apartie, a pyrochlore 660.6:661.1 Carbonatike @ 40°, coarse and barren 666.6:661.1 Carbonatike @ 40°, coarse and barren	NO NO Ke	SAMPLES FROM	то		<i>₽₀ С⊦, Q</i>		
	6.83.5 6.84.2	6 D. 8 - 634.1 2" Culonotik ninket @ 30°, trace cyprelle Carbonatile 678.5.680.6 270 pyrosilice associated with floore guess min (extendite) MAFIC Rock: fine grained, as telore	u	678.5	680.6	2./	0.32		
624.8	686.8	CROWATITE: with regardity, both, and fine ander colored aris (SATC MARK ROSE: line wind mercing							
688.0	721.3	CAROLVATOTE: versiele, Section in 722 cultonetile with melie soc surions. Proth Line, but contains some course me melite and birtid cryptels. Traces of pyrodlere 632.5.633.5 Melie Prote Q 40° 617.2:637.5 Melie Rock, inspire, contacts 700.0-701.0 Melie Rock, vrigsies contacts 705.0.706.0 Melie Rock, vrigsies contacts	k						

Drilled by

Core Size _____ Logged by _____

COMPANY			PROPERTY	. • •		
TOWNSHIP			CLAIM NO			
SHEET NO STARTED COMPLETE	REFERENCE LOCATION			HOLI BEARING DIP	2 NO. <u>11</u> 3 @ COLLAR	<u>@</u>
	ELEVATION					
FROM TO	DESCRIPTION	NO	SAMPLES		ASSAYS	
721.3 724. 724.	<pre>709.0-709.5 Mafic rock @30° 709.8-710.8 Mafic rock @20° 713.2-714.4 Mafic rock @30° 0 Mafic Rock; fing-grained, massive, as before 0 END OF HOLE</pre>					I
			DUPLI POOR QU TO	CATE C ALITY ORI FOLLOW	OPY GINAL	
DRILLED B	Y CORE SIZE		LOGGE	ED BY		

	Township			Claim No.	•					
SHEET N Storted Finished	7	Reference Location		***	Be	aring	HOLE	No		
Depth		Elevation				p:		or;	- @	
FROM TO	DESCRIPT	10N		SAMPLES				A	SSAYS	
	709.0-7095 Nul:	2.20°	NO	FROM	то	WIDTH		1		Τ
	- 703.8.710.8 Mafie not @	20*							,	-
	- 713.2-714 4 Mafic rock @	30°				<u> </u>				-
1.3 7240	MAEN PORK: Diano D							•		+
	grainer, our give grainer, our	t, Re Sefore								+
	<u> </u>									+
	End of Hole				•===- <u> </u> -=-•==					
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									I	Γ

	COMPANY	Teck Corporati Misamikwash La	on Ltd. ike Area, Ontario		PROPERTY CLAIM NO	Many Big B	Lakes Exp	loration se Claim	Option IS	
	SHEET NO	1 March 16/66 March 18/66	REFERENCE 300' NW of	3+00NE on 1	DD Basel:	<u>ine</u>	BE	HOLE NO.	- <u>12</u> 59°E	
*****	DEPTH	513 feet	ELEVATION					-55°	@ COLLAR <u>-53~</u> @ 400!	0100
FROM	TO		DESCRIPTION	NO	SAMI FROM	PLES	WIDTH		ASSAYS	······
0 58	58 85.0	Casing <u>Mafic Rock</u> ; Mos of pyroxene, ma phides (pyrrhot Coarse sections 59.5- 60.0 carl 5% concentrated 69.5 0.1' carl itself, but not relationship 70.0-85.0 40% of little sign:	tly fine to med. grained compose gnetite, biotite, calcite and su ite with traces of chalcopyrite) i mostly large magnetite grains conatite veinlet @40° pyrochlore i areas in contact. conatite veinlet of no importance cactinolite-pyrrhotite-chalcopy: (Spec 69.3-70.0) carbonatite intruded, but intru ificence	e rite sions				L	_	l
85.0	90.0	Carbonatite; mo fine grained. A and pyroxenes;	stly pealy white, coarse grained ccessory mafics are biotite, mag minor sulphides	l and pinki gnetite	lsh					
90.0 100.0	100.0	Mafic Rock;as b intrusions Carbonatite; gr	efore, massive, little carbonate	; On						
106.5	148.0	@35°, accessory Mafic Rock; fin	magnetite and amber colored mic e grained, as before minor carbo	;a pnatite			•			
148.0	152.2	Intrusion through Intermediate Ro	<pre>jhout ck; 60% calcite with pyroxene "r</pre>	needles"		1	DUPL		TE CO'	ΡΥ
152.2	170.0	Carbonatite; fir as disting(?) a 156.2-158.0 Int	notite and magnetite throughout ne grained pink; actinolite in f ggregates ermediate Rock	ibrous		P	YOOR Q T	≀UALIT ¡O FOI	Y ORIGIN	JAL

DRILLED BY

BOYLES BROS.

АХТ CORE SIZE

LOGGED BY L.M. SHAFF

40 A.c.6.
	$\widehat{}$. North South	atter - Arcorta a beauter - A
	(COMPANY TECK CORPORATION LTO Township Misamikwash Lake Prea, ONTARIO		PROPERTY Claim No.	Мал. Ра	ч Lакез ЗівВе 28133	Explora Aver_House	TION L. DOU
	SHEET N Storted Finished Depth	lo Reference NW o NARCH 1966 Location Baselin 513 feet Elevation	1 3+00 0	<u>a D. D</u>	Br D	oaring ip 1 <u> 55 °</u>	HOLE N 5 59° F -@ Collor; @ 400'	0/? 53* @100
FROM	TO -	DESCRIPTION		SAMPLES	<u> </u>		l	455495
0	68	Casing	NO	FROM	TO	WIDTH		
							· · ·	
58	85.0	Marie Roce: Next's fine- to oution grinner, composed of pyrocene, magnetik, biotike, calible, and sulphiles "Pyrolotike with traces of chalcopyrek) Com- arctions mostly large magnetike grins 53.5-60.0 Carbouride windet @ 40° Pyrollow 5% concentrated man incomfact			· ·		•	
		63.5 Of Carlovatite vinlet, of res importance itself, but note activative- pyvlotike-chalcopyvite relationship (SPEC 69.3-700) 70.0-850 402 carlow the to all 1 1 1 0110			; ;			· · · · · · · · · · · · · · · · · · ·
		significance		1	<u> </u>			
85.0	70.0	<u>Creconstitute</u> inothy party dite, conce-grined and pinkich fine- grined. accession makies are butile, suggestite, and pyroy- ener; minor sulphiles			**************************************			
10.0	190.0	Mairie Rose, as before, marsing, little carbonate intuison	· · · · · · · · · · · · · · · · · · ·		······			
100_0	106.5	CARCONATITE: grey of gearly which come foliation @ 35° accusory			;			
104.5		MAFIC ROCK: fine-grainel, as life Wines carbonatic in fusion throughout			;			
148.0	152.2	Intermediate Rock: 60% calcile with pyratere "needle proving is it, brotile and magnetic Throughout	······		*			
/52.2		CARDONASITE: fine grand, pink; acticle in filrous sade bing aggregales						
	Dril	led by <u>Borles Bros.</u> Core Size <u>AX</u>	Т	·	Logge	d by	. M. Shaff	,,

Cr	OMPANY			PROPERTY				
тс 	JWNSHIP			CLAIM NO.	·			
SI	HEET NO	2 REFERENCE		······································		HOLF	F. NO. 12	
S'I	farted	LOCATION				BEARING	3	
CC	OMPLETED					DIP	@ COLLAR	
DF	2PTH	ELEVATION						
FROM	то	DESCRIPTION		SAMP	LES		ASSAYS	
			NO	FROM	TO	WIDTH		
170.0 176.2	176.2 191.0	Intermediate Rock; as before Carbonatite; fine grained as before; accessory minerals are apatite, biotite, sulphides. Mafic						
191.0	210.0	rock at 180-182 and 184 (5") Mafic Rock: fine grained, massive, as before						
210.0	220.0	Ijolite; med. grained mostly green pyroxene or apatite with carbonate, magnetite, and biotite						
220.0	229.3	Carbonatite; coarse grained, calcite 65%, with apatite, pyroxene. magnetite. and mica						
229.3	258.0	Ijolite; as before						
258.0 261.8	261.8 265.0	Mafic Rock; as before						P
201.0	200.0	Carbonatite; fing-grained grey(?), ?? accessory						1
265.0	279.7	Mafic Rock; as before, magnetic; several small carbonatite intrusions (barren). At 279.0 is a 5" section composed of 90% magnetite						ł
279.7	285.0	Apatite-Magnetite Rock;			DU	DIIOAT		I
285.0 288.0	288.0 305.0	Carbonatite; pearly white, @80° Mafic Rock; fine grained as before magnetic 199.3-200.5 carbonatite @60°, trace pyrochlore associated with actinolite (Spec 300)		ł	2001	R QUALITY TO FOLL	E COPY 'ORIGINAL LOW	-
DR.	ILLED BY_	CORE SIZE			LOGGI	ED BY		

	(Le	COMPANY		PROPERT	r		<u> </u>	
		Township		Cloim No.				
	SHEET No Started Finished Depth	Reference Location Elevation			Bearing Dip :	HOLE No _@ Collar;		
				SAMPLES			ASSAYS	
FROM	то	DESCRIPTION	NO	FROM	TO WIDTH			T
170.0	176.2	Intermediate Rock: as before						
176.2	13/.0	CARDONATITE: fire grained, as lefore; according mineral one april tite, onlyhides Mafic rock at 180-182 and 184 (5°)	lik, bis-			,		
191.0	210.9	MAEK Roce: fire-grined, marine, as before						+
210.0	220.0	IJOLITE: medium grained, mostly grunpy soy one or apartite, we	th carlos					
· · · · · · · · · · · · · · · · · · ·		ate, requestite, and bietite. Trace regulation and supplied (SPE)	(n_n			+		
220.0	229.3	CARBOANTITE: Course - grained; Calcute 1.590, with agadite, py	40×e-e,					+
		sugnetite, and mice		·····				+
229.3	258.0	JUDINIE: as hefore						
								+
251.0	26/.8	<u>l'INFR (Cock: as before</u>						
241.8	265.0	Cacooustize: fire-grained, gry; aning accessory minute	•	-				
0.650	279.7	MAFIC ROCK: as before, magnotic; swepel anall carbon tile infre (human) ad 2720 is a 5° action compared of 2020 mas	uione					
.71.7	285.0	HPATITE - I'HEWETITE KOCK						1
15.0	288.0-	Corbonatite: pearly white, @ 80°						
28.0	3050	MARIE ROCK: Pine stained on helore: magnetic						
		199. 3. 200.5 Carbonatile @ 60°, trace pyrochlore accordent	ed with					
		actualite (SPEC 300)	<u> </u>			L		<u></u>

Drilled by _____

Core Size

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Logged by _____

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	COMPANY			PROPERTY						يد. مرجع
	TOWNSHIP _			CLAIM NO.						
	SHEET NO	3 REFERENCE				++	HOLE N	 D12		
	STARTED	LOCATION				BI	EARING			
	COMPLETED_					D	[P	@ COLLAR	6	
	DEPTH	ELEVATION				· ·				
'ROM	TO	DESCRIPTION	·····	SAMP	LES			ASSAYS		
05.0		N Tiolito, fina ta	0	FROM	TO	WIDTH	<u> </u>			
		biotite; fine to coarse grained; composed of pyroxene. biotite, magnetite and traces of nepheline and/or feldspar	,			,		-,		
20.0	329.0	Mafic Rock; fine grained, dark grey ground mass with								
29.0	329,3	Carbonatite; apparently barren				Р				
29.3	405.8	Mafic Rock; mostly fine grained as before some section	ıs							
15.8	453.0	Carbonatite intrusions at 339.5 @20°, 340.8-344.0 @60° 345 @45°, 348.0-349.0 @20°, 355 @35°, 357.0-359.0 @25° 369.5-370.5 (ground contacts and 396.5 (irregular) Lost Core; 362-364, 366-369, 372-372.5 <u>Carbonatite</u> ; mostly greyish mottled appearance with foliations @20° 422.5-425.0 med grained mafic rock conatining apatite pyroxene biotite, and magnetite 429.3 4" fine grained mafic rock @30° 429.6-433.0 mostly white carbonatite with 2 sections c dark amber pyrochlore associated with fibrous green mineral(actinolite)	f	420 6 4						
3 0	450 E	438.0 2" pyrochlore section pyrochlore associated with actinolite and magnetite in white carbonatite	-	429.6-4	33.0	3.4	0.09			
9.5	459.5	Mafic Rock: medium grained magnetic		n			TEC	NON		
		of pyrochlore near contacts 463.9-464.7 mafic rock at 25°		PC	OP	QUALI TO FO	TY OR			

CORE SIZE

LOGGED BY

		COMPANY Township	2	PROPERT Claim No.	Y		1997 - 1997 - Salan Bardar an Anna an A	••••	 Namuji (na ang ang ang ang ang ang ang ang ang
	SHEET N Started Finished Depth	o Reference Location Elevation			Ba Di	earing	HOLE No _@ Collor;_	12	
FROM	TO	DESCRIPTION		SAMPLES	5		1	ASSAYS	
305.0	320.0	I south fine to conce- grainie; composed of pyrozane, biotite, no	NO	FROM	TO	WIDTH	To Ch. De		
27		- all all falls of neghtline and for foldoper							
320.0	329.0	MARK lock: fire-grained, last grey ground mean with birtite cuptele; iles to langesophyce	<i>sim.</i>						
329.0	3,29,3	CARBONATITE: apparently barren							
327.3	405,8	MADE ROSK: mostly fire grained as hefore; some sections course with and mignetic mutale up to 12" Carlowelike intrainer at 339.5 20" 310 8-344 0 60" - 75 @ 45" - 440 - 240 - 000	bistik @						
		35° 357.0.359.0 @ 25°, 369.5-370.5 (ground controts an 396.5 (inigular)	l	, ,					
						[
9058	453.0	CAREQUATITE: maily guyin mother appearance with foliations @: 422.5-425.0 Recim grined wefe sort containing appetite,	20°						
		427.3 4" fine grained medic note @ 30° x 429.6-4330 Prode wise calorable with a rection of h	4						
		* bij proving exception il filme que minuel (ut- x +38.0 2 logistine acction: Pycellore accounted with a lite and sugarfite in white cashowatite	dino 87	429.6	433.0	3,4	0.09		
453.0	453.5	MARIC Rock - Julium quince, mynta	· · ·						
59.5	468.7	Carconatite most y nothing eye as before, taces of py alloren contacts	us						
		- 463.9-464.7 Mafie care at 25							
	Drill	ed b Core State			•				

	COMPANY			PROPERTY_					
	SHEET NO	4 REFERENCE				 	HOLE NO.	12	
	COMPLETED	ELEVATION				DI	>	@ COLLAR	@
FROM	TO	DESCRIPTION	NO	SAMP	LES	······································		ASSAYS	
468.7	470.9	Mafic Rock; as before	NO	PROM		WIDTH	L		l
470.9	497.0	Carbonatite and Mafic Rock; carbonatite at 470.9- 473.0, 476.0-477.5,478.5,479,482,483.5,485,489.							
497.0	513.0	Carbonatite; mostly greyish mottled type 501.5-502.5 Mafic rock 502.8-503.5 Mafic rock 504.0-506.5 Mafic rock 509.0-512.0 Disseminated amber pyrochlore associat with megnetite and fibrous green actinolite END OF HOLE	ed 88	509.0-:	512.0	3.0	0.30		

DUPLICATE COPY POOR QUALITY ORIGINAL TO FOLLOW

DRILLED BY

CORE SIZE

LOGGED BY

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		COMPANY		PROPERTY	•				
		Township		Claim No.	Claim No.)
	SHEET No Started	b Reference Location				Bearing	HOLE No.		
	Finished Depth	Elevation				Dip:	_@ Collor;_	§	
Fr.OM	τo		1	SAMPLES	~~~~~~~~		1		
····		DESCRIPTION	NO	FROM	TO	WIDTH	11h.00	ASSATS	<u> </u>
1.7	470.9	Maris Rosk, as lefore					gales		-+-
0.9	497.0	Calastite and Maca Day : Calasta di una una							
		477.5. 478 478.5. 479. 482. 4535 485 489	474.0-						
							·		
7.0	<u>513,0</u>	CARC NOTITE mostly greyich most led syge							\rightarrow
		501.5-502.5 Mapic Park							-
		Sp218-S02.5 Make Kack							
		501.0. 512.9 grannatil a - les malles availed							
		netisk and fibrous green activalite	sets mag 88	5090	512.0		0.30		
		/ /			21412		0.00		
	5/3.0	Energy Har							
		DDF[DLE	·····						
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		n an							
									
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									\bot
					-+				

Drilled by _____

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Core Size _

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Logged by _





	COMPANY	Teck Corporation	n Ltd.	F	PROPERTY	Many La Biq Bea	ikes Explorat. iver House Cla	ion Option aims
	TOWNSHIP	Misamikwash Lake	<u>e Area - Ontario</u>	С	LAIM NO	<u>PA 2813</u>	13	e se
	SHEET NO	1	REFERENCE 200' NW of 54	+00NE on D	D	••••••	HOLE NO	0. 13
	STARTED	March 20/66	LOCATION BaseLine				- BEARING	S 59°E
	COMPLETED	March 22/66					DIP 55°	@ COLLAR 57º @200
	DEPTH 40	01 feet	ELEVATION				Note: casi	ing brake 20' above
FROM	то		DESCRIPTION		SAMPI	ES	Deurockyas	ACCAVE
0	<u>ε</u> γ		DESCRIPTION	NO	FROM	TO W	IDTH	ASSAIS
94.5	94.5 128.7	Mafic Rock; mos medium grained; magnetite, calc trusions at 68. Carbonatite; va 2 feet to greyi 40% mafic miner are biotite, ma 97.0-98.5 secti 99.5-101.2 Mafi	tly fine grained and massive, occ composed chiefly of pyroxene, bi ite and sulphides. Carbonatite in 0 @45°, 72.4-73.9 @65°, at 81.6 @ ries from almost monomineralic in sh "speckled" appearance with up als from 101.3-165.5. Mafic miner gnetite, pyroxene on containing light amber pyrochl c rock @70°	casionally lotite 7- 70° first to cals	97.0 -	98.5 1	.5 0.16	
207.4	207.4	105.5-107.0 Los <u>Mafic Rock;</u> fir In contact @50° throughout (of r content up to 18 180.0-180.3 carl 180.6-181.4 carl 182.2 3" (182.9-184.1 carl 184.4 $\frac{1}{2}$ " (184.8-187.3 carl greenish tint wh of pyrochlore as 188.8-190.6 carl 192.8-193.6 carl 205.4-206.2 Grey Carbonatite; @3(t Core ne to medium grained, as before. small carbontite intrusions no significence in size or 80') (Spec 164) bonate veinlet @45° bonatite meinlet @70° carbonatite veinlet @60° bonatite vein @60° trace pyrochlor carbonatite stringer @60° pyrochlor carbonatite stringer @60° pyrochlor conetite vein, slightly pink, here apatite or actinotite occurs, ssociated with actinolite. conatite greyish @60° appatently H conatite @60° barren y carbonatite @60° barren 0°, grey barren, sections of mafic	re at 184. ore . Traces barren c rock thr	.0 coughout	[P	DUPLIC OOR QUA TO	ATE COPY ALITY ORIGINAL FOLLOW
1	DRILLED BY	BOYLES BROS.	CORE SIZE AXT			LOGGED BY	, L.M.SHAFF	

No Reference 200' NIU of 20_MARCH_1966_ d 22_MARCH_1966_ 	NO 89	_D.D	Be Di 	earing ip : /oTe : WIDTH /.5	HOLE N <u>S 57° E</u> - @ Collor; • Brake 20 Die from 3 •/c Cbi Ps 	lo. <u>/3</u> <u>57°</u> §_2 <u>57°</u> §_2 <u>5000000000000000000000000000000000000</u>	
DESCRIPTION Casing Malic Rock: mostly fine grained and measure, occasionally medium grindly composed chifly of gyropens, hitic, oragonitie, calait, and oulphides. Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° at \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° 2.6 \$1.6 @ 70° Cashonalite intrusions at 68.0 @ 45°, 22.4-23.9@ 65° 9.10.12 Mafie Rok @ 70° 105.5 : 107.0 Lost Core Marc Rock: fine to oralism grained, as hefore clacentaet @ 50°. Somell cashonalite intrusions Ulroughout (of an aignifurnee in city on	NO 89	SAMPLES FROM 	s TO 72.5	WIDTH	9/c C b 1 P 5		
Cessing <u>Malic Rock</u> : onerthy fine prined and measure, orcasionally melium grinel <u>composed chiefly of gyropense</u> , bitile, magnetile, calaite, and outphiles. <u>Cashonalide intrusions at 68.0 @ 45° 72.4-73.9@ 65° et 816 @ 70°</u> <u>Cereculative</u> : Varia from eliment on anomainerallic in first 2 feet to greyich "gred- <u>lel'appearance unit</u> , up to 40.72 magnetile, programe <u>92.0-92.5</u> Section containing light ambes provellence <u>92.5-101.2</u> Mafie Rak @ 70° <u>195.5-107.0</u> Lost Core <u>Marce Rock</u> : fine to oralium grained, as before claicontact @ 50° Somell <u>carbonetile</u> intrusiona theory for the first of the sector of the sector.	NO	FROM 97.0	T0	WIDTH	0.16		
Casing <u>Malic Rock</u> : on orthy fine grained and measure, or casionally medium grinely composed chiefly of gyerress, histic, magnetite, calate, and outphiles. <u>Cashonalite</u> intrusions at 68.0 @ 45°, 72.4-73.9@ 65° et 81.6 @ 70° <u>Cashonalite</u> intrusions at 68.0 @ 45°, 72.4-73.9@ 65° et 81.6 @ 70° <u>Cashonalite</u> intrusions at 68.0 @ 45°, 72.4-73.9@ 65° et 81.6 @ 70° <u>Cashonalite</u> intrusions at 68.0 @ 45°, 72.4-73.9@ 65° et 81.6 @ 70° <u>Cashonalite</u> intrusions at 68.0 @ 40° a single minusals from 101.3-105.5. Malic minusals are histite, megnetite programe <u>92.0 : 92.5</u> Section containing light and he pypoellone <u>92.5 : 107.0</u> Lost Core <u>Marc Rock</u> : fine to ordinane grained, as hefore. claccontact @ 50°. Somell cashonalite intusiona theory fort (of me significance in cise on	89	97.0	78.5	1.5	0.16		
Matic Rock: mostly fine grained and measure, occasionally medium grinely composed chiefly of gyestesse, histic, oragantite, calaite, and oulphiles. Carbonalite intrusions at 68.0 @ 45°, 72.4-73.9@ 65° at 81.6 @ 70° <u>Concentrate</u> : Varia from elanost on an consensabilition first 2 feel to greyoh "good- lel" appearance with up to 40.9 a oragine minusel from 101.3-105.5. Mafric minusels are biotite, megnetic program 92.0. 92.5 Section containing light ander pypollone 92.5. 107.0 Lost Core <u>Marc Rock: fine to oralismon grained, as before clacentaet @ 50°. Somell</u> carbonalite inturiona theory for holes contact @ 50°. Somell carbonalite inturiona theory for holes and secontact @ 50°. Somell	8.9	97.0	78.5	1.5	0.16		
Conford chiefly of gy172000, histile, magnetite, calaite, and outphiles. Carbonalite intrusions at 68.0 @ 45°, 72.4-73.9 @ 65° at 81.6 @ 70° Carce 14717E: Varies from elanost ononcominerallie in first 2 feel to grupish "good- Le appearance with up to 40° Ja oragite minerals from 101.3-105.5. Mafrie menosals are listite, onegretile programe 97.0 - 98.5 Section containing light amber propollore 92.5 - 101.2 Mafrie Rak @ 70° 105.5 : 107.0 Lost Core Marce Rock: fine to oralisme grained, as hefore claccontact @ 50°. Somell carbon its intusiona Usorighont (of ma significance in cise on	89	97.0	98.5	1.5	0.16		
Castonalite intrusions at 68:0 @ 45°, 72.4-73.9@ 65° et 81.6 @ 70° <u>Concentrite</u> : Veries from elevent monominerallie in first 2 feet to greyich "good- 22° appearance with up to 40% on afic minerals from 101.3-105.5. Mafic minerals are listite, magnetile, popyane 97.0.12.5 Section containing light amber pypoellore 99.5.101.2 Mafic Rak @ 70° 105.5.107.0 Lost Core <u>Marc Rock</u> : fine, to oralium-greined, as hefore, clacontact @ 50°. Somell carbon die intrusiona Ularegboost (of ma significance in cise on	89	97.0	98.5	1.5	0.16		
CARCELIATITE: Varia from el most on ancon menellie in first 2 feet to greyoh "grest- lel" appearance unit up to 40% on afric minusale from 1013-1055. Mafrie minusale are bistite, magnetile, pyperane 92.0:92.5 Section containing light andres pyperllene 92.5:101.2 Mafrie Rak @ 70" 195.5:107.0 Lost Core Marc Rock: fine. to oralium-greined, as before claccostact @ 50° Somell carbon de inbusiona cheores (of ma significance in cise on	89	97.0	98.5	1.5	0.16		
CARCENTITE: Varies from elanost on conconinerallie in first 2 feet to greyich "goed- lel" appearance with up to 40 % magnetic minerals from 101.3=105.5. Majie menosals are listic, magnetic, programe 9.20 - 92.5 Section containing light amber pypoellone 99.5 - 101.2 Majie Rak @ 70 105.5 - 107.0 Lost Core 105.5 - 107.0 Lost Core <u>Marc Rock: fine, to orolium-grained, as before</u> clascostact @ 50° Somell carbon de inbusiona cheoregeont (of ma significance in cise on	89	97.0 ,	78.5	1.5	0.16		
22 appearance with up to 40 Ja marshe minerals from 101.3-105.5. Jilafic minerals are listile, magnetile, programe 97.0.12.5 Section containing light amber pypollore 92.5.101.2 Mafie Rak @ 20" 105.5.107.0 Lost Core <u>105.5.107.0 Lost Core</u> <u>105.5.107.0 Lost Core</u> <u>105.5.107.0 Lost Core</u> <u>Contemposed</u> in the main of the second of	89	97.0 ,	98.5	1.5	0.16		
120: 92.5 Section containing light andres pypollone 92.0: 92.5 Section containing light andres pypollone 92.5: 101.2 Mafie Rak @ 70° 105.5: 107.0 Lost Core Mark Rock: fine to oralium-grained, as before clascostact @ 50° Small cartonalite inturiona cheory font (of na significance in size on	89	97.0	78.5	1.5	0.16		
97.0.12.5 Section containing light ander pypollore 92.5.101.2 Mafie Rat @ 70° 105.5.107.0 Lost Core <u>Marc Rock: fine to ordina-grained, as hefore</u> clacostact @ 50° Somell carbon de inturiora cheory font (of na significance in cize on		, ,	98.5	1.5	0.16		
99.5. 101.2 Mefie Rak @ 70* 195.5: 107.0 Lost Core <u>Marc Rock: fine. to orchum-greined, as before. clacostact @ 50° Somell</u> carlomodile intusiona cheory fort (of na significance in size on		,					
105.5. 107.0 Lost Core <u>Marc Rock: fire to relian-grained, as before claccostact @ 50° Somell</u> <u>cartoned le intrusiona cheoreghont (of na significance in size on</u>	•••••••••••••••••••••••••••••••••••••••	`			L		
Marc Rock: fine to oralium - grained, as before cla constant @ 50° Somall cartonal de intrusiona cheoreghout (of na significance in size os					1 1		1
(145 hock: fire to roling gened, as lefore classortat @ So Donell carton all inturiona theory fort (of no significance in size on		1	·		↓ {-		
carton a de intrusiona theorighout (of no significance in aige of					<u>∔</u> }-		
d d a d unit (sore unit)					<u>+</u> }-		
content up to 180 [Stel 164]		····			·{		
10.0-180.3 Confidence avenue (2 75	·····						
1106:181.4 Control ve arcialet in 10					<u>+</u>		
192 Survey and Cal I'll and Digo To the House				+	++		
12. 12. 1831 STUMATICKING OU. Inter product of 1930				-			
in the loss Carls still and a fill it is and it is a still					11		
will it lit							
1888-1906 Carbonstile rewise @60° accorrectly bearers				- I	1		
122.8-123.6 Carbon dite @ 60° have					1		
2054-2012 Frey Conformative @ 60° passes				-	11		
			······				
(CERCULETITE: @ 30° any burry sections of malie nort throughout							
CERCONSTITE: @ 30, guy, borry, sections of mylic rock throughost							
	1995 - 1999 Contonepre aven Color inter properties of 1990 . 1144 's" Carbox estile of inger @ lob; pyroellore . 189.8-197.2 Contonetile origins, Truces of pyrochlore accounted with activalite 192.8-190.6 Carbonetile @ 60°, apprendly Invien 192.8-193.6 Carbonetile @ 60°, lower 205.4-206.2 Say Contonetile @ 60°, barren 205.4-206.2 Say Contonetile @ 60°, barren CERCENTITE: @ 30°, guy, barren, accions of mafie rock throughost CERCENTITE: @ 30°, guy, barren, accions of mafie rock throughost Dilled by Boyles BROS	1923 - 1937 Carbonatic And Clair Inter properties of 1930 . 114.4 1/2" Carbonatile of pinger @ leb; opportfore . 189.8-1923 Carbonatile origins, Inces of pypochlose accounted with activalite 192.8-190.6 Carbonatile, guyich, @60°, apparently Invien 192.8-193.6 Carbonatile @ 60°, lower 205.9-206.2 Grey Carbonatile @ 60°, barren 205.9-206.2 Grey Carbonatile @ 60°, barren 205.9-206.2 Grey Contonetite @ 60°, barren	1144 1/2" Carbonetite ofinger @ lob; pyrollore 1144 1/2" Carbonetite ofinger @ lob; pyrollore 1144 1/2" Carbonetite ofinger @ lob; pyrollore account for 1144 1/2" Carbonetite origins Inces of pyrollore account for 11218-132.6 Carbonetite, quyich, @ 60°, appendix Invien 132.8-133.6 Carbonetite @ 60°, lower 205.4-206.2 Grey Carbonetite @ 60°, barren 205.4-206.2 Grey Carbonetite @ 60°, barren CERCONSTITE: @ 30°, guy, barren, acclions of mafic rock throughost Cerconstite: @ 30°, guy, barren, acclions of mafic rock throughost Drilled by Boxies Bros. Core Size AXT	 111. S. (199) Conversion (Control Control of 1990 114.4 1/2" Carboneolite opingen @ lob", pyront bre 114.4 1/2" Carboneolite opingen @ lob", pyront bre 114.4 1/2" Carboneolite opingen, guerich but where a getike 114.4 1/2" Carboneolite opingen, guerich but where a getike 114.4 1/2" Carboneolite opingen, guerich but where a getike 114.4 1/2" Carboneolite opingen, guerich but where a getike 114.4 1/2" Carboneolite opingen, guerich but a mene 114.4 1/2" Carboneolite opingen, getike 114.4 1/2" Carboneolite opingen, guerich but a mene 114.4 1/2" Carboneolite opingen, getike 114.4 1/2" Carboneolite opingen, getike opingen, getike 114.4 1/2" Carboneolite opingen, get	 111.3 - 1183. Contractive of the provide of 1130 114.4 "" Carbonetite of provide of 1130 189.8 - 197.3 Contractite or a signify pick, queried to the agentite 199.8 - 190.6 Carbonetite, queries, Provide a social for a prevently burren 192.8 - 193.6 Carbonetite @ 60°, appendity burren 192.8 - 193.6 Carbonetite @ 60°, barren 205.4 - 206.2 Grey Carbonetite @ 60°, barren Cerestive : @ 30°, guy, burren, archions of anglie rack throughost Drilled by Boxyes Bros. 	112.5 - JUST Carbonalite aling @ lab; pyrollare 114.4 "/s" Carbonalite stingt @ lab; pyrollare 114.4 "/s" Carbonalite stingt @ lab; pyrollare apath 114.4 "/s" Carbonalite orcurs Inuce of pyrollare associated with actinalite 122.8 - 130.6 Carbonalite @ 60°, appendix Inven 132.8 - 130.6 Carbonalite @ 60°, larren 205.4 - 206.2 Grey Carbonalite @ 60°, barren 205.4 - 206.2 Grey Carbonalite @ 60°, barren CER 201471.775: @ 30°, grey, barren, sections of mafie rack throughost Drilled by Boyles BRos. Core Size AXT Logged by L. M. Shi	1923 - 1933 Cartonistic Artin Color inder provident of 1930 . 1944 "A" Carbonetite ofinger @ lob; pyrochlore . 1944 "A" Carbonetite orients, Junie of pyrochlore apostil on activative orients. Truce of pyrochlore associated with activative 1928-1906 Carbonetite, generich, @60°, appenently Invien

Core Size <u><u><u>riki</u></u></u>

. C	OMPANY		PR	DPERTY			
נ 	YOWNSHIP		CL	AIM NO	· · · · · · · · · · · · · · · · · · ·		
8	SHEET NO.	2 REFERENCE			H	DLE NO. 13	
5	STARTED	LOCATION			BEAR	ING	
C	COMPLETED				DIP	0 COLLAR	6
Ľ	DEPTH	ELEVATION				······································	
Rom	то	DESCRIPTION		SAMPLES		ASSAYS	Mark — Annan Ange Ann <u>A</u> nnan <u>A</u> ng An
15 4	224.2		NO	FROM TO	WIDTH		<u> </u>
	424.3	<u>mailc Kock</u> ; as before small irregular carbonatite intrusions throughout					
24.3	248.2	Carbonatite; mostly greyish barren type; some pink	kish				
		but also barren					
		$231.9-233.5$ mails rock at 60° 234.9-237.0 mafis rock at 15°					
~ ~		240.0-243.0 mafic rock at 85°					
18,2	256.0	Ijolite; medium grained composed of pyroxene, biot	tite				
		and calcite; minor megnetite and minor nephiline a	and/				
6.0	257.7	Mafic Rock, as before					
7.7	269.0	Carbonatite; grey, speckled type, apparently barre	en;				
		accessory minerals biotite, pyroxene, apatite					
		$265.4-265.9$ mafic rock 060°			_1		
9.0	309.9	Mafic Rock; fine grained, as before carbonatite			DUPII	CATE CO	New
		intrusions throughout		F			JP Y
		283.8-285 0 carbonatite group have all a	barren	•		ALITYORIG	INAL
		286.0-286.7 irregular carbonatite, trace pyrochlor	0 0000 (3)		ĨŎ	FOLLOW	
		ou contact which is 60°	e near(7)				
		293.6-295.3 carbonatite intrusion irregular barren	1				
9,9	318.1	Carbonatite; containing pyrochlore in personiation		• • •			
		309.9-311.6 section with several patches of fibrou	with acti: s green	nolite			
		actinolity containing magnetite and pyrochlore	90	309.9-311.6	1.7	0.29	
		515.4-515.6 as above, but more uniformly distribute	ed91 (313.4-315.6	2.2	0.44	

	TTTED DV	••••					

1.	Ö							^	0,	
[COMPANY		PROPERTY						
		Township		Claim No.						
	SHEET N Storted	6 Reference Location			R		HOLE	No	/3	
	Finished Depth	Elevation			D	ip:	_@ Collar	;	@	*****
FROM	то	DESCRIPTION		SAMPLES			1	A:	SAYS	
215.4	224.3	Marie Rock, as before, small ineques carbomtik infrusione theoreforet	0	FROM	TO	WIDTH	20 Cb, Oc			
	248.A	Carbonetite: mostly gruyial - terres type; some pickish, bat also barren								
		234.9.237.0 Mafic Pak at 15° 240.0.243.0 Mafic Pak at 85°						· · · · · · · · · · · · · · · · · · ·		
249.2		Ivourse: medium = grained; Corporal of pyrorene, bistite, and calick ; minor magnetice and minor negativine and/or fellopse (SPEC 255)							· .	
256.0	257.7	MARIC ROCK, as before								
252.7	269.0	CARCONFINE: que, opertil type, apparently barren; accentory minerels	······							
		263.0. 244.0 Mafic Part @ 65 265.4. 265.9 Mafic Rock @ 60"								+
269.0		MARK Rock, fire-grinel, a lefore, contrastile interiora throughout								
		283.8: 285.0 Corbonatile, grey 2 barren, @ 75° 226.0: 226.7 Anywas carborestle, torce pyrochbre new and contact, which is 60°								
		2336:2352 Carbonatite interior, inequilar, barron	•							
		CPRESHATITE containing pyrochine in association with activality						•		·
		313.4. 215.6 Do above, but over uniformly distributed	90 91	309.9 .3 318.4 3	11.6	1.7	0.29			
	Dril	led by Core Size			Logge	d by				

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	COMPANY	PROPERTY
	TOWNSHIP _	CLAIM NO
	SHEET NO.	3 REFERENCE HOLE NO. 13
	STARTED	LOCATION BEARING
	COMPLETED	
	DEPTH	ELEVATION
FROM	TO	DESCRIPTION SAMPLES ASSAYS
		NO FROM TO WIDTH
318.1	335.5	315.6-316.6 mafic rock 316.6-318.1 grey speckled carbonatite <u>Mafic Rock</u> ; fine grained massive as before 326.5-328.0 Carbonatite veinlet @45° greyish barren
335,5	362.3	Carbonatite; mostly peasly white to greyish in places contains up to 40% mafics (magnetite biotite pyroxene) 338.0-338.6 mafic rock
362.3	372.0	Mafic Rock; fine grained as before carbonatite irregular
372.0	395.9	Carbonatite; mostly peasly white with sections containing apatite, magnetite actinolite, biotite etc. in various amounts 375.0-378.2 up to 3% pyrochlore associated with actinolite
		and magnetite, color light amber 92 375.0-378.2 3.2 0.62 379.2-380.2 trace pyrochlore (section sent to GEParsons) (some small patches of pyrochlore) 380.2-383.0 up to 3% pyrochlore with same associateions
		as at 375' 383.0-388.1 trace pyrochlore 388.1-390.3 barren 390.3-391.1 3% as before
		391.1-394.1 Barren 394.1-394.9 trice pyrochlore 394.9-395.9 Grey carbonatite barren DUPLICATE COPY POOP OLIALITY ODIOLIAL
292.9	401.0 401.0	Mafic Rock; fine grained as before TO FOLLOW
l	DRILLED BY_	CORE SIZE LOGGED BY

	õ	COMPANY	<u> </u>	··· ···	PROPERTY		nde de la solar de la sola	14-16-18-2 3 (Eq. 442), 500 (Eq. 442)		0	
	SHEET No Started Finished Depth	e Ref Lot Ele	ference cation			Be Di	aring p :	HOLE 1	to	/.3 e	
5004	70				SAMPLES	+					
	10	DESCRIPTION	ŀ	NO	FROM	TO	WIDTH	000	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	·
		315.6-316.6 Malie Port.						- Je C Be Co		+	+
		316.6: 318.1 Grun souch of continuitie					!			+	+
						•					
312.1	325.5	MAFIC ROCK: fine mained marsing as velore							`		
		326.5. 3280 Carbonstile reinlet @ 450	quint bases								
		333.5-333.8 Greenst conformative inequality	contact leaves		****	+				+	+
					****					+	
315.5	362.3	CERCONATTE: moly wash while & previse in a	lesson time unt 402							+	
-	-	malica (magnitic lighter matrice)				+				+	
		348 - 330 Milie Rock				+				+	+
		K 3388 Tour quarthe la 1	/			•			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	+	
		pitansa gar	·····			+				+	+
362.3	J72 D	Masic Parri 1: min Das Pilas CO II	1. 1. 202 2162				<u> </u>			<u> </u>	+
		The Automation of the Automatice	had the sources of							+	·
372.0	395.9	CARPONOTITE: - I I'L is lit it	•••			+				<u> </u>	
		sich lie lieft	1 aparts regreter			÷				+	
	******	× 5250 - 229 2 1/2 + 22 any around	1 1 11 1								+
		and he had had	and all the cond and and	97	220.					t	
		1 378.2-380.2 Two nurchby Gasta as	11 GER 1/Some	annell as	2/15.0	378.2	_3.2	-0-6-4		<u> </u>	+
		380 Diario lat 32 millionilla	invition and size	92	A		7 0	0.76			1
		1 383 0 : 388 1 Trees another				<u>983.0</u>		-V•1 8			+
		2001-3023 Barrie				÷				<u>+</u>	+
		190 2 carl 37 or Pilar			*				· · · · · · · · · · · · · · · · · · ·		<u> </u>
		2011 Billing Bridger		······································		+					
		3141-2743 Tears P. DR.		·····						<u> </u>	<u> </u>
		3240-2059 Con Cula M.				÷					<u> </u>
		and and and and	··	·							<u> </u>
395.9	401 0	MARIE POCK 1: D. D. D.				,			****		<u> </u>
	401.0	FAID of Hait									<u> </u>
	The Loss of Fight Parage	the second stand of the second stand st				l Andrew Service					L
	Drll	led by	Core Size			Logge	d by				



(`` 5 NW (D.D.H.B 13 DATUM O ~100' -200' -300' -:, MAFIC ROCKS CARBONATITE -400 MANY LAKES EXPLORATION OPTION B.B.H. CLAIMS 1''=1001 D.D.H. SECTION 5+00 NE 1 in. =100ft.

CO	MPANY WNSHIP	F	PROPERTY	Many Big PA	Lakes E Beaver H 28133	xplorat ouse Cl	laims			
SH ST CO	EET NO ARTEDM M?LETED	1 arch 24/66 March 26/66	REFERENCE 150'NW of : LOCATION	2+00SW on DD	BaseLine		BE/	HOLE N RINGS	0. 14 59°E @ COLLAR 53	° @ 157)
DE	РТН3	09 feet	ELEVATION							
FROM	TO	DES	CRIPTION		SAMPI	LES	LITOMI		ASSAYS	
0 70	70 122.7	Casing <u>Mafic Rock</u> ; medium gra Mainly pyroxene and bi magnetite. Magnetite a 81.5 Small carbonatite 92.1-93.5 Grey carbona pyroxene, biotite and 107.3-107.8 Grey carbona 120.3-120.9 Grey carbona	ained mostly massive var. totite with local concentration altered to mauve-tinted no e veinlet @30° totite meinlet @60° Accessive sulphides. Appeaently bonatite @20° barren ponatite @40°, barren	iations in to trations of , mineral in p sory mafiosa arren	exture oc apatite o laces (Sp re(?) mag	cur r ec 72') netite,				
122.7	224.2	Carbonatite; variable 122.7-127.6 Greyish to accessory mineralizat. 127.6-128.0 mafic rock 128.0-129.0 pink carbo includes biotite, mage 129.0-130.5 mafic rock 130.5-156.5 pink carbo at 50° (Spec 141') 156.5-156.7 mafic rock 156.7-167.5 white carbo minor pyrochlore mines 167.5-173.2 pink carbo mafic concentrations 173.2-175.8 white peak 175.8-183.0 pink carbo 183.0-186.0 white carbo	p peasly white fine grain ion fine grained phatite fine grained mini- netite, pyroxene and act medium grained as befor phatite as before; folis conatite, some apatite in ralization at 157' phatite, as before patch sly carbonatite, barren, phatite barren ponatite	ned, mostly a or accessory inolite re tion(mafic c mposing gree es of sulphi- as before	massive, minerali oncentrat nish tint des and	little zation ion)	DUPI OOR (LICA QUAL TO F	ATE CC LITY ORIGOLLOW)PY INAL

1988 (1994 (3	COMPANY TECK CORPORATION LTD. Township Misamikwash LAKE AREA - ONE	under in result and	PROPERTY Claim No.	MAN Pa_2	Y LAKE ВІЄ ВЕЛ 28/33	ES EXP	LON. C	N OPT	FION
	SHEET N Started Finished Depth	o Reference 150' NW_of 24_MARCH_1966 LocationBase 26_MARCH_1966 B09 feet Elevation	2+00 S line	<u>W on</u>	Be Di	oring <u>\$</u> p : _55°	HULE N 59° E @ Collar;	0/- _53_ @	<u>4</u> - 	
FROM	τo	DESCRIPTION		SAMPLES				ASSA	4Y S	
			NO	FROM	то	WIDTH			<u></u>	<u> </u>
0	70	Casing								↓
** **** ***** #*** <u>****</u>	•					 				↓
70	122.7	1. KELS KOCK: Thelium grained, must by manine, local variations in testine oc								∤ ∤
		- cur Minly syrogene and both with cocal concertations of agetite os				·				
		magnetites the gratile allered to man it stick mineral in place 15PEC 72 f				┨ ╽				
	·	845 - mall carlomatite reiniet @ 30°			_ 	<u> </u>				
	·····	S25 Inall cuboratite sender @ 30		·						
		921-925 Grey carbonatile verilet @ 60° accessory melios are mg-								+
·····		north pyroxene, birth, and anaphiles. appricedy berron								
		187.3.107.8 Grey carbonette @ 20°, lieusen							······	
	······	120.3.120.9 Grey carbonatile @ 42; borsen				+				+
						+				+
	224.2	(ARBOWATITE: Warialle				·		·		+
		- 122. 7 - 127. 6 Greyich to pearly white fine z grained , more y oreassive, lit -		-						+
		the accessory ministigation				<u> </u>				
		127.6-172.0_Mafic sort, fine-pained	· · · · · · · · · · · · · · · · · · ·							
		128.0-12). O. Vink carbonatile, fine , grined, muno sourcery menerly this								
		includes bother sugnitive, pysoplane, and actualite			<u></u>					
		1230:130.5 Miles Kock, medium: grund an before				{		i		
		1305-1565 Fink cart that the as left of fourtor (my a condetinity)								
		at 50 GPEC 141 j								
		1565.1567 Higher Nor				1		1		
·····	<u></u>	1592-167.5 White care on a side imparting general rime.								
·····		Them provide musicy or on the 13								1
		1515-113 de 5 mil callonarit, ac ourse partirie of any mile and		+		1				
	· · · · · · · · · · · · · · · · · · ·	marie concentration lester an letre				1				
		JSA 13.0 White placery carera may around any in								
*******		1754-122V I me contracting a second						I		
		12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		<u>n (napangan kata data dat</u>						

Drilled by Borles Bros.

Core Sixe <u>AXT</u> Logged by <u>L.M. Shaff</u>

CC	ompany		PROPERTY			
T	OWNSHIP		CLAIM NO			
SI	HEET NO	2 REFERENCE	*****	HOLE	NO14	
S	TARTED	LOCATION		BEARING	***	
DI	OMPLETED	ELEVATION		DIP	@ COLLAR	0
FROM	то	DESCRIPTION	SAMPLES NO FROM TC	WIDTH	ASSAYS	
224.2	241.0	191.0-192.6 mafic concentration(foliation) at 10° 192.6-195.5 carbonatite, color varies; speckled w magnetite and sulphides 195.5-196.5 mafic concentration 196.5-206.8 white carbonatite as before 206.8-208.7 section with traces of fine dark brown zircon, associated with actinolite 208.7-210.6 white carbonatite 210.6-224.2 pink carbonatite, barren Mai c Rock; fine to medium grained, as before 233.0 2" carbonatite	ith biotite, apatite n pyrochlore or	· ·		
241.0	246.3	236.0 2" carbonatite stringer @30° Carbonatite; pearly white with foliations at 50°; Pyrochlore traces associated with actinolite @242 and 243.8 (Spec 242.5) (fine yellowish to amber pyrochlore with this actinolite associated with a stringly and 243.8 (Spec 242.5) (fine yellowish to amber	parallel to contact .5			
246.3	309.0	Mafic Rock; fine to medium grained small carbonat. 248.8,254.9,262.3,273.2,274.0,275.3,291.7,294.9,30 294.9 2" carbonatite veinlet at 70° containing py chalopyrite, and bright red mineral (Spec 294.9)	pec G.E.P.) ite intrusions @ ` 06.0 yrrhotite			
DI	309.0 RILLED BY_	END OF HOLE (No Samples Sent for Assays) CORE SIZE	10	TO F	OLLOW	

	3	COMPANY		0	PROPERTY				~ <i>O</i> ;	•
	٦	Township			Claim No.	+				
	SHEET No. Storted	2	Reference Location		,	E	Bearing	HOLE No.		
	Finished Depth		Elevation	*****		-	Dip:	_@ Collar;		
FROM	то	<u></u>	DESCRIPTION	NO	SAMPLES FROM	TO	WIDTH	·····	ASSAYS	
	241.0	186.0-186.7 186.7-191.0 191.0-192.6 192.6-192.5 195.5-196.5 195.5-2068 206.8-206.7 208.7-210.6 210.6-224.6 206.k-206.k	Concentration of magnetite, bacciated, altered around nine to biotic and opentite (?) (SPEC 186') Pub carbonalite, as before Multic concentration (Interton) at 10° Carbonatite, color varies; speckled with biotite, of magnetite and sulplikes Multic concentration White carbonatite, as before Section with traces of fine deal brown pyrodlore of given, associated with actinalite White carbonatite. Pick carbonatite. Pick carbonatite. Pick carbonatite. fine to oredium grained, as before	e						
		236.0	2" Carlonatile stringer @ 450 2" Carlonatile atringer @ 30				······			
241.0	246.3	<u>Carbonatik</u> :	Prosly white with foliations at 50° persellel to con. Poportlose traces associated with actinolite @ 20 and 243.8 (SPEC 242.5) (from spaller sol	tail. 42.5 to gratien	·/~)					
246.3	309.0	Mafic Rock	fine to medium grained Smill carbonatite intrusion 3, 2623, 2722, 2740, 2753, 291.7, 294.9, 306.0 2" Carbonatile scinlet at 70°, containing pyrs chalographic, and bright red mincool (SEEE 2	4 C hotike						
	307.0	END OF H	DLE_(No_Somples_Sent_For_Asiar)							
	Drill	ed by	Core Size			Log	ged by			







28 EGLINTON AVENUE WEST

TORONTO, ONTARIO

485-8907

Certificate of Analysis

NO. 6671

To. Teck Corporation Limited,
11 Adelaida Street West Suite 1000,
TORONTO 1, Ontario.

RECEIVED March 14, 1966

INVOICE NO. 8393

SAMPLE(S) OF	split cora	SUBMITTED TO US SHOW RESULTS AS FOLLOWS:
	Sample No.	% cb ₂ 0 ₅
	68	0.03
,	69	3.00
	70	2.85
	71	0.10
	72	0.18
	. 73	0.02
•	74	1.06
	75	0.30
,	76	0.01
	77	0.15
	78	0.26
	79	0.42
•	· 80	0.43
	81	0.15
	82	0.12

X-RAY ASSAY LABORATORIES LIMITED

1200 CERTIFIED BY MANAGER

DATE March 17, 1966

ASSAYERS - ANALYTICAL CHEMISTS - SPECTROGRAPHERS



TORONTO, ONTARIO

485-8907

Certificate of Analysis

NO. 6713

To. Teck Corporation Limited,
11 Adelaide Street West Suite 1000,
TORONTO, Ontario.

RECEIVED March 25, 1966

INVOICE NO. 8429

SAMPLE(S) OF split core

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

% Cb204

0.50

0.35

0.28

Somple No. 83 84 85 86

X-RAY ASSAY LABORATORIES LIMITED

CERTIFIED BY

MANAGER

DATE March 28, 1966

ABSAYERS - ANALYTICAL CHEMISTS - SPECTROGRAPHERS

28 EGLINTON AVENUE WEST

TORONTO, ONTARIO

% Cb202

0.09 0.30 0.16 485-8907

Certificate of Analysis

NO. 6781 .

Teck Corporation Limited,
 11 Adelaide Street West Suite 1000,
 TORONTO 1, Onterio.

RECEIVED March 30, 1966

INVOICE NO. 8446

SAMPLE(S) OF

`(

split core

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

Sample No.						
87 88 89	•••	``````````````````````````````````````				

X-RAY ASSAY LABORATORIES LIMITED

CERTIFIED BY MANAGER

DATE March 31, 1966

ASSAYERS - ANALYTICAL CHEMISTS - SPECTROGRAPHERS

28 EGLINTON AVENUE WEST

TORONTO, ONTARIO

485-8907

Certificate of Analysis

NO. 6755

To. Teck Corporation Limited,
11 Adelaide Street West Suite 1000,
TORONTO, Ontario.

RECEIVED April 4, 1966

INVOICE NO. 8469

SAMPLE(S) OF SI

split core

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

<u>Somple No.</u> 90 91

92

93

% Cb₂05 0.29 0.44 0.62 0.76

X-RAY ASSAY LABORATORIES LIMITED

CERTIFIED BY MANAGER

DATE April 6, 1966

ASSAYERS ~ ANALYTICAL CHEMISTS - SPECTROGRAPHERS





SCATEGEOROZ 53A13NW0012 SCHRYBURT LA

900

OUPONT

E. I. DU PONT DE NEMOURS & COMPANY INCOMPONATED WILMINGTON, DELAWARE 19898

ENERGY AND MATERIALS DEPARTMENT

ENI-SUJI

Mr. R. P. Sage Geological Branch Ministry of Natural Resources Room 2303, Whitney Block Parliament Buildings Queen's Park, Toronto M74 1W3 - CANADA

Dear Mr. Sage:

Your letter of April 30, 1976 presented a request for the release of data obtained by DuPont on the Schryburt Lake and Big Beaverhouse complexes in Ontario. These data have been in your files on a confidential basis since 1971 or 1972. A list of the various reports and maps was attached to your letter, and is repeated as an attachment to this

There is no objection on the part of DuPont to your placing there materials on public file. I hope they will be of help to future investigators in the area.

There's a month of a

Sincerely yours,

Ing

R. M. Grogan, Chief Geologist

RMG/mdc

enc.

cc:

- DuPont of Canada Exploration Limited E. N. Brightbill, E&M Dept.
 - P. K. Cunningham-Dunlop, E&M Dept.

D. A. Barr, Vice President

May 24, 1976

Big Beaverhouse

Parsons, G.E. 1961

Many Lakes Exploration Co. Ltd. Big Beaverhouse Claims, Misamikwash Lake Area. Patricia Mining Division

Parsons, G.E. 1962

Many Lakes Exploration Co. Ltd. Big Beaverhouse Claime, Misamikwash Lake Area, Patricia Mining Division, Ontario (Report on Diamond Drilling 1962).

Parsons, G.E. 1966

Many Lakes Exploration Co. Ltd. Big Beaverhouse Claims, Misamikwash claim map Area, Patricia Mining Division, Ontario (Report on the Diamond Drilling by Teck Corporation).

Maps

Contoured (Map 2) and uncontoured (Map 1) ground magnetometer survey at a scale of 1 inch to 200 feet.

Contoured and uncontoured ground magnetometer survey at a scale of 1 inch to 400 feet.

Geology and topography map at a scale of 1 inch to 400 feet.

Schryburt Lake

Parsons, G.E. 1961

Many Lakes Explroation Co. Ltd. Schryburt Lake Claims, Schryburt Lake Area, Patricia Mining Division, Ontario

Maps

Contoured ground magnetometer survey at a scale of 1 inch to 400 feet.

Geology and topography map at a scale of 1 inch to 400 feet.



Wechusz BIG BEAVER HOUSE MISAMIKWASH LAKE 1"=40 CHAINS M-2749. 29928 29922 29380 20172 20135 20120 Pa 28134 - 28129 0 0 20134 20133 2013 0 20137 30152 20131 0 -----the lave withing 56' 55' 54 52' 57 53 90900 Asinne Lake Area - M.2750 -20 **~**#







CarbondTite -----• • . . SYMBOLS ABBREVIATIONS Foliation Outcrops Tr. Trench + Y Pits, Trenches Bidrs Boulders -- Topo. hechuring Carbonatite Float С * Slope of ground Permd-frost P-F " Tag alders, mostly swamp Mixed Forest Mony Lakes Exploration SCHRYBURT LAKE GEOLOGY & TOPOGRAFHY M. 1 Spruce & Tamarack Spruce Sp 2 Peplar, birch Tamarack Tom 1 Scale: Jin : 400 € . • Sage may theop This The second s *)- , - 54 د. ۲۰۰۱ مغلو • 2# :

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RYBURT LAKE 200


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