

GM 04013-B

ASSAY RESULTS

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Énergie et Ressources
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Québec 

ROY TWP.

PORTAGE ISLAND C.M.L.

SAMPLE SHEET of DDH.

1957

QUEBEC DEPARTMENT OF MINES
MAR 1 - 1957
MINERAL DEPOSITS BRANCH
No G M- 4013-B

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

REVISED ASSAY SHEET

P124

FOOTAGE	WIDTH	FIRST SAMPLINGS		SECOND SAMPLINGS		MEAN CU VALUE	
		NUMBER	AU	CU	NUMBER		AU
545.0 - 546.0	1.0				1092	0.02 0.65	
546.0 - 551.0	5.0	1081	0.01	0.35	1090	0.01 0.60	0.47
551.0 - 556.0	5.0	1082	0.01	0.100	1091	0.01 1.25	0.67
556.0 - 560.0	<u>4.0</u> 15.0				1093	0.01 0.60	

Average 15 ft. at 0.010 oz. AU & 0.584% CU.

576.3 - 577.5	1.2				1088	0.01 0.55	
577.5 - 580.5	3.0	1083	0.03	3.65			
580.5 - 582.0	1.5	1084	0.01	1.100			
582.0 - 585.0	<u>3.0</u> 8.7				1089	0.01 0.25	

Average 576.3 - 585.0 8.7' at 0.017 oz. AU & 1.61% CU

576.3 - 582.0 5.7' at 0.019 oz. AU & 2.32% CU.

JGT:wet

ASSAY RESULTS

CONTINUATION P 130

<u>NUMBER</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>DESCRIPTION</u>	<u>CU</u>	<u>AU</u>
5797	385.0 - 390.0	5.0'	Mineralized granite & volcanics		
5798	390.0 - 393.0	3.0	" "	"	"
5799	393.0 - 398.0	5.0	" "	"	"
5800	398.0 - 401.0	3.0	" "	"	"
9301	401.0 - 404.0	3.0	" "	"	"
9302	404.0 - 406.5	2.5	" "	"	"
9303	406.5 - 410.0	3.5	" "	"	"
9304	410.0 - 412.5	2.5	" "	"	"
9305	412.5 - 416.0	3.5	" "	"	"
9306	416.0 - 422.0	6.0	" "	"	"
9307	422.0 - 426.0	4.0	" "	"	"
9308	426.0 - 430.0	4.0	" "	"	"
9309	430.0 - 435.0	5.0	" "	"	"
9310	435.0 - 439.0	4.0	" "	"	"

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

SAMPLE SHEET

F139

SAMPLE NO.	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1127	28.0 - 32.0	4.0'	Py. with carbonate in chlor. zone.	AU: CU: 0.010
1128	370.0 - 372.5	2.5'	Minor Py. & Cpy.	AU: CU: 1.100
1129	381.0 - 386.0	5.0'	Minor Py. in chlor. volcanics	AU: CU: 0.250
1107	386.0 - 394.0	3.0'	Py & minor Cpy in chlor. volcan. 3" core missing.	AU: 0.010 CU: 0.600
1108	394.0 - 398.0	4.0'	Py & 6% Cpy in chlor. volcan. 1.3' core missing.	AU: 0.020 CU: 4.700
1109	398.0 - 401.0	3.0'	Py. & 2% Cpy in chlor. volcanics.	AU: 0.020 CU: 1.650
1110	401.0 - 405.0	4.0'	Py. & 1% Cpy. in chlor. volcanics.	AU: 0.010 CU: 1.500
1111	405.0 - 408.0	3.0'	Py & Cpy with pink carb. veins in chlor. volcan.	AU: 0.010 CU: 1.500
1112	408.0 - 412.5	4.5'	Same as 1111. 2% Cpy.	AU: 0.020 CU: 1.850
1113	412.5 - 415.5	3.0'	75% Cpy. in pink-white carbonate vein.	AU: 0.030 CU: 25.000
1114	415.5 - 418.0	2.5'	Py. & some Cpy. in chlor. volcanics.	AU: 0.020 CU: 2.750
1115	418.0 - 423.0	5.0'	Minor Py. & Cpy. in chlor. volcanics.	AU: 0.010 CU: 0.750
1116	423.0 - 428.0	5.0'	Same as 1115.	AU: 0.010 CU: 0.600
1130	428.0 - 433.0	5.0'	Minor Py. in chlor. volcanics.	AU: CU: 0.15
<u>AVERAGES:</u>	386.0 - 428.0	42.0'	3.23% CU.	
	394.0 - 418.0	34.0'	5.19% CU.	

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

SAMPLE SHEET

P139

<u>SAMPLE NUMBER</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>DESCRIPTION</u>	<u>ASSAY</u>
1131	457.0 - 459.0	2.0'	Minor Py. & Cpy. in carb. rich volc.	AU: Tr. CU: 0.05
1132	459.0 - 464.0	5.0'	As above.	AU: 0.01 CU: 0.05
1117	464.0 - 469.0	5.0'	Py. & minor Cpy. in chlor. volc.	AU: 0.01 CU: 0.20
1118	469.0 - 473.5	4.5'	As above, carbonate rich.	AU: 0.01 CU: 0.60
1119	473.0 - 475.0	1.5'	Same as 1118, plus pink carb. vein material.	AU: 0.02 CU: 0.90
1120	475.0 - 477.5	2.5'		
1121	477.5 - 480.5	3.0'	2% Cpy. in chlor. & carb. rich volcanics.	AU: 0.02 CU: 2.00
1122	480.5 - 482.5	2.0'	5% Cpy. in pink carb. vein	AU: 0.06 CU: 4.50
1123	482.5 - 485.5	3.0'	As above. 2% Cpy.	AU: 0.07 CU: 2.50
1124	485.5 - 488.0	2.5'	Same as 1121.	AU: 0.02 CU: 4.00
1125	488.0 - 492.0	4.0'	Minor Cpy. in chlor. & carb. rich volc.	AU: Tr. CU: 0.50
1126	492.0 - 495.0	3.0'	0.75% Cpy. in chlor. & carb. rich volc.	AU: Tr. CU: 0.65
			4% Cpy. in brecciated carb. vein material.	AU: 0.02 CU: 3.60

Rock following 495.0' is anorthositic and barren.

AVERAGE:

464.0 - 495.0	31.0'	1.72% CU
475.5 - 495.0	21.5'	2.45% CU

FORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.,

SAMPLE SHEET

P139

SAMPLE NO.	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1138	682.0 - 687.0	5.0'	Minor Py. & some Cpy. in granite dyke.	AU: CU:
1139	687.0 - 689.5	2.5'	Massive Py. in quartz.	AU: CU:
1140	689.5 - 692.5	3.0'	Same as 1139.	AU: CU:
1141	692.5 - 697.5	5.0'	Py. & occasional Cpy. in chlor. volcanics.	AU: CU:
1142	697.5 - 702.5	5.0'	Py. & Cpy. in chlor. volcanics.	AU: CU:
1143	793.5 - 798.5	5.0'	Cpy. with carb. veins in chlor. volcanics.	AU: CU:
1144	810.5 - 812.0	1.5'	Cpy. in carb. stringers.	AU: CU:
1145	854.0 - 857.0	3.0'	Minor Py. in chlor. volc.	AU: CU:
1146	857.0 - 861.0	4.0'	Py. & Cpy. in chlor. volcanics.	AU: CU:
1147	869.5 - 874.5	5.0'	Py. in granite dyke.	AU: CU:
1148	874.5 - 878.5	4.0'	Minor Py. & Cpy. in chlor. volc.	AU: CU:
1149	878.5 - 881.0	2.5'	Same as 1148.	AU: CU:
1150	881.0 - 885.0	4.0'	Same as 1148.	AU: CU:
1151	885.0 - 888.0	3.0'	Py. in chlor. volc.	AU: CU:

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.,

SAMPLE SHEET

P139

SAMPLE NO.	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1152	888.0 - 893.0	5.0'	Py. & minor Cpy. in chlor. volcanics.	AU: CU:
1153	893.0 - 896.5	3.5'	Py. & 2% Cpy. in chlor. volcanics.	AU: CU:
1154	896.5 - 900.0	3.5'	Py. & minor Cpy. in chlor. volcanics.	AU: CU:

INTERIM SAMPLE SHEET

P139

August 4, 1956

<u>SAMPLE NO.</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>AU</u>	<u>CU</u>
1107	386.0 - 394.0	8.0'	0.01	0.600
1108	394.0 - 398.0	4.0'	0.02	4.700
1109	398.0 - 401.0	3.0'	0.02	1.650
1110	401.0 - 405.0	4.0'	0.01	1.500
1111	405.0 - 408.0	3.0'	0.010	1.500
1112	408.0 - 412.5	4.5'	0.020	1.850
1113	412.5 - 415.5	3.0'	0.030	25.000
1114	415.5 - 418.0	2.5'	0.020	2.750
1115	418.0 - 423.0	5.0'	0.010	0.750
1116	423.0 - 428.0	5.0'	0.010	0.600
1117	464.0 - 469.0	5.0'	0.010	0.200
1118	469.0 - 473.5	4.5'	0.010	0.600
1119	473.5 - 475.0	1.5'	0.020	0.900
1120	475.0 - 477.5	2.5'	0.020	2.000
1121	477.5 - 480.5	3.0'	0.066	4.500
1122	480.5 - 482.5	2.0'	0.076	2.500
1123	482.5 - 485.5	3.0'	0.020	4.000
1124	485.5 - 488.0	2.5'	Tr	0.500
1125	488.0 - 492.0	4.0'	Tr	0.650
1126	492.0 - 495.0	3.0'	0.02	3.000

Averages

386.0 - 428.0 42.0' 3.23% Cu

394.0 - 418.0 24.0' 5.19% "

464.0 - 495.0 31.0' 1.72% Cu

473.5 - 495.0 21.5' 2.45% Cu

PONTAGE ISLAND (CHIROUCAMAU) MINES LTD.

SAMPLE SHEET

F141

<u>SAMPLE NUMBER</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>DESCRIPTION</u>	<u>ASSAY</u>
1155	421.0 - 424.0	3.0'	Py. & Cpy. with carb. in chlor. volcanics.	AU: CU:
1156	424.0 - 429.0	4.0'	As above.	AU: CU:
1157	429.0 - 435.0	5.0'	Minor Py. in chlor. volcanics.	AU: CU:
1158	435.0 - 438.0	5.0'	As above.	AU: CU:
1159	680.0 - 684.0	4.0'	Py. in granite dyke.	AU: CU:
1160	684.0 - 689.0	5.0'	As above.	AU: CU:
1161	689.0 - 694.0	3.0'	Fine Cpy. in chlor. volcanics.	AU: CU:
1162	694.0 - 697.5	3.5'	As above.	AU: CU:
1163	697.5 - 700.5	3.0'	6% Cpy. in chlor. volcanics.	AU: CU:
1164	700.5 - 705.5	3.0'	Minor Cpy. in chlor. volcanics.	AU: CU:
1165	705.5 - 706.5	3.0'	4% Cpy. in chlor. volcanics.	AU: CU:
1166	706.5 - 711.5	5.0'	Chlor. volcanics, apparently barren.	AU: CU:

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

SAMPLE SHEET

PL43

SAMPLE NUMBER	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1170	480.0 - 485.0	5.0'	10% Py in chloritized volcanics.	AU: Tr CU: 0.10
1171	485.0 - 490.0	5.0'	Ditto	AU: 0.02 CU: 0.10
1172	490.0 - 495.0	5.0'	Ditto	AU: 0.01 CU: 0.10
1173	495.0 - 500.0	5.0'	Ditto	AU: 0.01 CU: 0.15
1174	500.0 - 505.0	5.0'	Ditto	AU: Tr CU: 0.35

1175	593.5 - 598.5	5.0'	Fine pyrite in granitic dyke	AU: Tr CU: 0.05

1176	659.5 - 675.5	6.0	Massive pyrite in altered granite	AU: 0.02 CU: 2.65
1177	Sample combined with 1176			
1178	675.5 - 679.0	3.5'	Massive pyrite & some chalcop- pyrite in altered granite	AU: 0.05 CU: 5.20
1179	679.0 - 682.0	3.0'	5% Cpy in chloritized volcanics	AU: Tr CU: 0.70
1180	682.0 - 685.0	5.0'	Minor Py and Cpy in chloritized volcanics	AU: Tr CU: 0.40
1181	685.0 - 690.0	5.0'	Ditto	AU: Tr CU: 0.25
1182	690.0 - 695.0	5.0'	Ditto	AU: Tr CU: 0.25

1193	907.0 - 911.0	4.0'	Massive Py and some Cpy in altered granite. Recovery 75%	AU: CU:

AVERAGE sample combined with 1176

669.5 - 682.0	12.5'	0.023 OZ AU; 2.85% CU.	
675.5 - 679.0	3.5'	Massive pyrite & some chalcop- pyrite in altered granite	AU: 0.05 CU: 5.20
682.0 - 685.0	3.0'	5% Cpy in chloritized volcanics	AU: Tr CU: 0.70
682.0 - 685.0	5.0'	Minor Py and Cpy in chloritized volcanics	AU: Tr CU: 0.40

sample combined with 1176

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

SAMPLE SHEET

P145

SAMPLE NUMBER	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1183	289.0 - 293.0	3.0'	Massive Py in chloritized volcanics	AU: CU:

1184	309.5 - 313.5	5.0'	Py with carbonate in chloritized volcanics	AU: 0.03 CU: 0.45
1185	313.5 - 318.5	5.0'	Ditto	AU: 0.01 CU: 0.05

1186	334.0 - 339.0	5.0'	Minor Cpy in granite dyke	AU: 0.01 CU: 0.20
1187	339.0 - 344.0	5.0'	Ditto	AU: 0.01 CU: 0.30

1189	378.0 - 380.0	2.0'	Minor Cpy in granitic volcanics	AU: CU:
1120	380.0 - 392.5	2.5'	Minor Py in volcanics	AU: CU:
5653	382.5 - 384.5	2.0'	Minor Py in granitic volcanics	AU: CU:
5654	384.5 - 390.0	5.5'	Minor Py in volcanics	AU: CU:
5655	390.0 - 395.0	5.0'	Ditto	AU: CU:
5656	395.0 - 398.0	1.0'	45% Cpy in quartz-carbonate	AU: CU:
5657	398.0 - 399.0	2.0'	Minor Py in volcanics	AU: CU:
5658	399.0 - 399.0	1.0'	Py and 3% Cpy in quartz-carbonate	AU: CU:
5659	399.0 - 399.0	5.0'	Minor Cpy in volcanics	AU: CU:

5660	380.0 - 388.5	2.5'	Minor Py in volcanics	AU:
	396.0 - 399.5	1.5'	Massive fine Py in tuff	AU: CU:
5661	392.5 - 394.5	2.0'	Minor Py in granitic volcanics	AU: CU:
5661	397.5 - 399.5	2.0'	5% Cpy with carbonate in volcanics	AU: CU:
	394.5 - 399.0	5.5'	Minor Py in volcanics	AU: CU:
5661	399.0 - 399.0	5.0'	Ditto	AU: CU:
=====				
5661	399.0 - 399.0	2.0'	Ditto	AU: CU:
5661	399.0 - 399.0	2.0'	Ditto	AU: CU:
5661	399.0 - 399.0	2.0'	Ditto	AU: CU:

PORTAGE ISLAND (ONTARIO) MINES LTD.D. D. H. #146FOOTAGEDESCRIPTION

From 804 to 805' is a pink quartz-carbonate vein containing minor fine pyrite and chalcoppyrite. Core becoming slightly broken up after 831 feet.

END OF HOLEASSAY RESULTS

<u>NUMBER</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>DESCRIPTION</u>	<u>ASSAY</u>
5862	810.0 - 814.0'	4.0'	15% pyrite with minor carbonate and some magnetite in andesite.	AU: CU:

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

D. D. H. P149

SAMPLE SHEET

<u>NUMBER</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>DESCRIPTION</u>	<u>ASSAY</u>
5663	367.0 - 370.0	3.0'	Minor Cpy in talcose, altered anorthosite,	AU: CU:
5664	370.0 - 373.0	3.0'	Fine Py in granite	AU: CU:
5665	373.0 - 378.0	5.0'	Pyrite and minor Cpy in granite	AU: CU:
5666	378.0 - 379.5	1.5'	15% Cpy in altered granite	AU: CU:
5667	379.5 - 384.0	4.7'	Fine Py in granite	AU: CU:
5668	384.0 - 389.0	5.0'	Pyrite and minor blobs of Cpy in granite	AU: CU:
5669	389.0 - 394.0	5.0'	Minor Py and Cpy in granite	AU: CU:
5670	394.0 - 398.5	4.5'	Minor Py in volcanics	AU: CU:
5671	398.5 - 402.0	4.5'	Minor Py in volcanics and granite	AU: CU:
5672	402.0 - 407.0	5.0'	Minor Py and Cpy in altered granite	AU: CU:
5673	407.0 - 411.5	4.5'	As above	AU: CU:
5674	411.5 - 416.0	4.5'	As above	AU: CU:
5675	416.0 - 420.5	4.5'	12% Cpy in brick red alteration of volcanics	AU: CU:
5676	420.5 - 425.0	4.5'	5% Cpy in altered volcanics	AU: CU:
5677	425.0 - 430.0	5.0'	3% Cpy in altered volcanics	AU: CU:
5678	430.0 - 434.5	4.5'	Minor Cpy and Py in volcanics	AU: CU:
5679	434.5 - 439.5	5.0'	As above	AU: CU:

PORTAGE ISLAND (CHIBOUGANAU) MINES LIMITED

D. D. H. P149

SAMPLE SHEET

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
5680	600.0 - 604.0'	4.0'	Minor Cpy in tuffaceous volcanics	AU: CU:
5681	604.0 - 608.0'	4.0'	Ditto	AU: CU:
5682	608.0 - 612.0'	4.0'	Ditto	AU: CU:

5683	700.0 - 705.0'	5.0'	Minor Cpy in quartz-carbonate veinlets	AU: CU:
5684	706.0 - 709.3'	4.3'	Ditto	AU: CU:
5685	709.3 - 710.8'	1.5'	15% Cpy in quartz-carbonate	AU: CU:
5686	710.8 - 715.0'	4.2'	Minor Cpy associated with quartz-carbonate stringers in volcanics	AU: CU:

PORTAGE ISLAND (CHIB) MINES LTD:

SAMPLE SHEET

D. D. H. P150

<u>NUMBER</u>	<u>FOOTAGE</u>	<u>WIDTH</u>	<u>DESCRIPTION</u>	<u>ASSAY</u>	
5688	689.5	694.5	5.0'	Minor Py and negligible Cpy in chloritized volcanics	AU: CU:
5689	694.5	698.0	3.5'	Minor Py and Cpy with magnetite in chloritized volcanics	AU: CU:
5690	698.0	700.0	2.0'	Massive Py and some Cpy in altered granite	AU: CU:
5691	700.0	702.7	2.7'	As above	AU: CU:
5692	702.7	705.0	2.3'	5% Py and 2% Cpy in chloritized volcanics	AU: CU:
5693	705.0	708.0	3.0'	Minor Py but negligible Cpy in chloritized volcanics	AU: CU:
5694	708.0	712.5	4.5'	As above	AU: CU:
5695	712.5	717.0	4.5'	As above	AU: CU:

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

D. D. H. P152

SAMPLE SHEET

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	AU	CU
5697	492.5 - 496.5'	4.0'	Minor Py and Cpy in volcanics		
5698	496.5 - 498.0'	1.5'	Two large blebs of Cpy in quartz stringers.		
5699	498.0 - 500.0'	2.0'	Minor Py and Cpy in volcanics		
5700			-----		
5700	508.0 - 511.0'	3.0'	Minor Py and Cpy in volcanics		
5701	511.0 - 514.3'	3.3'	6% Cpy in 25% quartz-carbonate		
5702	514.3 - 518.0'	3.7'	Minor Py and Cpy with carbonate veins in volcanics		
5703	518.0 - 523.0'	5.0'	As above		

5704	774.0 - 779.0'	5.0'	Minor Py and Cpy in volcanics		
5705	779.0 - 781.5'	2.5'	As above		
5706	781.5 - 784.0'	2.5'	90% Pya and minor Cpy in altered granite		
5707	784.0 - 787.0'	3.0'	15% Py and minor Cpy in volcanics		
5708	787.0 - 789.0'	2.0'	20% Py and 4% Cpy in altered granite		
5709	789.0 - 793.0'	4.0'	Minor Py and 5% Cpy in volcanics		
5710	793.0 - 798.0'	5.0'	Minor Py and Cpy in volcanics		
5711	798.0 - 802.5'	4.5'	As above		

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

D. D. H. P155

SAMPLE SHEET

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	AG	CU
5728	746.0 - 751.0'	5.0'	15% Py in volcanics. Occasional flecks of chalcopyrite.		
5729	751.0 - 755.5'	4.5'	As above		
5730	755.5 - 760.0'	4.5'	As above		
5731	760.0 - 764.5'	4.5'	As above		
5732	764.5 - 769.5'	5.0'	As above		

5733	845.0 - 850.0'	5.0'	10% Py in volcanics		
5734	850.0 - 854.5'	4.5'	As above		
5735	854.5 - 857.5'	3.0'	As above		

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

D. D. H. P156

SAMPLE SHEET

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	AU	CU
5720	191.0 - 195.5'	4.5'	Volcanics		
5721	195.5 - 197.5'	2.0'	15% Cpy in brecciated carbonate veins in volcanics		
5722	197.5 - 200.5'	3.0'	Negligible sulfides in volcanics		

5723	213.0 - 217.0'	4.0'	Minor Py in volcanics		
5724	217.0 - 219.5'	2.5'	Minor Py and Cpy in volcanics		
5725	219.5 - 220.5'	1.0'	Py and 3% Cpy in carbonate		
5726	220.5 - 225.0'	4.5'	Minor sulfides in volcanics		

5712	169.5 - 172.5'	3.0'	Minor Py in volcanics		
5713	172.5 - 175.0'	2.5'	5% Cpy with carbonate in volcanics		
5714	175.0 - 177.0'	2.0'	Minor Py in volcanics		
5715	177.0 - 180.0'	3.0'	Minor Py and Cpy in volcanics		

PORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITED

SAMPLE SHEET

P158

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	AU	CU
5736	579.0 - 584.0'	5.0'	Occasional Py in volcanics		
5737	584.0 - 586.0'	2.0'	Volc-gran. Complex, 5% Sulf. Minor Cpy & moderate Magnetite		
5738	586.0 - 590.0'	4.0'	25% Sulfides in altered granite Average of 4% Cpy.		
5739	590.0 - 593.0'	3.0'	As above, 15% Sulfides.		
5740	593.0 - 596.0'	3.0'	As above, 20% sulfides.		
5741	596.0 - 599.0'	3.0'	As above, 15% sulfides.		
5742	599.0 - 602.0'	3.0'	Occasional Py in volcanics.		

5743	646.0 - 650.0'	4.0'	Minor Py and Cpy in volcanics.		
5744	650.0 - 653.0'	3.0'	Py & Cpy in altered granite.		
5745	653.0 - 655.0'	2.0'	Negligible sulfides in volcanics		
5746	655.0 - 657.5'	2.5'	15% Py & 5% Cpy in altered granite.		
5747	657.5 - 659.0'	1.5'	Py & some Cpy in volcanics.		
5748	659.0 - 664.0'	5.0'	Minor Py & Cpy in volcanics with some granitic inclusions.		

5749	810.0 - 815.0'	5.0'	Minor Py in volcanics		
5750	815.0 - 818.0'	3.0'	Py & 2% Cpy in volcanics.		
5751	818.0 - 820.5'	2.5'	5% Cpy & massive Py in altered granite.		
5752	820.5 - 824.0'	3.5'	Py & minor Cpy in volcanics.		
5753	824.0 - 827.5'	3.5'	Minor Py & Cpy in volcanics.		
5754	827.5 - 832.0	4.5'	As above.		
5755	832.0 - 837.0'	5.0'	As above.		
5756	837.0 - 839.5'	1.5'	Small carb. veins with Cpy.		
5757	839.5 - 841.0'	2.5'	Volcanics, minor Py.		

ASSAY RESULTS

<u>Sample No.</u>	<u>Footage</u>	<u>Width</u>	<u>Description</u>	<u>CU.</u>	<u>AU.</u>
9344	302.3 - 305.0	3.7'	Mineralized Volcanics		
9345	305.0 - 307.2	2.2'	" "		
9346	307.2 - 309.2	2.0'	" "		

9347	556.0 - 563.3	7.3'	Mineralized Volcanics		
9348	563.3 - 565.4	2.1'	" "		
9349	565.4 - 568.9	3.5'	" "		
9350	568.9 - 573.3	4.4'	" "		
9351	573.3 - 580.0	6.7'	" "		
9352	580.0 - 585.0	5.0'	" "		
	From 585.0 - 585.6 - Missing Core.				
9353	585.6 - 591.9	6.3'	" "		
9354	591.9 - 595.8	3.9'	" "		
9355	595.8 - 602.7	6.9'	" "		
9356	602.7 - 606.6	3.9'	" "		
9357	606.6 - 622.7	16.1'	" "		
9358	622.7 - 635.0	12.3'	" "		
9359	635.0 - 642.0	6.0'	" "		
9360	642.0 - 651.5	10.5'	" "		

ASSAY RESULTS

P 172

<u>Sample No.</u>	<u>Footage</u>	<u>Width</u>	<u>Description</u>	<u>Ct.</u>	<u>Au.</u>
9361	559.0 - 561.0	2.0'	Mineralized Volcanics		
9362	561.0 - 562.7	1.7'	" "		
9363	562.7 - 570.5	7.2'	" "		
9364	570.5 - 572.0	1.5'	" "		

ROY TWP.

PORTAGE ISLAND (CHIBOUGAMAU) MINES.L.

D.D.H.# P-124,
P-130,
P-132,
P-133,
P-136,
P-139,
P-141,
P-143,
P-145,
P-146,
P-147,
P-149,
P-150,
P-152,
P-153,
P-155,
P-156,
P-158,
P-160,
P-161,
P-165,
P-172,
P-174,

QUEBEC DEPARTMENT OF MINES
MAR 1 - 1957
MINERAL DEPOSITS BRANCH
No G M- ~~4073~~ - D

1957.

DIAMOND DRILL LOG

PORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITED

HOLE No. F124 LOCATION Line 1250 W, 3410 N. DATE STARTED May 5, 1956
 DIP 45° LAT. 9,384.92 DEP. 3410 N. DATE FIN. MAY 19, 1956
 BEARING 49 N. ELEVATION 12.2 Ft. LOGGED BY J.G. Thompson
 DEPTH 838' DIP TESTS 41° at 250'; 39° at 500'; 36° at 790'

Footage	Description
0	16.0 <u>CASING</u>
16.0	<u>ALTERATION ZONE - ANORTHOSSITE</u> Light green colour. Blocky. Fairly hard. Fine grained sheared appearance. Slightly talcose. Low chlorite. Medium to high carbonate. Abundant relic type feldspar laths with distorted appearance. Some brown lucoxene. Foliation appears to be about 60 - 70° CA.
20.0	20.0 <u>ALTERATION ZONE - ROCK TYPE INDEFINITE, PROBABLY ANORTHOSSITIC OR GABROIC</u> Darker greyish green colour than above. More massive. Fine grained Hard. Low chlorite. Low to medium carbonate. Slightly porphyritic in texture with slight alignment at 60 - 70° CA. Upper contact distinct, but lower contact more gradational. Core tends to fracture at 50° CA.
31.0	31.0 <u>ALTERATION SHEAR ZONE - PROBABLY OF ANORTHOSSITIC ORIGIN</u> Dark blue grey to grey green. Massive. Reasonably soft. Dense fine grained appearance. Low to medium chlorite. Medium to high carbonate. Abundant light coloured lucoxene, giving speckled appearance. Some pyrite incarbonate at 53 ft. Medium shear good foliation at 50° CA.
66.0	66.0 Generally more anorthositic in appearance. Grey green to grey colour. Reasonably soft. Low chlorite. Low carbonate. Generally slightly talcose throughout. Distorted ghost type feldspar laths in most places. Variable lucoxene. Medium shear, good schistosity at 50° CA. throughout. Degree of alteration varies greatly, in some places the anorthositic origin of the rock is readily discernable, but in other places the rock is homogenous in appearance and the anorthositic appearance is absent. Much of the core is badly broken up.
491.0	491.0 <u>ROCK TYPE INDEFINITE (Altered Pyroclastic)</u> Light grey to brown colour. Massive. Fine grained. Reasonably soft. Occasional quartz and other unidentified phenocrysts. Definite bedding or foliation at 70° CA. Low chlorite. Medium carbonate, but in the form of minute fracture fillings. Both contacts have been ground, but appear to have been sharp at 70° CA. Completely barren. Section 492 - 493 feet contains 25% light grey quartz replacement and has definite bands of light brown material giving tuffaceous appearance.
502.0	502.0 <u>DIORO-ANDESITE</u> Medium grey colour, slightly speckled appearance. Fine grained. Massive. Medium hard. Low to medium chlorite. Medium carbonate. Some white carbonate fracture fillings many containing pyrite and some with chalcopyrite. Fairly definite banding or foliation at 45 - 55° CA. Note: 513.0 - 514.5 is similar to above section.

Footage

Description

- 530.0 As above, but slightly brecciated. Increasing chlorite. Low carbonate. Darker colour. Note: 545 - 560 . Mineralized Zone CONTAINING 5% pyrite but very little carbonate.
- 560.0 As above but less brecciated. Slight foliation at 50° CA. White and some pink carbonate inclusions, some containing pyrite. Mineralized Zone 577.5 - 582.0' 3% chalcopyrite, minor pyrite associated with carbonate inclusions 5%.
- 686.0 As above. Medium chlorite. Low to medium carbonate. Medium shear, good foliation 40° CA. Numerous white carbonate veinlets and fracture fillings, some of which have been partly leached out, leaving cavities. Barren.
- 740.0 As above. Fewer carbonate veinlets. Small irregular granite inclusions after 766.0 ft.
- 777.0
- 777.0 GRANITE - GRANDINES TYPE
Generally salmon pink colour. Medium grained. Hard. Low shear, 40 - 50° CA. Note: 779 - 782 and 793 - 797' Rock type indefinite possibly a sheared phase of the granite. Grey green colour. Hard. Low chlorite. Low carbonate. Numerous quartz phenocrysts. Very finely disseminated pyrite throughout. Medium shear, foliation 40 - 50° CA. Section is similar to some of the more altered section in the bottom of P 97.
- 821.0
- 821.0 DIORO-ANDESITE
Dark green colour. Massive. Fine grained. Hard. Low chlorite. Low carbonate. Low shear, foliation 50° CA. Some white carbonate inclusions containing pyrite.
- 838.0

END OF HOLE

ASSAY RESULTS

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1092	545.0 - 546.0	1.0	5% pyrite in dioro-andesite	Cu. 0.650
1081	546.0 - 551.0	5.0	As above	Au. 0.010 Cu. 0.350
1082	551.0 - 556.0	5.0	As above	Au. 0.010
				1.250 Cu. 0.100
1093	556.0 - 560.0	4.0	As above	Cu. 0.660
1088	576.3 - 577.5	1.2	3% chalcopyrite and minor pyrite with some carbonate in dioro-andesite	Cu. 0.550
1083	577.5 - 580.5	3.0	Same as above	Au. 0.030
				Cu. 3.650
1084	580.5 - 582.0	1.5	As above but 2% chalcopyrite	Au. 0.010
				Cu. 1.100
1089	582.0 - 585.0	3.0	As above	Cu. 0.250
Au. 1083 & 1084 4.5' at 0.023 Au. & 2.80% Cu.				
Au. 1088, 1083, 1084, 1089 - 8.7' at 1.61 Cu.				

PORTAGE ISLAND (CHIRIUGAKAU) MINES LIMITED

HOLE NO.	<u>P130</u>	LOCATION	<u>930 W - 3900 N</u>	DATE STARTED	<u>June 30, 1956</u>
DIP	<u>40 Deg</u>	LAT.	_____	DATE FINISHED	<u>July 4, 1956</u>
BEARING	<u>180 Deg</u>	ELEVATION	<u>2.0 feet</u>	LOGGED BY	<u>J. G. THOMPSON</u>
DEPTH	<u>351</u>	DIP TESTS	<u>38 Deg. @ 350'</u>		

FOOTAGE	DESCRIPTION
0.0 - 6.0	<u>CASING</u>
6.0	<u>CHLORITIZED ANDESITE</u> Dark green colour. Core somewhat broken up. Fairly soft. Medium alteration, and some indications of brecciation in places. Low to medium chlorite. Low carbonate. Medium shear, good foliation, at 30 Deg. CA. Some weak pyrite and chalcopyrite mineralization 6.0 - 10.0'.
13.6	
16.6	<u>MINERALIZED QUARTZ VEIN</u> Pinkish coloured quartz, containing some carbonate 10% Chalcopyrite mineralization with some associated pyrite. Good foliation at 35 Deg. CA at 17'
19.6	<u>CHLORITIZED ANDESITE</u> Same as section 6.0 - 16.6. Slightly vesicular in places due to leaching out of carbonate. Numerous vesicular carbonate veinlets and inclusions, some containing pyrite and chalcopyrite. Medium shear, good foliation at 40 Deg. CA.
78.5	<u>MINERALIZED QUARTZ RICH ZONE</u> Same as section 16.6 - 19.6 only quartz structure is not as strong, amounting to only 50%.
82.0	<u>CHLORITIZED ANDESITE</u> As above. Minor pyrite and chalcopyrite adjacent to above quartz rich zone. Vesicles disappearing after 145' and core becoming more massive. Some disseminated pyrite throughout.
178.0	Medium shear, poor foliation 30 - 40 Deg. CA.
178.0	<u>ALTERED PYROCLASTIC</u> Same as section 491.0 - 502.0 in P124. Light grey to brown colour. Massive. Reasonably soft. Occasional quartz and other unidentified phenocrysts. Generally well banded at 45 Deg. CA. Low chlorite. Generally high carbonate. Upper contact indistinct, lower contact at about 45 Deg. CA.
198.0	
198.0	<u>ALTERATION SHEAR ZONE - ANORTHOITIC ORIGIN</u> Similar to section 31.0 - 491.0' in P124. Dark blue grey colour. Massive but with some broken up sections. Dense fine grained anorthositic appearance. Soft and in places talcose. Low chlorite. Low carbonate. Distorted ghost type feldspar laths in most places. Some lucoxene. Medium shear, poor foliation 45 Deg. CA at 226'. Note 200 - 201.5', 202.0 - 203.5', 205.0 - 206.0' Light grey rock. Hard. Contacts often quite sharp. High carbonate.
272.0	Possibly dykes.
272.0	<u>GREY DYKE</u> Light grey colour. Massive. Hard. Fine grained. Low chlorite. High carbonate. Well sheared, good foliation 45 Deg CA.
275.0	
275.0	<u>ALTERATION SHEAR ZONE - ANORTHOITIC ORIGIN</u> Same as section preceding dyke. Variable alteration - medium to high. Medium shear, poor foliation 25 - 30 Deg CA. Note: 335.0 - 338.5; 345.5 - 349.0 Fine grained, massive dark grey rock. Possibly fine grained gabbro dykes. Lower contacts sharp at 30 Deg. CA.
351.0	

END OF HOLE

JGT:wet

ASSAY RESULTS

P130

NUMBER	FOOTAGE	WIDTH	DESCRIPTION	ASSAY
1095	6.0 - 10.0	4.0'	Minor Py. & Cpy. in brecciated volcanics.	AU: 0.020 CU: 1.250
	10.0 - 13.6	3.6'	Not mineralized	
1096	13.6 - 16.6	3.0'	Same as 1095	AU 0.010 CU 0.350
1097	16.6 - 19.6	3.0'	Heavy Cpy mineralization & some Py in quartz vein	AU 0.030 CU 6.900
1098	19.6 - 22.0	2.4'	Same as 1095	AU 0.010 CU 0.400

AVERAGES:

6.0' - 22.0' - 1.730% CU over 10.0'
13.6' - 22.0' - 2.700% CU over 2.4'

1099	76.0 - 78.5	2.5'	Minor Py & Cpy in chloritized, brecciated volcanics.	AU 0.010 CU 1.050
1100	78.5 - 82.0	3.5'	Py & 10% Cpy with 50% quartz in chloritized volcanics.	AU 0.010 CU 4.750
1101	82.0 - 86.0	4.0'	Weak Py & Cpy in chloritized volcanics. Some core missing.	AU 0.030 CU 0.850
1102	86.0 - 90.0	4.0'	Weak Py & Cpy in chloritized volcanics.	AU 0.010 CU 0.200
1103	95.0 - 98.0	3.0'	10% Py in chloritized volcanics.	AU 0.010 CU 0.350

AVERAGES:

76.0' - 86.0' - 2.265% CU over 10.0'
76.0' - 90.0' - 1.670% Cu over 14.0'

JGT:wet

DIAMOND DRILL LOG

HOLE NO. P 130 cont'd LOCATION 930 W - 3900 N DATE STARTED Nov. 26/56
 DIP 40° LAT. 10,002.56 DEP. 10,018.93 DATE FINISH. Nov. 30/56
 BEARING 180° ELEVATION 2.0 Feet LOGGED BY J. A. Pearce
 DEPTH 543 DIP TESTS 38° - 350', 35° - 30' - 543'

FOOTAGE

DESCRIPTION

351.0

ALTERATION SHEAR ZONE - ANORTHOITIC ORIGIN

Dark blue grey colour. Fine grained anorthositic appearance. Medium hard to soft. Low chlorite and low carbonate. Medium shear, poor foliation approximately 30°. Lucczene present in variable quantities.

360.0

360.0

VOLCANICS

Medium green in colour, fairly soft. Medium chlorite, medium carbonate. There are a considerable number of carbonate filled fractures. Mineralization consists of fine disseminated pyrite, no appreciable amount. No definite shear or foliation. Upper contact ground, lower contact grades into granite.

385.0

385.0

MINERALIZED ZONE (ALTERED GRANITE WITH VOL. SECTIONS)

Granite is altered and grades in and out of volcanic sections. Major chalcopyrite mineralized areas are related to the granite. Volcanics carry a moderate amount of pyrite dissemination with minor chalcopyrite. One short section from 404.6 to 406.3 show massive chalcopyrite estimated at approximately 60%. There are also some narrow zone well mineralized with chalcopyrite widely scattered throughout whole section. The major part of the mineralized zone is between 395.0 - 414.0. However, the balance of the section shows enough disseminated chalcopyrite and pyrite to warrant including it as part of the zone.

433.0

433.0

VOLCANICS

Medium green in colour; slightly altered over whole section. Medium chlorite, low to medium carbonate. A moderate amount of carbonate filled fractures are present. A small amount of pyrite and chalcopyrite dissemination is visible. Fracturing is at 50° - 55° to CA.

466.0

466.0

TALCOUS ALTERATION ZONE (ANORTHOITIC)

Dark blue grey in colour. Medium shear, foliation where visible 35° - 40°. Negligible carbonate, chlorite, low at start of section grading to medium. Hardness varies from medium hard to soft. A moderate amount of lucczene is present. Feldspar laths are relic type, rather small in size where visible. Ground becomes badly broken up after 495.0 and talc content rises. Core recovery is about 90% - 95%.

543.0

END OF HOLE.

DIAMOND DRILL LOG

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

HOLE NO.	<u>P132</u>	LOCATION	<u>930 W. 3900 N</u>	DATE STARTED	<u>July 4, 1956</u>
DIP	<u>35 Deg.</u>	LAT.	<u>DEF.</u>	DATE FINISHED	<u>July 6, 1956</u>
BEARING	<u>90 Deg.</u>	ELEVATION	<u>2.0 Feet</u>	LOGGED BY	<u>J. G. Thomson</u>
DEPTH	<u>318 Ft.</u>	DIP TESTS	<u>32 Deg. at 300'</u>		

FOOTAGE	DESCRIPTION
0.0 - 2.0	<u>CASING</u>
2.0	<u>CHLORITIZED VOLCANICS - ANDESITE</u> Dark green colour. Massive. Reasonably hard. Very fine grained. Medium to high chlorite, usually in form of stringer - like replacement, but massive for first 10'. Low carbonate, slightly mottled, almost brecciated appearance in places. First 20' contains fair number of white carbonate veinlets, which are barren. Fair amount of pyrite, in places fairly massive, scattered throughout the core. Foliation and some fracturing 30 - 40 Deg. CA.
87.0	As above. Chlorite sometimes in form of small irregular blobs. Slightly lighter in colour. White carbonate veinlets reappearing and some containing pyrite and occasionally minor chalcopyrite. Fracturing at 40 Deg. CA at 140'.
147.0	As above, but only occasional Pyrite. Some of the carbonate stringers trend at 40 Deg. CA. Small granitic inclusions at 183'. Core becoming more broken up, although still quite massive in places.
209.0	Core badly broken up in places, and becoming slightly vesicular due to leaching out of carbonate. Negligible mineralization. Core badly ground between 239.0 and 247.0', only 20% recovery, possible fault. Granite
233.0	intrusive 231.0 to 233.0'.
233.0	<u>GRANITE - GRANDINES TYPE</u> Fairly massive. Characteristic reddish to grey-white colour. Contains a few inclusions of above volcanic rock. Granite is slightly vesicular in places. Medium shear, good foliation 35 - 40 Deg. CA.
275.0	As above. No volcanic inclusions. No shear. Still vesicular in places. Barren.
295.0	Grey colour becoming predominant. Generally massive but core ground up in places. Evidence of shear at 307.0 but no definite foliation. Only occasional
318.0	vesicles. Barren.

END OF HOLE

DIAMOND DRILL LOG

PORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITED

HOLE NO.	<u>P133</u>	LOCATION	<u>3900 N - 1075 W</u>	DATE STARTED	<u>July 8, 1956</u>
DIP	<u>40 Deg.</u>	LAT.	<u>DEP.</u>	DATE FINISHED	<u>July 15, 1956</u>
BEARING	<u>180 Deg.</u>	ELEVATION	<u>6.0'</u>	LOGGED BY	<u>J. G. Thompson</u>
DEPTH	<u>594'</u>	DIP TESTS	<u>35 Deg. @ 300'; 31 Deg. @ 590'.</u>		

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
----------------	--------------------

- | | |
|------------|--|
| 0.0 - 10.0 | <u>CASING</u> |
| 10.0 | <u>CHLORITIZED VOLCANICS - ANDESITE</u>
Medium green colour. Soft. Fairly massive. Variable chlorite, fairly low to medium. Sometimes chloritization is uniform, but often it is in form of stringers. Low carbonate. Medium shear, good foliation: 60 degrees at 23.0'; 50 degrees at 33.0'. Pyrite and occasional chalcopyrite throughout, usually following trend of foliation. 3" stringer of massive chalcopyrite at 40.0'. Much fine magnetite scattered through parts of the core. Fairly numerous white carbonate veinlets, most of which are barren. |
| 53.0 | As above. Core becoming vesicular due to partial leaching of carbonate. Scattered pyrite as before, but no magnetite or chalcopyrite. Foliation 40 degrees at 75.0'. Core blocky in places. Recovery 80%. |
| 105.0 | Same as section 10.0 - 53.0'. Negligible mineralization. Chloritization medium and fairly uniform. Core blocky in places, recovery 80%. |
| 128.0 | <u>ALTERED PYROCLASTICS - TUFFS</u>
Core highly fractured and badly ground. Recovery 40%. |
| 141.0 | Bedding at 80 degrees C.A. High carbonate. |
| 141.0 | <u>ALTERATION SHEAR ZONE - ANORTHOSSITIC ORIGIN</u>
Dark blue grey colour. Fine grained sheared appearance. Fairly massive, good recovery. Low chlorite and carbonate. Scattered white, relic type feldspar laths. Medium shear but poor foliation 20 - 40 degrees C.A. Some very finely disseminated pyrite. Lucoxene appearing towards end of section. |
| 205.0 | As above. Slightly lighter in colour. Blotchy appearance caused by ghost type feldspar laths. Feldspar and lucoxene sometimes show foliation due to shearing. Medium shear variable foliation 30 - 40 degrees C.A. Barren. Core becomes blocky after 250'. |
| 255.0 | As above, but darker, more uniform colour. Core blocky up to 292.0'. Recovery 65%. Ghost type feldspar laths only faintly discernable. Medium shear, fair foliation and fracturing 25 degrees C.A. 264.0', and 30 degrees at 237.0 and 295.0'. |
| 303.0 | Different type of alteration than above, and slightly harder. Almost quartzose in appearance. Massive. Light grey colour, with brown streaking. Abundant brown lucoxene. Fairly distinct contacts. |

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

D. D. H. 133

FOOTAGE	DESCRIPTION
317.0	Same as section preceding 303.0'. Core very blocky and badly broken up in places. Recovery. Light brown lucoxene throughout. Medium shear, poor foliation 35 - 50 degrees C.A. Barren. Faint traces of anorthositic texture in places.
385.0	Slightly lighter in colour. Anorthositic texture evident in more places. Medium shear, poor foliation, general trend of fracturing is 30 - 40 degrees C.A. Barren. Core badly fractured. Recovery 85%.
474.0	Lighter grey colour. Somewhat more massive, recovery 95%. Ghost type feldspar laths appearing and becoming quite prominent after 515.0'. Fair amount of brown lucoxene, but no mineralization. Medium shear,
524.0	but poor foliation at 30 - 40 degrees C.A.

END OF HOLE

NO SAMPLES

JGT:wet

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITED

HOLE NO. P135 LOCATION 3960 N - 1200 W DATE STARTED July 22, 1956
 DIP -35 Deg LAT. _____ DEP. _____ DATE FINISHED July 27, 1956
 BEARING 130 Deg ELEVATION 14.0' LOGGED BY J. G. Thompson
 DEPTH 591' DIP TESTS 35 Deg. @ 300'; 38 Deg. @ 590'.

FOOTAGE	DESCRIPTION
0.0 - 6.0	<u>CASING</u>
6.0	<u>ANDESITE</u>
88.0	Dark uniform green colour. Massive. Moderately hard. Low chlorite. Low carbonate. Low shear, foliation at 40 degrees C.A., where apparent. Some of the white carbonate veinlets containing pyrite also have this trend. Larger carbonate veins up to 0.5' at 26.0' and 64.0', contain pyrite and some chalcopyrite.
88.0	<u>ANDESITE - TUFF COMPLEX</u>
102.0	As above with some tuffaceous beds, which increase in size and number towards middle of section. Tuffs are fairly well banded at 35 - 45 degrees. Lower contact indefinite.
102.0	<u>TALCOSE ALTERATION ZONE - ANORTHOITE</u>
192.0	Dark blue grey colour. Still fairly massive, although some of the core is broken up. Medium shear but no definite foliation, but fracturing trends at 35 - 45 degrees C.A. Low chlorite. Low carbonate. No visible feldspar laths. Occasional pyrite. Recovery 80 - 85%. Some brown lucoxene appearing after 130'.
228.0	As above. Contains some lighter coloured sections which exhibit relic and ghost type feldspar laths.
228.0	As above. Lucoxene and ghost type feldspar laths show alignment due to shearing at 35 degrees C.A.
265.0	Rock becoming more talcose and badly broken up. Generally dark blue grey colour. Medium shear 35 degrees C.A. Recovery 70%.
342.0	Different type of alteration than usual, almost quartzose in appearance. Medium shear, very good foliation 35 degrees C.A. Light grey colour. Fairly abundant brown lucoxene and some pyrite. Fairly distinct contacts. Low chlorite. Low carbonate.
361.0	Dark grey-black colour. Core generally badly broken up. Mottled effect caused by ghost type feldspar laths distorted by shearing. Quite talcose. Low chlorite. Low carbonate. Some brown coloured lucoxene. Recovery 80%. Medium shear, foliation has been obliterated, but fracturing trends at 40 - 45 degrees C.A. after 500'. Note: Pure white barren quartz veins: 529.0 - 530.0'; 542.0 - 543.5'; 548.0 - 548.7'; 557.0 - 561.0'; 567.0 - 569.0
583.0	Grey green colour. Massive. Low chlorite. Low carbonate. Occasional lucoxene. Only a few ghost type feldspar laths visible. Medium shear. Good foliation and fracturing throughout, 30 - 40 degrees C.A. Barren.
591.0	

END OF HOLE

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITED

HOLE NO.	<u>FL59</u>	LOCATION	<u>930 W - 3300 N</u>	DATE STARTED	<u>July 31, 1956</u>
DIP	<u>45 Deg</u>	LAT.	<u>DEF.</u>	DATE FINISHED	<u>Aug. 10, 1956</u>
BEARING	<u>0 Deg</u>	ELEVATION	<u>25.0 Feet</u>	LOGGED BY	<u>J. G. Thompson</u>
DEPTH	<u>953'</u>	BIP TESTS	<u>47 Deg @ 250'; 45 Deg @ 500'; 44 Deg @ 700'; 43 Deg @ 950'.</u>		

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
0.0 - 12.0	<u>CASING</u>
12.0	<u>ALTERATION ZONE - ROCK TYPE INDEFINITE</u> Blue green colour. Soft. Blocky. Medium chlorite. High carbonate. Minor brown lucoxene. Fairly well sheared, but foliation indefinite, possibly 35 - 50 degrees C.A.
17.0	<u>CHLORITIZED ZONE - ROCK TYPE INDEFINITE</u> Fairly massive to blocky. Soft. Dark green colour. High uniformly distributed chlorite. Variable carbonate, low to medium. Speckled appearance caused by numerous small light brown inclusions, which are similar to lucoxene in appearance, but are very hard and lack the usual lucoxene lattice work. Upper contact distinct at 55 degrees C.A. Lower contact indistinct and gradational. Medium shear, fair foliation and fracturing 45 - 50 degrees C.A. Several white carbonate veins containing considerable pyrite.
32.0	<u>TALCOSE ALTERATION ZONE - ANORTHO SITE</u> Dark grey to greenish colour. Core somewhat broken up in places. Soft. Medium black chlorite and several short sections with green chlorite. Low carbonate. Talc content is low, but increasing. Brown coloured lucoxene throughout. Occasional pyrite associated with white carbonate fracture fillings. Medium shear, fracturing 50 degrees at 55.0', and 55 - 60 degrees at 60.0' and 65.0'.
70.0	As above. Colour a uniform medium grey. Core generally more broken up, and more talcose. Medium shear, highly fractured at 50 degrees C.A. Recovery 80%.
115.0	As above. Becoming dark, almost black coloured. Core badly broken up. Recovery 70%.
162.0	As above. Becoming more massive. Faint mottled appearance in many places caused by ghost type feldspar laths. Recovery 90%.
220.0	As above, only quite massive, although still well fractured. Still very talcose and well sheared. Foliation and fracturing 45 - 50 degrees C.A. at 232.0'. Somewhat lighter in colour.
270.0	As above. Distinct mottled effect caused by light coloured ghost feldspar laths in a black matrix. Well fractured at about 50 degrees C.A.

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.D. D. H. P139

FOOTAGE	DESCRIPTION
296.0	As above. Reverting to black to grey-green colour. Core highly fractured. Recovery 75 - 80%. Well sheared and very talcose, but no definite foliation. Fracturing 40 - 50 degrees C.A. at 340.0'.
369.0	Anorthositic texture only occasionally visible.
369.0	<u>ALTERED CHLORITIZED VOLCANICS</u>
	Section starts with a grey coloured, high carbonate material, which gradually assumes a dark green colour, as chlorite increases and carbonate decreases. Fairly massive, but with some short sections of broken up and ground core. Soft. Recovery 90%. Low shear, but foliation poorly developed, possibly 45 - 50 degrees C.A. Section contains a fair amount of pyrite and some chalcopyrite, usually, but not always, associated with carbonate. Much of the mineralization follows trend of foliation, and some of the mineralized stringers are offset from one plane of foliation to another.
386.0	<p><u>Mineralized Zone</u>, but otherwise as above. Chalcopyrite varying from 1.0 to 12.0%, with minor pyrite. The richer sections are associated with carbonate, but there is a lot of chalcopyrite throughout the rock. Medium chlorite. Low carbonate, except as above. Finely disseminated magnetite throughout much of the core. Some graphite observed at 398.0'.</p> <p>Low shear, foliation generally poor - 35 degrees at 387.0'; 55 degrees at 404.0'; 40 - 45 degrees at 406.0'; 40 degrees at 412.0'; 40 degrees at 418.0'; 50 degrees at 423.0'; 30 degrees at 426.0'.</p> <p>2' core missing between 386.0 and 394.0' 1' core missing between 394.0 and 398.0'</p> <p><u>Note 412.5 to 415.5'</u>: 75% chalcopyrite in white to pinkish white carbonate vein. Some very finely disseminated magnetite, but negligible pyrite.</p>
423.0	<p>As above: <u>Altered Chloritized Volcanics</u>. Massive. Dark green colour. Fairly hard. Medium uniform chlorite. Low carbonate. Fairly numerous irregular white carbonate veinlets, some containing minor pyrite and chalcopyrite. Low shear, poor foliation 30 - 35 degrees at 423.0; 50 degrees at 550.0'; 40 degrees at 555.0'.</p>
464.0	<p><u>Mineralized zone</u>, but otherwise as above. Chalcopyrite ranging from 1.0 to 12.0%, with subordinate pyrite. Occasional very finely disseminated magnetite. Medium shear, poor foliation - 55 degrees at 468.0'; 40 degrees at 477.0'; 35 degrees at 486.0'; 35 degrees at 495.0'; 50 degrees at 500.0'.</p> <p><u>Note 477.5 to 482.5'</u>: Pinkish-white carbonate vein containing 12.0% chalcopyrite. Several other small pink carbonate rich sections occur throughout the mineralized</p>
495.0	zone.

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.D. D. H. P139

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
496.0	<u>ALTERATION ZONE - ROCK TYPE INDEFINITE (ANORTHOBIT?)</u> Dark blue-grey colour. Massive. Soft. Medium black chlorite. Sporadic carbonate rich sections. Some very fine lucoxene and minor pyrite. Medium shear, foliation obliterated, but good fracturing 35 degrees C.A. at 496.0'; 40 degrees C.A. at 506.0'; 50 degrees C.A. at 527.0'; 45 - 50 degrees at 537.0'.
543.0	<u>TUFF</u> Well banded. Fairly soft. Low to medium chlorite. High carbonate. Bedding at 40 - 50 degrees C.A. In places the core has a tendency to fracture at right angles to the bedding. Barren except for a few blotches of pyrite.
547.0	<u>ALTERATION ZONE - ROCK TYPE INDEFINITE</u> Massive. Uniform green colour. Medium hard. Medium chlorite. High carbonate. Speckled appearance caused by much tan coloured lucoxene. Only occasional white carbonate fracture fillings. Barren. Low shear, some foliation 50 degrees C.A. at 557.0'. Lucoxene and carbonate fade out gradually towards end of section.
571.0	<u>ALTERED VOLCANICS - (ANDESITE?)</u> Fairly uniform green colour. Medium hard. Medium, uniformly distributed green chlorite. Low carbonate, except in a few short sections. Fairly numerous white carbonate fracture fillings, usually barren, but some containing pyrite. Occasionally pyrite occurs without association with carbonate. Low shear, poor foliation, but some consistent fracturing at 50 - 55 degrees C.A.
612.0	<u>GRANITE DYKE</u> Reddish coloured. Hard. Some finely disseminated pyrite in upper part of dyke. Both contacts ground.
619.0	<u>ALTERED VOLCANICS - (ANDESITE?)</u> As before dyke, but with slight increase in amount of pyrite, and some chalcopyrite appearing. Strong chalcopyrite in a 4 inch quartz vein at 651.0'. Core becoming slightly vesicular towards end of section. Low shear, indications of foliation at 35 degrees C.A. 643.0'. General trend of fracturing and some of the mineralisation is at 40 - 50 degrees C.A.
665.0	<u>GRANITE</u> Massive. Generally grey coloured. Granite appearance not too pronounced. Very finely disseminated pyrite throughout. Some chalcopyrite associated with carbonate stringers. Low shear, foliation 35 degrees.
676.0 686.5	As above. Becoming redder in colour and more granitic in appearance. Low shear, foliation at 30 - 40 degrees C.A.

PORTAGE ISLAND (QUEBEC) MINES LTD.D. D. H. 7139

<u>PORTAGE</u>	<u>DESCRIPTION</u>
686.5	<u>MINERALIZED ZONE</u>
692.5	90% pyrite apparently associated with quartz. Low carbonate. Negligible chalcopyrite. Foliation at beginning and end of zone, is 35 - 40 degrees C.A. Some carbonate inclusions.
692.5	<u>ALTERED VOLCANICS - (ANDESITE?)</u>
	Dark green colour. Massive. Medium chlorite, often streaked in direction of foliation. Low carbonate, except for occasional white stringers. Low shear, foliation 35 - 40 degrees up to 710.0', and 45 degrees at 734.0'. Moderate pyrite and 1.0% chalcopyrite mineralization up to 703.0'. Some of chalcopyrite is associated with pink carbonate veins, trending with foliation. Mineralization decreases after 703.0', with the chalcopyrite all but disappearing completely.
725.0	As above. Core becoming slightly vesicular. Only occasional pyrite, and very minor chalcopyrite. Low shear, foliation 50 - 60 degrees C.A. at 743.0'.
764.0	As above. Vesicles disappearing. Very few carbonate stringers. Low shear, foliation 45 degrees at 769.0', but fracturing at about 60 degrees towards end of section.
794.0	As above. Carbonate veins up to four inches becoming numerous. Many of these veins contain appreciable amounts of chalcopyrite. Some weaker chalcopyrite mineralization occurs without associated carbonate. Small granitic inclusion at 799.0'.
812.0	As above. Carbonate veins persist, although smaller in size and are not mineralized to any extent. Several small granitic inclusions.
838.5	Becoming grey-green colour. Chlorite decreasing slightly and assuming the form of streaks and irregular inclusions. Low carbonate. Several granitic inclusions or dykes, the largest of which is between 838.5 and 841.0'. Low shear, foliation 35 - 40 degrees C.A. Carbonate stringers becoming less numerous and usually barren. Some chalcopyrite and pyrite in last few feet of section, in purplish coloured, slightly magnetic rock.
851.0	<u>GRANITE DYKE</u>
	Reddish coloured. Upper contact contains some quartz stringers and is at 60 degrees C.A. Low contact is indistinct.
874.0	Some finely disseminated pyrite.
874.0	<u>ALTERED VOLCANICS - (ANDESITE?)</u>
	Green colour. Massive. Fairly hard. The first five feet are fairly well banded at 55 - 60 degrees C.A., the banding being caused by chlorite alteration. Low carbonate. Sporadic pyrite and some chalcopyrite throughout. Three foot section starting 885.0' estimated at 1% Cu. After 900.0' the core becomes slightly lighter in colour, and mineralization is negligible. Low shear, fair foliation 40 degrees C.A.
955.0	The core is badly broken up after 930.0'.

END OF HOLE

DIAMOND DRILL LOG

PORTAGE ISLAND (CHIBOUQUAMAU) MINES LIMITED

HOLE NO.	F141	LOCATION	330 W - 3300 N	DATE STARTED	AUG. 11, 1956
DIP	55 Deg	LAT.	DEP.	DATE FINISHED	
BEARING	0 Deg	ELEVATION	25.0 Feet	LOGGED BY	J. G. Thompson
DEPTH		DIP TESTS	53 Deg. @ 250'; 48 Deg. @ 500'.		

FOOTAGE	DESCRIPTION
0.0 - 12.0	<u>CASINO</u>
12.0	<u>ALTERATION ZONE - ROCK TYPE INDEFINITE</u> Blue-green colour. Soft. Blocky. Medium chlorite. Variable carbonate, low to medium. Medium shear, foliation 50 degrees C.A.
19.0	<u>CHLORITIZED ZONE - ROCK TYPE INDEFINITE</u> Dark green colour. Fairly massive to blocky. High uniformly distributed chlorite. Generally low carbonate. Much light brown lucoxene speckling throughout. Upper contact is sharp, but core has been ground. Lower contact is gradational. Low shear, poor foliation 40 degrees. Some pyrite in carbonate stringers. Note: 34.0 - 38.0' Highly altered grey coloured rock, possibly a quartz porphyry dyke.
56.0	<u>TALCOSE ALTERATION ZONE - ANORTHOITE</u> Dark gray to greenish colour. Soft. Core broken up in places. Medium chlorite. Low carbonate. Talc content is low, at first, but increasing. Some brown lucoxene throughout. Medium shear, poor foliation, but fracturing at 45 to 50 degrees at 60.0', foliation 30 degrees at 114.0'.
128.0	As above. Uniform grey-black colour. Core more highly fractured and increasingly talcose. Medium shear, foliation obliterated, but fracturing at 40 degrees C.A. Recovery 80%. Occasional opalescent quartz eyes appearing around 168.0'
237.0	Becoming more talcose. High shear, foliation and fracturing 50 degrees at 240.0'; 30 degrees at 262.0'; 35 - 40 degrees at 272.0'. Recovery 85%.
296.0	As above. Slight mottled appearance caused by indistinct ghost type feldspar laths in a black matrix. High shear, fracturing 35 - 40 degrees at 310.0'.
321.0	Same as foregoing section, except feldspathic remnants are in a green coloured matrix. Consistent fracturing 35 degrees at 330.0'; 50 degrees at 332.0'.
390.0	<u>ALTERATION ZONE - ROCK TYPE INDEFINITE</u> Uniform light grey-green colour. Hard. Low chlorite. Medium carbonate. Minor disseminated pyrite. Contacts are abrupt, and lower contact appears to be at 45 degrees C.A. Might possibly be an altered grey dyke.

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

D. D. H. P141

FOOTAGE	DESCRIPTION
390.5	<u>TALCOSE ALTERATION ZONE - ANORTHOSSITE</u>
	Dark grey to black colour. Soft. Core badly broken up. Recovery 90%. Occasional ghost type feldspar laths visible. Abundant lucoxene showing alignment with shearing. Barren. High shear, good foliation and fracturing 30 - 35 degrees
421.0	C.A. at 393.0 and 398.0'; 40 - 45 degrees at 412.0'
421.0	<u>ANDESITE</u>
	<u>Mineralized Zone:</u> Uniform green colour. Massive. Fairly hard. Medium to high chlorite. Much pyrite, in places quite massive, and some chalcopyrite associated with irregular white carbonate veinlets and stringers. The chalcopyrite is confined mostly to the four foot section adjacent to the contact. Low shear, poor foliation 25 - 30 degrees.
433.0	As above. Numerous white carbonate fracture fillings, most of which are very small, and give the rock a brecciated appearance. There is some scattered pyrite and very occasionally chalcopyrite. Low to medium chlorite. Low shear, no foliation except after 550.0', where it is
558.0	20 - 25 degrees.
558.0	<u>ALTERATION ZONE - POSSIBLY ANORTHOSSITE</u>
	Massive. Blue-grey-green colour. Soft. Low to medium chlorite. Low carbonate. Only occasional feldspar laths.
568.0	Some brown lucoxene. Boundries are gradational.
568.0	<u>TUFF</u>
	Well banded. Medium chlorite and carbonate. Bedding appears to vary between 30 and 50 degrees C.A.
574.0	
574.0	<u>TUFFACEOUS VOLCANICS</u>
	Dark green colour. Massive. Soft. Medium chlorite and carbonate. Tuffaceous banding trends at 35 degrees C.A. and fades out towards end of section. Barren except for occasional pyrite and a 1 1/2 foot carbonate vein containing
617.0	massive pyrite at 590.0'.
617.0 - 625.0	<u>GRANITE DYKE</u>
625.0	<u>ANDESITE</u>
	Massive. Uniform dark green colour. Medium chlorite. Low carbonate. Core slightly vesicular. Some pyrite and chalcopyrite associated with small isolated carbonate veins. Some disseminated magnetite throughout. Low shear, indefinite foliation.

PORTAGE ISLAND (CHIDOGAMAU) MINES LTD.

D. D. H. Fl41

FOOTAGE	DESCRIPTION
671.0	<p><u>GRANITE DYKE</u></p> <p>Grey colour at start, but assuming a reddish tinge towards end. Medium alteration in places with quartz and feldspar grains only just visible. Low carbonate. Mineralized throughout with fine grained pyrite and occasionally chalcopyrite. From 679.5 to 681.5' is a very fine grained, dense, black rock.</p>
684.0	<p><u>ROCK TYPE INDEFINITE:</u></p> <p>Possibly an alteration of the above granite. Much fine pyrite throughout, in places quite massive. Some chalcopyrite. Low shear, fair foliation 35 degrees C.A.</p>
684.0	<p><u>ANDESITE:</u></p> <p><u>Mineralized Zone:</u></p> <p>Dark grey-green, but sometimes with a reddish tinge. Very fine grained. Average of 4% chalcopyrite over the full section. Much of this mineralization is very finely disseminated throughout the rock, without association with carbonate. Some small blobs of quite massive chalcopyrite are associated with quartz and carbonate. Mineralization sometimes has a trend of 60 - 65 degrees C.A., but this is not general. Pyrite is a minor constituent and is usually very finely disseminated. Some fine magnetite throughout. No foliation from shearing is discernable.</p>
705.5 717.0	<p>As above, but void of mineralization.</p>
717.0	<p><u>GRANITE</u></p> <p>Usual light grey to reddish colour. Massive. Hard. Low alteration. Negative shear. Some pyrite and very occasionally chalcopyrite, usually with carbonate.</p>
735.0	

END OF HOLE

JGT:wet

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

HOLE NO. P143 LOCATION 1000W, 3300N. DATE STARTED Aug. 16th, 1956
 DIP 55 Deg LAT. DEP. DATE FINISHED Sept. 1st, 1956
 BEARING 0 ELEVATION LOGGED BY J. G. Thompson
 DEPTH 996' DIP TESTS 55 Deg at 250'; 40 Deg at 500'; 39 Deg at 750';
 35 Deg at 950'.

FOOTAGE	DESCRIPTION
0.0	9.0 <u>CASING</u>
9.0	<u>ALTERATION ZONE - PROBABLY ANORTHOHITE</u> Light to medium grey colour. Fairly massive. Medium hard. Fine grained. Low to medium chlorite. Medium carbonate. Anorthositic texture completely obliterated. Moderate amounts of light brown coloured lucoxene. Medium shear, but foliation poorly developed, 30 deg at 31', 45 deg at 47'.
56.0	As above. <u>Chloritized</u> , medium to high dark green chlorite, giving rock a green colour. Carbonate content variable, low to medium. Lucoxene has become light tan coloured. More carbonate veinlets than before, but all barren. Medium shear, foliation appears to be 40 degrees C.A.
84.0	As above. Chlorite content decreasing and rock becoming grey coloured. Low to medium carbonate. Anorthositic texture becoming more apparent, with occasional relic and ghost type feldspar laths appearing. Medium shear, fair foliation and fracturing 35 - 40 degrees C.A.
103.5	<u>FINE GRAINED GABBRO DYKE</u> Massive. Green. Speckled appearance caused by very fine lucoxene. Medium hard. Medium chlorite. Low to medium carbonate. Abrupt contacts, the lower one being at 50 degrees C.A.
122.0	<u>ALTERATION ZONE - ANORTHOHITE</u> Same as section preceding dyke. Medium shear, fair foliation and fracturing 45 degrees C.A.
163.0	Darker in colour, in places black. Becoming quite talcose and very soft. Core highly fractured. High black type chlorite content. Low carbonate. Medium shear, indefinite foliation.
195.0	As above. Patchy green chlorite becoming prominent, giving rock a green colour. Variable carbonate, low to medium. Abundant tan coloured lucoxene. Some fine pyrite associated with carbonate veins. Medium shear, poor foliation 50 degrees C.A. Green chlorite gradually fading out towards end of section
213.0	Grey coloured. Fairly massive, but soft. Medium black chlorite. Low carbonate. Anorthositic texture faintly visible in places. Rock is only slightly talcose. Minor lucoxene altered to ilmenite. Medium shear, foliation 55 degrees at 220'; 30 to 35 degrees at 235'; Fine grained gabbro dyke 241 to 242 feet.
270.0	<u>TALCOSE ALTERATION ZONE - ANORTHOHITE</u> Gradational change from above. Becoming darker in colour. Core quite badly broken up and very talcose. Medium black chlorite. Low carbonate. Faint anorthositic texture. Medium shear, foliation obliterated, but fracturing trending 40 to 60 degrees C.A. Core becoming more massive after 300'.

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

D. D. E. P143

FOOTAGE	DESCRIPTION
310.0	As above. Mottled effect caused by ghost type feldspar laths. Moderate amounts of brown leucoxene. Medium shear, poor foliation and fracturing, 35 - 45 degrees C.A. at 325' and 30 - 35 after 340'.
360.0	<u>ROCK TYPE INDEFINITE - ALTERED DYKE ?</u> Light gray-green colour. Massive. Hard. Low chlorite. Low carbonate, although occasionally medium. Porphyritic appearance. Fine disseminated pyrite throughout. Sharp contacts, both chilled
374.0	Lower contact at 45 degrees C.A.
374.0	<u>TALCOSE ALTERATION ZONE - ANORTHOHITE</u> Same as section preceding dyke. Medium shear, most frequent angle of fracturing 30 - 45 degrees C.A. Core becoming badly broken up after 384'. Recovery 80%.
411.0	More massive. Fine grained. Mottling less distinct than above.
453.0	Medium shear, foliation 45 - 50 degrees at 451.
453.0	<u>TUFF</u> Bedding not as distinct as usual. Medium chlorite, Medium carbonate. Bedding direction variable, possibly cross bedding, 20 degrees and 40 - 50 degrees. In some places the bedding is contorted. Some pyrite associated with carbonate.
470.0	<u>ALTERED VOLCANICS</u> Uniform dark green colour. Massive, Medium uniform chlorite. Low to low-medium carbonate, 10% pyrite, the more massive of which is associated with carbonate
506.0	<u>TALCOSE ALTERATION ZONE - ANORTHOHITE</u> Dark blue-gray colour. Core quite broken up but recovery fairly good. Soft. Medium black chlorite. Low carbonate. Occasional feldspathic remnants. Low to medium talc. Medium shear, foliation and fracturing 30 - 35 degrees C.A. Some light brown leucoxene.
533.0	As above, but less talc. Slightly lighter in colour and more massive.
569.0	<u>TUFF</u> Well banded, Massive. Low chlorite. Medium carbonate. Most of the bedding trends at 45 degrees, but in some places it is contorted and brecciated.
579.0	<u>ANDESITE</u> Massive, very fine grained. Medium green colour. Medium uniform chlorite, Medium carbonate. Numerous small white carbonate veinlets. Minor disseminated pyrite. Low shear, poor foliation possibly 60 degrees C.A.
593.5	<u>GRANITE DYKE</u> Massive. Low alteration. Upper contact 60 degrees, lower contact 40 degrees. Much fine disseminated pyrite throughout.

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.D. D. H. P145

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
603.0	<u>ANDESITE</u> Same as before dyke. Slightly coarser grained. Low shear, foliation adjacent to dyke 50 degrees C.A. Some pyrite and occasional chalcopyrite associated with carbonate. Occasional small, indefinite, granitic inclusions.
633.0	<u>GRANITE DYKE</u> Low alteration. Upper contact gradational and upper contact fairly sharp. Fine disseminated pyrite throughout.
633.0	<u>ANDESITE</u> Same as that preceding dyke, except that carbonate content is becoming erratic. Carbonate stringers less frequent than before, and only occasional pyrite. Segregations of magnetite appearing towards end of section. Low shear, foliation 35 - 45 degrees C.A., and at 60 degrees in last few feet of section.
669.0	<u>MINERALIZED ZONE- MASSIVE SULFIDES IN ALTERED GRANITE</u> The first two feet are well sheared at 50 degrees C.A., and are of indefinite rock type. Mineralization is predominantly pyrite 80%. Chalcopyrite is present but is obscured by the pyrite which is tarnished. The mineralization varies from coarse to fine and is often banded at 40 - 55 degrees C.A.
679.0	<u>ALTERED VOLCANICS - ANDESITE</u> Medium green colour, massive but sometimes brecciated in appearance. Medium chlorite. Low carbonate. Low to medium shear, foliation 55 degrees at 681, and 40 degrees at 688'. First few feet of section are mineralized with 3% chalcopyrite and some pyrite.
703.0	As above. Still has brecciated appearance with chlorite replacement around fragments. Fairly frequent vesicular white carbonate veinlets, a few of which trend at 30 degrees C.A. Core is barren except for occasional pyrite. Negligible shear
800.0	As above, becoming slightly less massive with core ground up in some places. Medium shear, fair foliation 50 degrees C.A.
849.0	at 821'
849.0	<u>GRANITE DYKES</u> Several small granite dykes within the above volcanics. Largest dyke is from 803 to 872'. Some pyrite and minor chalcopyrite is associated with carbonate stringers in the volcanics. The granite contains some fine pyrite. Negligible shear.
872.0	<u>VOLCANICS</u> Same as section 703 to 800'. Medium shear, fair foliation 55 to 60 degrees C.A. Barren except for occasional pyrite and some magnetite rich sections.
907.0	<u>MINERALIZED ZONE</u> 75 - 90% pyrite plus indefinite amount of chalcopyrite in altered granite. Pyrite is tarnished making it difficult to distinguish the chalcopyrite. Some of the core has been ground up and in places it appears to have slip planes running parallel with the core. Some core is missing.
911.0	

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.D. D. H. P143

DEPTH	DESCRIPTION
911.0	<u>VOLCANICS</u> As before, but with negligible shear. Core quite broken up in places, recovery 90%. Several seams containing magnetite sand. Streaky chlorite replacement. Occasional short sections of massive sulfides, but all the core for these has been ground. Other mineralization is negligible and is associated with quartz stringers.
937.0	Some quartz and carbonate stringers which are barren except for pyrite. Several inches of massive chalcopyrite and pyrite in quartz at 960.0'. Rock is still quite fractured, but recovery is better. Brecciated appearance and streaky chlorite replacement have disappeared. Low to medium chlorite.
998.0	

END OF HOLE

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITED

HOLE NO.	<u>P145</u>	LOCATION	<u>3400 N - 950 W</u>	DATE STARTED	<u>AUG. 20, 1958</u>
DIP	<u>45 Deg</u>	LAT.	<u> </u>	DATE FINISHED	<u>AUG. 31, 1958</u>
BEARING	<u>0 Deg</u>	ELEVATION	<u> </u>	LOGGED BY	<u>J. G. Thompson</u>
DEPTH	<u>850'</u>	DIP TESTS	<u>43 Deg @ 250'; 40 Deg @ 300'; 35 Deg @ 750'.</u>		

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
0.0 - 22.0	<u>CASING</u>
22.0	<u>ALTERATION ZONE - (ANORTHOSSITE?)</u> Dark grey-green colour. Core badly broken up, recovery 80%. Soft. Medium black chlorite. Low carbonate. Moderate brown lucoxene. Feldspar laths completely obliterated. Well sheared with much fracturing at 40 to 55 degrees C.A. Barren. Note: 22.0 to 30.0', 32.5 to 34.0' and 38.0 to 39.5' - quartz carbonate veins, generally pure white and barren.
96.0	As above. Becoming slightly more talcose. Core very badly broken up. Recovery 40%. Core missing - 04.0 to 102.0', 105.0 to 112.0', 119.0 to 122.0', 130.0 to 133.0', 145.0 to 162.0
162.0	<u>TALCOSE ALTERATION ZONE - ANORTHOSSITE</u> Gradual change from above. More massive, but still highly fractured. Recovery 95%. Fairly soft. Medium grey colour. Medium chlorite and talc. Low carbonate. Suggestion of anorthositic texture in some places. Fair amounts of brown lucoxene indicating original rock could have been transition rock. Medium shear, poor foliation, but fracturing trends at 30 to 40 degrees C.A.
249.0	<u>TUFF</u> Light grey colour. Direction of bedding is variable, often at 15 degrees C.A. Low chlorite. Low to low-medium carbonate.
251.5	<u>ALTERED CHLORITIZED VOLCANICS</u> Dark green colour. Massive. Fine grained. Dense. Medium uniform chlorite. Low carbonate. Low to medium shear, poor foliation, fracturing at 30 - 40 degrees C.A. Considerable pyrite, with almost massive pyrite 209.0 - 291.0', 305.0 - 309.0', 314.5 to 316.0'. The more massive pyrite is associated with carbonate. Chalcopyrite is negligible. At 282.0' there is an inclusion of brecciated anorthositic rock.
334.0	<u>GRANITE DYKES</u> Two dykes separated by a short section of volcanics. Volcanic section - 340.0 to 342.5'. First dyke contains some pinkish white carbonate, with some coarse chalcopyrite. Dykes are reddish grey coloured.
346.5	

PORTAGE ISLAND (CHIBOUGAMAU) MINES LIMITEDD. D. H. P145

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
345.5	<u>ALTERED CHLORITIZED VOLCANICS</u> As above, except finer grained. The first few feet of section is faintly granitic. Some chalcopyrite associated with small granitic inclusions between 379.0 and 384.0'. 11" section starting at 395.0' averaging 15% Cu in quartz carb. 10" section starting at 398.0'. Minor sulfides, mostly pyrite in adjacent rock.
415.0	As above, but vesicular, due to leaching out of quartz carbonate. The first 13 feet of the section is quite granitic. Medium uniform chlorite. Low carbonate. Low shear, poor foliation
473.0	30 - 50 degrees C.A.
473.0	<u>TUFF</u> Fairly well banded in two directions 35 and 50 degrees C.A. Medium chlorite. High carbonate. Banding accentuated by pyrite and carbonate stringers.
490.0	<u>CARBONATE RICH VOLCANICS</u> Dark green. Fairly massive. Uniform medium chlorite. High carbonate, except in a few short sections. Faintly tuffaceous in places.
512.0	As above, but finer grained. Carbonate content becoming
591.0	variable after 550.0'.
591.0	<u>TUFF</u> Very well banded at 35 - 60 degrees C.A. Light grey green colour. Low chlorite. High carbonate and some silica. Mineralized with massive very fine grained pyrite between 598.0 and 599.5'. Evidence of cross the bedding slippage at 592.0'
601.0	Becoming dark green in colour. Bedding less prominent, 50 - 60 degrees C.A. Medium chlorite. Variable carbonate, low to medium. Occasional pyrite aligned with the bedding. Bedding fades out completely between 617.0 and 636'. This non bedded section has low carbonate, but contains appreciable chalcopyrite with quartz-carbonate between 628.0 and 629.0'. Tuffaceous banding reappears strongly after 636.0' and has high carbonate content.
645.0	
645.0	<u>VOLCANICS - OCCASIONALLY TUFFACEOUS</u> Dark green colour. Quite hard. Very fine grained. Low to medium chlorite. Low carbonate, except in a few places. Short
710.0	granitic section at 685.0'.
710.0	<u>VOLCANIC - GRANITE COMPLEX</u>
726.0	The above volcanics containing faint granitic sections.
726.0	<u>GRANITE DYKE</u> 750.0 Massive. Reddish grey colour.

PORTAGE ISLAND (CHIBOUGANAU) MINES LIMITEDD. D. R. P145

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
750.0	<u>VOLCANIC - GRANITE COMPLEX</u> Mostly volcanics, but with some intrusions of what appears to be granitic material. However, these intrusions are often quite angular, so rock could be a pyroclastic.
793.0	<u>SHEARED AND ALTERED GRANITE DYKE</u> High shear, with excellent foliation and fracturing at 50 degrees C.A.
795.0	<u>CHLORITIZED VOLCANICS</u> Streaky green chlorite. Low carbonate. Medium shear at 50 degrees C.A.
814.0	<u>GRANITE DYKES</u> First few feet are quite shistose at 55 degrees C.A. but shearing virtually disappears towards end. Several short sections of volcanic-granite complex, which exhibits shear at 55 degrees C.A.
838.0	<u>VOLCANICS</u> Same as section 795.0 to 814.0'. Sheared at 50 degrees C.A.
847.0	Numerous dark coloured magnetite rich segregations.
847.0	<u>GRANITE</u>
850.0	

END OF HOLE

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

HOLE NO. PL26 LOCATION 1000W, 3300N. DATE STARTED Sept 1st, 1956
 DIP 75 Deg. LAT. _____ DEP. _____ DATE FINISHED Sept. 13th, 1956
 BEARING 0 Deg. ELEVATION _____ LOGGED BY J. G. Thompson
 DEPTH 1000' DIP TESTS 70 Deg. at 250'; 64.5 Deg. at 500';
61.5 Deg at 750'; 61.0 Deg. at 1000'.

FOOTAGE	DESCRIPTION
0.0 10.0	<u>CASING</u>
10.0	<u>ALTERATION ZONE ANORTHOISITE</u> Dark blue grey colour. Fairly massive. Medium hard. Low to medium chlorite. Low carbonate. Some tan coloured lucoxene. Medium shear, poor foliation 30 - 40 degrees C.A.
25.0	Lighter grey green colour. Fairly massive, but local grinding of core. Core missing 28.0 - 31.0'. Medium light green chlorite. Medium to high carbonate. Ghost type feldspar laths faintly visible in places. Some brown and some tan coloured lucoxene. Medium shear, fair foliation and some fracturing 25 - 30 degrees C.A.
99.5	<u>C.A.</u>
99.5	<u>FINE GRAINED GABBRO DYKE</u> Light grey green colour. Speckled appearance, except in first few feet, caused by much light coloured lucoxene. Low to medium chlorite. Medium carbonate except in first five feet of dyke. Sharp contacts, upper 60 degrees C.A., lower at 35 - 40 degrees C.A. Low shear, indications of regular fracturing 25 - 35 degrees
121.5	<u>ALTERATION ZONE - ANORTHOISITE</u> Fairly massive. Quite soft. Patchy light green chlorite increasing towards end. Low carbonate. Some light brown lucoxene. Irregular, barren quartz-carbonate vein 138.5 to 140.0'. Medium shear, good foliation and fracturing 25 to 30 degrees at 136.0' and 35 - 40 at 146.0'
153.0	<u>ALTERED GREY DYKE</u> Hard. Fine grained. Massive. Low chlorite. Low carbonate. Upper contact at 40 degrees C.A., lower contact less distinct at 70 or 80 degrees.
161.5	<u>ALTERATION ZONE - ANORTHOISITE</u> Same as before dyke. Medium shear at 40 degrees. Several short sections of what appears to be fine grained gabbro dyke material, with much lucoxene.
183.0	<u>FINE GRAINED GABBRO DYKE</u> Light greenish grey colour. Massive. Very fine grained. Hard. Low chlorite. Medium carbonate. Dyke appears to end at 190.0' with a contact of 45 degrees. At this footage a very similar rock, with a very high lucoxene content, appears.
185.0	<u>ALTERATION ZONE - ANORTHOISITE</u> As before, becoming talcose. Core somewhat broken up. Medium shear, foliation variable, 25 to 40 degrees C.A.
194.0	
246.0	

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.D. D. H. P146

FOOTAGE	DESCRIPTION
246.0	<u>CHLORITIZED ALTERATION ZONE - ANORTHOHITE</u>
	Green colour. Quite massive. High chlorite light green type. Variable carbonate, low to medium, disappearing after 300'. Medium shear, good foliation 30 to 35 degrees. Much tan coloured lucoxene distributed throughout.
310.0	
310.0	<u>CHLORITIZED GABBRO</u>
	Gradual change from above. More mafic minerals appearing. High chlorite. Low carbonate. Much tan coloured lucoxene. Low shear, some fracturing at 35 degrees C.A.
340.0	
374.0	Sharp increase in chlorite content. Considerable barren quartz and carbonate appearing.
374.0	<u>GRANITE DYKE</u>
	Massive. Grey colour. Low alteration. Medium low carbonate. fine disseminated pyrite throughout.
387.0	
387.0	<u>ALTERATION ZONE - ROCK TYPE INDEFINITE</u>
	High alteration. Abundant fine lucoxene. Medium carbonate in part,
396.0	
396.0	<u>TALCOSE ALTERATION ZONE - ANORTHOHITE?</u>
	Core quite broken up but recovery still good. Light grey colour. Low to medium chlorite. Low carbonate. Medium shear but foliation indefinite, probably about 30 degrees C.A.
517.0	
	As above slightly darker in colour and more talcose. Core badly broken up with much fracturing trending 15 to 25 degrees but increasing to 30 or 40 degrees toward end of section.
766.0	Barren white quartz-carbonate from 516.0 to 518.0. Some of the carbonate in this vein has been leached out.
766.0	<u>ROCK TYPE INDEFINITE</u>
	Uniform medium grey colour. Massive. Fine grained. Fairly hard. Low chlorite. No carbonate. Medium shear, fair foliation 20 to 25 degrees C.A. Some very finely disseminated pyrite. The foliation or banding is slightly suggestive of a highly altered buff.
772.0	
772.0	<u>ANDESITE</u>
	Very massive. Hard. Uniform dark green colour. Medium uniform chlorite. Medium carbonate up to 785', thereafter nil. Moderate numbers of white carbonate veinlets, some containing pyrite. From 809 to 816, pyrite, locally quite massive, occurs with minor carbonate and in places quite massive magnetite.
824.0	Lighter in colour and harder. Low chlorite and carbonate.
838.0	Same as section 772 to 824'. Occasional isolated blebs of chalcopyrite associated with quartz-carbonate. Some indications of low shear, but no foliation, although some of the carbonate veinlets and mineralization trend at 40 degrees C.A.

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

HOLE NO.	<u>P147</u>	LOCATION	<u>S50N, 3400N</u>	DATE STARTED	<u>Aug. 31st, 1956</u>
DIP	<u>55 Deg</u>	LAT	<u>DEP</u>	DATE FINISHED	<u>Sept. 8th, 1956</u>
BEARING	<u>0 Deg</u>	ELEVATION		LOGGED BY	<u>J. G. Thompson</u>
DEPTH	<u>536'</u>	DIP TESTS			

FOOTAGE	DESCRIPTION
0.0	10.0 <u>CASING</u>
10.0	<u>TALCOSE ALTERATION ZONE - ANORTHOCLITE</u> Dark grey green colour. Core badly broken up and missing completely from 17 to 20; 41 to 45; 51 to 53'. Overall recovery 60%. Medium black chlorite. Low carbonate. Medium talcose. Some brown lucoxene. High shear, excellent foliation and fracturing 35 - 50 degrees C.A. Very small pure white carbonate veins at 36.0, 41.0, and 56.0', all barren.
58.0	Becoming slightly more massive, recovery 85%. Still much fracturing at 35 - 40 degrees C.A. Occasional faint ghost type feldspar laths appearing.
105.0	Core badly ground up, recovery 50 - 75%. Much core missing completely.
136.0	Somewhat better recovery than in previous section, but core still badly broken up. Fracturing no longer follows trend of shearing. Medium talc and black chlorite. Negligible carbonate. Becoming less talcose and more massive towards end. Shear direction indefinite.
265.0	<u>TUFF</u> Indistinct bedding at about 20 degrees C.A. Several inclusions of a very hard dense black material. Medium chlorite and carbonate. Some fine pyrite.
274.0	<u>CHLORITIZED VOLCANICS</u> Dark green colour. Massive. Reasonably soft. Medium to high uniform chlorite. Negligible carbonate. Appreciable amounts of pyrite, locally quite massive. Occasional flecks of chalcopyrite are visible. Some of the sulfides are associated with quartzose intrusions, others with carbonate, while most of them occur directly in the volcanics. No apparent shear, although some of the mineralization does trend at 15 to 20 degrees C.A. particularly near the lower contact which itself is at 10 degrees C.A.
362.5	<u>GRANITE</u> Grey colour with reddish tinge in places. Low alteration. Barren. No shear. Inclusion of well chloritized volcanic rock from 390.0 to 396.0. This volcanic section contains some short granitic sections.
408.0	As above, numerous flecks of green chlorite appearing. Slight increase in alteration.
486.0	Low chlorite and carbonate. Slightly altered. Suggestion of low shear with foliation 80 degrees at 500'. Two isolated blobs of chalcopyrite at 526'.

END OF HOLE NO SAMPLES

DIAMOND DRILL LOGPORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.

HOLE NO. P148 LOCATION 33CON, #95W. STARTED Sept. 10th, 19
 DIP 45 DEG LAT. _____ DIF. _____ FINISHED _____
 BEARING North ELEVATION _____ LOGGED BY J. Thompson
 DEPTH _____ DIP TESTS 45 Deg. at 250 & 500';

FOOTAGE	DESCRIPTION
0.0	14.0 <u>CASING</u>
14.0	<u>FINE GRAINED GABBRO</u> Dark green. Core badly broken up. Quite soft. Medium chlorite. Medium carbonate. Much fine lucoxene speckling. Medium shear, fracturing 40 deg. C.A. Lower contact fairly abrupt but core ground.
25.0	<u>CHLORITIZED TRANSITION ROCK</u> Dark green. Core broken up. Very high alteration. High chlorite. Low carbonate. Much tan coloured lucoxene. Medium shear, 30 degrees C.A.
40.0	<u>GRANITE DYKE</u> Grey colour. Fairly massive. Medium alteration. Low chlorite and carbonate
47.5	<u>FINE GRAINED GABBRO</u> Same as section 14 to 25; only lighter in colour. Carbonate content becoming erratic. Low shear, fracturing 40 to 50 degree
73.0	<u>TALCOSE ALTERATION ZONE - ANORTHOHITE</u> Blue-black colour. Core generally badly broken up. Soft. Quite talcose. Medium black chlorite. Low carbonate. Fairly numerous blebs of brown lucoxene. Medium shear, fracturing 40 - 50 degrees, but apparently changing to 20 or 30 towards the end. Recovery 90%.
350.0	<u>GRANITE DYKE</u> Light grey colour. Hard. Medium alteration. Massive. Fine pyrite throughout
365.5	<u>TALCOSE ALTERATION ZONE - ANORTHOHITE</u> Highly broken up. Tendency to fracture parallel to core.
370.5	<u>ALTERED GRANITE DYKE</u> Massive. Hard. Light grey colour. Medium alteration. Several open fractures partially filled with poorly crystallized quartz-carbonate. Much pyrite throughout, usually very fine. Minor chalcopryite, except for one foot starting at 375.0', which is estimated to contain 5% Cu. Low carbonate. No apparent shear, but some of the carbonate veinlets trend at 45 degrees.
385.0	

PORTAGE ISLAND (CHIBOUGAMAU) MINES LTD.D. D. H. P149

FOOTAGE	DESCRIPTION
393.0	<u>ALTERED VOLCANICS - WITH SOME GRANITIC SECTIONS</u>
401.5	Medium chlorite. Low carbonate. Many small carbonate filled fractures. No apparent shear but some fracturing occurs at about 20 degrees C.A. Some extremely fine chalcopyrite mineralization.
401.5	<u>ALTERED GRANITE</u>
414.0	Massive. Grey colour. High alteration making it almost indistinguishable as a granite. Abundant very fine pyrite and indefinite amounts of fine chalcopyrite. Foliation appears to be 20 degrees C.A.
414.0	<u>ALTERED VOLCANICS</u>
423.0	Fairly massive. Hard. Brick red colour for the most part. This is apparently some kind of an alteration product. Low chlorite. Low carbonate. Excellent foliation at 30 degrees C.A. Abundant chalcopyrite, some of which is very fine grained, while the remainder is in blebs. Smaller amounts of associated pyrite. The best chalcopyrite is in the brick red altered sections. Average content estimated at 3%, with some short sections being somewhat richer.
442.0	Usual dark green colour. Medium chlorite. Low carbonate. Fair foliation in most places around 30 degrees C.A. Some pyrite, chalcopyrite and magnetite throughout. The first 6' is estimated at 3% Cu, associated mostly with quartz-carbonate veinlets. Some of this chalcopyrite is quite coarse, but much of it is very fine.
442.0	<u>GRANITE DYKE</u>
453.5	Light grey with reddish sections. Medium alteration. Low pyrite.
453.5	<u>ARDESITE</u>
501.0	Dark green. Massive. Extremely fine grained. Low to medium chlorite. Low carbonate. Occasional pyrite. Pyrite increasing towards end of section. Minor chalcopyrite in last few feet.
501.0	<u>GRANITE</u>
532.0	Grey, massive. Hard. Low shear. Upper contact 50 degrees and lower contact 35 degrees. Section of volcanics from 516 to 521. Occasional pyrite mineralization.
532.0	<u>TUFF</u>
537.0	Well banded but direction variable, 35 to 45 degrees.
537.0	<u>GABBRO</u>
562.0	Very fine grained. Massive. Medium chlorite. Low to medium carbonate. Speckled appearance caused by abundant lucoxene. Medium shear, fair foliation is alignment of lucoxene and carbonate veins, at 50 degrees C.A. Slightly magnetic in places

P 149

- 562.0 VOLCANICS
Dark green colour. Fairly massive. Fine grained. Medium chlorite. Low to medium carbonate. Occasional pyrite much finely disseminated magnetite, ilmanite
600.0 Negligible shear.
- 600.0 VOLCANICS- TUFFACEOUS in part
As above, several tuffaceous sections with bedding variable between 30 and 50° CA. The first 10 feet contains quartz eyes and some very finely disseminated chalcopyrite, less than 1% Cu. Core becomes slightly broken & vesicular up towards the end.
- 624.5 GRANITE DYKE
Grey colour. Core quite badly fractured. Upper contact gradational, lower contact 55° CA. Core slightly vesicular due to leaching of carbonate from carbonate veins.
- 632.0 VOLCANICS
Badly fractured, particularly in first 5 feet. Fine grained. Dark green colour. Medium chlorite. Low carbonate, minor pyrite. Same shear but indefinite foliation.
- 660.0 TUFF
Extremely well banded at 35 to 40° CA. with same banding at 55°. Low to medium chlorite. High carbonate. Minor pyrite.
- 687.0 TUFFACEOUS VOLCANICS
Mainly fine grained volcanics but containing some tuffaceous sections. Low amounts of pyrite and occasionally chalcopyrite.
- 700.0 VOLCANICS
Massive at first but becoming broken up towards the end. Fairly hard. Low to medium chlorite. No carbonate veins, some mineralized with pyrite and minor chalcopyrite. System of carbonate veins from 709.3 to 719.1 well mineralized with chalcopyrite, and some pyrite. Indications of shearing but no definite foliation.
- 732.0 More massive than above but quite vesicular. Only occasional carbonate veins and negligible mineralization, pyrite. Medium shear, poor foliation 25 to 40° CA.
- 659.5
- 769.5 GRANITE DYKE
- 783.0 Reddish grey colour. Core quite badly broken up. No definite shear direction.
- 783.0 ANDESITE
Massive. Slightly lighter in colour and less altered than the previous volcanics. Low chlorite. Some quartz carbonate veinlets, occasionally mineralized with minor pyrite and chalcopyrite. Low shear, indistinct foliation.
- 835.0
- END OF HOLE

DIAMOND DRILL RECORD

HOLE: P 150 LATITUDE: 9,266.93 STARTED: Sept. 14, 1956.
 BEARING: N 6° 30' W ELEVATION: 10,037.1 COMPLETED: Sept. 25, 1956.
 DIP: 45° DIP TESTS: LOGGED BY: J. G. THOMPSON.
 DEPTH: 799 44° @ 250'; 43° @ 500'; 42° @ 780'.
 DEPARTURE: 9,947.93

- 0.0 9.0 CASING
- 9.0 FINE GRAINED GABBRO DYKE
 Fairly soft. Core slightly broken up, especially in first 10 feet where gassonized slip planes run in all directions. Dark green colour. High chlorite. High carbonate. Much tan coloured lucoxene, giving speckled appearance.
 41.0 Considerable number of quartz eyes.
- 41.0 ALTERATION ZONE- ANORTHO SITE
 Light grey-green colour. Massive. Fine grained. Low chlorite. Low to medium carbonate, generally the latter. Feldspar laths obliterated except in a few places. Appreciable brown lucoxene. Medium shear, poor foliation around 50° CA.
- 85.0 CHLORITIZED ALTERATION ZONE-TRANSITION
 Dark green colour. Core slightly broken up. Fairly soft. High chlorite. Low carbonate. High alteration. Abundant tan coloured lucoxene. Medium shear, foliation indefinite 40 to 50°.
- 132.0 Becoming more massive. Chlorite content decreasing
 153.0 slightly.
- 153.0 ALTERATION ZONE-ANORTHO SITE?
 Core slightly broken up, with slip planes running at 20° CA in some places. Medium chlorite. Low carbonate.
- 162.0 Minor lucoxene.
- 162.0 ALTERED PORPHYRY DYKE
 Light green colour. Core slightly broken up. Hard. Low chlorite. No carbonate. Numerous hard phenocrysts.
- 171.0 Abrupt contacts apparently at about 70° CA.
- 171.0 TALCOSE ALTERATION ZONE-ANORTHO SITE
 As usual. Rock becoming increasingly talcose and more highly broken up towards end of section. High shear, most of fracturing occurs at 45 to 55°. Occasionally anorthositic texture is distinguishable.
- 215.0 CHLORITIZED ALTERATION ZONE-TRANSITION
 Dark green with much lucoxene speckling. Very fine grained. Massive. Quite hard. High chlorite. Variable carbonate generally low. Medium shear poor foliation 30 to 50° CA.
- 239.0 TALCOSE ALTERATION ZONE-ANORTHO SITE
 Grey green colour. Core somewhat broken up but recovery is good. Soft. Medium talc and chlorite. No carbonate. Medium shear, fracturing at 40 to 45°. Good foliation in this direction between 263 and 266 feet. Contacted ghost type feldspar laths are visible in most places along with fair amounts of lucoxene.

- 330.0 As above, but generally black coloured. Medium shear, foliation and fracturing in all directions
389.0 but generally 30 to 40o CA.
- 389.0 ALTERED PORPHYRY DYKE
- 397.5 Same as section 162.0 to 171.0. Upper contact is gradational, and lower contact is finer grained and is at about 70o CA.
- 397.5 TALCOSE ALTERATION ZONE-ANORTHOSITE
- 522.0 Variable colour, black to medium green. Core quite highly fractured, but recovery good. Soft. Medium chlorite and talc. No carbonate. Moderate amounts of brown coloured lucoxene. Medium shear, foliation and fracturing variable 30 to 50o CA. Ghost type feldspar laths visible in places.
- 522.0 TUFF
- 539.0 Massive. Light grey colour. Variable, hardness. Low chlorite. Medium carbonate but in places low. Banding is not as distinct as usual, variable from 20o to 50o, but usually the former in places the bedding is quite contorted. Minor pyrite and very occasionally chalcopyrite.
- 539.0 ALTERED ANORTHOSITE
- 542.0 Much the same as that preceding tuff but more massive and less talcose.
542.0 Same shear at about 35o CA.
- 542.0 ROCK TYPE INDEFINITE- PROBABLY GABBROIC
- 582.5 Massive. Not very hard. Dark greenish, colour. Fine grained. Medium alteration. Medium chlorite. No carbonate. Fair amount of extremely fine lucoxene. Some pyrite in first few feet. Abrupt contacts.
582.5 Apparently a quartzose replacement of the above. Light grey colour. Very hard.
- 587.5 Similar to section 542.0 to 582.5 but more anorthosite in appearance. Quite hard. Massive. Low chlorite. Low to medium carbonate.
- 604.0 Very distinct tuffaceous like banding at 65 to 70o CA. Apart from this the rock has an anorthositic appearance. Low chlorite. Low to medium carbonate.
- 613.0 Same as rock preceding 604'. More anorthositic than gabbroic in appearance. Medium alteration. Low chlorite. Low to medium carbonate. Abrupt lower contact.
- 629.5
- 629.5 CHLORITIZED VOLCANICS
- 654.5 Core slightly broken up. Very fine grained. Dense. Dark green colour. Uniform green chlorite. Low to medium carbonate. No evidence of shearing.
- 654.5 GRANITE DYKE
- 661.0 Bright red colour. Core quite badly fractured, in phases by slip planes almost parallel to core.
- 661.0 CHLORITIZED VOLCANICS
- Less homogeneous than before. Good banding of chlorite and fracturing at 40 to 50o. Medium shear. High sticky green chlorite. No carbonate. Local segregations of magnetite. Weakly mineralized with pyrite throughout.

- 694.0 As above but more dense. Colour trending towards black as a result of a medium magnetite content. Foliation and shearing remains the same. Minor pyrite and chalcopyrite.
- 698.0

698.0

MASSIVE SULFIDES IN ALTERED GRANITE

75 to 90% pyrite and indefinite amounts of chalcopyrite, mostly fine grained. Chalcopyrite content could be as much as 5 to 8%. The gangue is an altered granite dyke, generally white in colour but sometimes with a reddish tinge.

- 702.7 Foliation, if present, has been obliterated.

702.7

CHLORITIZED VOLCANICS

Massive. Dark green colour. Slightly finer grained and more homogeneous than previous section. Medium to high chlorite. Negligible carbonate. Generally slightly magnetic owing presence of magnetite. Minor pyrite and occasionally chalcopyrite. Indications of some shear but poor foliation, 30 to 50°, some fracturing at 300 CA.

- 732.0 As above, but becoming slightly vesicular.

- 799.0 Mineralization decreasing the negligible.

END OF HOLE.

PORTLAND ISLAND (ONHONGAKAU) MINES LIMITED.

HOLE NO. P 152 LOCATION 3910N, 720 W DEPTH 10,234
 DIP 40s LATITUDE 9,557 DATE STARTED Sept. 25th, 1956.
 BEARING N 25° E ELEVATION _____ DATE FINISHED Oct. 26th, 1956.
 DEPTH 852 DIP TESTS 38° @ 250'; 33° @ 500'; LOGGED BY J. G. PHILLIPS
30° @ 700'; 29° @ 800';

FOOTAGE	DESCRIPTION
0.0 - 20.0	<u>CASING</u>
20.0 - 76.0	<u>CHLORITIZED VOLCANICS</u> Dark green colour. Very fine grained. Core quite broken up. Fairly soft. Medium to high green chlorite. Negligible to low carbonate. Fairly numerous white carbonate veinlets, often mineralized with pyrite. Low shear, poor foliation about 40 to 50°.
76.0 - 97.0	<u>TUFF- WITH POSSIBLE GABBRO INCLUSIONS</u> Banding irregular, and not too distinct except towards end of section. General trend is about 40°. Medium carbonate throughout. Some short non-banded sections containing luconene, which may represent gabbro inclusions.
97.0 - 132.0	<u>VOLCANICS</u> Massive. Medium green colour. Very fine grained. Leuschelite than before, content medium low to medium carbonate.
132.0 - 144.5	<u>GRANITE DYKE</u> Grey coloured. Fairly massive. Lower content at 550 CA.
144.5 - 210.0	<u>VOLCANICS</u> Same as before dyke except core is quite broken up, and carbonate content is negligible to low. Fairly frequent quartz and carbonate rich sections containing pyrite. Two inch stringer of quite massive anisopyrite at 147 feet.
210.0 - 305.0	Some what more massive. Negligible pyrite mineralization. Small granite dyke. 220.0 to 224.5. Lower content appears to be at about 300 CA.
305.0 - 344.0	<u>ALTERATION ZONE-ANORTHOSSITE</u> Medium grey-green colour. Fairly massive. Soft. Slightly talcose, low to medium chlorite. Negligible to low carbonate. Medium shear, fair fracturing 40 to 50° CA at 315 feet and 30 to 40° CA at 330 feet.
344.0 - 401.5	<u>ROCK TYPE INDEFINITE</u> Gradual change from above. Irregular tuff-like banding appearing, sometimes trending at 100 CA, but more often at 30 to 50° CA. In places the rock has an anorthositic appearance low to medium chlorite and carbonate.
401.5 - 481.5	<u>ALTERATION ZONE-ANORTHOSSITE</u> Medium blue grey colour. Core slightly broken up. Fairly soft. Low to medium chlorite usually streaky. Medium carbonate. Feldspar laths completely obliterated. Occasional luconene and very fine pyrite. Medium shear, good foliation and fracturing 40 to 50° CA. Slight banded appearance. The last 15 feet of this section is the same as the previous section. Therefore the two sections may just be altered comp-

- 477.5 parts of the same rock. Lower contact at 60°0A.
- 477.5 VOLCANICS
- Dark green colour. Massive. Fine grained. Quite hard. Low to medium chlorite. Medium carbonate. Low shear, poor foliation about 50° CA. Some pyrite and occasional flecks of chalcopyrite associated with quartz at 497.5 and 498.0'.
- 500.0 Core slightly broken up. Lighter in colour. No carbonate. Chalcopyrite mineralization associated with white to pink quartz carbonate veins, becoming more frequent. From 511.0 to 514.0 - 25% pink quartz carbonate containing 6% chalcopyrite.
- 526.0 As above but barren except for occasional pyrite. Slightly more massive. Fairly numerous barren white carbonate veins, often vesicular.
- 589.0
- 589.0 GRANITE DYKE
- 594.5
- 594.5 VOLCANICS
- 597.0
- 597.0 GRANITE DYKE
- 599.3 Minor chalcopyrite associated with quartz-carbonate vein.
- 599.3 VOLCANICS
- As before. Numerous white to pink coloured quartz carbonate veins. Only occasional mineralization. Magnetite rich section 600 to 612.
- 622.5
- 622.5 GRANITE DYKES
- 636.0 Volcanic inclusion 634.5 to 636.0. Several blebs of chalcopyrite in quartz-carbonate vein at 632.5.
- 636.0 VOLCANICS
- Medium green colour. Fine grained. Hard. Low chlorite. Negligible to low carbonate. Short magnetite rich sections. Minor pyrite and occasionally chalcopyrite.
- 692.5
- 692.5 GRANITE DYKE
- 699.0 Upper contact gradational. Lower contact abrupt.
- 699.0 VOLCANICS
- Blotchy green colour. Massive. Quite hard. Medium green blotchy chlorite. Negligible carbonate. Several magnetite rich sections.
- 721.0 Minor pyrite.
- 721.0 GRANITE DYKE
- 727.0
- 727.0 VOLCANICS
- 736.0
- 736.0 GRANITE DYKE
- 758.0 Pinkish grey colour, with abrupt contacts.
- 758.0 VOLCANICS
- As before but containing short sections of fairly massive pyrite.
- 781.0 Occasional chalcopyrite.

751.0

MINERALIZED ZONE-VOLCANICS

60% pyrite overall, with short sections up to 90%. Occasional chalcopyrite towards end. The more massive sections may occur in an altered granite. Some sections have medium carbonate, but generally speaking content is low.

759.0

759.0

VOLCANICS

As before. Mineralized with 5% pyrite and 2% chalcopyrite with short richer sections of the latter.

802.0

As above but essentially barren,

817.0

except for occasional pyrite.

817.0

GRANITE

652.0

Upper contact at 500 Ga. Slabs of chalcopyrite in quartz veinlets at 821 and 823; low shear, poor foliation 450 Ga.

END OF HOLE.

PORTAGE ISLAND (CHIEFUDANAU) MINES LIMITED.

HOLE NO. P 153 LOCATION 1070W 3250N DEPARTURE: \$,947.98
 DIP 60° LATITUDE 9,264.93 DATE STARTED Sept. 25th, 1956.
 BEARING N 6° 30' W ELEVATION 10,037.1 DATE FINISHED October 3rd, 1956.
 DEPTH 751 DIP TESTS 55°: 500'; 51°: 750. LOGGED BY: J. B. THOMPSON

FOOTAGE	DESCRIPTION
0.0	10.0 <u>CASING</u>
10.0	<u>FINE GRAINED GABBRO</u> Fairly soft. Dark green colour. High uniform green chlorite. High carbonate. Speckled appearance caused by high lucoxene content.
49.0	<u>ALTERATION ZONE-ANORTHOITE</u> Light grey green colour. Fairly massive. Soft. Low chlorite. Medium carbonate. Medium shear, poor foliation 40 to 45° Cl. Occasional light coloured lucoxene.
83.0	<u>CHLORITIZED ALTERATION ZONE-TRANSITION</u> Medium green colour. Massive. Fairly soft. High chlorite. Low carbonate. Fairly abundant tan coloured lucoxene. Shear indefinite. Large number of barren carbonate veins appearing after 104.
127.0	As above. Becoming lighter in colour, due to decrease in chlorite content. Some ghost type feldspathic relics appearing. Poor foliation 40 to 50°.
160.0	<u>ALTERATION ZONE-ANORTHOITE</u> Fairly massive except for local fracturing. Light grey green colour. Low to medium chlorite. Low carbonate. Anorthositic texture faintly visible in places. Minor lucoxene. Low shear, poor foliation 45° Cl. Last 40 feet of core is quite badly broken up.
234.0	<u>CHLORITIZED ALTERATION ZONE-TRANSITION</u> Dark green colour. Massive. Fairly soft. High uniform green chlorite. Low to medium carbonate. Abundant lucoxene. Some white carbonate veinlets all barren. Low shear poor foliation 30 to 40°. Core slightly broken up in the last 25 feet.
333.0	<u>ALTERATION ZONE-ANORTHOITE</u> Soft. Medium chlorite. Negligible carbonate. Occasional lucoxene. Ghost type feldspar laths, drawn out by shearing at 50° Cl.
350.0	<u>ALTERED PORPHYRY DYKE</u> Massive. Hard. Highly porphyritic has almost the appearance of an altered anorthosite except contacts are very abrupt low chlorite. Low carbonate. Lower contact at 45°, upper contact has been ground. Some fine disseminated pyrite throughout.
366.5	<u>TALCOSE ALTERATION ZONE-ANORTHOITE</u> Blue grey colour. Core quite broken up. Medium chlorite. Negligible carbonate. Low talc. Medium shear fair foliation 40 to 50° Cl.
396.0	<u>ALTERED PORPHYRY DYKE</u> Similar to that between 350 and 366.5. Contacts at 450.
405.0	

405.0

TALCOSE ALTERATION ZONE-AMPHIBOLITES

Same as that preceding dyke, only core very badly broken up and medium tale. High shear, foliation and fracturing varying from 20 to 400 CA.

462.0 As above but slightly more massive. Contacted ghost typed feldspar laths visible in places. Moderate amounts of lucoxene. High shear 20- 400 CA. Possible altered dyke 473.5 to 475.0.

485.0 Core very badly broken up, but otherwise as above, several small pure white barren, quartz veins trending at 550 CA.

606.0 Becoming quite massive and tale content decreasing. Medium shear, fracturing at about 400 CA.

631.0 Core quite badly broken up by fracturing ranging from 20 to 400.

654.0 Becoming increasingly talcose.

654.0

ALTERED VOLCANICS-POSSIBLY TUFF.

Dark green colour. Massive. Fairly hard, Medium chlorite and carbonate. Suggestions of tuffaceous bedding, particularly in first few feet of core, trending about 300 CA.

668.0 Fairly numerous barren carbonate veinlets.

668.0

VOLCANICS

Dark green. Massive. Fairly hard. Fine grained. Medium chlorite. No carbonate. Appreciable amounts of pyrite in carbonate veinlets. Low to medium shear 30 to 450 CA.

727.0 Slightly lighter in colour. Chlorite becoming streaky. pyrite still present but less frequent. Some chalcopyrite associated with carbonate between 745 and 749'. Low shear,

751.0 foliation around 400 CA.

END OF HOLE.

ASSAY RESULTS:

Number	Footage	Width	Description	Assay
5696	748.0-749.3	1.3'	45 Gpy in carbonate veinlets.	Au: Cu:

- 313.5 CHLORITIZED TRANSITION
- 320.0 Same as that preceding dyke, chlorite and ilmenite decreasing gradually.
- 320.0 ALTERATION ZONE-ANORTHOSITE
- 358.5 Medium grey colour. Massive. Fairly hard. Low to medium chlorite. Negligible carbonate.
- 358.5 Feldspathic remnants visible.
- 358.5 ALTERED DYKE
- 360.0 Small altered dyke, similar to above dykes.
- 360.0 TALCOSE ALTERATION ZONE-ANORTHOSITE
- 420.0 Dark, almost black colour. Core badly fractured. Soft. Medium chlorite. Negligible carbonate. Low to medium talc, increasing. Ghost type feldspar laths visible throughout. Minor ilmenite. High shear, foliation indefinite, but about 450CA.
- 420.0 As above but high carbonate with some green chlorite. Minor pyrite mineralization and local segregations of magnetite. Much of the carbonate is in the form of veins and veinlets.
- 425.5 Same as section starting at 360'. High shear, foliation and fracturing 40 to 450CA. Fairly frequent quartz veins, sometimes with carbonate, varying from 1 to 6" wide. Barren.
- 600.0 Dark, more homogenous in colour. Core still badly fractured. Rock has more the appearance of an altered fine grained gabbro in many respects. Medium talcose soft. Negligible carbonate. Moderate amounts of fine ilmenite.
- 714.0 TUFF
- 714.0 Very similar to that occurring in hole # 150, 522 to 539', massive. Soft. Medium chlorite. Medium to high carbonate. Bedding is highly irregular and in places contorted. Core angles cover a very wide range. Bedding all but fades out after 725'.
- 739.0 VOLCANICS
- 739.0 Dark green. Massive. Fairly hard. Fine grained. Low to medium chlorite. Low carbonate.
- 745.0 As above - MINERALIZED ZONE
- 767.0 Overall average of 15% pyrite, but locally quite massive. The pyrite is in the volcanics and in only a few places is it associated with carbonate. Often the pyrite is in the form of irregular stringers trending 40 to 500 CA. No chalcopyrite is present.
- 767.0 As above, only occasional pyrite. Core slightly broken up. Low to medium chlorite. Variable carbonate, negligible to low.
- 843.0 As above MINERALIZED ZONE
- 857.0 10% pyrite, no chalcopyrite, otherwise similar to previous zone.
- 857.0 As above only occasional pyrite. Low to medium chlorite. Variable carbonate, negligible to medium, but generally low. Minor magnetite, low shear, but foliation indefinite, some of carbonate veins trend at 400CA.
- 1002.0

END OF HOLE

PORTAGE ISLAND (CHINIKOANAN) MINES LIMITED

HOLE NO. P 156 LOCATION Line 750 W 3500N DATE STARTED Oct. 9, 1956.
 DIP 45o LAT. 9540.5 DEP. 10,205 DATE FINISHED Oct. 22nd, 1956.
 BEARING N 6o 45' W ELEVATION 12.0' LOGGED BY J.T. THOMPSON
 DEPTH 810' DIP TESTS 44o @ 250'; 45o @ 300'; 42o @ 700'; 40.5o @ 810'.

FOOTAGE DESCRIPTION

0.0 0.0 CASING
ALTERATION ZONE-AMPHIBOLITE
 Core badly broken up. 30% sieving altogether and recovery on the remainder 40%. Dark blue grey colour. Soft. Somewhat talcous. Medium chlorite. Negligible carbonate. Some luccose. High shear, poor foliation but fracturing trends 30 to 50o CA.
 69.0
 69.0 ALTERED VOLCANICS
 Dark green colour. Core slightly broken up. Fine grained. Medium chlorite. Negligible to low carbonate.
 86.0
 86.0 TUFF
 Grey coloured. Massive. Soft. Banding not very distinct but apparently trending 20 to 35o CA. Medium carbonate throughout.
 96.0
 96.0 TUFFACEOUS VOLCANICS
 Dark green colour. Soft. Some fracturing of core. Medium chlorite. Low to medium carbonate. Occasional short tuffaceous sections with bedding at 50 to 65o CA.
 Note: 132 to 133' thin seam of massive chalcopyrite, associated with carbonate, trending nearly parallel to core.
 143.0
 143.0 GRANITE DYKE
 156.0 Grey coloured. Core quite badly broken up.
 156.0 VOLCANICS
 Dark green colour. Massive. Fine grained. Quite hard. Medium green chlorite. Negligible to very low carbonate. Numerous carbonate. Numerous carbonate and quartz-carbonate veinlets, some times mineralized with minor pyrite and chalcopyrite. More intense chalcopyrite occurs in carbonate, sometimes with magnetite from 172.5 to 174.5' 5% cpy; 195.5 to 197.5, 15% cpy; 219.5 to 220.5', 5% cpy. In general the rock appears in places shattered, with carbonate occupying the openings. Low shear, foliation indeterminate, possibly about 45o CA.
 225.0 As above. Negligible mineralization and carbonate veinlets becoming much less frequent. Occasional small magnetite rich bands.
 314.0 Increase in the number of carbonate veins, many of which are vesicular.
 397.5
 397.5 GRANITE DYKE
 403.0 Reddish coloured. Core badly broken up.

403.0

VOLCANICS

Fracture none, core very badly broken up and much core lost, particularly from 453 to 500 feet, overall recovery 75%. Medium chlorite. Negligible to low carbonate. Medium shear but foliation indefinite. Several small white carbonate veinlets containing some chalcopyrite.

500.0

As above but more massive. Recovery 95%. Isolated carbonate stringers with some chalcopyrite. Core slightly vesicular. Medium shear foliation 40° to 50°. Very fine magnetite throughout much of the core. 5% pyrite associated with magnetite from 620 to 621.5'. Trend of this mineralization is 45° to 50°.

633.0

As above but lighter in colour. Hard. Low to medium chlorite, often streaky. Negligible carbonate. In places has a brecciated and sheared appearance. Foliation at 40 to 45°. Section from 658 to 655 is well banded, almost tuff like in appearance, but low in carbonate. Segregations of magnetite are quite frequent.

668.0

As above, chlorite increasing and often quite streaky. Some coarser grained sections. Low shear, some foliation at 30°.

710.0

Small granite dyke from 699 to 700.5. Minor pyrite and occasional flecks of chalcopyrite.

710.0

GRANITE

Colour variable, reddish to grey. Slight fracturing of core, but no other evidence of shear. Several carbonate veins from 734 to 736 feet mineralized with 5% pyrite but less than 1% chalcopyrite. Note: Possible altered, porphyry dykes from 748 to 752 and from 755 to 757.5'. Sharp contacts at 40 to 50° to 60°.

810.0

END OF LOG

PORTAGE ISLAND (CHIBOUQUAN) MINES LIMITED.

HOLE # 150 LOCATION 70°W of L. 10W, 1600N DATE STARTED Oct. 22, 1956.
 DIV 450 LAT. _____ DEP. _____ DATE FINISHED Nov. 3rd, 1956.
 BEARING N 60 30°E ELEVATION _____ LOGGED BY J.O. Thompson.
 DEPTH 1000 DIP TEST 450m 250'; 440m 500'; 3750'; 410 1000'.

FOOTAGEDESCRIPTION

0.0 30.0 SANDS
 30.0 ALTERATION ZONE-ANDRUSOVITE
 Dark mottled blue grey colour. Soft. Core badly broken up, recovery 80 to 90%. Medium chlorite. Negligible carbonate. Relic and ghost type feldspar laths visible throughout. Moderate amounts of lucoxene. Medium shear but foliation indefinite.
 62.0 ALTERED DYKE
 Light grey-brown colour. Fairly hard. Massive. Fine grained homogenous appearance. Indication of foliation at 300 CA. This is a different type of dyke from what is usually found in this area.
 84.0 TALCOSE ALTERATION ZONE-ANDRUSOVITE
 Gray green colour, slightly lighter than before. Core badly broken up. Medium chlorite. Negligible carbonate. Low talc at first but increasing to medium. Some lucoxene in some section. Fracturing at 45 to 550 for first 25 feet.
 160.0 As above. Slightly more massive but still fractured. Unusually hard. Medium talc. Medium shear, fracturing in many places
 276.0 at 45-500 CA. Becoming badly broken up towards end.
 276.0 ALTERED DYKE
 Light green colour. Hard. Massive. Negligible chlorite. Low to medium carbonate. Slightly porphyritic. This same dyke was encountered in P 141, P 143 and P 98.
 279.5 TALCOSE ALTERATION ZONE-ANDRUSOVITE
 376.0 As above. Becoming less micaceous towards end.
 376.0 ALTERED ANDRUSOVITE
 Mottled grey colour. Fairly soft. Core badly broken up. Medium chlorite. No carbonate. Feldspar content variable, but averaging 40%, altered relic type laths.
 453.0 ROSE TYPE INDEFINITE - PROBABLY GABBROIC
 Similar to section starting 542' in P 150. Massive. Hard. Uniform dark grey colour. Medium chlorite. No carbonate. Some fine lucoxene speckling. Low shear, foliation indefinite, probably 30 to 400.
 475.0 As above, slightly greenish in colour. Possibly in altered tuff. Some tuffaceous banding trending 45 to 600. Some carbonate veinlets have same trend. Medium chlorite. Low carbonate.

496.0 Apparently a quartzose replacement of the above. Light
508.0 grey colour. Massive. Very hard. Lower contact at 600.

508.0 VOLCANICS

Massive. Uniform dark green colour. Very fine grained. Hard. Medium chlorite. low to medium carbonate. Frequent small, carbonate veinlets. Granitic section 514 to 517.0 from 514 to 518'. Slightly vesicular. Minor pyrite and chalcopyrite occurs in a couple of small carbonate veins.

553.0

553.0 GRANITE DYKE

Grey coloured. Massive. Upper contact at 350. The dyke fades out gradually into volcanics towards end. Some fine pyrite.

563.0

563.0 VOLCANICS

As above. Some very fine pyrite and occasional chalcopyrite towards end.

584.0

584.0 VOLCANIC-GRANITE COMPLEX

Volcanics as above with some granitic sections 5% sulfides, mostly pyrite but some chalcopyrite. Moderate amounts of magnetite.

586.0

586.0 MINERALIZED ZONE-ALTERED GRANITE

Variable sulfides, 15 to 25% mostly pyrite but containing appreciable amounts of very fine chalcopyrite. Some short sections and blebs of massive chalcopyrite occur. Average copper content estimated at 4%.

598.5

598.5 VOLCANICS

Similar to section starting 508'. Infrequent carbonate veinlets. Only occasional pyrite.

598.5

622.0 Core becoming more broken up. Increase in number of carbonate veinlets. Slightly vesicular. Pyrite and some chalcopyrite associated with the carbonate veinlets and also in section of 30% altered granite from 651.5 to 653.0.

655.0

655.0 MINERALIZED ZONE-ALTERED GRANITE

15% pyrite and 5% chalcopyrite occasionally associated with carbonate, but more often not. The pyrite is usually in the form of massive stringers trending 55 to 60° CA. The chalcopyrite occurs in irregular blebs. Lower contact is at 450 CA.

657.5

657.5 VOLCANICS

As before. Several massive stringers of pyrite and chalcopyrite, trending 50° CA, occur in the first foot. Short granitic inclusions occur at 659, 661 and 663'.

664.0

664.0 GRANITE

Salmon coloured type. Several volcanic inclusions. This is more or less just a continuation of the previous zone, except that the granite predominates rather than the volcanics.

671.0

671.0 VOLCANICS

As before. Massive. Hard. Low to medium chlorite. Low to medium carbonate. Some fine disseminated pyrite. Low shear, some fracturing at 450 CA.

706.0

706.0 GRANITE

717.5 Salmon coloured type.

717.3

VOLCANICS

Lighter in colour. Hard. Very fine grained. Low chlorite. Negligible to low carbonate. Low shear, fracturing at 550CA.

741.0

741.0

GRANITE

752.0

As before.

752.0

VOLCANICS

759.0

759.0

GRANITE

762.5

Lower contact at 550 CA. Salmon coloured type.

762.5

VOLCANICS

Very fine grained. Massive. Hard. Low chlorite. Negligible carbonate. Low shear 50 to 60c. Some short magnetite rich sections. Minor pyrite and chalcopyrite in last three feet of section.

812.0

812.0

MINERALISED ZONE-ALTERED GRANITE

75% sulfides mostly pyrite but 15% chalcopyrite, occurs as blebs and as fine disseminations in the pyrite. Lower contact at 500 CA.

820.5

820.5

VOLCANICS

As above. Pyrite with very occasional chalcopyrite occurs fairly frequently. Most of these sulfides occur in the first 15 feet and again from 867 to 874, the latter section being magnetite rich, 6% of good chalcopyrite, associated partly with carbonate and partly with the volcanics occurs at 836'. Low shear, good foliation in places, 500 CA. Several short magnetite rich section.

1003.0

END OF HOLE.

DIAMOND DRILL 100

FOOTAGE ISLAND (CHIRIQUICANAS) MINES LIMITED

HOLE NO. P 160 LOCATION 100°E of T. 750'W. DATE STARTED Oct. 23, 1956.
 DIP 40° LAT. 9626 DEP. 10,297 DATE FINISHED Oct. 30, 1956.
 BEARING N 90° W ELEVATION _____ LOGGED BY J. O. THOMPSON.
 DEPTH 451' DIP TESTS _____

FOOTAGE	DESCRIPTION
0.0	<u>BARING</u>
9.0	<u>GRANITE</u>
14.5	Salmon pink colour. Quite broken up.
14.5	<u>VOLCANICS</u>
122.0	Massive. Dark green colour. Fairly hard. Fine grained. Medium chlorite. Medium carbonate at first fading out down the hole. Minor pyrite in first few feet low shear, poor foliation 25 to 30°.
122.0	<u>TUFFACEOUS VOLCANICS</u>
130.0	As above but with some tuffaceous bands trending 40° CA. Medium carbonate.
130.0	<u>VOLCANIC</u>
	As before. Low carbonate. Fairly frequent, irregular carbonate veins and veinlets, occasionally containing flecks of chalcopyrite.
154.0	<u>Fracture zone.</u> core quite badly broken up, recovery 80 to 90%, but otherwise as above. Barren except for minor pyrite. Small granite dyke at 334'.
270.0	More massive. Lighter green colour. Chloritic appearance in places. low to medium chlorite. Negligible carbonate. Scattered magnetite rich sections. low shear but foliation indefinite. Minor scattered pyrite and very occasionally chalcopyrite.
376.0	<u>GRANITE DYKES</u> Light salmon pink colour. 351 to 354.5; and at 367'.
376.0	<u>GRANITE</u>
451.0	Light grey to salmon pink colour, but usually the former. Fairly massive. Hard. Several short sections of volcanics within the first few feet and again from 440.5 to 446.0. Minor pyrite, low shear, but foliation indefinite.

END OF HOLE

NO SAMPLES

PORTAGE ISLAND (EIMVINGAMAU) MINES LIMITED

HOLE NO. F 161 LOCATION 2201st of Line 10w 3300 N DATE STARTED Nov. 5, 1956.
 DIP 60° LAT. _____ DEP. _____ DATE FINISHED Nov. 15, 1956.
 DRILLING _____ ELEVATION 26.5 LOGGED BY J. G. Thompson.
 DEPTH 903' DIP TESTS 54to -250'; 52o -500'; 750'; 42o-30'1-903'.

FOOTAGE	DESCRIPTION
0.0	8.5 <u>CASING</u>
8.5	<u>ALTERATION ZONE - ANORTHOITE</u> Massive. Dark green. Soft. High green chlorite. High carbonate. Abundant fine lucoxene. Medium shear, variable foliation 40 to 55°. Could be a chloritized gabbro dyke.
33.0	As above. Medium black chlorite. Low carbonate. Lucoxene flecks larger in size, smaller in number. Shearing as above.
52.0	<u>ALTERED GREY DYKE</u>
55.0	Massive. Medium grey. Fine grained. Abrupt contacts 50c Ca. low chlorite. Low carbonate.
55.0	<u>ALTERATION ZONE - ANORTHOITE</u> Same as before dyke, becoming lighter grey in colour. Medium shear, fair foliation 55c Ca. Becoming slightly talcose towards end.
85.0	Same as section 8.5 to 33 feet. Shearing less prominent than before, 40 to 50c. Could possibly be a highly altered gabbro dyke.
127.0	Light grey green colour. Massive. Fine grained. Medium hardness. Medium chlorite and carbonate. Minor lucoxene. Medium shear, variable foliation 40 to 55°. 50% barren quartz 134 to 135.
141.0	<u>TALCOSE ALTERATION ZONE - ANORTHOITE</u> Gradual change from above. Variable colour, grey to black. Soft. Core badly broken up recovery 90%. High chlorite. Low carbonate. Highly talcose.
208.0	<u>ALTERED DYKE</u> Same as dyke intersected in F 141, F 143 and other recent holes. Light grey green colour. Massive. Hard. Low chlorite and carbonate. Slightly porphyritic. Upper contact sharp at 90c. Lower contact contains 65% quartz veins from 217 to 219.
219.0	<u>TALCOSE ALTERATION ZONE - ANORTHOITE</u> Slightly darker in colour than before. Core badly broken up recovery 80%. High shear, foliation indefinite 40 to 50. <u>Small dyke 265 to 266.</u> Contacts at about 90c Ca. Similar to dyke from 52 to 55 feet. Another small dyke fragment occurs at 2671.
280.0	Slightly less talcose and core more massive, but otherwise as above.
331.0	Same as section preceding 280.0. Recovery 90%.
354.0	Same as section 280.0-331.0
478.5	<u>Note:</u> quartz vein, barren, 358 to 360.5 and 1/2 foot quartz at 485.

473.5

ALTERED GREY DYKE

Massive. Hard. Low chlorite. Low to medium carbonate. Very dense, almost glassy in places.

482.0

TALCOSE ALTERATION ZONE - ANORTHOITE

Fairly massive. Dark colour. Slightly less talcose. High black chlorite. Possible altered dyke 488-499. Low carbonate.

495.0
573.0

As above. Core badly broken up recovery 80%. Increasingly talcose. High shear, poor foliation but consistent fracturing 45 to 550 ft.

573.0

ALTERED GREY DYKE

575.0

Dark grey colour. Hard. Low chlorite. Low carbonate. Upper contact 300.

575.0

TALCOSE ALTERATION ZONE

592.0

Same as before the above dyke.

592.0

TUFFACEOUS VOLCANICS

603.0

Bedding not too definite except from 601 to 603. Bedding and fracturing 550. Low chlorite. Low carbonate.

603.0

VOLCANICS

Dark green. Fine grained. Massive. Medium hard. Low to medium chlorite. High carbonate. Very homogenous in appearance. Occasional pyrite associated with infrequent carbonate veinlets. Disseminated pyrite from 701 to 709, and over other short sections. Minor chalcopyrite in small quartz carbonate stringer at 754 and 774.

763.0

Decrease in carbonate content. Minut carbonate fracture fillings in several places. Small carbonate stringer with minor chalcopyrite at 835. Local concentrations of magnetite making core slightly darker in colour.

903.0

END OF LOG

NO SAMPLES

DIAMOND DRILL LOG
FOOTAGE ISLAND (CHILBOUGAMAU) MINES LTD

P - 165

DIP 45° BEARING 7° 30' W. DEPTH 898'

LOCATION Approx. 145 ft. W of L 10 W 8400 N

LAT. 9412 DEP. 9854 ELEV. 10.4

DIP TESTS 250 ft. - 45°; 500 ft. - 45°; 750 ft. - 45°; 898 ft. - 45°

STARTED Nov. 19/56 Finished Dec. 3/56 Logged By J. A. Pearce

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
0	35.0 <u>CASING</u>
35.0	<u>TALCOSE ALTERATION ZONE ANORTHOITE</u> Grey green colour, medium to high chlorite negligible carbonate, high talc. Luopzene present in some sections. Core badly broken up, 35% recovery. No definite shear or foliation fracturing indefinite. Relics and ghost type feldspar laths visible throughout. Quite plain in some sections grading to very obscure. 41.0 - 59.0 numerous quartz carbonate stringers to 4" in length composing 30% of core. Widely scattered sections, up to 6" in length where there is complete chlorite replacement. However, this is still contained in a highly talcous zone.
193.0	<u>ALTERED GREY BROWN DYKE</u> Upper contact indefinite, lower contact 60° to CA. Medium hard seems to have flow structure and contains anorthositic structure i.e. visible relic type feldspar laths.
195.5	<u>TALCOSE ALTERATION ZONE ANORTHOITE</u>
230.0	As previously described.
250.0	<u>GREY GREEN DYKE (Porphyritic)</u> Darker at start grading to very light green. Mainly quartz, very hard, negligible chlorite and carbonate. Minor disseminated pyrite throughout. Upper contact obscure, lower contact 70° to CA.
247.0	<u>ALTERED GREY BROWN DYKE</u> Same as dyke 193 - 195.5 Upper contact 70° to CA, lower contact 60° to CA.
248.5	<u>TALCOUS ALTERATION ZONE ANORTHOITE</u> As described previously. After 230.0 becomes darker in colour and chlorite content becomes fairly high. Fracturing is more consistent averaging about 60° to CA. Core recovery is better, approximately 95%. Talc content seems to drop off slightly.
248.5	
316.0	

FOOTAGEDESCRIPTION

316.0

TALCOUS ALTERATION ZONE ANORTHOHITE AS ABOVE CONTAINING
NUMEROUS LIGHT GREY GREEN ALTERED DYKES

Dykes are medium hard, negligible carbonate, low chlorite.

<u>Footages</u>	<u>Upper Contact</u>	<u>Lower Contact</u>
316 317	obscure	60°
318 322	obscure	60°
330 331	55°	obscure
341 343	obscure	60°
350 352	obscure	50°
357.0 354 357	obscure	obscure

357.0

TALCOUS ALTERATION ZONE ANORTHOHITE

Same as above - chlorite content varies after 384.0 from medium to high. Colour is light green to grey grading into a darker colour after 390.0. Lucasene becomes orange in colour but changes back to a grey after 409.0. Talc content seems to drop off and core recovery is about 95%, however, core is still badly broken up. Ghost and relic type feldspar laths are not as apparent in this section.

409.0

468.0

ALTERED DYKE

Cream grey in colour contains sections of altered anorthosite. Some sections more anorthositic than dyke rock. Upper and lower contacts indefinite due to alteration and badly broken ground.

477.0

477.0

TALCOUS ALTERATION ZONE ANORTHOHITE

Similar to previously described anorthosite. Contact with volcanics in broken ground. Formation grade into one another.

482.0

482.0

VOLCANICS

Light green in colour at beginning of section, slightly altered. Medium to high carbonate, medium to low chlorite, fairly hard. Flow structure and fracturing 50° to CA. Pyrite mineralisation is disseminated and stringer type. The odd bleb of chalcopyrite is visible, however, not in an appreciable amount.

482.0

523.0

Volcanics as above becoming darker in colour, higher chlorite content. Scattered veins of carbonate up to 2" in width containing disseminated pyrite and some chalcopyrite.

523.0

MINERALIZED ZONE (ALTERED GRANITE WITH VOLCANIC SECTIONS)

Variable sulphides up to 20% mostly pyrite but contains an appreciable amount of chalcopyrite especially between 523 - 527. Chalcopyrite concentration in the altered granite rather than the volcanic sections. Mineralization drops off after 527 and there are intermittent barren sections up to the end at 535.0.

535.0

FOOTAGEDESCRIPTION

535.0	<u>VOLCANICS</u>
564.0	As previously described. Carbonate filled fractures become numerous, but contain little or no mineralization.
564.0	<u>MINERALIZED ZONE (ALTERED GRANITE WITH VOLCANIC SECTIONS)</u>
574.0	Mineralization variable up to 25% sulphides. Pyrite with appreciable chalcopyrite. This section is much the same as the one previously described. Mineral concentration is between 564 - 570 which is nearly all altered granite. 570 - 574 mineralization mostly pyrite in the volcanics.
574.0	<u>VOLCANICS</u>
583.0	As previously described. Carbonate fracture fillings not as frequent but some contain pyrite and minor chalcopyrite mineralization. From 481.0 to 482.0 trend of pyrite mineralization and flow structure 40° to CA.
634.0	Volcanics as above but more blue green in colour. Medium chlorite and carbonate. Some very fine lucoxene present.
634.0	<u>ALTERED TUFF</u>
678.0	Medium green colour with lighter banding. The banding varies throughout section from quite pronounced to very obscure. Medium carbonate, low to medium chlorite, fairly soft. Banding fracturing is at 45° to 50° to CA.
678.0	<u>GRANITE DIKE</u>
687.0	Salmon pink in colour. Hard, no definite shear or foliation. Upper contact obscure, lower contact ground.
687.0	<u>VOLCANICS</u>
747.0	As previously described. Numerous carbonate filled fractures throughout this section. Colour is medium green. Low carbonate, medium chlorite.
767.0	Volcanics as above but containing numerous small vugs in the volcanic proper and in the carbonate stringers or fracture fillings. Some of the carbonate stringers contain minor disseminated chalcopyrite mineralization.
778.0	Vuggy section ends and volcanics are as previously described. At 778 there is a one inch stringer of disseminated chalcopyrite.
800.5	Volcanics as above, but slightly brecciated or altered. Fracturing 45° to 50° to CA. Minor pyrite and chalcopyrite mineralization throughout.
800.5	<u>MINERALIZED ZONE (BRECCIATED VOL.)</u>
837.5	Light cream in colour with medium green matrix. Breccia fragments fairly well pronounced. Mineralization is pyrite and moderate chalcopyrite. At the start of the section mineral content is low, to medium over short sections. From 807.0 - 811.5 massive pyrite and chalcopyrite.
837.5	<u>VOLCANICS</u>
898.0	As previously described. Medium green in colour. After 879.0 become slightly brecciated with light coloured fragments. These are rather obscure over most sections, could be called agglomerate.

END OF HOLE.

DIAMOND DRILL LOG

PORTAGE ISLAND (CHIBOUGANAU) MINES LTD.

P 172

DIP 45° BEARING N 11° W
~~N 70° 30' W~~ DEPTH 803.0'
 LOCATION Approx. 1180 W. - 3680 N.
 LAT. 9689.16 DEP. 9801.19 ELEV. 0.0'
 DIP TESTS 250 ft. - 40°; 500 ft. - 41°; 800 ft. - 36°
 STARTED Jan. 24/57 COMPLETED Feb. 2/57 LOGGED BY J. A. Pearce

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
0.0	65.0 <u>CASING</u>
65.0	<u>TRANSITION ROCK</u> Definitely on anorthosite side. Considerable chloritization and sericitization of the zoisite. Where zoisite laths are visible they are relic type. Colour is a grey green to grey blue depending on chlorite and sericite content. Negligible carbonate, considerable lucoxene present. Good foliation. At 98 feet foliated at 45° to CA. At 123 feet foliated at 50° to CA.
135.0	As above, but darker grey blue, higher chlorite content. Foliation is now quite obscure. Core is more broken, but core recovery still good. 210.2 - 211.0 - quartz vein. 248.0 - 249.0 possibly dyke. Very similar to host rock.
266.4	Upper contact 40° to CA., lower contact 50° to CA.
266.4	<u>DYKE (TYPE INDEFINITE)</u> Light grey green with a few scattered dark green specs. Fairly hard, negligible carbonate or chlorite. Upper contact broken, lower contact obscure.
271.6	<u>TRANSITION ROCK</u> As previously described.
305.2	276.5 - 283.0 lost core.
305.2	<u>DYKE (TYPE INDEFINITE)</u> Identical to one previously described. Dark green specs much plainer, may be chloritoid. 309.5 - 310.2 - several large white crystals appear to be ghost type feldspar laths. Slight amount of disseminated pyrite throughout section.
313.5	<u>TRANSITION ROCK</u> As previously described.
362.5	<u>LIGHT GREY DYKE (DIOHITIC)</u> Very hard, massive.

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
391.0	<u>TRANSITION ROCK</u>
397.0	As above but grading to the volcanics. Some relic type feldspar laths visible.
397.0	<u>TUFFACEOUS VOLCANICS</u>
394.5	Light to medium green in colour, high chlorite, low carbonate. Medium grained texture, shear visible on broken surface. Banding at 60° to 81.
394.5	<u>GRANITE DYKE</u>
426.0	Salmon pink to grey green in colour. This section is predominantly granite containing short volcanic sections. Some of the granite is quite altered, especially near volcanic contacts. A moderate amount of disseminated pyrite is contained throughout.
426.0	<u>VOLCANICS</u>
475.5	Medium green in colour. High chlorite, medium to high carbonate. Medium grained, shearing visible on broken surface only. Fairly soft. There is the odd carbonate stringer present. Mineralization consists of wide spread stringers of disseminated pyrite. At 436.0 and 471.6 there is a small amount of chalcopyrite associated with carbonate stringers.
475.5	<u>GRANITE DYKE</u>
486.0	Salmon pink in colour. Moderately mineralized with disseminated pyrite. Both contact indefinite.
486.0	<u>VOLCANICS</u>
	As previously described. Slightly altered near contact to granite dyke. Slight increase in the number of carbonate stringers.
557.3	557.3 - 558.7 - Mineralized zone consisting of about 60% pyrite with a small amount of chalcopyrite. This zone appears banded or slightly tuffaceous, also there is white quartz and pink carbonate associated with the mineralization.
558.7	Volcanics as before but lightly altered. appear to be brecciated, possibly an agglomerate. There are indefinite lighter fragments in a medium green matrix. This has been noted in previous logs of the volcanics, however, in this case it is not as pronounced.
572.0	Volcanics - ss between 426.0 and 475.5
634.0	Volcanics as above but containing some epidote stringers and veinlets. No estimated amount. There is also a small amount of magnetite present. This section is fine grained and there is very little evidence of shearing.
	634.0 - 636.8 - Quartz carbonate stringers.
	639.3 - 641.0 - " " "
	653.5 - 659.0 - " " "
	The latter two contain blebs of chalcopyrite and some fine pyrite. Contacts are either broken or indefinite.
	696.5 - 699.6 - Epidote comprises approximately 50% of core.

FOOT OR

DESCRIPTION

- 724.0 Mineralized zone - Mainly pyrite with appreciable magnete-
tite, combined representing about 20% of core. Matrix
is light in colour, medium hard, does not react to acid.
Appears as fragments, could be called breccia.
- 725.7 Volcanics as before, but containing numerous carbonate
stringers representing approximately 10% of core.

As the volcanics nears the granite, it takes on a brecciated
or agglomeritic appearance as described in section between
558.7 to 572.0. However, in this core fragments are more
distinct.
- 766.5 Volcanics very light in colour. Lighter fragments comprise
most of the core.
- 771.0 770.0 - 771.0 - quartz carbonate stringer.
- 771.0 GRANITE

Grey in colour, rather fine grained for first 11 feet. It
then becomes medium grained and has a slight salmon pink
colour.
- 803.0

END OF HOLE.

ASSAY RESULTS

<u>Sample No.</u>	<u>Footage</u>	<u>Width</u>	<u>Description</u>	<u>CU.</u>	<u>LB.</u>
0343	556.5 - 559.0	2.5'	Mineralized Volcanics		

DIAMOND DRILL LOG

PORTAGE ISLAND (CHINA) MINES LIMITED

P 17A

DIP -15° STRIKE North DEPTH 677.0
 LOCATION 1055 W. - 3075 W.
 LAT. 96° 93.17' DIP 99/16.57 ELEV. 0.0
 DIP TESTS
 STARTED Feb. 3/57 COMPLETED Feb. 10/57 LOGGED BY R.B. Graham
J.I. Pearce

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
0 - 65.0	<u>CASING</u>
65.0	<u>TRANSITION TYPE ANORTHOITE</u>
	65 - 70' - Shistose and sericitic, minor pitting suggestive of leaching.
	At 76.0 shearing at 45° to CA.
	100 - 105.5 - As from 65.0 to 78.0.
	At 105.5 shearing at 30° to CA.
	The transition anorthosite is grayish black. The black colour being due to chlorite. Ghost fragments visible but sparse. Incomple content erratic but overall 10% to 15%. Lustrous, buff in colour.
	112.0 - 259.0 - Transition rock becomes lighter grey, total replacement of fragments, sericite - chlorite - Incomple - aggregates. Moderate foliation throughout.
	At 117.0 foliation at 55° to CA.
	At 167.0 foliation at 55° to CA.
	At 198.0 foliation at 40° to CA.
	At 221.0 foliation at 40° to CA.
	At 253.0 1 inch bleb of pyrite.
259.0	<u>253.0 - 255.0 - weak pyrite mineralisation, as blebs up to 1 inch in length & inch in width overall content 1% to 2%.</u>
259.0	<u>TUFF</u>
	From 259.0 - 291.5 - Light grey to creamy grey banding alternating with green chlorite rich bands. Banding locally crenulated and brecciated. Carbonate content high. Scattered spots of pyrite and chalcopyrite, less than 1% sulphides.
291.5	At 285.0 bedding at 52° to CA.
291.5	<u>ANDRETTIC VOLCANICS</u>
	291.5 to 300.5 green chloritic andesitic volcanics, relatively massive. 5% veinlets and fracture fillings of white carbonate. Sections in between also carbonated. Approximately 1% pyrite with minor chalcopyrite associated with carbonate veinlets and as disseminations.
300.5	<u>302.3 - 321.0 - 15% pyrite, 1% chalcopyrite. A few quartz veinlets are present. ("A" zone)</u>
300.5	<u>TUFF</u>
384.5	300.5 - 381.3 - Tuff as from 259.0 to 291.5.
	At 303.0 bedding at 50° to CA.

<u>FOOTAGE</u>	<u>DESCRIPTION</u>
381.3	<u>ANDESITIC VOLCANICS</u>
	381.3 - 402.5 - Green massive chloritic fine grained andesite. Flobs of pinkish carbonate at 384.0.
402.5	396.5 - 398.5 - pinkish carbonate replacement. Very fine pyritic chalcopyrite approximately 1%.
402.5	<u>GRANITE</u>
411.2	402.5 - 411.2 - Greyish green contaminated granite gradational contact with volcanics.
411.2	<u>ANDESITIC VOLCANICS</u>
	411.2 - 461.0 - Volcanics shisthas on broken surface, but have a massive appearance on the unbroken core face. Andesite cut by white carbonate oriented various directions to the Q1, overall content 25%. Some fractures coated with hematite.
461.0	431.0 - 450.0 stringers of pyrite up to 1/2 inch in width with associated chalcopyrite, throughout this section. At 439.0 a 1/2 inch blob of magnetite cut by chalcopyrite in a grey carbonate matrix. Overall sulphide content 8%.
461.0	<u>GRANITE</u>
477.5	461.0 - 477.5 - Greenish pink contaminated granite. Contacts gradational with the volcanics.
477.5	<u>ANDESITIC VOLCANICS</u>
	477.5 - 529.0 - Chloritized as from 411.2 - 461.0. Granitized sections at 481.0, 501.0, 513.0.
	Pink & grey carbonate stringers throughout comprises 30% of core.
	1 inch magnetite blob at 487.9.
	At 485.0 to 485.3 6% chalcopyrite
	At 486.5 - 486.8 8% "
	At 501.0 - 501.1 3% "
	Core between above sections barren.
529.0	From 501.0 - 529.0 5% combined pyrite and chalcopyrite. Chalcopyrite content estimated at less than 1%. Core is strongly magnetic throughout this section.
529.0	<u>GRANITE</u>
550.1	529.0 - 550.1 - Greyish green medium to coarse grained granite. Contact gradational over 0.1 ft. The granite is sericitized.
550.1	<u>ANDESITIC AGGLOMERATE</u>
651.5	550.1 to 651.5 - Green chloritized andesitic volcanics, brecciated structure could be agglomeritic.
	625 to 627.5 - Tuff bed.
	At 626.0 bedding at 50° to Q1.
	Section throughout mineralized with pyrite, chalcopyrite and local magnetite. Overall sulphide content 15% but local sections up to 3.1 ft. contain 60%. (40" zone)
651.5	<u>GRANITE</u>
677.0	651.5 - 677.0 - Grey granite medium coarse grained.
	651.5 - 657.0 - Blobs of chalcopyrite estimated at less than 1% copper.
	END OF HOLE.