Diamond Drilling

Area O' Sullivan Lake **Report Nº** 18

Work performed by: Jonsmith Mines Ltd.

Claim Nº	Hole Nº	Footage	Date	Note
KK 19326	1	273'	Aug/59	
	2	307'	Sept/59	
	6	297'	Sept/59	
KK 19327	3	312'	Sept/59	
	4	310'	Sept/59	
	5	352'	Sept/59	

Notes:

4-3-141

JOBSMITH MINES LIMITED

O'Sullivan Lake Prospect

Diamond Drill Hole #1

Bearing S 60° E
Inclination 58°

Depth 273 ft.

Location:
2,800N - 1,775W

Drilling dates:
August 23 to
September 1, 1959

Footage	Description
0.0 - 139.0	Overburden, casing.
139.0 - 150.5	Andesite, fine to medium grained, chloritic, dark green. Flow lines 55° to core. Few thin carbonate seams 45° to 80° to core. Sparse pyrite in scattered specks. Odd chalcopyrite speck. Medium grained magnetite disseminated throughout, approximately 3%. A little chalcopyrite in ½ inch carbonate seam at 150.0 ft.
150.5 - 151.5	Andesite, medium grained, green. Few carbonate seams. Sparse pyrite. Fine grained magnetite throughout, approximately 5%.
151.5 - 168.5	Andesite, medium to coarse grained, green. Epidotized with a little quartz 151.5 - 152.5. High magnetite (estimated 10%) from 157.0 to 158.5 ft., none in remainder. ½ inch quartz and carbonate stringer 25° to core at 167.0 ft.
168.5 - 171.5	Chloritic andesite. Very well defined flow lines 60° to core. Possibly flow top at 168.5 ft. Odd carbonate seam 65° to core.
171.5 - 197.0	Andesite, medium to course grained, green. Odd carbonate seam at varying angles to core.
197.0 - 200.5	Andesite, medium to fine grained, becoming finer. Odd thin epidote seam. ½ inch carbonate stringer 40° to core at 199.0 ft. Very odd pyrite speck.
200.5 - 204.0	Andesite, fine grained, dark green. Fine carbonate flecks abundant as poorly defined flow lines. Probably flow top material. Few carbonate seams, mostly at 50° to core. A little pyrite.
204.0 - 235.0	Andesite, medium grained, green to grey. Few carbonate seams. Odd narrow quartz seam. ½ inch quartz and carbonate shear 40° to core at 233.0 ft. Odd spook of chalcopyrite and pyrite.
235.0	Flow contact 70° to core. Narrow calcite seam on contact with a little fine chalcopyrite & pyrrhotite.

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O'Sullivan Lake Prospect

Diamond Drill Hole #1

Footage	Description
235.0 - 243.0	Andesite, fine to medium grained, chloritic. Fine flow lines 30° to core. Numerous thin carbonate seams. Odd narrow quartz seam. Few specks of fine chalcopyrite and odd speck of pyrrhotite disseminated throughout.
243.0 - 247.0	Andesite, medium grained, light green, weakly epidotized. Several small epidote seams.
247.0 - 256.0	Andesite, medium grained, grey to green. Few thin carbonate seams. ½ inch calcite stringer 45° to core at 252.0 ft.
256.0 - 260.8	Andesite, medium to coarse grained. Weakly epidotized in short sections. Few carbonate and epidote seams.
260.8 - 263.5	Andesite, medium to fine grained. Fine flow lines 45° to core. Few quartz and calcite seams.
263.5 - 264.0	Contact zone. Grades from medium grained green andesite to medium grained grey diorite.
264.0 - 268.0	Diorite, light to dark grey, medium grained becoming coarse grained.
268.0 - 273.0	Diorite, coarse grained becoming very coarse, mottled light and dark grey, weakly ophitic. Very odd speck of pyrrhotite and chalcopyrite.
273.0	End of Hole.

Hole logged by W. D. Sutherland, P. Eng.
O'Sullivan Lake, Ontario
September 1, 1959

Note to Mining Recorder:

Drill Hole #1 from 0.0 ft. to 130.0 ft. is on claim 19326, Group A; from 130.0 ft. to 273.0 ft. this hole is on claim 19327, Group B.

Drill hole locations are given as co-ordinates representing their position on the geophysical grid.

Core from all holes is stored at camp-site on O'Sullivan Lake at the S-W corner of claim 19524.

W D Sutherland

8-3-141

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O'Sullivan Lake Prospect

Diamond Drill Hole #2

Location:
3,800N - 1,650W

Bearing S 60° E
Inclination 51°
Depth 307 ft.

Drilling dates:
September 2 to
September 5, 1959

Footage	Description
0.0 - 64.0	Overburden, casing.
64.0 - 76.0	Andesite, medium grained, green. Few specks of chalcopyrite and pyrrhotite scattered throughout. Few thin carbonate and chlorite seams, mostly 50° to core, a little chalcopyrite and pyrrhotite on seams.
76.0 - 99.0	Andesite, medium grained, green. More siliceous than above. Few quartz stringers up to ½ inch wide, mostly 55° to core, odd one 20° to core. Sparce chalcopyrite and pyrrhotite with quartz stringers. Few fine specks of chalcopyrite and pyrrhotite throughout. Andesite tuffaceous from 85.2 to 86.0 ft.
99.0 - 106.8	Andesite, fine grained, green. Odd narrow quartz stringer 40° to 50° to core. Sparce chalcopyrite and pyrrhotite with quartz stringers. Very odd chalcopyrite speck in andesite. Shearing 55° to core from 106.3 ft. to 106.8 ft.
106.8 - 126.5	Andesite, medium to fine grained, green. Very odd carbonate seam 20° to core.
126.5 - 153.3	Andesite, fine grained, green. Few thin carbonate and quartz seams 45° to core. Odd chlorite seam with a little chalcopyrite.
153.3 - 159.8	Andesite, fine grained, green. Finely fractured with numerous quartz and carbonate seams. Strongly sheared 75° to core from 157.6 to 158.5, much quartz with shearing, sparce chalcopyrite and pyrite in quartz.
159.8 - 190.9	Andesite, medium grained, green. Weakly sheared 50° to core from 185.5 to 186.3 ft.
190.9 - 308.6	Shear zone. Andesite, medium grained, green. Well sheared 25° to core. Numerous thin carbonate seams parallel to shearing. Odd narrow quartz seam. Thin film of native copper 15° to core at 194.5 ft.

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O'Sullivan Lake Prospect

Diamond Drill Hole #2

Footage	Description
208.6 - 208.8	Porphyry, abundant albite and numerous quartz phenocrysts in fine grained light green ground-mass.
208.8 - 216.6	Ground core.
216.6 - 219.6	Porphyry, abundant albite and numerous quartz phenocrysts in fine grained light green ground-mass. Porphyry weakly sheared 25° to core. Some fine pyrrhotite (estimated 3%) in shearing. Odd speck of chalcopyrite.
219.6 - 230.0	Rhyolite, fine to medium grained, light green. Fine pyrrhotite disseminated throughout (estimated 1½%). Odd speck of chalcopyrite.
230.0 - 250.0	Rhyolite, fine to medium grained, light green. Decrease in pyrrhotite. 1 inch quartz stringer 45° to core at 232.1 ft. ½ inch quartz stringers at 143.0, 143.3, 144.4 and 148.8 ft. ¼ inch quartz stringers at 134.5, 136.6 and 138.0 ft. Stringer at 138.0 ft. has good arsenopyrite in quartz.
250.0 - 271.0	Rhyolite, medium to fine grained, green. Several stringers as follows: 250.0 ft. - ½ inch quartz stringer 40° to core 250.9 ft. - ¼ inch quartz stringer 45° to core 251.2 ft. - ¼ inch quartz stringer 60° to core 255.3 ft. - ½ inch quartz stringer 40° to core 256.0 ft. - 1 inch quartz stringer 25° to core 262.3 ft. - 1½ inch quartz stringer 45° to core 265.8 ft. - 1½ inch quartz stringer 35° to core 269.1 ft. - 1 inch quartz stringer 40° to core 270.9 ft. - 1¼ inch quartz stringer 45° to core Some pyrite on few chlorite slips adjacent to quartz stringers. Much pyrite on narrow quartz seam 50° to core at 270.0 ft.
271.0 - 290.4	Rhyolite, medium grained, light green. Few narrow stringers as follows: 273.0 ft. - ½ inch quartz stringer 55° to core 275.0 ft. - ½ inch quartz stringer 45° to core 277.6 ft. - ¼ inch quartz stringer 25° to core 280.5 ft. - ½ inch quartz stringer 45° to core 284.5 ft. - ½ inch quartz stringer 45° to core

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Diamond Drill Hole #2

Footage	Description
290.4	Contact on well defined chlorite slip 35° to core. Rhyolite porphyritic at contact.
290.4 - 300.6	Andesite, fine to medium grained, green, chloritic. Very well defined flow lines 45° to core. Few narrow carbonate seams. 1½ inch quartz stringer 45° to core at 299.5 ft.
300.6 - 307.0	Andesite, medium to fine grained, green.
307.0	End of Hole

Core Samples

Footage	Sample Number	Gold oz.	Silver oz.
157.6 - 158.5	406		
190.9 - 193.6	407		
193.6 - 198.6	408		
198.6 - 203.6	409		
203.6 - 208.6	410		
216.6 - 219.6	411		

Sludge Samples

Footage	Sample Number	Copper %	Gold oz.	Silver oz.
50.0 - 100.0	412			
100.0 - 150.0	413			
150.0 - 200.0	414			
200.0 - 250.0	415			
250.0 - 307.0	416			

Core logged by W. D. Sutherland, P. Eng.
O'Sullivan Lake, September 5, 1959

4-3-141

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O'Sullivan Lake Prospect

Diamond Drill Hole #3

Location:
2,800N - 1,250W

Bearing S 60° E
Inclination 50°

Drilling dates:
September 6 to
September 10, 1959

Depth 312 Ft.

Footage	Description
0.0 - 83.0	Overburden, casing.
83.0 - 143.0	Basalt, medium grained, dark grey, weakly ophitic. A little magnetite. ½ inch carbonate and epidote seam 30° to core at 108 ft. Otherwise massive and structureless.
143.0 - 152.0	Basalt, medium to coarse grained, light to dark green, epidotized.
152.0 - 180.0	Basalt, medium grained, dark grey. Increased magnetite, (estimated 1%). Numerous chlorite slips, mostly 45° to core. Core blocky and fragmental.
180.0 - 210.0	Basalt, medium grained, dark grey to black. Increased magnetite (estimated 1½% to 2%) finely disseminated throughout. Several chlorite slips 45° to core. Core blocky and fragmental.
210.0 - 211.8	Basalt, medium to coarse grained, green, epidotized. Weakly sheared with numerous indefinite calcite seams 30° to 60° to core.
211.8 - 244.5	Basalt, medium grained, dark grey to green, weakly ophitic. Decrease in magnetite (estimated ¼% to ½%). Numerous chlorite slips 45° to core. Core blocky and fragmental.
244.5 - 258.2	Basalt, medium to fine grained, dark grey to black. Increased magnetite finely disseminated throughout, estimated 2% magnetite.
258.2 - 269.0	Andesite, fine to medium grained, green. Several thin carbonate seams. 2 inch quartz-carbonate breccia 15° to core at 265.5 ft.
269.0 - 274.0	Andesite, fine to medium grained, dark green. Many carbonate and epidote seams 30° to 60° to core.
274.0 - 274.6	Andesite, very fine grained, grey to green. Numerous small chlorite flecks (amygdules?).

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O'Sullivan Lake Prospect

Diamond Drill Hole #3

Footage	Description
274.6 - 279.0	Silicified zone. Porphyritic, scattered white quartz phenocrysts in fine grained, salmon pink, siliceous ground mass. Zone weakly sheared with several fine threads of quartz and calcite on shear planes.
279.0 - 282.8	Sheared volcanics, fine grained, grey and green, chloritized. Weakly sheared 20° to core. Numerous threads of quartz and calcite.
282.8 - 284.0	Silicified zone, fine grained, salmon pink. Weakly sheared. A little quartz and calcite. Contacts 25° to core.
284.0 - 288.4	Andesite, fine grained, grey to green. Numerous small chlorite flecks near 284 ft., decreasing thereafter. Several indefinite carbonate seams.
288.4 - 312.0	Monzonite, medium grained, brown and green. Short sections epidotized. Scattered carbonate seams and stringers decreasing in number from 300.0 ft. on. A little hematite with carbonate seams and in threads and grains throughout.
312.0	End of Hole.

Core Samples

Footage	Sample Number	Gold oz.	Silver oz.
274.6 - 279.0	417		
279.0 - 282.8	418		
282.8 - 284.0	419		

Sludge Samples

Footage	Sample Number	Copper %	Gold oz.	Silver oz.
83.0 - 100.0	420			
100.0 - 150.0	421			
150.0 - 200.0	422			
200.0 - 250.0	423			

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O'Sullivan Lake Prospect

Diamond Drill Hole #3

Sludge Samples

Footage	Sample Number	Copper %	Gold oz.	Silver oz.
250.0 - 275.0	424			
275.0 - 300.0	425			
300.0 - 312.0	426			

Core logged by W. D. Sutherland, P. Eng.
O'Sullivan Lake, Ontario
September 11, 1959

8-3-142

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O'Sullivan Lake Prospect

Diamond Drill Hole #4

Bearing S 60° E
Inclination 50°

Depth 310 ft.

Location:
2,800N - 950W

Drilling dates:
September 11 to
September 14, 1959

Footage	Description
0.0 - 110.0	Overburden, casing.
110.0 - 113.0	Andesite, fine to medium grained, grey. Few thin carbonate seams.
113.0 - 137.0	Rhyolite, fine grained, dark grey, very hard. Numerous fine stress lines. Few thin chlorite seams 45° to core. Few thin carbonate seams.
137.0 - 150.5	Andesite, fine grained, grey to green. Many indefinite carbonate seams. Abundant fine stress lines. Odd quartz seam. 2.0 ft. ground core between 142.0 and 148.0 ft.
150.5 - 156.0	Breccia zone. Fine grained, grey to green andesite weakly brecciated. Considerable carbonate and a little quartz in breccia. Prominent shear direction 45° to core. Sparce pyrite as thin plating at 152.5 ft. A little chlorite. Core recovery poor. Upper contact obscure, lower contact 30° to core.
156.0 - 158.0	Dyke (?). Fresh and unfractured. Andesitic in appearance, medium grained, green. Both contacts 30° to core.
158.0 - 182.5	Rhyolite, fine grained, dark grey, very hard. Abundant fine stress lines. Odd thin quartz and carbonate seam.
182.5 - 218.0	Porphyry. Abundant quartz and albite phenocrysts in fine grained grey, siliceous ground-mass. Some chlorite in ground-mass. Upper contact 35° to core, lower contact 30° to core. 1.5 ft. inclusion of sheared and brecciated rhyolite at 206.0 ft.
218.0 - 228.0	Andesite, fine grained, greyish green. Several fine stress lines, decreasing from 218.0 ft. 3 inch indefinite quartz vein 30° to core at 218.3 ft. Fair chalcopyrite and a little pyrrhotite with quartz. ½ inch bleb of pyrrhotite with some chalcopyrite at 220.7 ft. Few narrow carbonate seams. Odd one with a little pyrrhotite.

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O'Sullivan Lake Prospect

Diamond Drill Hole #4

Footage	Description
228.0 - 253.1	Andesite, fine grained, light greenish grey. Numerous fine stress lines. Several thin carbonate seams. Few thin quartz seams. Good chalcopyrite in narrow seam 45° to core at 230.7 ft. ½ inch quartz stringer 25° to core with sparce chalcopyrite at 235.7 ft. Few pyrrhotite specks in andesite.
253.1 - 255.1	Shear zone. Andesite, fine grained, greenish grey. Weakly sheared. Several narrow carbonate seams.
255.1 - 260.1	Shear zone. Andesite, fine grained, greenish grey. Becoming more strongly sheared. Many carbonate seams 45° to core. Odd indefinite quartz bleb with a little chalcopyrite, pyrite and pyrrhotite.
260.1 - 265.1	Shear zone. Andesite, fine grained, greenish grey. Strongly sheared with abundant carbonate seams 45° to core.
265.1 - 269.6	Shear zone. Andesite, fine grained, greenish grey. Strongly sheared 45° to core. Numerous carbonate seams. Few indefinite quartz stringers up to 1 inch wide with a little chalcopyrite and pyrrhotite.
269.6 - 271.1	Andesite, fine grained, grey. Few quartz stringers with a little chalcopyrite.
271.1 - 278.2	Dyke. Fine albite porphyry, grey. Resembles medium grained andesite.
278.2 - 279.2	Dyke, porphyritic texture slightly more distinctive. Probably fine albite porphyry. Grey. Indefinite ¼ inch quartz stringer in last inch.
279.2 - 279.5	Quartz vein. V.G. Nine fair sized specks of gold in first 2 inches. Few chalcopyrite specks and possibly a little native silver in last inch. Quartz milk white with fine stress lines 45° to core. Quartz visibly ground at both ends.
279.5 - 281.3	Ground core.
281.3 - 282.3	Andesite, fine grained, greenish grey. Weakly sheared. Poor recovery, some grinding.
282.3 - 286.7	Andesite, fine grained, grey-green. Weakly sheared. Several thin carbonate seams 45° to core.

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O'Sullivan Lake Prospect

Diamond Drill Hole #4

Footage	Description
286.7 - 294.5	Andesite, fine grained, grey-green. Few fine stress lines. Few thin carbonate seams.
294.5 - 304.5	Andesite, medium to fine grained, green. Odd bleb of pyrrhotite with a little chalcopyrite. Odd pyrite speck. Few fine stress lines. Few indefinite carbonate seams. Odd short section silicified.
304.5 - 310.0	Andesite, fine grained, green, chloritic. Several thin carbonate seams. Fair chalcopyrite and pyrrhotite in indefinite carbonate bleb at 306.7 ft.
310.0	End of Hole

Core Samples

Footage	Sample	Gold oz.	Silver oz.	Length
150.5 - 156.0	427			5.5 ft.
253.1 - 255.1	428			2.0 ft.
255.1 - 260.1	429			5.0 ft.
260.1 - 265.1	430			5.0 ft.
265.1 - 269.6	431			4.5 ft.
269.6 - 271.1	432			1.5 ft.
278.2 - 279.2	433			1.0 ft.
279.2 - 279.5	434			0.3 ft.
281.3 - 282.3	435			1.0 ft.

Sludge Samples

Footage	Sample	Copper %	Gold oz.	Silver oz.
110.0 - 150.0	436			
150.0 - 200.0	437			
200.0 - 250.0	438			

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Diamond Drill Hole #4

Sludge Samples

Footage	Sample	Copper%	Gold oz.	Silver oz.
250.0 - 282.0	439			
282.0 - 300.0	440			
300.0 - 310.0	441			
280.0	442			

Sample 442 is cave from about 280 ft. in the hole. The sample contained small chips of quartz and some larger pieces of andesite.

Hole logged by W. D. Sutherland, P. Eng.
O'Sullivan Lake, Ontario
September 12, 1959

8-3-142

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O'Sullivan Lake Prospect

Diamond Drill Hole #5

Bearing N 60° W
Inclination 50°

Depth 352 ft.

Location:
2,800N - 600W

Drilling dates:
September 15, 16, 17, 22 & 23, 1959.

Footage	Description
0.0 - 25.0	Overburden, casing.
25.0 - 38.7	Rhyolite, fine grained, green. Many fine stress lines. Five short breccia zones totalling 1.5 ft. in length. Breccia is quartz filled with fair pyrrhotite and some chalcopyrite in short sections. Quartz is greenish-white, not gold quartz looking.
38.7 - 53.0	Porphyry, abundant albite phenocrysts in fine grained grey siliceous ground-mass. Both contacts 55° to core.
53.0 - 56.4	Andesite, fine grained, green, chloritic. Several thin carbonate seams. Odd narrow quartz stringer.
56.4 - 58.5	Porphyry, abundant albite phenocrysts in dark grey medium grained ground-mass. Contacts indefinite.
58.5 - 89.3	Andesite, fine to medium grained, green. Numerous thin carbonate seams. Odd narrow quartz seam with a little pyrrhotite and chalcopyrite. Many fine stress lines. Predominent seam direction 45° to core.
89.3 - 92.8	Andesite, medium to fine grained, green. Numerous fine stress lines. Few quartz and carbonate seams. Several fine pyrrhotite seams with a little chalcopyrite. Odd thin chalcopyrite seam. Predominent fracture direction 45° to core.
92.8 - 95.3	Andesite, medium to fine grained, green. As above with decrease in stress lines and pyrrhotite seams.
95.3 - 101.7	Andesite, fine grained, green, chloritic. Abundant carbonate seams. Odd thin quartz seam. Weakly sheared 60° to core.
101.7 - 131.5	Porphyry. Poorly developed siliceous grey porphyry. A little fine pyrite. Porphyry sheared at 101.7 ft. with ½ inch quartz stringer 55° to core. Quartz is black and white and contains fine bands of pyrite.
131.5 - 154.5	Breccia zone. Well chloritized andesite with much carbonate. Sparce pyrite.

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O'Sullivan Lake Prospect

Diamond Drill Hole #5

Footage	Description
134.5 - 146.5	Andesite, well fractured, fine grained, light & dark green. Many carbonate seams. Few quartz seams. Odd small blob of chalcopyrite. Many fine stress lines. A little scattered pyrrhotite. Weakly brecciated in several short sections. Predominent fracture direction 45° to core.
146.5 - 158.0	Rhyolite, fine grained, dark green to grey. Many fine stress lines. Few narrow quartz and carbonate seams, mostly 45° to core.
158.0 - 177.0	Rhyolite, fine grained, dark green to grey. Several fine stress lines. Odd narrow quartz and calcite seam. Heavy chalcopyrite and pyrrhotite 2 inches wide 40° to core at 160.6 ft.
177.0 - 178.2	Shear Zone. Much calcite. A little quartz. Shear direction 50° to core. Sparse chalcopyrite.
178.2 - 192.0	Volcanic, fine grained, green. Weakly chloritic in short sections. Few short sections brecciated. Many carbonate seams. Many fine stress lines. Odd quartz seam. A little fine pyrrhotite and chalcopyrite sparcely scattered throughout.
192.0 - 197.0	Shear zone. Chloritic volcanics strongly sheared 55° to core. Abundant carbonate seams. Few quartz seams. Sparce fine pyrite and pyrrhotite. Odd chalcopyrite speck.
197.0 - 202.0	Shear zone. Strongly sheared volcanics 55° to core. Chloritic. Abundant carbonate. Odd chalcopyrite speck.
202.0 - 205.0	Shear zone. Strongly sheared volcanics 55° to core. Chloritic. Abundant carbonate. A little fine pyrite and pyrrhotite. Odd chalcopyrite speck.
205.0 - 222.0	Rhyolite, fine grained, dark grey to green. Chloritic in short sections. Abundant fine stress lines. Several narrow carbonate seams, mostly 50° to core. Odd thin quartz seam. A little fine pyrrhotite and chalcopyrite scattered throughout (estimated ½% to 1% sulphides). 1 inch quartz-carbonate stringer 50° to core at 240.7 ft. ½ inch quartz-carbonate stringer 55° to core at 220.1 ft.

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O'Sullivan Lake Prospect

Diamond Drill Hole #5

Footage	Description
222.0 - 224.0	Shear zone. Chloritic volcanics, weakly sheared 50° to core. Many indefinite quartz and carbonate seams and stringers. A little pyrite, pyrrhotite and chalcopyrite.
224.0 - 250.0	Rhyolite, fine grained, dark green. Numerous fine stress lines. Odd quartz seam. Fair pyrrhotite with some chalcopyrite in short silicified sections at 231.3 ft., 233.0 ft., 246.7 ft. and 248.0 ft. Total length of silicified sections is 1.5 ft.
250.0 - 274.8	Rhyolite, fine grained, dark green. Several thin carbonate seams. Few quartz seams. ½ inch quartz stringer with heavy chalcopyrite 90° to core at 250.6 ft. ½ inch quartz stringer with a little chalcopyrite and pyrrhotite 45° to core at 263.3 ft.
274.8 - 277.3	Shear zone. Heavily silicified. Shear direction 30° to core. Fair chalcopyrite and pyrrhotite in short sections. Much quartz as breccia filling and indefinite stringers.
277.3 - 284.0	Shear zone. Highly sheared chloritic volcanics. Shear direction 30° to 40° to core. Much carbonate as seams and stringers parallel to shearing.
284.0 - 285.8	Andesite, medium grained, green and brown. Very weakly sheared. Several indefinite carbonate seams.
285.8 - 286.8	Andesite, chloritic. Highly altered with numerous concentric halos of very fine brown mineral (sphalerite?). Fine pyrite throughout. ½ inch quartz stringer 45° to core at contact with porphyry included in sample.
286.8 - 292.0	Porphyry dyke. Fine grained albite porphyry. Resembles medium grained grey andesite except for distinct porphyritic texture and unaltered condition.
292.0 - 295.5	Ground core.
295.5 - 296.0	Quartz vein. Milk white quartz. V.G. Three small specks of gold at 296.0 ft. Few specks of pyrite, pyrrhotite and chalcopyrite. Quartz visibly ground at both ends.
296.0 - 298.2	Andesite, fine grained, dark grey. Few narrow carbonate seams, mostly 55° to core.

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O'Sullivan Lake Prospect

Diamond Drill Hole #5

Footage	Description
296.2 - 299.3	Andesite, fine grained, dark greyish green. Weakly brecciated. Numerous narrow carbonate seams 55° to core.
299.3 - 307.5	Andesite, fine grained, greyish green. Several narrow carbonate seams, predominently 50° to 60° to core.
307.5 - 321.8	Rhyolite, fine grained, dark grey, very hard. Few narrow carbonate seams. 0.5 ft. weakly brecciated with a little chalcopyrite at 318.5 ft.
321.8 - 345.0	Porphyry. Abundant albite and quartz phenocrysts in fine grained siliceous ground-mass. A little chlorite in ground-mass. Upper contact 30° to core. Lower contact obscure.
345.0 - 346.8	Andesite, fine to medium grained, green. Several fine stress lines.
346.8 - 352.0	Rhyolite, fine grained, dark grey to green, very hard. Few fine stress lines. Few narrow carbonate seams.
352.0	End of Hole.

Core Samples

Footage	Sample	Length	Gold oz.	Silver oz.	Cu %	Zn %
89.3 - 93.8	443	5.5 ft.				
93.8 - 96.3	444	5.5 ft.				
131.5 - 134.5	445	3.0 ft.				
160.1 - 161.1	446	1.0 ft.				
177.0 - 178.2	447	1.2 ft.				
192.0 - 197.0	448	5.0 ft.				
197.0 - 202.0	449	5.0 ft.				
202.0 - 205.0	450	3.0 ft.				
222.0 - 224.0	451	2.0 ft.				

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O'Sullivan Lake Prospect

Diamond Drill Hole #5

Core Samples

Footage	Sample	Length	Gold oz.	Silver oz.	Cu %	Zn %
274.8 - 277.3	452	2.5 ft.				
277.3 - 284.0	453	6.7 ft.				
285.8 - 286.8	454	1.0 ft.				
295.5 - 296.0	455	0.5 ft.				

Sludge Samples

Footage	Sample	Copper %	Gold oz.	Silver oz.
32.0 - 60.0	456			
60.0 - 100.0	457			
100.0 - 150.0	458			
150.0 - 200.0	459			
200.0 - 250.0	460			
250.0 - 275.0	461			
275.0 - 295.0	462			

Note: From 275.0 ft. to 295.0 ft. sludge return poor.
From 295.0 ft. to end of hole no sludge return.

Hole logged by W. D. Sutherland, P. Eng.
O'Sullivan Lake, Ontario
September 23, 1959

4-3-142

JONSMITH MINES LIMITED

O'Sullivan Lake Prospect

Diamond Drill Hole #6

Bearing N 60° W
Inclination 52°

Depth 297 ft.

Location:
3,400N - 900W

Drilling dates:
September 18, 19, 20 & 21, 1959.

Footage	Description
0.0 - 69.0	Overburden, casing.
69.0 - 95.5	Rhyolite, fine to medium grained, grey to green. Some fine stress lines. Few thin carbonate seams, odd one with a little pyrrhotite and chalcopyrite, odd one with thin pyrite plating, odd one with thin film of azurite. Two short silicified & brecciated sections with a little chalcopyrite and pyrrhotite from 80.1 to 80.6 ft. and from 81.8 to 82.4 ft. Predominent fracture directions 30° & 80° to core.
95.5 - 97.5	Ground core.
97.5 - 98.8	Andesite, medium to fine grained, green. Weakly epidotized. ¼ inch vuggy quartz stringer 25° to core at 98.4 ft.
98.8 - 104.0	Andesite, medium to fine grained, greyish green. Few narrow carbonate seams. Odd one with a little chalcopyrite and pyrrhotite.
104.0 - 111.5	Rhyolite, fine grained, dark grey. Few fine stress lines. Odd narrow quartz stringer 30° to core. Weakly brecciated and silicified with some pyrrhotite and chalcopyrite from 108.3 to 109.0 ft.
111.5 - 115.0	Ground core. Cave in hole near this section contained small fragments of glassy quartz with a few flecks of native copper.
115.0 - 116.0	Rhyolite, fine grained, dark grey. Many fine stress lines. Few thin carbonate seams.
116.0 - 117.5	Porphyry. Fine grained albite porphyry, grey. Closely resembles porphyry dyke adjacent to gold bearing quartz vein in holes #4 & #5. Much grinding at upper contact and beyond.
117.5 - 120.0	Ground core.
120.0 - 120.8	Porphyry dyke. Fine albite porphyry, grey. Closely resembles porphyry dyke adjacent to gold bearing quartz vein in holes #4 & #5. Lower contact possibly 40° to core but partially obscured by grinding.

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Footage	Description
120.8 - 121.2	Volcanic, fine grained, light green, very soft. Some carbonate seams 40° to core.
121.2 - 124.3	Ground core.
124.3 - 125.7	Volcanic, fine grained, light green, very soft. Several indefinite carbonate seams 55° to core.
125.7 - 171.0	Andesite, fine grained, greyish green. Numerous fine stress lines. Few narrow carbonate seams, odd one with a little chalcopyrite and pyrrhotite. Few short silicified sections with a little pyrrhotite and an odd chalcopyrite speck. ½ inch quartz stringer 30° to core at 166.8 ft.
171.0 - 172.8	Breccia zone. Weakly brecciated andesite, partially silicified and containing a little pyrrhotite and chalcopyrite.
172.8 - 184.5	Andesite, fine grained, light and dark green. Few narrow carbonate seams, increasing towards 184.5 ft.
184.5 - 189.3	Andesite, fine to medium grained, green, chloritic. Few fine stress lines. Increase in carbonate seams. A little weak shearing 50° to core.
189.3 - 190.8	Shear zone. Well sheared chloritic andesite. Shearing 50° to core. Numerous carbonate seams parallel to shearing. 2 inch milk white quartz vein with yellow stain at contact with quartz diorite. (included in sample 463).
190.8 - 195.0	Quartz diorite, medium to coarse grained, grey, very siliceous. Few thin fracture planes with yellow staining.
195.0 - 197.5	Quartz vein in shear zone. Approximately half quartz, remainder sheared andesite. Some calcite with quartz. Quartz is milk white and friable. A little yellow staining in quartz. Sparse chalcopyrite and pyrite in quartz, fine pyrite in shear. Shear direction 80° to core.
197.5 - 199.7	Shear zone. Well sheared andesite. Shearing varies from 70° to core at 198.0 ft. to 50° to core at 199.0 ft. Much quartz and calcite from 199.0 to 199.7 ft. Quartz is milk white with a little yellow staining.

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Footage	Description
199.7 - 205.0	Shear zone. Strongly sheared chloritic andesite. Shearing 60° to core. Abundant carbonate seams parallel to shearing.
205.0 - 210.6	Shear zone. Strongly sheared chloritic andesite. Shearing 60° to core. Abundant carbonate seams parallel to shearing. Odd narrow quartz stringer.
210.6 - 213.4	Ground core.
213.4 - 216.4	Shear zone. Strongly sheared chloritic andesite. Shearing 70° to core. Abundant carbonate seams parallel to shearing.
216.4 - 217.4	Shear zone. Well sheared chloritic andesite. Shear direction 60° to core. Much carbonate. Approximately 10% quartz as blebs and stringers in shear.
217.4 - 220.5	Andesite, fine grained, green. Abundant carbonate flecks as well defined flow lines 70° to core. Few indefinite carbonate seams.
220.5 - 225.0	Ground core.
225.0 - 230.5	Andesite, fine grained, light green, chloritic. Abundant carbonate flecks as well defined flow lines 70° to core. Few carbonate seams.
230.5 - 232.1	Diabase, medium grained, green.
232.1 - 234.2	Ground core.
234.2 - 236.7	Diabase, medium grained to coarse grained, green.
236.7 - 240.7	Andesite, fine grained, green, chloritic. Abundant carbonate flecks as well defined flow lines 60° to core. Many carbonate seams near contact with diabase, decreasing thereafter. Seams are parallel to flow lines and are probably associated with shearing parallel to flow direction.
240.7 - 242.5	Ground core.
242.5 - 251.5	Andesite, fine grained, green, chloritic. Many carbonate flecks as well defined flow lines 45° to core. Flow lines decreasing from 242.5 ft. on.
251.5 - 259.0	Andesite, fine to medium grained, green.

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Footage	Description
259.0 - 272.0	Andesite, fine grained, green. Many carbonate flecks as well defined flow lines 40° to core. Weakly ophitic in short sections.
272.0 - 282.0	Andesite, medium grained, green. Well developed ophitic texture.
282.0 - 297.0	Andesite, fine grained, green. Abundant carbonate in flecks and streaks as well defined flow lines 20° to core. ¼ inch quartz stringer parallel to flow lines at 296.5 ft. A little calcite with quartz.
297.0	End of Hole.

Core Samples

Footage	Sample	Length	Gold oz.	Silver oz.
189.3 - 190.8	463	1.5 ft.		
190.8 - 195.0	464	4.2 ft.		
195.0 - 197.5	465	2.5 ft.		
197.5 - 199.7	466	2.2 ft.		
199.7 - 205.0	467	5.3 ft.		
205.0 - 210.6	468	5.6 ft.		
213.4 - 216.4	469	3.0 ft.		
216.4 - 217.4	470	1.0 ft.		

Sludge Samples

Footage	Sample	Copper %	Gold oz.	Silver oz.
69.0 - 100.0	471			
100.0 - 150.0	472			
150.0 - 175.0	473			
175.0 - 205.0	474			

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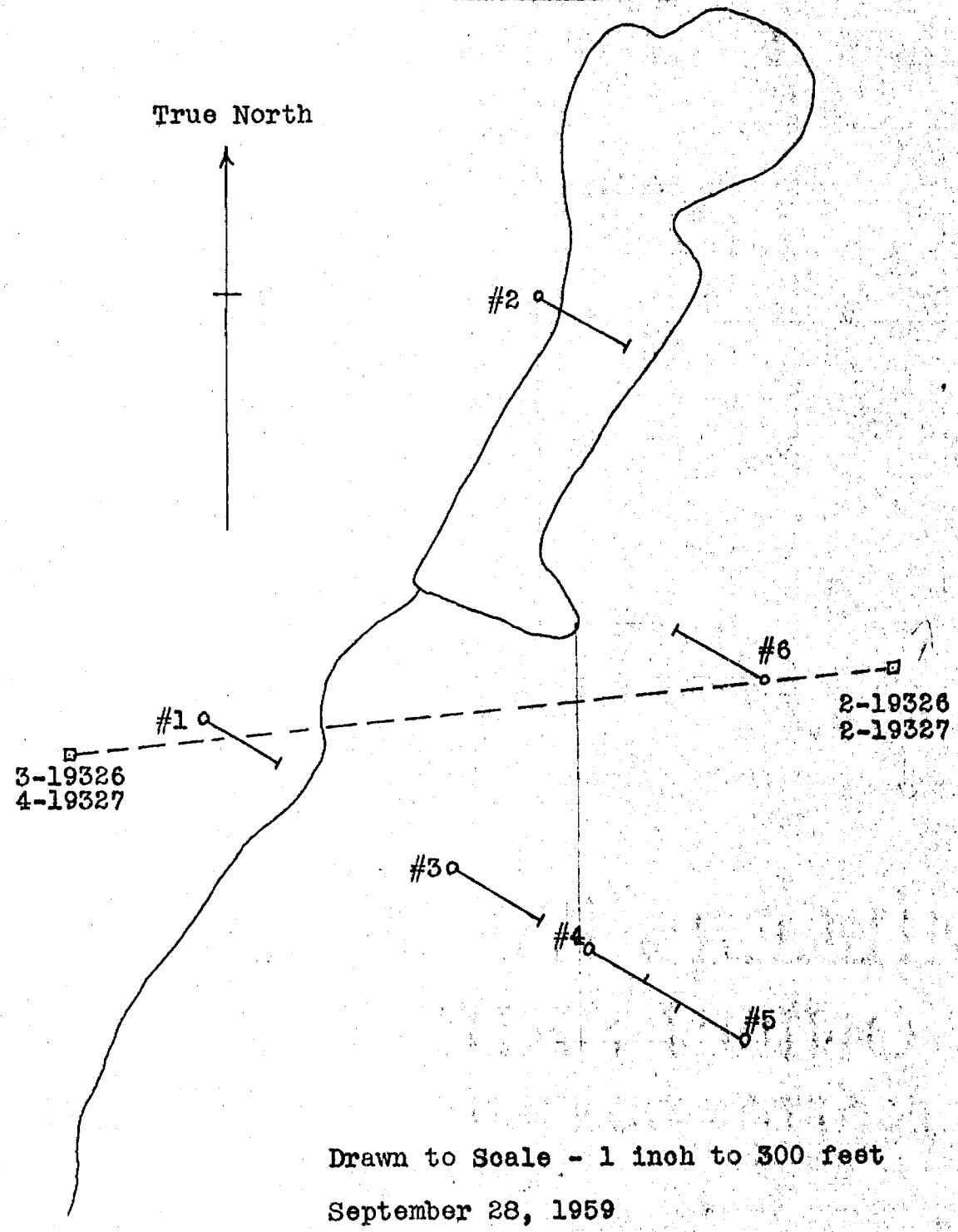
DIAMOND DRILL PLAN



Drawn to Scale - 1 inch to 300 feet

September 28, 1959

W D Sutherland