



42A15SW0042 14 MANN

010

Diamond Drilling

Township of MANN

Report NO: 14

Work performed by: Jonsmith Mines Limited

Claim NO	Hole NO	Footage	Date	Note
P. 61334	JS-1	1279'	Feb/65	
	JS-2	563'	Mar/65	
	JS-3	750'	Mar/65	
	JS-5	1060'	May/65	
	JS-11	727'	June/65	
	JS-12	814'	June/65	
	JS-13	614'	July/65	
	JS-15	732.6'	July/65	
P. 61335	JS-4	1403'	Apr/65	
	JS-8	1020'	May/65	
	JS-16	417'	Aug/65	
P. 68514	JS-6	362'	May/65	
	JS-10	661'	June/65	
P. 68515	JS-7	650'	May/65	
	JS-9	416'	June/65	
P. 61333	JS-14	740'	July/65	
P. 68516	JS-17	370'	Aug/65	
	JS-18	625'	Sept/65	

18

13203.6

Notes:

DIAMOND DRILL RECORD

Hole No. J.S.1 Sheet No. 1
 Property Jonsmith-Mann Twp.
 Drilled by Longyear Drill Co.
 Date Begun Feb. 15, 1965
 Date Finished Mar. 14, 1965
 Contractor's Footage.....

Co-ordinates Collar
 Lat. 340' N Dept. 4290' W
 Elev. Collar.....
 Bearing South
 Angle -60°
 Working Place Claim P. 61334

Total Depth..... 1,279 Ft.
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core..... AXT

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 10.0'	CASING:							
10.0' / 110.0	RHYOLITE: Agglomerate and tuff, light colored, fine to coarse grained rock, hard & brittle. Coarse fragmental & dense grained (banded?). Tuff zones @ 60° to core. Few narrow quartz carbonate veinlets 1/4", mostly @ 60° to core. 23.0' - 26.0' dense grained black graphitic section. @ 15.0' - 3" disseminated sulphides, pyrrhotite & chalcopyrite in chloritized rhyolite. Approx. 3% sulphides.							
110.0' / 138.0'	RHYOLITE: breccia zone with quartz - calcite vein development and talcose slips @ 20° to core. Core badly broken. @ 133.5 - 3" disseminated pyrrhotite & chalcopyrite. @ 135.0 - 3" disseminated pyrrhotite and chalco.							
138.0' / 185.0	RHYOLITE: probably flow, hard brittle & dense grained with blotchy chlorite streaks. @ 181.0' - 10" disseminated (3%) pyrrhotite & chalcopyrite associated with quartz carbonate stringers. @ 175.0' - 2" disseminated pyrrhotite & chalcopyrite.							
185.0' / 213.0'	PERIDOTITE: Contact at 185.0', Shows 1 foot of diabasic texture,							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.I. Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
185.0/ 213.0'	<u>PERIDOTITE: Cont'd.</u> Then dense grained dark rock with diabasic sections. Contact @ 70° (?) to core. Core badly broken.							
213.0/ 243.3	<u>RHYOLITE: rhyolite breccia.</u>							
243.3' / 300.0	<u>SYENITE: Probably surface dike.</u> Fine grained feldspathic crystall- ine rock with white sulphide mineralization. Wavy contact @ 243.3 about 70° to core. Some quartz-calcite development in blebs and veinlets at 60° to core. Fine sulphides (pyrite) throughout. 297.0 -300.4 rhyolite inclusion 315.5-324.5 rhyolite inclusion with few pyrrhotite seams & blebs.							
300.0/ 365.0	<u>SYENITE: Porphyritic with small</u> white feldspar phenocrysts. 328.2' -329.8' - quartz vein with yellow pyrite on fractures and pyrrhotite & little chalc- pyrite in wall of vein.							
365.5' / 414.0'	<u>PERIDOTITE: Contact not distinct.</u> 3' fine grained syenite @ contact followed by 5' contact alteration then black peridotite fine grained with scattered pyrrhotite mineralization. No color with di-methyl. Peridotite shows some streaked alteration and few quartz-calcite veins--may be light shearing @ 70° to core (@ 398')							

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>U.S. 1</u>	Sheet No. <u>3</u>	Co-ordinates Collar	Total Depth.....
Property <u>Jonsmith - Mann Twp.</u>	Lat.....	Dept.....	Ft. of Core Recovered.....
Drilled by.....	Elev. Collar.....		% Recovery.....
Date Begun.....	Bearing.....		Size Bit Used.....
Date Finished.....	Angle.....		Size Core.....
Contractor's Footage.....	Working Place <u>Claim P. 61334</u>		

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
365.5/ 414.0	PERIDOTITE Cont'd 402,0 - 414.0' Rhyolite inclusion							
	fractured & brecciated.							
414.0' /	414.0' - 428.5' Fine grained							
432.5'	dark Peridotite with seams of carbonate & Pyrite.							
	@ 417.5' qu. carbonate stringers.							
	@ 422.0', 1' lost core.							
	428.0 - 432.5' considerable graphite.							
432.5' / 452.5	RHYOLITE: Fine grained hard siliceous rock.							
	White feldspar crystals in light colored agglomerate.							
	432.5' - 452.5', seams of pyrrhotite, chalcopyrite.							
	SAMPLES:							
	432.5 - 434.5' - Est.	4701	2.0'			0.47	0.01	
	3 - 5% sulphides.							
	439.5 - 441.0 - 7% sulph.	4702	1.5'			0.15	0.03	
	441.0 - 441.8 - 1% sulph.	4703	0.8'			0.04	0.01	
	441.8 - 445.0 - 2% sulph.	4704	3.2'			0.09	0.02	
	445.0 - 447.6 - 10% sulph.	4705	2.6'			0.13	0.05	
	447.6 - 452.5 - 10% sulph	4706	4.9'			0.15	0.04	
452.5 477.0	RHYOLITE: as above with scattered sulphides (pyrrhotite pyrite & chalcopyrite)							
	469.0 - 477.0' dark rhyolite breccia.							
	477.0 - prophyritic rhyolite							
	Some graphitic sections.							
	SAMPLES:							
	469.0 - 470.7 10% sulph.	4707	1.7'			0.28	0.05	
	472.0 - 475.5 7% sulph.	4708	3.5'			0.16	0.04	

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.1 Sheet No. 4
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
477.0' / 544.0'	RHYOLITE: as above with porphyritic sections. No sulphides.							
544.0' / 567.0'	RHYOLITE: Very porphyritic with white feldspar crystals. No sulphides @ 519.0 - 1' breccia with graphite.							
567.0' / 884.0'	RHYOLITE: hard siliceous agglomerate with rare sulphide patches. No graphite.							
	From 639.0' - 643.0' dark black fine grained with a few scattered fine seams of Pyrrhotite, and minor chalcopyrite, From 655.5' - 659.0' Ground core (Lost water) (Possible Fault)							
	679.0 - 683.0' dark fine grained bed with considerable Chalcopyrite and pyrrhotite.							
	From 680.5 - 682.7' heavy seam of chalcopyrite and pyrrhotite @ 681.5'.							
	Heavy Pyrrhotite with Chalcopyrite from 682.2 - 682.7'							
	SAMPLED @							
	641.5 - 643.0', 5% sulph.	4709	1.5"			0.20	0.01	
	680.6 - 682.6', 10% sulph.	4710	2.0"			1.19	0.02	
	740.0 - 789.0' well defined agglomerate fragments up to 2" in diameter.							
	789.0 - 884.0' - rare patches of sulphides & graphite.							
884.0' / 922.7'	RHYOLITE - SULPHIDE ZONE: Graphite sections with sulphides. Core Broken.							
	From 884.0 - 888.9' graphitic zone with scattered seams of							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.1. Sheet No. 5
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P.61334

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
884.0/	Cont'd.							
922.7'	pyrite, pyrrhotite, minor zinc and chalcopyrite. From 888.9 - 892.5' Core badly broken with lost core from 891.0' - 892.0'. Scattered fine sulphides. Some graphite. From 892.5 - 922.7' Core badly broken with quartz-carbonate seam and threads @ all angles to core. Scattered sulphides throughout chiefly pyrite, minor chalcopyrite specks. @ 907.0' a few spots of sphalerite in a thin quartz-carbonate stringer. From 917.6 - 919.4' massive sulphides chiefly pyrite, pyrrhotite and sphalerite, graphitic with minor chalcopyrite (possible conductor)							
	<u>SAMPLED FROM:</u>							
	884.0' - 888.9 5%	4711	5.7'		0.01	0.08		0.87
	888.9' - 891.0' 5%	4712	2.1'		0.13	0.09		Nil
	904.0' - 908.0' 7% sulph.	4713	4.0'		0.07	0.14		Nil
	916.0' - 917.6'	4714	1.6'		0.08	0.08		Nil
	917.6 - 919.4' 50% sulph.	4715	1.8'	0.005	0.10	0.12		7.02
	919.4' - 921.0'	4716	1.6'		0.08	0.16		Nil.
921.0' /	<u>CONTACT ZONE</u> ; transition between							
934.0'	rhyolite and prophyry. Chiefly altered rhyolite.							
934.0' /	<u>FELDSPAR PORPHYRY</u> White feldspar							
997.0'	phenocrysts in gray ground mass. Crystals zoned and resorbed. Fine sulphide mineralization. Small quartz-calcite stringers							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.1 Sheet No. 6 Co-ordinates Collar
 Property Jonsmith - Mann Twp. Lat. Dept. Total Depth
 Drilled by Elev. Collar Ft. of Core Recovered
 Date Begun Bearing % Recovery
 Date Finished Angle Size Bit Used
 Contractor's Footage Working Place Claim P. 61334 Size Core

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
934.0' / 997.0'	FELDSPAR PORPHYRY Cont'd. at random angles to core. Several 1" quartz stringers @ 30° to core. Some pyrite.							
997.0' 1007.0	RHYOLITE: Hard dense grained rock similar to above rhyolite. May be inclusion in prophyry. @ 997.0' - quartz-feldspar vein 10" - 30° to core.							
1007.0' / 1084.0'	FELDSPAR PORPHYRY as above							
1084.0' / 1136.5'	RHYOLITE as above. Hard grey dense grained rock. Fractured with short graphite sections and small patches of sulphides associated with quartz-carbonate stringers.							
1136.0' / 1160	FELDSPAR PORPHYRY as above							
1160.0' / 1186.0	FELDSPAR-PORPHYRY with rhyolite inclusions.							
1186.0' / 1191.0'	RHYOLITE with graphite and quartz carbonate veins. @ 1191' fragmental zone with graphite and broken core							
1191.0' / 1263.0'	RHYOLITE-SULPHIDE ZONE Fractured rhyolite as above with 5% to 10% sulphides in graphitic sections. No Zn and No Cu.							

Log By
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>J.S. 1.</u> Sheet No. <u>7</u>	Co-ordinates Collar Lat. Dept.	Total Depth
Property <u>Jonsmith - Mann Twp.</u>	Elev. Collar	Ft. of Core Recovered
Drilled by	Bearing	% Recovery
Date Begun	Angle	Size Bit Used
Date Finished	Working Place <u>Claim P. 61334</u>	Size Core
Contractor's Footage		

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
1263.0'7	RHYOLITE: as above with 5% pyrite and pyrrhotite.							
1279.0'								
	HOLE END - 1,279.0'							
	Corrected							
	Dip Test @ 400' -60°							
	Dip Test @ 600' -60°							
	Dip Test @ 800' -60°							
	Dip Test @ 1200' -62°							

Log By E. L. MacVeigh
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. JS 2 Sheet No. 1
 Property Jonsmith - Mann Twp.
 Drilled by Longyear Dr. Co.
 Date Begun March 17, 1965
 Date Finished March 25, 1965
 Contractor's Footage

Co-ordinates Collar
 Lat. 0200N Dept. 4160W
 Elev. Collar
 Bearing South
 Angle -45°
 Working Place Claim P. 61334

Total Depth 563'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core AXT

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0/ 34.6'	<u>CASING:</u>							
34.6'/ 131.0'	RHYOLITE AGGLOMERATE Gray to black mottled rock with irregular fragments up to 2" in size. Black Streaks of graphitic material. Numerous slips @ 45° to core. @ 78' - 4" feldspar vein @ 45° @ 82' - 1" qu. vein @ 45° @ 120' - 1" qu. carb. vein @ 122' - 15" broken core.							
131.0'/ 146.0'	RHYOLITE AGGLOMERATE WITH QU. CARBONATE VEIN FORMATION. 30% irregular vein formation including some graphite slips @ 45° to core. Few spots of pyrrhotite with graphite.							
146.0'/ 192.0'	PERIDOTITE. Badly broken core with slips @ long angles to core showing oxidation. No sulphides @ 166.8' - 3" gouge.							
192.0'/ 218.0'	PERIDOTITE, rhyolite inclusions of hard siliceous rock showing brown tints and flow structure. Core badly broken.							
218.0/ 237.0'	PERIDOTITE, dark rock with graphitic bands. Core broken as above. @ 232.5 - 234.5' lost core (Fault Contact (?))							

Log By
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.2 Sheet No. 2 Co-ordinates Collar Total Depth 563.0'
 Property Jonsmith Mines - Mann Twp Dept. Ft. of Core Recovered
 Drilled by Elev. Collar % Recovery
 Date Begun Bearing Size Bit Used
 Date Finished Angle Size Core
 Contractor's Footage Working Place

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
237.0' / 333.0	TUFF: Dense grained gray rock with a few fragments up to 1/8".							
	@ 253.3' - 3" sulphides showing a little chalcopyrite.							
	Core broken, slips @ 45° & 60°. Few graphitic slips.							
	@ 320.5' - 5" lost core							
	@ 328.5' - 4" lost core.							
333.0' / 359.0'	GRAPHITE ZONE WITH SULPHIDES: High graphite zone with varying amounts of pyrite, pyrrhotite and chalcopyrite.							
	SAMPLES:							
	333.0'-335.0' - 4% sulphides	4726	2.0'			0.11		
	335.0'-337.5' - 20% sulphides	4727	2.5'		0.10	0.47		0.97
	337.5'-340.0' - 20% sulphides	4728	2.5'		0.18	0.16		2.26
	340.0'-342.5' - 20% sulphides	4729	2.5'	tr.	0.14	0.22		1.50
	342.58-344.0' - 20% sulphides	4730	1.5'		0.07	0.25		Nil
	344.0'-346.5' - 8% sulphides	4731	2.5'			0.14		Nil
	346.5'-351.5' - 2% sulphides	4732	5.0'			0.07		
	351.5'-356.5' - 2% sulphides	4733	5.5'			0.07		
	356.5'-359.2' - 3% sulphides	4734	2.5'			0.13		Nil
	NOTE: @ 355.3' to 360' basic dyke, probably lamprophyre							
359.0' / 423.4'	RHYOLITE AGGLOMERATE & TUFF. Few streaks of sulphides in slip planes @ 45°.							
	GRAPHITE ZONE WITH SULPHIDES High graphite with varying amounts of sulphides.							
423.4' / 499.5'								

Log By
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S. 2 Sheet No. 3
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place.....

Total Depth.....563.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
423.4/ 499.5'	Cont'd.							
	SAMPLES:							
	423.4 - 425.3' 2% sulphides	4735	1.9'		.09	.05		Nil.
	425.3 - 428.4' - 2% sulphides	4736	3.1'		.06	.07		
	428.4 - 430.9' - 2% sulphides	4737	2.5'		.08	.06		
	430.9 - 436.0' - 2% sulphides	4738	5.1'		.08	.12		Nil.
	436.0 - 439.5' - 3% sulphides	4739	3.5'			.22		Nil.
	439.5 - 442.3' - 5% sulphides	4740	2.8'			.19		Tr.
	442.3 - 444.8' - 6% sulphides	4741	2.5'			.21		Nil.
	444.8 - 446.3' - 3% sulphides	4742	1.5'			.23		Nil.
	446.3 - 448.5' - 3% sulphides	4743	2.2'			.52		Nil.
	448.5 - 450.0' - 60% sulphides	4744	1.5'		.10	.53		3.11
	450.0 - 455.0' - 3% sulphides	4745	5.0'		.19	.15		0.64
	455.0 - 459.5' - 7% sulphides	4746	4.5'			.16		tr.
	459.5 - 464.5' - 20% sulphides	4747	5.0'			.26		1.29
	464.5 - 466.0' - 2% sulphides	4748	1.5'			.22		0.86
	466.0 - 470.0' - 75% sulphides	4749	4.0'			.40		1.13
	470.0 - 472.0' - 65% sulphides	4750	2.0'			.33		2.90
	472.0 - 474.2' - 65% sulphides	4752	2.2'			.33		2.68
	474.2 - 479.2' - 65% sulphides	4753	5.0'		.15	.08		2.79
	479.2 - 484.2' - 65% sulphides	4754	5.0'		.14	.11		1.82
	484.2 - 486.5' - 30% sulphides	4755	2.3'		.10	.08		2.79
	486.5 - 489.0' - 35% sulphides	4756	2.5'		.19	.12		3.60
	489.0 - 492.4' - 25% sulphides	4757	3.0'		.34	.18		1.82
	492.4 - 495.4' - 10% sulphides	4758	3.0'		.26	.15		1.34
	495.4 - 498.0' - 30% sulphides	4759	2.6'		.30	.48		1.04
	498.0 - 499.5' - 5% sulphides	4760	1.5'			.26		
499.5/ 511.8'	RHYOLITE AGGLOMERATE							
	dark rock with mesh of							
	quartz-carbonate stringers.							
511.8/ 513.0	PORPHYRY							
	Dark ground mass with white							
	feldspar phenocrysts. Contact at 45° to core.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>JS. 2</u>	Sheet No. <u>4</u>	Co-ordinates Collar	Total Depth <u>563.0'</u>
Property <u>Jonsmith - Mann Twp.</u>	Lat.	Dept.	Ft. of Core Recovered
Drilled by	Elev. Collar	Bearing	% Recovery
Date Begun	Angle	Size Bit Used	
Date Finished	Working Place	Size Core	
Contractor's Footage			

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
513.0/ 531.0'	RHYOLITE AGGLOMERATE							
	Badly broken core with sand at 518'.							
	9' core lost 518- 527'.							
	Graphitic section 6" @ 513' with sulphides.							
531.0' / 563.0'	RHYOLITE: AGGLOMERATE & TUFF @ 536.5' 1' rhyolite inclusion with sulphides, chiefly fine grained gray hard rock.							
	Some sections of coarse clastics resembles the porphyry. Few narrow quartz-calcite stringers.							
	-HOLE END 563.0'							
	Dip Tests: Corrected							
	200' 47°							
	400' 48°							
	600' 48°							

Log By... *E. L. MacVeigh*
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S. 3. Sheet No. 1.
 Property Jonsmith-Mann Twp.
 Drilled by Longyear D. Drill.
 Date Begun Mar. 27, 1965
 Date Finished Apr. 7, 1965
 Contractor's Footage.....

Co-ordinates Collar
 Lat. Q200N Dept. A060W.
 Elev. Collar.....
 Bearing South
 Angle -45°
 Working Place Claim P. 61334

Total Depth..... 750.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core..... AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 26.0'	<u>CASING:</u>							
26.0' / 69.0'	<u>RHYOLITE AGGLOMERATE & TUFF.</u> Dark mottled rock. Core broken with most slips @ 45° to core. Some quartz-carbonate vein formation @ 45° to 60° to core. Few streaks of sulphides. Chalcopyrite @ 57' and 65'.							
69.0' / 76.0'	<u>BASIC DYKE: dark chloritic rock with gabbro texture.</u> 12" of contact quartz & carbonate @ 68' - 69' shows some pyrrhotite. Chalco. in chlorite streaks in gabbro (?) @ 45° - 60°.							
76.0' / 120.0'	<u>RHYOLITE AGGLOMERATE</u> Considerable silicification and irregular vein matter. Angular chert fragments up to 1/2". Some vein sections feldspathic. @ 103' - 4" sulphides.							
120.0' / 147.0'	<u>RHYOLITE AGGLOMERATE & TUFF.</u> Graphitic sections with some sulphides, scattered pyrite, pyrrhotite & chalcopyrite. Cunigold Pit Zone (?)							
	<u>SAMPLES:</u>							
	120.5' - 123.0' 2% Sulphides	4761	2.5'		1.18	0.12		Nil
	128.0' - 130.0' 2% Sulphides	4762	2.0'	0.10	0.44	0.07		Nil
	130.0' - 133.0' 2% Sulphides	4763	3.0'	0.07	0.43	0.13		Nil
	145.0' - 147.0' 10% Sulphides	4764	2.0'	0.13	1.46	0.22		Nil
147.0' / 216.0'	<u>RHYOLITE AGGLOMERATE</u> Mottled rock with chlorite alteration. @ 163' - 167' breccia zone filled							

with feldspar vein material.

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.3 Sheet No. 2 Co-ordinates Collar
 Property Jonsmith-Mann Twp. Lat. Dept. Total Depth.....
 Drilled by Elev. Collar..... Ft. of Core Recovered.....
 Date Begun Bearing..... % Recovery.....
 Date Finished..... Angle..... Size Bit Used.....
 Contractor's Footage..... Working Place Claim P. 61334 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
147.0' / 216.0'	<u>Rhyolite Cong. Cont'd.</u>							
	@ 168' - 181' flecked with small white fragments (tuff)							
	@ 188' - 199' graphitic section, sparse sulphides.							
216.0' / 399.1'	PERIDOTITE black, dense grained rock to medium grained.							
	Core broken with chlorite slips.							
	Inclusions of rhyolite throughout.							
	Core badly broken. Rhyolite inclusions show black streaked chlorite (?) alteration.							
	@ 394.5', mud. Quartz-carb. vein matter near contact.							
399.1' / 419.0'	RHYOLITE & TUFF: dark streaks probably alteration from peridotite.							
	SAMPLE: 399.0' - 400.6',							
	2% sulphides	4767	1.6'			0.77		Nil
	@ 410-413' peridotite							
419.0' / 457.0'	RHYOLITE & TUFF with clastic sedimentary rock							
	showing white fragments.							
	Some graphitic sections with light sulphides, pyrrhotite, pyrite & minor chalcopyrite and sphalerite.							
	SAMPLES:							
	419.7 - 422.0', 2% sulphides	4765	2.3'			0.14	0.03	0.21
	445.0 - 447.6', 2% sulphides	4766	1.6'				Tr.	0.27
457.0' / 554.0'	RHYOLITE & TUFF as above							
	With graphitic sections							
	Spotted sections of coarse clastic sediments. Spots & seams of							

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 3 Sheet No. 3
 Property Jonsmith - Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
457.0' / 554.0'	RHYOLITE & TUFF Cont'd. sulphides including pyrrhotite & chalcopryrite with sphalerite @ two locations. Few vein sections show feldspar. SAMPLES: 526.7 - 528.3' 5% sulphides							
554.0' / 559.0'	RHYOLITE:							
559.0' / 583.5'	RHYOLITE SULPHIDE ZONE North Zone. Graphitic sections in rhyolite-sulphide streaks. SAMPLES: (Water lost @ 580')							
	559.0 - 562.0' 2% sulphides	4769	3.0'			0.57		Nil
	567.0' - 572.5' 2% sulphides	4770	5.50'			0.12		Nil.
	572.5' - 574.5' 7% sulphides	4771	2.0'			0.13		Nil
	574.5' - 576.0' barren	4772	1.5'			0.06		Nil
	576.0' - 581.0' 2% sulphides	4773	5.0'			0.11		Nil.
	581.0' - 583.5' 3% sulphides	4774	2.5'			0.33		Nil
583.5' / 611.0'	RHYOLITE AGGLOMERATE, mottled rock with irregular graphite sections. Few slips and qu-carbonate veins @ 45° to 60° to core. Sparse sulphides.							
611.0' / 625.5'	GRAPHITIC RHYOLITE WITH SOLID GRAPHITE SECTIONS. Scattered sulphides of pyrrhotite and chalcopryrite. SAMPLE:							
	624.0' - 625.5' - 4% sulphides	4775	1.5'			0.23		Nil
	Massive graphite - 614' - 624'							
625.5' / 644.5'	RHYOLITE AGGLOMERATE & CLASTICS							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S. 3 Sheet No. 4
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
625.5' / 644.5'	<u>RHYOLITE AGGLOMERATE & CLASTICS</u> Cont'd.							
	Sparse sulphides, SAMPLE: 638.0 - 639.3', very fine sulphide mineralization with brown matrix (Zn.) ?	4776	1.3'			0.05		Nil
644.5' / 656.4'	<u>BASIC INTRUSIVE (?)</u> even grained massive hard green rock.							
656.4' / 662.0	<u>RHYOLITE AGGLOMERATE</u> with graphitic sections & sparse sulphides.							
662.0' ?	<u>RHYOLITE AGGLOMERATE</u>							
750.0	Coarse fragments to 1 1/2". Some hard graphite in matrix filling of agglomerate. @ 695' - 697' - scattered sulphides of pyrite, pyrrhotite, chalcopyrite. Some 5' to 10' core sections porphyritic in appearance due to white angular feldspars in fragments. Mechanical breccia (?)							
	<u>HOLE END - 750.0'</u>							
	NOTE: 6' of unrecovered core & bit in bottom of hole.							
	DIP TEST:							
	200' - 48°							
	400' - 48°							
	600' - 48°							

Log By... *E. L. MacVeigh*
 for E. L. MacVEIGH

P 61335

DIAMOND DRILL RECORD

Hole No. J.S.4 Sheet No. 1 Co-ordinates Collar
 Property Jonsmith Mines-Mann Tap. 640' N. Dept. 3140' W. Total Depth 1403'
 Drilled by Longyear Dr. Co. Elev. Collar
 Date Begun Apr. 8, 1965 Bearing S05° W. Ft. of Core Recovered
 Date Finished May 5, 1965 Angle 60° % Recovery
 Contractor's Footage Working Place Claim P. 68524 Size Bit Used
61335 Size Core AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 56.0'	CASING:							
56.0' / 91.0'	PERIDOTITE: Dark serpentized rock seamed with dark banding. Short asbestos fibre to 1/16". About one fibre occurrence every 5 ft. on average. Fibre veinlets 45° to 60° to core. Numerous quartz-carbonate veinlets. Rare epidote on slip faces. Few yellow feldspar (?) patches in some quartz veins. 79.5 - 82.0' - qu.-carbonate vein.							
91.0' / 152.0'	PERIDOTITE with RHYOLITE INCLUSIONS. @ 133' - 145' rhyolite @ 143' - 2" sulphides. Chalco. - about 5%.							
152.0' / 170.0'	RHYOLITE with streaks of gabbro up to 8". 157.5 - 162.5' sulphides, pyrite, pyrrhotite, chalcopyrite. SAMPLES: 157.5 - 159.5' -2% sulphides 4783 2.0' .04 159.5' - 161.0' -5%-10% " 4784 1.5' .54 161.0' - 162.5' -2% sulphides 4785 1.5' .02							
170.0' / 195.3	GABBRO DYKE, medium grained dark rock. Massive with diabase texture. @ 172.0' -3" chalco. & pyrite @ 180.4' -1" 5% Cu. @ 174.5' -4" 10% pyrrhotite							

Log By.....
for E. L. MacVEIGH

J.S.

DIAMOND DRILL RECORD

Hole No. 4 Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by Longyear
 Date Begun
 Date Finished
 Contractor's Footage

Co-ordinates Collar
 Lat. Dept.
 Elev. Collar
 Bearing
 Angle
 Working Place Claim P. 68523

Total Depth
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
195.3 / 218.8'	<u>RHYOLITE</u> as above							
218.8' / 226.4'	<u>DIORITE DYKE</u>							
226.4' / 234.0'	<u>BRECCIA ZONE.</u> Appears to be feldspathic vein filling parallel to core with vein breccia.							
234.0' / 260.5'	<u>RHYOLITE</u> - Massive, few frag- ments, graphitic sections. 242 - 250' - graphite. 255- 260.5' - broken core.							
260.5' / 272.0'	<u>FAULT ZONE IN RHYOLITE:</u> Rusty slips & lost core. Cemented twice. Lost water. 260.5 - 262' Lost core.							
272.0' / 281.0'	<u>RHYOLITE:</u> More basic andesite.							
281.0' / 302.6'	<u>ANDESITE:</u> dense grained green rock with graphite sections. SAMPLE: 281.0 - 286.0' graphite with chalco. -2% sulphides	4786	5.0'			.05		0.13
302.6' / 351.0'	<u>GRAPHITE SECTION</u> Heavy graphite section with few spots of chalco. Slips parallel to core.							
351.0' / 375.0'	<u>RHYOLITE AGGLOMERATE</u> Qu. vein section @ 348'							
375.0' / 409.4'	<u>GABBRO:DIABASIC</u> texture as above, Medium grained massive rock. @ 391.5' spot of chalcoppyrite.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. JS4. Sheet No. 3.
 Property. Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place..... Claim P. 68522

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
409.4' / 437.0'	<u>RHYOLITE: Hard dark dense grained rock.</u>							
437.0' / 686.0'	<u>GABBRO: As above. Contact at 60° to core. Most slips @ 45° to core.</u>							
	<u>@ 488', 2" vein with chalcopyrite.</u>							
	<u>Slips and rare veinlets @ 45°</u>							
	<u>@ 491', 4" pyrrhotite</u>							
	<u>Specimen - Gabbro @ 500'</u>							
	<u>@ 520' pyrrhotite & chalco. in quartz-carbonate vein section.</u>							
	<u>@ 541' 6" qu. vein @ 60°</u>							
	<u>@ 544.7', 7" qu. vein @ 60°.</u>							
	<u>@ 548-600', fine grained inclusions (rhyolite ?)</u>							
	<u>Core broken with quartz & carbonate veins at various angles to core.</u>							
	<u>@ 570' - chalcopyrite</u>							
	<u>@ 577' - chalcopyrite</u>							
	<u>@ 592 - 10" qu.feldspar vein.</u>							
	<u>@ 603.5 - 605.' broken quartz vein section 30° to core.</u>							
	<u>@ 600' - 628' numerous quartz veinlets @ various angles.</u>							
686.0' / 689.0	<u>GRAPHITE ZONE: brecciated contact (?). Sparse chalcopyrite.</u>							
689.0' / 735.0'	<u>RHYOLITE & TUFF. Light brown siliceous, mottled rock. Banding with core may indicate south dip (?) or drag folding.</u>							
	<u>@ 699' - chalcopyrite</u>							
	<u>@ 699' - 709' - spots of</u>							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.4 Sheet No. 4
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 68523.

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
689.0' / 735.0'	RHYOLITE & TUFF Con'td. chalcopryrite.							
735.0' / 796.0'	RHYOLITE as above but core badly broken along slips parallel to core. Made difficult drilling. Some graphite on slips and in patches in rhyolite. Spots of pyrrhotite & chalco- pyrite, @ 746'. Zinc in 1" vein.							
796.0' / 872.0	GRAPHITIC TUFF & AGGLOMERATE Numerous slips mostly @ 60° to core. Few spots of pyrrhotite & chalcopryrite in quartz- carbonate veinlets @ 60° to core. 829.0' - heavy graphite sections. Rare chalcopryrite occurrence. Included rock sections resemble andesite.							
872.0 / 906.0	RHYOLITE TUFF & AGGLOMERATE Light to dark gray mottled rock. Some patches of conspicuous white feldspar fragments. @ 884' - 5" qu. feldspar vein @ 30°. @ 901' - irregular quartz -1".							
906.0' / 913.6'	GRAPHITIC TUFF: black even grained rock. Contacts @ 45°.							
913.6' / 1099.0'	RHYOLITE TUFF & AGGLOMERATE Cherty sections show bedding at 45° to 30° to core. @ 923' - chalcopryrite in chert. Vari-colored rock with sections of black spotted hornblende growths. @ 976.5' chertz vein							

zoned 2". This formation dominated
by cherty horizons.

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>4</u>	Sheet No. <u>5</u>	Co-ordinates Collar	Total Depth.....
Property <u>Jonsmith-Mann Twp.</u>	Lat.....	Dept.....	Ft. of Core Recovered.....
Drilled by.....	Elev. Collar.....	Bearing.....	% Recovery.....
Date Begun.....	Angle.....	Working Place <u>Claim #. 68523.</u>	Size Bit Used.....
Date Finished.....	Contractor's Footage.....		Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
1099.0' / 1123.0'	GRAPHITE SECTION black graphite with short sections of chert & agglomerate with patches of pyrite, pyrrhotite and minor chalcopyrite.							
	SAMPLES: (Chert & Vein -1110-1115')							
	1102.5-1107.5' - 1% sulphides	4787	5.0'			0.09		
	1107.5-1112.5' - 3% sulphides	4788	5.0'			0.08		
	1112.5-1115.0' - 2% sulphides	4789	2.5'			0.05		
	1115.0-1117.5' - 5% sulphides	4790	2.5'			0.06		Nil
	1117.5-1120.5' - 5% sulphides	4791	3.0'			0.09		Nil
	1120.5-1123.0' - 1% Sulphides	4792	2.5'	(No assay)				
1123.0' / 1139.0	RHYOLITE with few spots of pyrrhotite and pyrite. No chert sections.							
1139.0' / 1155.6'	GRAPHITE: sheared with pyrite, pyrrhotite and chalcopyrite. Shearing parallel to core.							
	1146.5' - 1148 - lost core							
	1148-1149 - chalco. in shear planes parallel to core.							
	SAMPLES:							
	1139.0 - 1142.0 -1% sulphides	4793	3.0'			0.04		
	1142.0-1146.5' -20% sulphides	4794	4.5'		0.32	0.95		1.39
	1146.5-1148.0' -lost core							
	1148.0-1149.0' -40% sulphides	4798	1.0'		0.06	5.59		Tr.
	1149.0-1151.0' No sample							
	1151.0-1154.5' -5% sulphides	4799	3.0'		0.07	0.29		Tr.
	1154.5-1155.6' lost core							
1155.6' / 1168.5	TUFF: dark gray with low graphitic content. Fine pyrite disseminated.							
1168.5' / 1217.0'	RHYOLITE; dark, hard, dense grained rock with short massive graphite sections. Some sulphides, chiefly in graphite sections. Fine pyrite disseminations. 1168.5-1171.0' graphite, 7% sulphides	4800	2.5'			0.03	0.16	0.05

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 4 Sheet No. 6
 Property Jonsmith-Mann Twp.
 Drilled by
 Date Begun
 Date Finished
 Contractor's Footage

Co-ordinates Collar
 Lat. Dept.
 Elev. Collar
 Bearing
 Angle
 Working Place Claim P. 68523

Total Depth 1403'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
1168.5' / 1217.0'	RHYOLITE: Cont'd. 1180.0 - 1181.5' -Graphite-5% sulphides.	4801	1.5'	0.05	0.21			Nil.
	1202-1203' Lot core.							
	1204.7-1206.5'-Gabbro dyke. Contacts @ 45°.							
1217.0' / 1254.0	RHYOLITE & TUFF: Gray to greenish fairly massive rock with short graphitic sections. No sulphides							
	1231-1234.5'-graphitic section							
	1245 -1246 - Lot core.							
	1252.5 - 1262.6 graphite.							
	SAMPLES:							
	1253.0 - 1253.8'-50% sulphides chiefly pyrrhotite	4802	0.8'	0.08	0.09			Nil.
1254.0' / 1268.0'	GABBRO: - Fine grained Contact phase (?) green.							
	1261.0' -1263.3'-20% sulphides	4803	1.3'	Tr.	0.06			Nil.
	1262.3-1264.3 -5% sulphides	4804	2.0'	0.04	0.08			Nil
1268.0 / 1356.5'	GRAPHITE : Replacing gabbro. Chiefly massive graphite with short gabbro sections. Low sulphide content in patches and in a few quartz veinlets.							
	SAMPLES:							
	1271.5-1273.0' No sample							
	1273.0-1278.0' No sample							
	1278.0-1280.0' -7% sulphides	4807	2.0'		0.13			
	1280.0-1284.0' -2% sulphides	4808	4.0'		0.02			Nil
	1284.0-1285.5' -2% sulphides	4809	1.5'		0.02			
	1285.5-1290.5' -3% sulphides	4810	5.0'	0.04	0.04			tr.
	1271-1315' chiefly graphite sparse sulphides.							
	1315-1340' chiefly graphite sparse sulphides.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 4 Sheet No. 7
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 68523

Total Depth 1403'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
1268.0/ 1356.5	GRAPHITE Cont'd. SAMPLE:							
	1332.3-1334.5' - 3% sulphides	4811	2.2'		.04	0.16		Nil
	1342.0-1345.5' - 5% "	4812	3.5'		0.10	0.09		Nil
	1352.5-1356.5' - 5% sulphides	4813	4.0'		0.17	0.12		Nil.
1356.5/ 1374.0	GABBRO: even grained green rock. Contact with graphite at 30° to core.							
1374.0'/ 1403'	RHYOLITE: Cherty type as above. 1381-1381.7' - gabbro dyke 1384-1385' - gabbro dyke 1385-1386 - Gabbro contact parallel to core. 1386.3 - 1388.3' graphite SAMPLE: 3% sulphides	4815	2.0'		0.17	0.12		Nil
	1388.3-1397.0' graphite with low sulphide content. 1397.0' - 1403' -cherty rhyolite with disseminated pyrite mineralization. <u>HOLE END - 1403'.</u>							
	Dip tests: 260' - 70° 460' - 71° 660' - 72° 860' - 72° 1060' - 68° 1376' - 66°							

Log By. *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 5 Sheet No. 1 Co-ordinates Collar Lat. 0485' N. Dept. 3135' W. Total Depth 1060'
 Property Jonsmith-Mann Twp. Lat. 0485' N. Dept. 3135' W. Ft. of Core Recovered
 Drilled by Longyear Dia. Dr. Co. Elev. Collar 20.1' % Recovery
 Date Begun May 6, 1965 Bearing S08° W. Size Bit Used
 Date Finished May 18, 1965 Angle -45° Size Core
 Contractor's Footage Working Place Claim P. 61334 AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0/10.0'	CASING:							
10.0'/61.0'	RHYOLITE - TUFF: hard, siliceous dark gray rock. Graphitic with patches of pyrrhotite and minor amounts of chalcopyrite. Increasing amounts of sulphides from 40' to 46'. Sericite alteration from 46' to 50'. Zinc @ 41.5'.							
	SAMPLE:	4816	6.0'			0.06		0.07
	40' - 46' - 10% sulphides							
	46' - 50' - 20% sulphides	4817	4.0'			.06		.48
	50' - 61' - rhyolite with scattered & spotty sericite alteration. Chalcopyrite & zinc @ 51'.							
	55.5' - 57.5' - 20% sulphides	4818	2.0'			.09		.59
61.0'/144.5'	RHYOLITE AGGLOMERATE Blotchy gray rock with fragments up to 2". No sulphides. Chlorite alteration and light shearing at 90° to core. Light gray to buff color 75' to 125'							
144.5'/151.8'	RHYOLITE-TUFF - hard dark siliceous graphitic rock, as above. Sharp contacts with agglomerate at 85° to core. Show formation flattening (?)							
151.8'/193.6'	RHYOLITE AGGLOMERATE; as above. 165' - 166' talcose shear							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 5	Sheet No. 2	Co-ordinates Collar	Total Depth. 1060'
Property. Jonsmith-Mann Twp.	Lat.	Dept.	Ft. of Core Recovered.
Drilled by.	Elev. Collar.		% Recovery.
Date Begun.	Bearing.		Size Bit Used.
Date Finished.	Angle.		Size Core.
Contractor's Footage.	Working Place. Claim P. 61334..		

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
193.6' / 199.0'	<u>GABBRO</u> : Diabasic texture. Soft light green rock. Few spots of pyrrhotite and chalco.							
199.0' / 222.0'	<u>GABBRO</u> : fractured, vein filled and sheared @ 50°. Few spots of sulphides.							
222.0' / 268.0'	<u>PERIDOTITE</u> : with 50% rhyolite agglomerate inclusions. Dark, fine grained peridotite filling between lengths of light colored rhyolite inclusions.							
268.0' / 361.4'	<u>RHYOLITE AGGLOMERATE</u> . Short graphitic tuff sections. Sparse sulphide. Sericite alteration at 325' and 330'.							
290.0' / 361.4'	<u>RHYOLITE AGGLOMERATE</u> and <u>GRAPHITIC TUFF</u> .							
361.4' / 370.5'	<u>FELDSPAR PORPHYRY DYKE</u> . Fine grained, small feldspar phenocrysts. Contact @ 60°.							
370.5' / 385.0'	<u>RHYOLITE AGGLOMERATE</u> As above.							
385.0' / 408.0'	<u>FELDSPAR PORPHYRY</u> : Fine grained as above. 403' - 404' qu. veinlets.							
408.0' / 461.5'	<u>FELDSPAR PORPHYRY</u> - feldspar phenocrysts in dark ground mass. @ 431 - 2" qu. vein with pyrrhotite.							
461.5' / 496.2'	<u>SULPHIDE ZONE</u> : Fractured porphyry with pyrrhotite and chalcopryrite. 50% - 70% sulphides.							

Log By.
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>5</u>	Sheet No. <u>3</u>	Co-ordinates Collar	Total Depth.....
Property.....	Lat.....	Dept.....	Ft. of Core Recovered.....
Drilled by.....	Elev. Collar.....		% Recovery.....
Date Begun.....	Bearing.....		Size Bit Used.....
Date Finished.....	Angle.....		Size Core.....
Contractor's Footage.....	Working Place.....		

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
461.5' / 496.2'	<u>SULPHIDE ZONE ' Cont'd.</u>							
	461.5-464.0' -50% sulphides	4829	2.5		.07	.10		Tr.
	464.0-464.6' barren							
	464.6 - 466.2' - 60% sulphides	4830	1.6'			.15		.91
	466.2 - 467.8' - 50% sulphides	4831	1.6'			.04		Nil
	467.8 - 469.3' - 30% sulphides	4832	1.5'			.14		Nil
496.2' / 553.2'	<u>GRAPHITIC TUFF & SULPHIDE ZONE</u>							
	Varying amounts of pyrrhotite with minor amounts of chalcopyrite in black graphitic dense grained formation.							
	SAMPLES:							
	497.0' - 498.5' -25% sulphides	4833	1.5'			.25		Nil
	498.5' - 501.0' -20% sulphides	4834	2.5'			.19		.22
	501.0' - 506.0' -10% sulphides	4835	5.0'			.20		Nil
	506.0' - 510.5' -10% sulphides	4836	4.5'			.14		Nil
	510.5' - 516.0' -70% sulphides	4837	5.5'			.16	.06	1.93
	516.0' - 519.0' -25% sulphides	4838	3.0'			.21		0.75
	519.0' - 524.0' -25% sulphides	4839	5.0'			.11		Nil
	524.0' - 526.0' - 2% sulphides	4840	2.0'			.05		Nil
	526.0' - 531.0' -70% sulphides	4841	5.0'			.35	.08	.32
	531.0' - 534.0' -40% sulphides	4842	3.5'			.28		.54
	534.5' - 536.5' -15% sulphides	4843	2.0'		.14	.16		.53
	536.5' - 538.7' -20% sulphides	4844	2.2'		.15	.18		
	538.7' - 543.7' - 2% sulphides	4845	5.0'			.08		
	543.7' - 546.0' -40% sulphides	4846	2.3'		.12	.15		1.13
	546.0' - 548.2' -20% sulphides	4847	2.2'		.13	.13		0.70
	548.2' - 553.2' - 2% sulphides	4848	5.0'			.09		
553.2' / 570.5'	<u>FELDSPAR PORPHYRY:</u> Fine grained phase with pyrite mineralization. Rhyolite inclusion at 564. Contact at 570.5. 45° to core shows qu.-carbonate vein and light sulphides.							

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>5</u>	Sheet No. <u>4</u>	Co-ordinates Collar	Total Depth..... <u>1060'</u>
Property. <u>Jonsmith - Mann. Twp.</u>	Lat.....	Dept.....	Ft. of Core Recovered.....
Drilled by.....	Elev. Collar.....		% Recovery.....
Date Begun.....	Bearing.....		Size Bit Used.....
Date Finished.....	Angle.....		Size Core.....
Contractor's Footage.....	Working Place... <u>Claim P.61334</u>		

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
570.5' / 605.0'	<u>RHYOLITE & TUFF</u> hard, siliceous rock of varied grain. Short sections show conspicuous white fragments or feldspar growths.							
605.0' / 606.0'	<u>RHYOLITE AGGLOMERATE</u> Fragments up to 2".							
606.0' / 675.0'	<u>GRAPHITIC ZONE</u> in rhyolite agglomerate. Considerable sulphide present in short sections. May show 10% for 1 foot sections of pyrrhotite, & pyrite with minor amounts of chalcopyrite & zinc. Most sheared sections and qu.-carbonate vein stringers at 60° to core. Probably potential zone of interest. Some dense grained, probably tuff sections.							
	665.5' -667.0' -15% sulphides	4849	1.5'					.21
	667.0' -668.7' -15% sulphides	4850	1.7'					.43
	694.0' -696.0 -15% sulphides	4851	2.0'			.08		.22
675.0' / 926.0'	<u>RHYOLITE AGGLOMERATE</u> with short graphite sections and disseminated sulphides in streaks and pods. Rock shows well defined fragments with white feldspar spots or quartz.							
	805.0 - 807.0' - 5% sulphides (Zn)	4854	2.0'		.11	.08		2.36
	849.0 - 852.0' - 25% sulphides chiefly sphalerite	4855	3.0'					Nil
	896.2 - 898.0' - 35% sulphides From 892 to 896.0 highly	4856	1.8'			.05		Nil.

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. <u>5</u>	Sheet No. <u>5</u>	Co-ordinates Collar	Total Depth..... <u>1060'</u>
Property <u>Jonsmith-Mann Twp.</u>	Lat.....	Dept.....	Ft. of Core Recovered.....
Drilled by.....	Elev. Collar.....		% Recovery.....
Date Begun.....	Bearing.....		Size Bit Used.....
Date Finished.....	Angle.....		Size Core.....
Contractor's Footage.....	Working Place <u>Claim P. 61334.</u>		

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
675.0' / 926.0	Continued RHYOLITE AGGLOMERATE altered rhyolite with quartz vein formation.							
	911.5' - 913.0' - 40% sulphides graphite sheared & contorted @ 90° to core	4857	1.5'		.17	.21		.96
	919.0-922.0' - highly altered zone and probably fault.							
	Water lost at 920' - FAULT							
926.0' / 955.0	RHYOLITE AGGLOMERATE SHEARED Agglomerate as above with light shearing @ 45° to core. Sulphides in shear slips. Zinc @ 936'. Vein material in shearing.							
953.0' / 998.5'	FELDSPAR PORPHYRY. White feldspar phenocrysts in dark ground mass. Probably intrusive porphyry. Massive rock with few barren quartz vein sections @ 60° to core.							
998.5' / 1004.0'	BASIC DYKE: Probably lamprophyre. Contacts @ 60° to core.							
1004.0' / 1060.0'	FELDSPAR PORPHYRY as above							
	1029' - 1,030' - basic dyke							
	HOLE END - 1060'							
	Dip tests - 300' - -45°							
	500' - -45°							
	700' - -45°							
	1060' - -45°							

Log By *E. L. MacVeigh*
for E. L. MacVEIGH

P. 68574 & 15 -

DIAMOND DRILL RECORD

Hole No. J.S.6 Sheet No. 1.
 Property. Jonsmith-Mann Twp.
 Drilled by. Longyear D. Dr. Co.
 Date Begun. May 6, 1965
 Date Finished. May 11, 1965
 Contractor's Footage.....

Co-ordinates Collar
 Lat. 1150'N Dept. 1910'W
 Elev. Collar.....
 Bearing. S. 06° W.
 Angle. -45°
 Working Place. Claim P. 68515

Total Depth..... 362.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core..... AXT

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0'/ 71.0'	CASING:							
71.0'/ 119.0'	GRAPHITIC TUFF AND AGGLOMERATE Dark dense grained graphitic rock tuffaceous bands bedded with black graphite. Pyrite present on slip faces. Core badly broken. Some sulphides in narrow quartz carbonate vein sections.							
119.0'/ 150.6'	GRAPHITIC TUFF: as above with shearing and vein structure at 70° to core. 124' = 125' lost core 127' - 128.6' lost core 129' - 130.7' quartz carbonate vein @ 80° to core. 40% sulphides	4819	1.7'			0.11		Tr.
	130.7-133.7' - 7% sulphides	4820	3.0'				0.02	Nil.
	133.7'-138.7' - 8% sulphides	4821	5.0'				0.01	Nil
	138.7'-141.7' - 3% sulphides	4822	3.0'					Nil
	141.7'-143.6' - 25% sulphides Cu. and Zn. visible.	4823	1.9'			0.20		0.47
	145.0'-148.0' - 10% sulphides	4824	3.0'			0.04	0.01	
	148.0' - 150.6' - 5% sulphides	4825	2.6'				0.02	0.27
150.6'/ 157.6'	RHYOLITE AGGLOMERATE							
157.6'/ 188.0'	GABBRO: brecciated with 50% quartz carbonate vein filling with rhyolite inclusions							
	161.4-166.4' - 3% sulphides	4826	5.0'	tr.	0.03			
	175.6' - 176.7' - 50% sulphides Visible copper	4827	1.1'			0.28	0.07	Nil
188.0'/ 213.0'	GABBRO: Medium to coarse grained, diabasic texture, sheared parallel							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 6 Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 68515

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
188.0' / 213.0'	<u>GABBRO Cont'd. to core. Pyrrhotite & chalcopyrite from 210-212' in streak parallel to core.</u>							
	<u>210.0' - 212.0' - 5% sulphides</u>	<u>4828</u>	<u>2.0'</u>			<u>0.07</u>	<u>0.06</u>	<u>Nil.</u>
213.0' / 229.0'	<u>GABBRO (?) blue siliceous and vein filled and porphyritic. May be differentiate of gabbro.</u>							
229.0' / 240.0'	<u>FELDSPAR PORPHYRY: White feldspar phenocrysts in dark ground mass.</u>							
240.0' / 362.0'	<u>PERIDOTITE: dark, fine grain, slightly serpentinized. Seamed with talcose slips. No sulphides. 280-300' few narrow asbestos fibre 1/16", 3-4 every 5'. 300-330' increasingly talcose with qu.-carbonate stringers. Few asbestos veinlets up to 1/8", 3 - 4 every 5' 332-333 - lost core. 330' - 362.0' asbestos rare. @ 352' - 1/8" asbestos fibre.</u>							
	<u>HOLE END - 362'</u>							
	<u>Dip test - 362' -47°.</u>							

Log By... *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. JS. 7 Sheet No. 1
 Property Jonesmith - Mann Twp.
 Drilled by Lonsyear Dr. Co.
 Date Begun May 13, 1965
 Date Finished May 29, 1965
 Contractor's Footage

Co-ordinates Collar
 Lat. 965' N. Dept. 1900' W.
 Elev. Collar
 Bearing North
 Angle -45°
 Working Place Claim P. 68515

Total Depth 650'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0/ 92.0'	CASING:							
92.0'/ 176.8'	RHYOLITE & TUFF with GRAPHITIC SECTIONS							
	Dark fine grained rock with heavy graphite sections.							
	Pyrite, pyrrhotite and minor chalcopyrite present in light shearings and as disseminated sulphides.							
	98.0 - 100.7' - 30% sulphides No graphite.	4852	2.7'			0.13		Nil
	115.5 - 117.2' - 30% sulphides. No graphite - shear parallel to core	4853	1.7'		0.07	0.12		Nil
	Banding & shearing at 20° to core. Basic dyke 143.2 - 145.0'							
176.8'/ 186.0'	BASIC DYKE: Green, massive fine grained rock with hornblende crystals. May be related to gabbro.							
186.0'/ 250.0'	RHYOLITE & TUFF with graphite sections. Sulphides present as above.							
250.0'/ 330.0'	GRAPHITIC TUFF: Badly broken core along slips, parallel to core. Lost core 285' - 286' 302' - 303' 319.5' - 321.0' 323' - 324'. 326' - core cemented.							
330.0'/ 455.0'	GRAPHITIC TUFF: - sparse sulphides. Core broken to 300'.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. JS.7 Sheet No. 2
 Property Jonsmith - Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar.....
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 68515.....

Total Depth..... 650'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
455.0' / 478.0'	<u>RHYOLITE & TUFF: No graphite.</u> Scattered sulphides mostly pyrrhotite.							
	Basic dike - 162' - 164', gabbro type with heavy pyrrhotite.							
478.0' / 518.0'	<u>RHYOLITE & GRAPHITIC TUFF.</u> as above with scattered sulphides. Banding and shearing @ 45° to core.							
	478.0 - 480.2' - 15% sulphides.							
518.0' / 531.0'	<u>BASIC DYKE (?) blue-gray dense grained rock with contact @ 20° with rhyolite. Disseminated pyrite and sphalerite (?) - fine grained sulphides. Graphitic.</u>							
531.0' / 551.5'	<u>BASIC DIKE & TUFF:</u> Probably top edge of gabbro and peridotite.							
551.5' / 560.0'	<u>RHYOLITE, AGGLOMERATE</u> Hard, gray siliceous, with few disseminated sulphides.							
560.0' / 590.8'	<u>RHYOLITE & BASIC INTRUSIVE</u>							
590.8' / 650.0'	<u>GABBRO:</u> Fine to medium grained massive gray rock							
	<u>HOLE END - 650'</u>							
	Dip Tests: 500' -45°							
	650' -47°							

Log By.....

E. L. MacVeigh
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. JS. 8 Sheet No. 1 Co-ordinates Collar Lat. 46.0' N. Dept. 3030' W. Total Depth 1020'
 Property Jones-Mann Twp. Elev. Collar -12' Ft. of Core Recovered.....
 Drilled by Longyear, D. Dr. Bearing South % Recovery.....
 Date Begun May 27, 1965 Angle 50° Size Bit Used.....
 Date Finished June 10, 1965 Working Place Claim P. 68523 Size Core AXT.
 Contractor's Footage..... 61325

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 65.7'	CASING:							
65.7' / 87.0'	RHYOLITE & RHYOLITE AGGLOMERATE Short graphitic sections. Core broken. Few scattered sulphides. Chalcopyrite & zinc @ 73.0'							
87.0' / 164.0'	PERIDOTITE: dark, medium grained rock. Talcose slips and few quartz-carbonate veins @ 30° to core. Epidote slips @ 45° to core.							
164.0' / 202.0'	RHYOLITE & RHYOLITE BRECCIA Quartz carbonate vein sections and some graphite material with vein material and light sulphides of pyrrhotite and sparse chalcopyrite. @ 181.0' magnetite.							
202.0' / 278.0'	RHYOLITE with abundant quartz vein material at irregular angles. Sparse sulphides. Few short graphite sections.							
278.0' / 353.0'	RHYOLITE AGGLOMERATE Few narrow vein sections. No sulphides. 316' - 318' - gabbro dike. Some graphite sections.							
353.0' / 381.7'	RHYOLITE: fractured with quartz vein formation							

Log By.....
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.8 Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by Longyear D. Dr.
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 68523

Total Depth.....1020'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
381.7' / 508.0'	GABBRO: Medium grained gray, massive rock.							
	Stringers of irregular quartz with sparse sulphides. Short fine grained phases or inclusions.							
508.0' / 559.0'	RHYOLITE & TUFF: banded along fractures. Dense grained.							
559.0' / 602.0'	RHYOLITE: mottled hard rock with graphitic alteration.							
	© 569' - little chalcopryrite.							
	<u>SURFACE ZONE.</u>							
602.0' / 647.5'	Rhyolite & Graphitic Tuff: Few spots of chalcopryrite.							
	608.0 - 610.0' - 25% sulphides pyrrhotite & chalcopryrite.	4858	2.0'			0.14		
	611.0 - 631.3' - spots of chalco. 631.3' - 633.3' - 30% sulphides pyrrhotite & chalcopryrite.	4859	2.0'			0.16		
	638.0' - 639.5' - 20% sulphides, pyrrhotite & chalcopryrite	4860	1.5'			0.25		
	644.0 - 645.5' - 20% sulphides, pyrrhotite	4861	1.5'			0.07		
	645.5 - 647.5' - 20% sulphides	4862	2.0'			0.06		
	Little shearing © 647' © 20° to core.							
647.5' / 690.0.	RHYOLITE & TUFF: dark fine grained graphitic rock. Few veinlets.							
	Surface Zone.							
690.0' / 793.0'	GRAPHITIC TUFF AS ABOVE, Scattered sulphides.							
	693.5-695.0' - 10% sulphides	4863	1.5'			0.05		
	© 724.' - 1' sheared graphite.							

Log By..... *E. L. MacVEIGH*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.8 Sheet No. 3
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim T. 68523

Total Depth..... 1020'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
690.0' / 793.0'	GRAPHITIC TUFF (as above) Cont'd. 733.5'-735.0' - 5% sulphides sheared graphite	4864	1.5'			0.10		Nil.
	735' - 760.0' - graphitic tuff with scattered pyrrhotite.							
793.0' / 810.0'	RHYOLITE AGGLOMERATE: Mottled vari-colored rock. Sparse sulphides.							
810.0' / 835.0'	RHYOLITE AGGLOMERATE: as above with scattered pyrrhotite. Little graphite.							
835.0' / 885.0'	RHYOLITE & GRAPHITE Sparse sulphides 880-885 - altered dyke material.							
885.0' / 1020.0'	RHYOLITE AGGLOMERATE, as above. Little graphite. Sparse sulphides. Ended in cherty hard rhyolite.							
	<u>HOLE END - 1,020'</u>							
	Dip tests: - 260' - 52°							
	460' - 52°							
	660' - 52°							
	860' - 50°							

Log By... *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S. 9 Sheet No. 1
 Property Jonsmith-Mann Twp.
 Drilled by Longyear, D. Dr. Co.
 Date Begun June 2, 1965
 Date Finished JUNE 7, 1965
 Contractor's Footage

Co-ordinates Collar
 Lat. 1045N Dept. 1900!W
 Elev. Collar
 Bearing West
 Angle -45°
 Working Place Claim P. 68515

Total Depth 416.0'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core AXT

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 101.0'	<u>CASING:</u>							
101.0' / 173.0'	<u>GRAPHITIC TUFF: Disseminated sulphides, mostly pyrite, in seams and pods. Seams mostly at 30° to core. Core broken 150 - 175' parallel to core.</u>							
173.0' / 190.0'	<u>RHYOLITE & GRAPHITIC TUFF: FAULT ZONE.</u>							
190.0' / 197.0'	<u>FAULT ZONE: broken graphitic core with carbonate vein sections. @ 197.0' water lost, probably north-south offset between conductors.</u>							
197.0' / 237.0'	<u>GRAPHITIC TUFF & RHYOLITE Same and sulphides as above.</u>							
237.0' / 255.0'	<u>BASIC INTRUSIVE Well brecciated with quartz and carbonate. Little chalcopyrite @ 255.5' but sparse sulphides. Some sulphides concentrated at both contacts of brecciated gabbro.</u>							
255.0' / 360.0'	<u>PERIDOTITE: dark, medium grained. @ 283' seam of chalcopyrite, 1/8" @ 30° to core. Talc slips @ 30°.</u>							

Log By..... for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S. 9... Sheet No. 2...
 Property. Jonsmith-Mann Twp...
 Drilled by...
 Date Begun...
 Date Finished...
 Contractor's Footage...

Co-ordinates Collar
 Lat. Dept.
 Elev. Collar...
 Bearing...
 Angle...
 Working Place.. Claim P. 68515....

Total Depth..... 416.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
360.0' / 416.0'	PERIDOTITE; Some alteration. Few threads of asbestos .							
	@ 415' -2 seams of asbestos 1/4" and 1/8".							
	HOLE END - 416.0'							
	Dip tests - 200' - 43° 416' - 45°							

Log By... *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 10 Sheet No. 1
 Property. Jonsmith - Mann Twp.
 Drilled by. Longyear D. Dr. Co.
 Date Begun. June 20, 1965
 Date Finished. July 9, 1965
 Contractor's Footage.

Co-ordinates Collar
 Lat. 1790' N. Dept. 1450' W.
 Elev. Collar
 Bearing S. 06° W.
 Angle 50°
 Working Place. Claim P. 68514.

Total Depth. 661.0'
 Ft. of Core Recovered.
 % Recovery.
 Size Bit Used.
 Size Core. AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 39.0'	CASING:							
39.0' / 136.0'	GABBRO: Gray medium to coarse grained rock with diabase texture. 7' core lost, 39'-43' sand reported. Few small barren quartz veins. Core fractured, mostly at 45° to core. Some lengths of 10' to 30' are coarse grained.							
136.0' / 150.0'	RHYOLITE INCLUSION: Graphitic rhyolite sheared at 90° to core with rusty oxidation at 138'. Few sulphides.							
150.0' / 305.0'	GABBRO: medium to coarse grained massive dark rock with diabase texture. @ 235', 3" shear with pyrite.							
305.0' / 325.0'	RHYOLITE INCLUSIONS IN GABBRO							
325.0' / 345.5'	GABBRO - Medium grained, massive.							
345.5' / 355.0'	FELDSPAR PORPHYRY: Medium to fine grained gray rock with short sections of well developed feldspar phenocrysts.							
355.0' / 425.0'	GABBRO - as above @ 362' - pyritized shear 2" wide at 20° to core. Few scattered sulphides in gabbro, pyrrhotite and minor chalcopyrite. Rare quartz vein at long angles to core. 425' Rhyolite inclusion.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 10 Sheet No. 2 Co-ordinates Collar Total Depth 661.0'
 Property Jon Smith-Mann Twp. Lat. Dept. Ft. of Core Recovered
 Drilled by Elev. Collar % Recovery
 Date Begun Bearing Size Bit Used
 Date Finished Angle Size Core
 Contractor's Footage Working Place Claim P. 68514

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
355.0' / 425.p'	GABBRO - as above Cont'd. Contact indistinct.							
425.0' / 470.0'	RHYOLITE: Hard, gray to blue siliceous rock. Some banded sections. No graphite or sulphides.							
470.0' / 603.0'	GRAPHITIC RHYOLITE : with scattered sulphides - minor chalcopyrite and zinc. Core broken with slips or joints at 45° to 60° to core. Mostly dense grained graphitic tuff. @ 500' - 545' - core broken. 570.0' - Vein zone broken. Veinlets @ 570' with galena and cu. Lost core- 571' - 574.5'. @ 598.0' - 603.0' - increased sulphides with chalcopyrite & zinc. SAMPLE: 10% sulphides	3334	5.0'			0.30		0.64
603.0' / 651.3'	GRAPHITIC RHYOLITE: with scattered sulphides & quartz - carbonate vein sections. 631' - 641' - brecciated rhyolite. @ 636' - 1" massive pyrite.							
651.3' / 661.0'	GABBRO: With short rhyolite inclusions.							
	HOLE END - 661.0'							
	Dip Tests: @ 250' -40°							
	@ 450' -44°							

Log By *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. **JS.11** Sheet No. **1**
 Property **Jonsmith-Mann**
 Drilled by **Longyear**
 Date Begun **June 11, 1965**
 Date Finished **June 22, 1965**
 Contractor's Footage

Co-ordinates Collar
 Lat. **0200N** Dept. **4160N.**
 Elev. Collar
 Bearing **South**
 Angle **-55°**
 Working Place **Claim P. 61334.**

Total Depth **727.0'**
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core **AXT.**

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 31.0'	<u>CASING:</u>							
31.0' / 210.0'	<u>RHYOLITE AGGLOMERATE</u> Gray, hard rock, fractured with some shearing and chlorite slips - 20° - 30° to core. Scattered sulphides of pyrite, pyrrhotite and zinc. 60' - 80' - considerable irregular vein material. Quartz and feldspar filling with wall fragments. No sulphides in veins. 138' - 143' - chalcopryrite and sphalerite in quartz and fractured rhyolite. Some short darker sections may be graphitic. 150' - core broken.							
210.0' / 240.8'	<u>PERIDOTITE:</u> dark, medium grained massive - spotted with dark ferromagnesian minerals. Lower contact @ 30° to core.							
240.8' / 346.0'	<u>RHYOLITE TUFF:</u> Gray, dense grained rock fractured at various angles to core. Core broken - no graphite. Chlorite slips parallel to core. 310' - 335' - core badly broken.							
346.0' / 354.0'	<u>FELDSPAR PORPHYRY DYKE</u> Fine grained gray rock							
354.0' / 375.0'	With pyrite. Few small feldspar phenocrysts.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. JS.11 Sheet No. 2.
 Property Jonsmith - Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place.....

Total Depth..... 727.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
375.0' / 380.0'	<u>GABBRO DYKE: Dark medium grained rock with considerable pyr-rhotite. Contact @ 45° to core.</u>							
380.0' / 396.0'	<u>RHYOLITE AGGLOMERATE & TUFF</u> As above.							
396.0' / 423.0'	<u>GRAPHITIC TUFF & SULPHIDE ZONE</u> Pyrite & Minor chalcopyrite and sphalerite. SAMPLES:							
	396.0' - 397.7' -1% sulphides	4865	1.7'					Nil
	397.7' - 402.7' -7% sulphides	4866	5.0'		0.04	.22		0.08
	402.7' - 404.7' -7% sulphides	4867	2.0'		0.10	0.11		0.05
	404.7' - 406.7' - barren	4868	2.5'					Nil
	406.7' - 411.7' -10% sulphides	4869	5.0'					0.32
	411.7' - 416.7' - 7% sulphides	4870	5.0'					0.59
	416.7' - 419.5' -20% sulphides	4871	2.8'		0.08	0.52		1.07
	419.5' - 421.3' -80% sulphides	4872	1.8'		0.10	0.38		1.39
	421.3' - 423.0' -15% sulphides	4873	2.0		tr.	0.16		0.19
423.0' / 460.0'	<u>RHYOLITE TUFF & CLASTICS</u> Hard siliceous gray rock with coarse clastic sections. No sulphides.							
	451.0' - 454.0' - fine pyrite	4874	3.0'		Tr.	0.03		
460.0' / 500.8'	<u>RHYOLITE AGGLOMERATE:</u> brecciated clastics, chiefly with considerable graphite as filling between fragments. Scattered sulphides as streaks and pods.							
500.8' / 549.0'	<u>GRAPHITE & SULPHIDE ZONE</u> Chiefly pyrhotite and pyrite with sparse chalcopyrite and some zinc.							

Log By..... *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. **JS.11.** Sheet No. **3**
 Property **Jonsmith-Mann Twp.**
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place **Claim P.61334.**

Total Depth.....**727.0'**
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
500.8' / 549.0'	GRAPHITE & SULPHIDE ZONE CONT'D.							
	SAMPLES:							
	500.8' - 503.0' - 15% sulphides	4875	2.2'		0.04	0.11		0.21
	503.0' - 507.0' - 10% sulphides	4876	4.0'		0.13	0.10		0.86
	507.0' - 508.0' - 10% sulphides	4877	1.0'		0.14	0.06		0.64
	508.0' - 513.0' - 3% sulphides	4878	5.0'		0.14			0.27
	513.0' - 517.0' - 5% sulphides	4879	4.0'		0.15			0.40
	517.0' - 522.5' - 30% sulphides	4880	5.5'		0.11	0.35		3.05
	522.5' - 528.0' - 5% sulphides	4881	5.5'		0.10			0.37
	528.0' - 533.0' - 5% sulphides	4882	5.0'		0.10			0.65
	533.0' - 538.0' - 10% sulphides	4883	5.0'		0.08			0.43
	538.0' - 541.0' - 5% sulphides	4884	3.0'		tr.			0.47
	541.0' - 546.0' - 12% sulphides	4885	5.0'		tr.			tr.
	546.0' - 549.0' - 20% sulphides	4886	3.0'		tr.	0.06		Nil.
549.0' / 629.5'	RHYOLITE AGGLOMERATE							
	Hard gray, siliceous.							
	Graphitic sections with scattered sulphides. Clastic sections with 1/4" fragments. Well outlined rhyolite breccia fragments in graphitic matrix bearing scattered sulphides. Some copper and zinc sulphides visible.							
	620.5' - 623.0' - 5% sulphides	4887	2.5'					Nil.
	623.0' - 625.0' - 5% sulphides	4888	2.0'					Nil.
629.5' / 680.0'	GRAPHITE ZONE WITH SULPHIDES.							
	629.5' - 635.0' - 5% sulphides	4889	5.5'					Nil.
	635.0' - 643.0' - No sample							
	3% sulphides							
	Visible chalcopyrite and zinc.							
	643.0' - 647.0' - 5% sulphides	4890	4.0'					Nil.
	647.0' - 648.0' - 5% sulphides	4891	1.0'					0.07
	648.0' - 650.0' - No Sample.							
	650.0' - 654.0' - 10% sulphides	4892	4.0		0.08	0.10		Tr.

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 12 Sheet No. 1
 Property Jonsmith-Mann Twp.
 Drilled by Longyear D. Drill
 Date Begun June 24, 1965
 Date Finished July 3, 1965
 Contractor's Footage

Co-ordinates Collar
 Lat. 000 Dept. 3860 W.
 Elev. Collar
 Bearing West
 Angle -45°
 Working Place Claim P. 61334

Total Depth 814'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 11.0'	CASING:							
11.0' / 63.6'	PERIDOTITE: dark, medium grained, massive rock with talcose slips and network of white seams. Most slips @ 60° to core.							
63.6' / 85.0'	RHYOLITE TUFF AND AGGLOMERATE Light colored mottled rock with black graphitic streaks. Irregular qu.-carbonate vein matter. Rare sulphides.							
85.0' / 110.0'	AGGLOMERATE: Conspicuous white fragments in dark ground mass.							
110.0' / 130.0'	TUFF: Fine grained graphitic rock with sparse sulphides.							
130.0' / 138.0'	AGGLOMERATE: As above. Sparse sulphides.							
138.0' / 263.6'	AGGLOMERATE: Scattered sulphides - pyrite, pyrrhotite, chalcopyrite; SAMPLE: 138.0' -143.0' -5% sulphides 143.0' -149.0' -5% sulphides 168.0' -179.0' - peridotite dike material. Core broken. Some short sections amygdaloidal, may be volcanic flow.	4896 4897	5.0' 6.0'		0.51			Nil. Nil.
263.6' / 286.0'	RHYOLITE FLOW - Sharp contact @ 45° to core, dense grained, amygdaloidal, dark brown rock.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 12 Sheet No. 2 Co-ordinates Collar
 Property Jonsmith*Mann Twp. Lat. Dept. Total Depth 814.0'
 Drilled by Elev. Collar Ft. of Core Recovered
 Date Begun Bearing % Recovery
 Date Finished Angle Size Bit Used
 Contractor's Footage Working Place Claim P. 61334. Size Core

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
286.0' / 351.6'	AGGLOMERATE: with probably some flow formation. Sparse sulphides.							
351.6' / 356.0'	DIKE: Light colored with biotite.							
356.0' / 363.0'	AGGLOMERATE as above.							
363.0' / 383.5'	GRAPHITE ZONE WITH SULPHIDES. SAMPLES:							
	363.0' - 367.0' - 5% sulphides	4898	4.0'					Nil.
	367.0' - 370.0' - 4% sulphides	4899	3.0'					0.07
	370.0' - 374.5' - 5% sulphides	4900	4.5'					0.64
	374.5' - 377.5' - 70% sulphides	3301	3.0'		0.16	0.16		1.07
	377.5' - 379.5' - 2% sulphides	3302	2.0'					0.21
	379.5' - 383.5' - 5% sulphides	3303	4.0'					0.70
383.5' / 420.0'	RHYOLITE AGGLOMERATE & TUFF: Few black streaks of graphitic material. Rare sulphides.							
420.0' / 434.0'	FELDSPAR PORPHYRY DIKE: Light colored, pyritized, few small phenocrysts.							
434.0' / 500.6'	GRAPHITE ZONE SAMPLES: pyrite spherules							
	434.0' - 437.0' - 5% sulphides	3304	3.0'					0.48
	437.0' - 440.0' - 5% sulphides	3305	3.0'					0.48
	440.0' - 445.0' - 5% sulphides	3306	5.0'					0.43
	445.0' - 450.0' - 5% sulphides	3307	5.0'					0.54
	450.0' - 455.0' - 5% sulphides	3308	5.0'					0.26
	455.0' - 460.0' - 5% sulphides	3309	5.0'					0.80
	460.0' - 465.0' - 5% sulphides	3310	5.0'					0.43
	465.0' - 470.0' - 5% sulphides	3311	5.0'					0.64
	470.0' - 475.0' - 5% sulphides	3312	5.0'					0.64
	475.0' - 478.0' - 5% sulphides	3313	3.0'					0.27
	478.0' - 480.0' - 5% sulphides	3314	2.0'					0.49
	480.0' - 483.5' - 5% sulphides	3315	3.5'					0.48

Log By
for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 12 Sheet No. 3
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat. Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth..... 814.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
434.0' / 500.6'	<u>GRAPHITE ZONE Cont'd.</u>							
	483.5' - 486.0' - 40% sulphides	3316	2.5'					0.26
	486.0' - 488.0' - 5% sulphides	3317	2.0'					Nil.
	488.0' - 495.0' - rhyolite agglomerate - no sulphides.							
	495.0' - 498.5' - 5% sulphides	3318	3.5'					Nil.
	498.5' - 500.6' - 40% sulphides	3319	2.1'			0.28		Nil.
500.6' / 519.0'	<u>FELDSPAR PORPHYRY DYKE.</u>							
	Fine grained, light colored rock with pyrite as above.							
	Contact at 30° to core - chalcopryrite and pyrrhotite at 517.5'							
519.0' / 559.0'	<u>RHYOLITE AGGLOMERATE</u>							
	With graphitic section.							
	525.0' - 528.5' - 10% sulphides	3320	3.5'			0.68		0.32
	554.5' - 559.0' - feldspar porphyry dyke @ 30°.							
559.0' / 709.0'	<u>RHYOLITE AGGLOMERATE</u>							
	Clastic type even grained white fragments in dark ground mass.							
	No sulphides.							
	614.6' - 620.6' feldspar porphyry dyke. Few streaks of sulphides and quartz veinlets.							
709.0' / 770.0'	<u>GRAPHITE ZONE with sulphides</u>							
	SAMPLES:							
	709.0' - 714.0' - 5% sulphides	3321	5.0'					Nil.
	714.0' - 718.0' - 5% sulphides	3322	4.0'					0.96
	718.0' - 723.0' - 5% sulphides	3323	5.0'					0.37
	723.0' - 728.0' - 5% sulphides	3324	5.0'					0.42
	728.0' - 733.0' - 10% sulphides	3325	5.0'					0.91
	733.0' - 738.0' - 20% sulphides	3326	5.0'					0.42

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.13 Sheet No. 1
 Property Jonsmith-Mann Twp.
 Drilled by Longyear D. Dr.
 Date Begun July 5, 1965
 Date Finished July 14, 1965
 Contractor's Footage.....

Co-ordinates Collar
 Lat. 1003' Dept. 3860 W.
 Elev. Collar.....
 Bearing West
 Angle -45°
 Working Place Claim P. 61334

Total Depth..... 614.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core..... AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 13.0'	<u>CASING:</u>							
13.0' / 47.0'	<u>PERIDOTITE with rhyolite inclusions and scattered sulphides.</u>							
	13.0 - 15.0' - peridotite							
	15.0' - 23.0' - rhyolite							
	23.0' - 47.0' - peridotite. scattered sulphides.							
47.0' / 86.0'	<u>RHYOLITE AGGLOMERATE</u>							
	mottled rock with white fragments and cherty sections.							
86.0' / 160.0'	<u>AGGLOMERATE with graphitic sections and sulphide sections.</u>							
	Graphite - 86.0' - 88.0'							
	Graphite - 98.0' - 103.0'							
	scattered sulphides and few quartz veins.							
	107.0' - 121.0' - graphitic with sulphides - visible chalcopryrite.							
	126.5' - 129.0' feldspar porphyry dyke.							
	136.0' - 138.0' feldspar porphyry dyke.							
	138.0' - agglomerate with graphitic sections.							
160.0' / 255.0'	<u>RHYOLITE AGGLOMERATE</u>							
	Hard, mottled, poorly defined fragments. Few short dark sections - may be graphitic.							
	Brown stain and amygdules, may be volcanic flows.							
	From 210' - 250'. Few quartz veins @ 90°.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.13 Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P.61334

Total Depth 614.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
255.0'	<u>GRAPHITIC TUFF & AGGLOMERATE</u>							
	Core broken - sparse sulphides							
255.0' / 256.0'	<u>RHYOLITE</u> as above.							
256.0' / 321.0'	<u>PERIDOTITE</u> with inclusions of rhyolite. Talcose slips parallel to core. No sulphides.							
321.0' / 372.0'	<u>RHYOLITE</u> as above.							
372.0' / 441.0'	<u>RHYOLITE</u> agglomerate with graphitic sections. Samples: - leaching @ 435'. 424.4' - 428.0' - 5% sulphides 428.0' - 431.0' - 5% sulphides 431.0' - 433.0' - 5% sulphides 433.0' - 436.0' - 5% sulphides 436.0' - 439.0' -25% sulphides 439.0' - 441.0' -10% sulphides	3335 3336 3337 3338 3339 3340	3.6' 3.0' 2.0' 3.0' 3.0' 2.0'			.16 .12		0.59 0.21 Nil Nil 0.32 0.30
441.0' / 529.5'	<u>RHYOLITE AGGLOMERATE</u> and <u>BRECCIA</u> fragments in dark graphitic ground mass. Few scattered sulphides @ 444.5' - 446.0'. rhyolite with considerable pyrite or dyke rock, no graphite, poor contacts. Few quartz vein sections @ 90° to 70° to core. @ 463.8' - 1" quartz vein with 50% sulphides.							
529.5' / 602.0'	<u>GRAPHITE. ZONE WITH SULPHIDES</u> SAMPLES: 529.5' - 531.0' - 20% sulphides 531.0 - 534.0' - 5% sulphides	3341 3342	1.5' 3.0'			.15		1.07 0.10

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. J.S.13 Sheet No. 3
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth 614.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
529.5' / 602.0'	GRAPHITE ZONE WITH SULPHIDES- CONT'D.							
	534.0' - 535.5' - 20% sulphides	3343	1.5'			.12		0.38
	535.5' - 540.5' - 5% sulphides	3344	5.0'					0.37
	540.5' - 543.0' - 5% sulphides	3345	2.5'					0.10
	543.0' - 580.0' - chiefly graphite with fine disseminated sulphides. Few veinlets and light cleavage at 30° to core.							
	SAMPLES:							
	580.0' - 585.0' - 5% sulphides	3346	5.0'					0.09
	585.0' - 588.5' - 5% sulphides	3347	3.5'					0.36
	588.5' - 590.5' - 15% sulphides	3348	2.0'			0.10		2.95
	590.5' - 592.5' - 5% sulphides	3349	2.0'					0.48
	592.5 - 597.0' - 5% sulphides	3350	4.5'					0.38
	597.0' - 602.0' - 5% sulphides	3351	5.0'					0.11
602.0' / 614.0'	RHYOLITE: dark, hard dense grained rock with fine disseminated pyrite.							
	HOLE END - 614.0'							
	Dip Tests - 210' - -44° 410' - -44°							

Log By *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 14 Sheet No. 1 Co-ordinates Collar Lat. 533° N. Dept. L. 52° W. Total Depth 740.0'
 Property Jonsmith-Mann Twp. Elev. Collar S. 08° W. Ft. of Core Recovered
 Drilled by Longyear D. Dr. Co. Bearing -45° % Recovery
 Date Begun July 16, 1965 Angle -45° Size Bit Used
 Date Finished July 29, 1965 Working Place Claim P. 61333 Size Core AXT
 Contractor's Footage

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 1.0'	<u>CASING:</u>							
1.0' / 127.5'	<u>PERIDOTITE:</u> Dark medium to fine grained rock with talcose slips at 45° to core. Some asbestos fibre in 1/16" to 1/8" veinlets. Some alteration zones showing banding. No sulphides. Some light shearing at 45° to core. 86' - 88' - rhyolite inclusion. 103' - 104.5' - rhyolite inclusion 110' - 112' - rhyolite inclusion 125' - 127.5' - rhyolite inclusion							
127.5' / 135.0'	<u>TRANSITION ZONE</u> - Peridotite to gabbro - or contact zone (?) Some graphite and few sulphides.							
135.0' / 174.6'	<u>GABBRO:</u> fine grained, green to dark grey rock with small white feldspars in dark ground mass. 156' - 156.7' - rhyolite inclusion with a few sulphides.							
174.6' / 204.4'	<u>FELDSPAR PORPHYRY:</u> Contact indistinct. Dark grey rock with prominent white feldspar phenocrysts. Few quartz-carbonate veinlets @ 45° to core. Chalcopyrite @ 195' with pyrrhotite in porphyry.							
204.4' / 249.0'	<u>RHYOLITE:</u> with graphite sections and some sulphides. @ 210.6 - two white feldspar veins.							

P. 61333

DIAMOND DRILL RECORD

Hole No. 14 Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61333

Total Depth.....
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
204.4'	RHYOLITE Cont'd.							
249.0'	@ 212.6' - some chalcopyrite and zinc.							
	@ 224.0' - 225.5' - amygdaloidal lava.							
249.0' / 265.0'	GRAPHITE ZONE: Some graphite filled breccia zones in black, dense grained rock. Sulphides scattered throughout. Chiefly pyrrhotite.							
265.0' / 288.0'	PORPHYRY DYKE: Chloritized and altered with high sulphide content chiefly pyrrhotite. Considerable green chrome mica-fuschite 265' - 266.5'. From 266.5' to 284.0' dike is fine grained unaltered rock with fine pyrite disseminated throughout.							
288.0' / 361.0'	RHYOLITE: with graphite sections and scattered sulphides. 309' - 361' - porphyritic rhyolite, white feldspars in glassy amygdaloidal rhyolite. @ 360' - 10" dike.							
361.0' / 400.0'	RHYOLITE BRECCIA: Prominent fragments in graphitic ground mass. Scattered sulphides. Chiefly pyrrhotite.							
400.0' / 441.0'	RHYOLITE BRECCIA with graphite sections and sulphide streaks. Quartz veins @ long angles to core.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 14 Sheet No. 3e
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61333

Total Depth..... 740.0'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
441.0' / 451.0'	<u>PORPHYRITIC DYKE:</u> Feldspar phenocrysts in dark rock.							
451.0' / 459.2'	<u>RHYOLITE FLOW:</u> Amygaloidal with dark wavy streaks.							
459.2' / 506.5'	<u>PORPHYRITIC DYKE</u> as above							
506.5' / 564.0'	<u>RHYOLITE BRECCIA:</u> Glossy light coloured rhyolite with pyrrhotite blebs and streaks. Increase in sulphides.							
	WATER LOST @ graphitic zone @ 523' - Fault (?)							
	530' - 550' core badly broken.							
564.0' / 583.6'	<u>RHYOLITE:</u> clastics. White fragments in glossy rhyolite.							
583.6' / 584.6'	<u>PORPHYRY DYKE:</u> Fine grained with pyrite.							
584.6' / 652.0'	<u>RHYOLITE AGGLOMERATE</u> Fragments cemented with graphitic filling. Scattered sulphides.							
	@ 590' - 1" pyrite, chalco-zinc.							
	@ 597.6'-1" " " "							
	604' - 630' - increasing sulphides.							
652.0' / 740.0'	<u>PORPHYRY:</u> Fine to coarse grained feldspar phenocrysts; From 695.0' - 699.0' ground core.							
	740.0' - END OF HOLE.							
	Dip Tests corrected @ 210' = 45°							
	" " " 410' = 45°							
	" " " 610' = 46°							

Log By... *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

No. 15 Sheet No. 1
 Property Jonsmith - Mann Twp.
 Drilled by Longyear
 Date Begun July 30, 1965
 Date Finished
 Contractor's Footage

Co-ordinates Collar
 Lat. 900' N. Dept. 4726 W.
 Elev. Collar
 Bearing South
 Angle - 15°
 Working Place Claim P. 61334

Total Depth 732.6'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 8.0'	CASING:							
8.0' / 148.4'	GABBRO: Coarse grained gray rock with diabasic texture. Joint fractures at long angles to core, 33' - 45' - core broken and narrow quartz veins up to 3". 39' - 40' - 25% sulphides in inclusion or small dike. @ 111' - 6" barren quartz @ 30°. @ 146' - shearing 1' @ 30°.							
148.4' / 202.0'	RHYOLITE: contact with gabbro about 30° to core. Contact shows quartz veins and shearing with a little chalco. Rhyolite graphitic 148.4' to 156'. From 156' - 186.0' vari-coloured clastics, hard and siliceous. Core broken 174.0 - 175.5' - core lost 186.0' - 196.0' - sheared @ 60°.							
202.0' / 225.5'	RHYOLITE BRECCIA with scattered sulphides and some chalcopryite and zinc. Should be split 210' - 214'. 215' - 225.5' graphitic rhyolite with scattered sulphides.							
225.5' /	PERIDOTITE: Dark fine grained rock with talcose slips. Contact with rhyolite and most slips @ 30° to core. Threads of asbestos.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 15 Sheet No. 2 Co-ordinates Collar
 Property Jonsmith Mines-Mann Lat. Dept. Total Depth
 Drilled by Elev. Collar Ft. of Core Recovered
 Date Begun Bearing % Recovery
 Date Finished Angle Size Bit Used
 Contractor's Footage Working Place P. 61334 Size Core AXT

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
225.0' / 304.0'	PERIDOTITE: Cont'd.							
	265' - 283' - large rhyolite inclusion in peridotite							
	282' - 283' - calcite vein							
	284' - 287' - tremolite veins @ 30° to core.							
304.0' / 319.0'	FELDSPATHIC DIKE: probably related to gabbro as anorthosite. Light colored, hard rock.							
319.0' / 328.0'	RHYOLITE - brecciated and chloritized with few sulphides.							
328.0' / 331.6'	LAMPROPHYRE DIKE with biotite and small feldspar crystals.							
331.6' / 439.0'	RHYOLITE brecciated with few graphitic sections and scattered sulphides from 331.6' to 350'. 350.0' - fine grained gray rock with scattered sulphides probably tuff.							
439.0' / 451.0'	GRAPHITIC ZONE & FAULT ZONE. Rhyolite and vein breccia with graphite, quartz and sulphides. Mud seam at 442.5'.							
	SAMPLE: 441.0' - 444.6'	3352	3.6'		.03	.06		Nil.
451.0' / 458.2'	PERIDOTITE - medium grained dark green, talcose rock with quartz-carbonate veinlets @ 45° to core. Peridotite apparently cut off by fault.							
458.2' / 483.0'	RHYOLITE ANGLOMERATE Fault Zone, core broken and some vein breccia and graphite. Few sulphides.							

DIAMOND DRILL RECORD

Hole No. 15 Sheet No. 3
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334.....

Total Depth..... 732.6'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
483.0' / 632.0'	<u>PERIDOTITE & INCLUSIONS</u>							
	Chloritic alteration. Fragments to 1 1/2". Scattered sulphides. Sparse chalcopyrite.							
	@ 528' - vein breccia.							
	533' - 553.0' - core badly broken, may be fault zone.							
	Graphitic slips @ 30°							
	550' - 570' - banding - tuffs @ 90° and agglomerate.							
	570' - 610' core badly broken.							
632.0' / 639.0'	<u>GRAPHITE ZONE:</u>							
	636.3' - 639.0' pyrite pyrrhotite and chalcopyrite 8% sulphides.	3353	2.7'		.07	.24		Nil.
639.0' / 666.0'	<u>RHYOLITE AGGLOMERATE</u>							
	Fine grit or clastic with scattered sulphides.							
	652.5 - 657.5' -10% sulphides	3354	5.0'			.09		
666.0' / 732.6'	<u>GRAPHITE ZONE- Massive</u>							
	graphite with sulphides, pyrrhotite, chalcopyrite, zinc.							
	<u>SAMPLES:</u>							
	666.0' - 668.0' - 5% sulphides	3355	2.0'					
	668.0' - 671.0' -20% sulphides	3356	3.0'		.18	.17		1.39
	671.0' - 677.0' -40% sulphides	3357	6.0'		.22	.39		1.07
	677.0' - 682.0' -20% sulphides	3358	5.0'					0.75
	682.0' - 683.0' -15% sulphides	3359	1.0'	.005		.63		1.07
	683.0' - 687.0' -10% sulphides	3360	4.0'					.74
	687.0' - 692.5' -agglomerate sparse sulphides.							
	692.5' - 696.7' -graphite -15% sulphides	3361	4.2'	tr.		.15		0.11
	696.7' - 704.5' -graphitic, 5% sulphides. No sample.							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 15 Sheet No. 4
 Property Jonsmith-Mann Twp.
 Drilled by.....
 Date Begun.....
 Date Finished.....
 Contractor's Footage.....

Co-ordinates Collar
 Lat..... Dept.....
 Elev. Collar.....
 Bearing.....
 Angle.....
 Working Place Claim P. 61334

Total Depth..... 732.6'
 Ft. of Core Recovered.....
 % Recovery.....
 Size Bit Used.....
 Size Core.....

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
666.0' / 732.6'	GRAPHITE ZONE -continued.							
	704.5 - 709.7' -quartz and calcite with graphite-15% sulphide.	3362	5.2	tr.				Nil.
	709.7' - 712.4' -10% sulphides	3363	2.7'	tr.				Nil.
	712.4' - 717.4' -10% sulphides	3364	5.0'					.86
	717.4' - 725.0' -10% sulphides	3365	7.6'					.64
	725- 732.6' - agglomerate graphitic at end of hole. Hole probably cut through graphite zone.							
	<u>HOLE END - 732.6'</u>							
	Dip Tests 220' - -45°							
	420' - -43°							
	720' - -43°							

Log By. *[Signature]*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 16 Sheet No. 1
 Property. Jonsmith-Mann Twp.
 Drilled by. Longyear, D. Dr. Co.
 Date Begun. Aug. 17, 65
 Date Finished. Aug. 22, 1965.
 Contractor's Footage.

Co-ordinates Collar
 Lat. 200' N. Dept. L. 26 W.
 Elev. Collar.
 Bearing. South
 Angle. 045°
 Working Place. Claim P. 61335

Total Depth. 417.0'
 Ft. of Core Recovered.
 % Recovery.
 Size Bit Used.
 Size Core. AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0' / 44.0'	CASING							
44.0' / 62.0'	PERIDOTITE: Dark talcose rock with quartz and calcite veinlets at various angles to core. No sulphides.							
62.0' / 128.0'	GABBRO; Medium to fine grained diabasic texture. Quartz-carbonate veins @ various angles to core. No sulphides. @ 88' - 6" quartz.							
128.0' / 140.0'	RHYOLITE AGGLOMERATE Rusty contact with gabbro at 90° to core. 134.0' - 135.0' 10% sulphides in sheared and altered rhyolite.							
140.0' / 283.0'	GRAPHITE ZONE: Scattered sulphides, pyrrhotite, pyrites. Few small quartz-carbonate stringers. 198' - 202' - sheared and chloritized agglomerate. 202' - 225' - graphitic agglomerate - sparse sulphides. 225' - 226' - broken core fault (?) Massive graphite sections probably mostly tuff.							
283.0' / 320.0'	GABBRO - contact at 45° with graphitic rhyolite. Gabbro is medium to fine grained massive rock.							

Log By. for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 16 Sheet No. 2 Co-ordinates Collar Total Depth 417.0'
 Property Jonsmith-Mann Twp. Lat. Dept. Ft. of Core Recovered
 Drilled by Date Begun Elev. Collar % Recovery
 Date Finished Angle Size Bit Used
 Contractor's Footage Working Place Claim P. 61335 Size Core

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
320.0'	<u>RHYOLITE - AGGLOMERATE</u>							
417.0'	with considerable graphite and quartz carbonate vein material. Sparse sulphides.							
	387' - 388' - small pyritized dike of feldspar porphyry.							
	404.0' - 405.0' feldspar vein with pyrite.							
	<u>HOLE END - 417.0'</u>							
	Dip test @ 250' -45°.							

Log By *E. L. MacVeigh*
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

Hole No. 18 Sheet No. 1 Co-ordinates Collar
 Property Jonsmith-Mann Twp. Lat. 1250'S Dept. L. 12W. Total Depth 625.0'
 Drilled by Longyear, D. Dr. Elev. Collar..... Ft. of Core Recovered.....
 Date Begun Sept. 1, 1965 Bearing S. 04° W. % Recovery.....
 Date Finished Sep. 7, 1965 Angle ~45° Size Bit Used.....
 Contractor's Footage..... Working Place Claim P. 68516 Size Core AXT.

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
0.0 / 197.0'	<u>CASING:</u>							
197.0' / 230.0'	<u>GRAPHITIC TUFF: Core badly broken and rusty. Banding at 70° to core. Few small quartz carbonate veinlets. Some small particle fragmental agglomerate.</u>							
230.0' / 370.0'	<u>GRAPHITIC TUFF & FINE AGGLOMERATE</u> As above some banding at 70° to core.							
370.0' / 455.0'	<u>GRAPHITIC TUFF: few blebs of sulphides showing copper and zinc in graphite. Few short lengths of graphite, free rhyolite.</u> @ 414.0' sand @ 421.0' Sand @ 427.0' Sand. @ 450.0' - 451', considerable chalcopryrite and zinc.							
455.0' / 456.5'	<u>FAULT ZONE: 455.0-456.5'</u> Sand and open seam.							
456.5' / 503.0'	<u>INCREASED SULPHIDES</u> Starting at 449', show copper and zinc. 465 - 479' - many small irregular quartz veinlets.							
503.0' / 505.0'	<u>RHYOLITE BRECCIA</u>							
505.0' / 514.0'	<u>RHYOLITE TUFF</u>							
514.0' / 517.5'	<u>BASIC DIKE or Lamprophyre.</u>							

Log By.....
 for E. L. MacVEIGH

DIAMOND DRILL RECORD

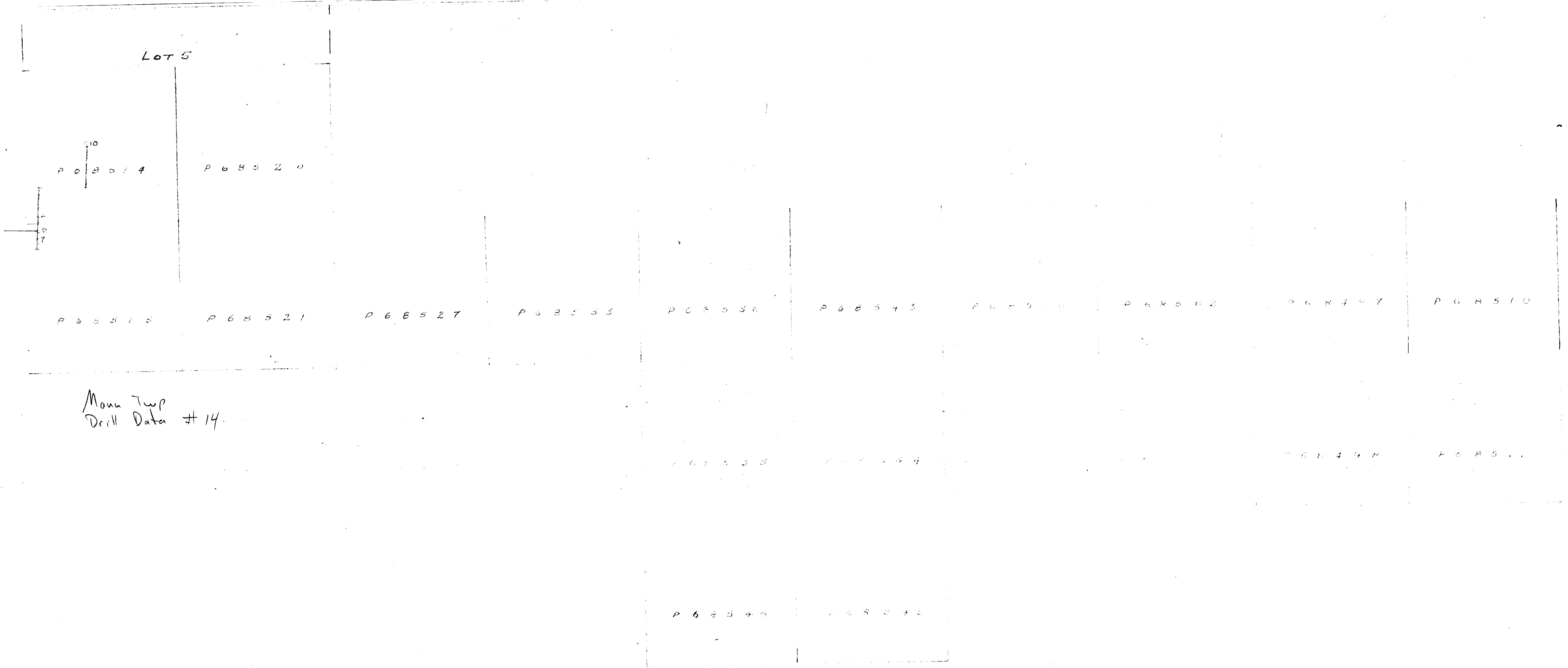
Hole No. 18 Sheet No. 2
 Property Jonsmith-Mann Twp.
 Drilled by Longyear D. Dr. Co.
 Date Begun
 Date Finished
 Contractor's Footage

Co-ordinates Collar
 Lat. Dept.
 Elev. Collar
 Bearing
 Angle
 Working Place P. 68516

Total Depth 625'
 Ft. of Core Recovered
 % Recovery
 Size Bit Used
 Size Core

Depth Feet	Formation	Sample No.	Width	Ozs. Au.	Ozs. Ag.	% Cu.	% Ni.	% Zn.
517.5'/ 545.0'	<u>GRAPHITIC TUFF:</u> Few sulphides. Quartz-carbonate vein material. Core broken.							
545.0'/ 548.0'	<u>PORPHYRY DIKE:</u> @ 70° to core. 533.0' - 544.0' - core broken. Fault zone (?)							
548.0'/ 595.0'	<u>GRAPHITIC TUFF with scattered sulphides.</u> <u>SAMPLES:</u> 573.4' - 577.4' -5-10% sulphides 577.4' - 579.4' -7% sulphides 579.4' - 584.4' -10% sulphides	3366 3367 3368	4.0' 2.0' 5.0'					0.15 Tr. 0.09
595.0'/ 625.0'	<u>PORPHYRY DIKE</u> Contact shows quartz-feldspar vein material. White feldspar phenocrysts in dark ground mass. No sulphides.							
HOLE END - 625.0'								
Dip Test @ 200' - -40°								

Log By. *E. L. MacVeigh*
 for E. L. MacVEIGH



Mann Twp
Drill Data #14.

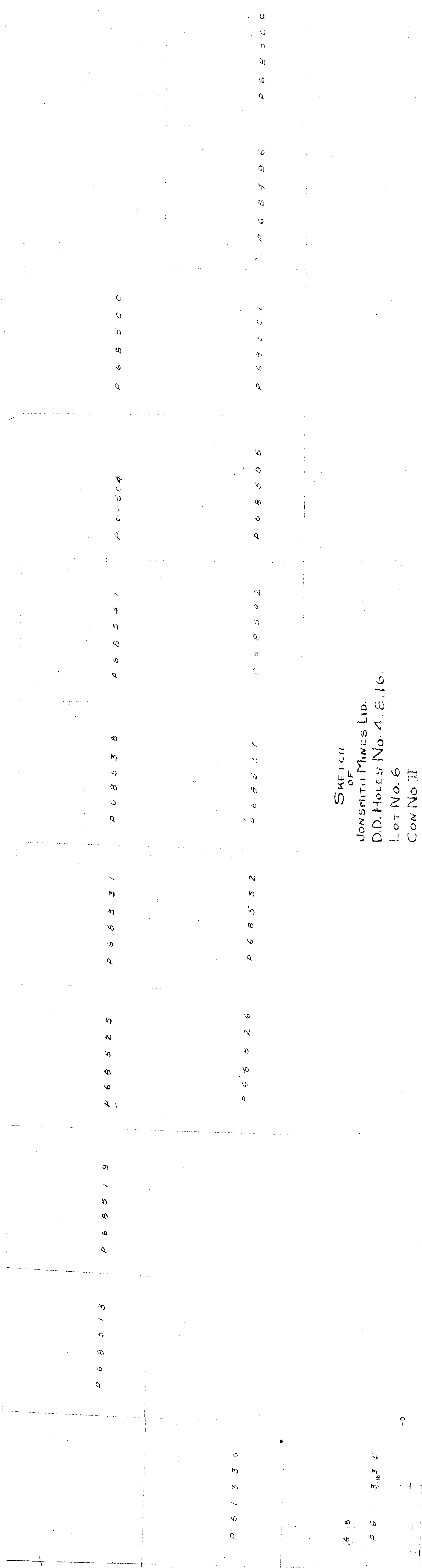
SKETCH
OF
JONSMITH MINES LTD.
D.D. HOLES No. 6, 7, 9, 10.
Lot No. 5
CON. No. II
MANN TWP
SCALE - 1" = 400'
(1 1/2 x 3) 4 1/2 sq. ft.

By J.K. Dwyer

3' x 1 1/2'
= 400'



Lot 6



SKETCH
OF
JONSMITH MINES LTD.
D.D. HOLES No. 4, 8, 16.
Lot No. 6
CON No II
MANN TWS
SCALE: 1" = 400' BY 1/4" = 100'
(113) 30894



4241528042 14 MANN

MANN # 14.

LOT 6

P 6 1 3 4 6

P 6 1 3 4 5

P 6 8 8 1 2

P 6 8 5 1 8

P 6 8 5 2 4

P 6 8 5 3 0

P 6 8 5 3 9

P 6 8 5 4 0

P 6 8 5 0 3

P 6 8 4 9 9

P 6 8 4 9 4

P 6 8 5 0 7

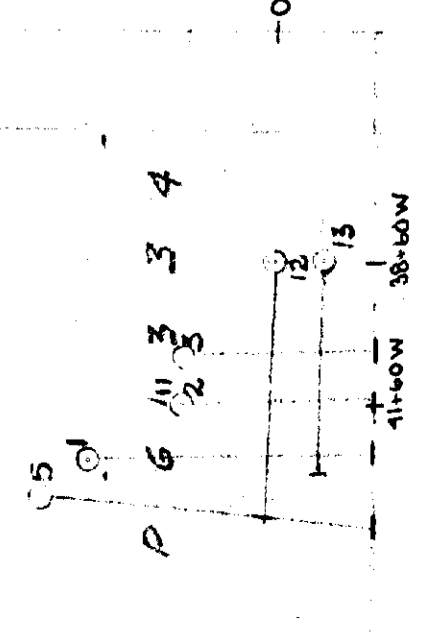
P 6 1 3 4 3

P 6 1 3 4 4

P 6 1 3 3 7

(P 6 8 4 9 5 P 6 8 5 0 8

015



SKETCH
OF
JONSMITH MINES LTD.
D.D. HOLES No. 1, 2, 3, 5, 11, 12, 13, 15
LOT No 6
CON. NO. II
MANN TWP.
SCALE - 1" = 400' BY F.R. BERRY



MAN DD H 14
E20
Mann Top
D.D. 5 14