010

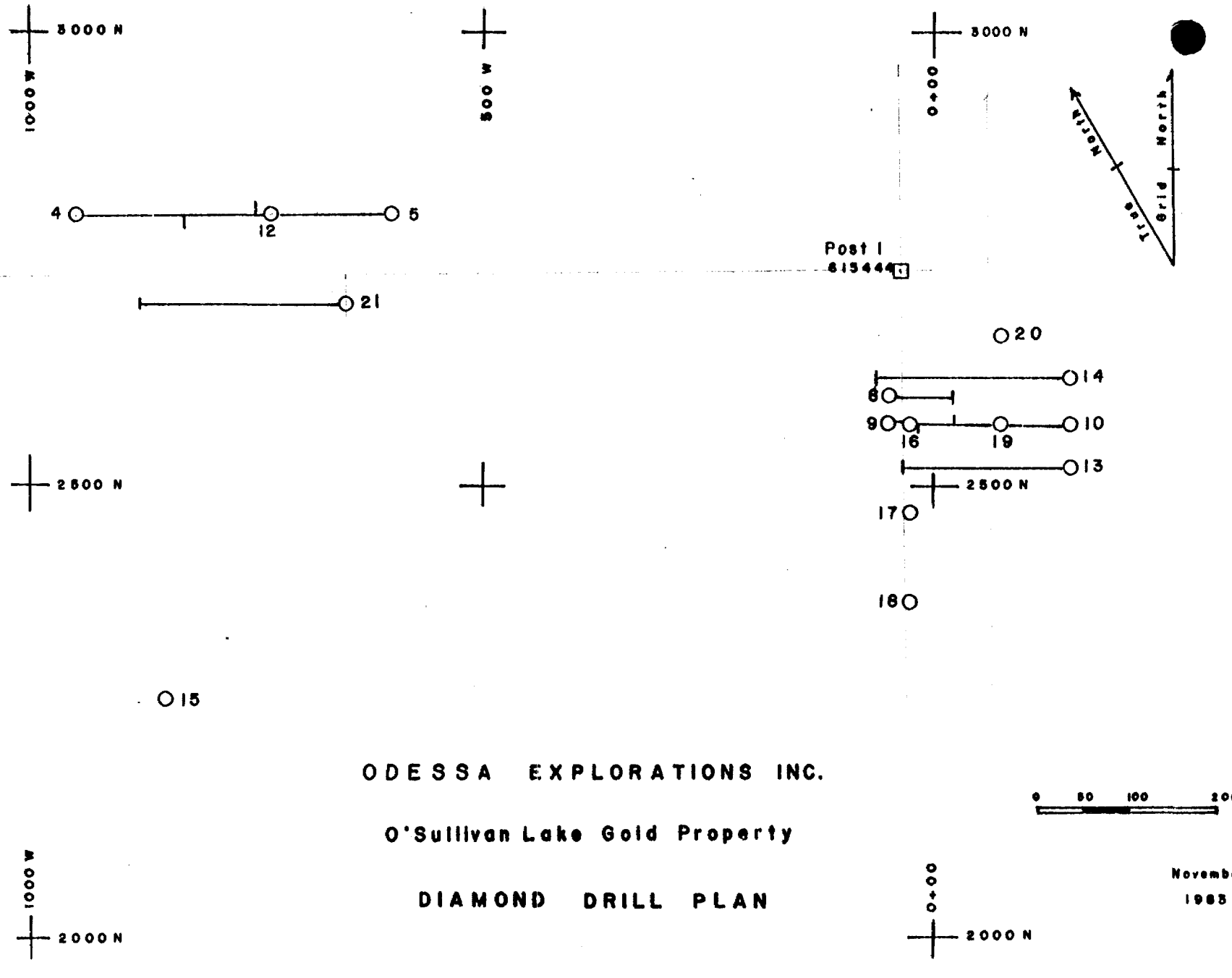
Diamond Drilling

Area O'Sullivan Lake Report Nº 26

Work performed by: Odessa Explorations Inc.

Claim Nº	Hole Nº	Footage	Date	Note
TB 615444	15	200	Sept/83	(1)
	16	317	Sept/83	(1)
	17	337	Sept/83	(1)
	18	148	Sept/83	(1)
	19	305	Sept/83	(1)
	20	227	Oct/83	(1)
	21	466	oct/83	

Notes: (1) #22-84



ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

DIAMOND DRILL PLAN

0 50 100 200 FT.

November
1985

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Drill Hole Coordinates

Hole	Latitude (grid)	Departure (grid)	Bearing (true)	Inclination	Length (ft.)
1	2800 N	1775 W	S 60° E	- 52°	273
2	3800 N	1650 W	S 60° E	- 51°	307
3	2800 N	1250 W	S 60° E	- 50°	312
4	2800 N	950 W	S 60° E	- 50°	310
5	2800 N	600 W	N 60° W	- 50°	352
6	3400 N	900 W	N 60° W	- 52°	297
7	4000 N	850 W	S 60° E	- 50°	262
8	2600 N	50 W	S 60° E	- 45°	101
9	2570 N	50 W	S 60° E	- 45°	104
10	2570 N	150 E	N 60° W	- 45°	245
11	1400 N	850 W	S 60° E	- 45°	304
12	2800 N	732 W	-	- 90°	275
13	2520 N	150 E	N 60° W	- 45°	263
14	2620 N	150 E	N 60° W	- 45°	302
15	2260 N	850 W	-	- 90°	200
16	2570 N	25 W	-	- 90°	317
17	2470 N	25 W	-	- 90°	337
18	2370 N	25 W	-	- 90°	148
19	2570 N	75 E	-	- 90°	305
20	2670 N	75 E	-	- 90°	227
21	2700 N	650 W	N 60° W	- 60°	466

Note: Grid North is 30° East of True North

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 15

Bearing -
Inclination -90°

Depth 200 ft.

Grid Location:

Latitude 2260 N
Departure 850 W

Drilling dates:

1983.09.20 - 1983.09.23

Footage	Description
0.0 - 10.0	Casing.
10.0 - 27.0	Andesite, fine grained, dark grey to green. Minor fracturing, quartz-carbonate seams on fractures. Fracture direction 50° to core axis. 1 cm to 2 cm wide white quartz stringers at 14.3 and 14.7. No mineralization in quartz stringers. Quartz-carbonate seams make up to ½% of total rock.
27.0 - 39.0	Andesite, fine to medium grained, dark green. Increased fracturing. Quartz-carbonate seams now 6% of total rock. Fracturing at varying angles, prevalent angles are 25° and 80° to core axis. Sparce pyrite, estimated at 0.1%.
39.0 - 62.0	Rhyolite, fine grained, grey. Short sections of week fracturing. Quartz-carbonate seams make up 1% of rock.
62.0 - 65.0	Aplite dyke, very hard, medium grained, green to buff-pink.
65.0 - 77.5	Rhyolite, medium grained, grey, very hard. Minor fracturing. Less than 0.5% of rock as seams. Rare fine pyrite. 67.0 - 67.2 is medium grained aplite dyke similar to above.
77.5 - 79.3	Quartz breccia, intensely fractured grey quartz and green andesite crush zone. First 0.8 ft. is 70% grey quartz fragments surrounded by chlorite and carbonate. Remainder is chloritic andesite fragments in quartz-carbonate groundmass. Rare pyrite.
79.3 - 82.5	Andesite. Well fractured with 15% quartz-carbonate fracture filling. Fractures at varying angles to core. Increased pyrite, now approximately 0.05% of rock.
82.5 - 89.5	Andesite. Moderately fractured, quartz-carbonate seams make up to 6% of rock. Increased sulphides, overall content estimated at 0.3%. 0.1 ft. quartz-carbonate stringer 70° to core axis at 87.0 ft. with 12% pyrite and 4% chalcopyrite.
89.5 - 105.5	Rhyolite, medium grained, grey, very hard. Weakly fractured.
105.5 - 107.4	Rhyolite with sericitic alteration, buff colored. Stress direction 50° to core axis.
107.4 - 109.6	Epidotized section. Highly contorted. Strong pyrrhotite streaks, predominently parellel to core axis. Overall sulphide content estimated at 12%, mostly pyrrhotite. Chalcopyrite content estimated at 1.5%.

Footage	Description
109.6 - 131.0	Fracture zone, moderately to strongly fractured andesite with lesser rhyolite. Irregular quartz-carbonate filling 20% of total rock. Strongly sericitized in final foot. Scattered sulphide mineralization, disseminated and in fractures. Overall sulphide content estimated at 0.2% pyrrhotite and 0.1% chalcopyrite. Bleb of pyrrhotite 3 cm wide with 30% chalcopyrite at 127.0 ft.
131.0 - 168.0	Albite porphyry, very dense, grey, abundant albite phenocrysts.
168.0 - 180.0	Contact zone, feldspar porphyry dyke swarms and rhyolite. Dyke angles vary from parallel to core axis to 90° to core axis. No apparent sulphides.
180.0 - 190.0	Rhyolite, dark green, tending to andisitic. Weakly fractured, fracture filling makes up to 8% of rock total.
190.0 - 198.0	Aplite dyke, fine to medium grained, very hard. Upper contact 30° to core axis, lower contact undulating 45° to core axis.
198.0 - 200.0	Rhyolite, fine to medium grained, dark green, weakly stressed. Stress lines 40° to core axis.
200.0	End of Hole. Good sludge recovery throughout.

Core Samples

From	To	Length	Au ppb	Ag ppm	Cu %
77.5	79.3	1.8	8	1.0	0.01
79.3	82.5	3.2	16	1.2	0.02
82.5	86.5	4.0	16	0.8	0.03
86.5	89.5	3.0	19	2.2	0.10
105.5	107.4	1.9	15	0.6	0.01
107.4	109.6	2.2	527	1.4	0.06
109.6	112.6	3.0	22	1.0	0.02
112.6	115.6	3.0	11	1.2	0.02
115.6	118.6	3.0	33	3.4	0.19
118.6	121.6	3.0	19	1.4	0.01
121.6	124.6	3.0	5	1.2	0.02
124.6	127.6	3.0	8	0.8	0.01
127.6	131.6	4.0	44	1.4	0.04

Sludge Samples

From	To	Length	Au ppb	Ag ppm
20	40	20	10	7.8
40	60	20	2	1.4
60	80	20	2	0.6
80	100	20	12	0.9
100	120	20	128	0.6
120	140	20	24	0.8
140	160	20	4	0.8
160	180	20	2	0.4
180	200	20	4	0.3

Hole logged by:

W Don Sutherland

W. Don Sutherland P. Eng.

Core Size: BQ = 1 1/2" diam.

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 16

Bearing -
Inclination -90°

Depth 317 ft.

Grid Location:

Latitude 2570 N
Departure 25 W

Drilling dates:

1983.09.23 - 1983.09.25

Footage	Description
0.0 - 10.0	Casing
10.0 - 22.0	Quartz porphyry grading to quartz-feldspar porphyry. Initial 3.0 ft. is sericitic with abundant quartz eyes, thereafter predominently albite phenocrysts in unaltered porphyry. Lower contact 30° to core axis. Fine pyrrhotite and chalcopyrite mineralization, particularly in quartz-sericite section. Sulphides estimated at 0.2%, chalcopyrite 15% of total sulphides. Thin platey pyrite in 0.5 mm frature perallel to core axis in albite porphyry section.
22.0 - 29.2	Rhyolite, fine grained, dark green tending to andisitic. Moderately fractured with 8% quartz-carbonate seems at varying angles to core, predominently at high angles to core axis.
29.2 - 29.6	Albite porphyry, white with abundant phenocrysts in grey siliceous groundmass. Contacts 35° to core axis.
29.6 - 36.0	Rhyolite, dark grey to green, hard. Numerous thin fracture lines, occesional fracture filled with pyrrhotite and lesser chalcopyrite. Overall sulphide content less than 0.1%.
36.0 - 36.8	Porphyry dyke, quartz-albite porphyry 50° to core axis.
36.8 - 59.0	Rhyolite, fine greined, grey, weakly fractured. A few fractures up to 1 cm wide, these partly filled with pyrrhotite and chalcopyrite. Sparce fine disseminated pyrrhotite and chalcopyrite. Sulphide filled fractures 50° - 60° to core axis. Overall sulphide content estimated at 0.5% of which chalcopyrite makes up one third.
59.0 - 92.0	Rhyodacite, medium to fine grained, green to grey. Moderately fractured is first 4.0 ft., possibly flow top. 8% thin quartz-carbonate seams at 35° to core axis. Quartz-carbonate seams decreasing after first 4.0 ft. Rare slip plane with a little pyrrhotite and chalcopyrite.
92.0 - 106.0	Andesite grading from rhyodacite, medium grained, green. A few quartz-carbonate seams at irregular angles to core, now less than 1% of rock.
106.0 - 122.5	Lapilli, few round medium grained andesite bombs at start of section, many 3 cm x 1.5 cm medium grained andesite bombs in light green argillaceous matrix at end of section, irregularly in between. Many carbonate seams making up to 15% of rock cutting core at varying angles. Bedding attitude based on lapilli bombs and carbonate seams in 50° - 55° to core axis.

Footage	Description
122.5 - 151.6	Rhyodacite, medium grained, grey. Minor fracturing with carbonate filling. Carbonate makes up to 1% of total rock.
151.6 - 160.2	Argillite or andesite, fine grained, grey-green, soft. Elongated carbonate flecks and blebs aligned 60° to 90° to core axis. Cleavage planes 60° to core axis approximately perpendicular to elongated direction of carbonate blebs. Quartz stringer 1 cm wide 80° to core axis at 157 ft. Minor pyrite and galena (or molybdenite) smeared on slip plane adjacent to quartz stringer.
160.2 - 161.4	Andesite, medium to fine grained, grey-green. Open rust fracture at 160.4 ft.
161.4 - 162.4	Quartz and sericite in first 0.5 ft. Last 0.5 ft. is banded blue-grey quartz 40° to core axis. Quartz fractured with later carbonate seam with chalcopyrite 90° to core axis. Slip planes parallel to quartz banding have molybdenite (or galena) smeared on slip faces.
162.4 - 165.4	Rhyodacite, medium grained, green-grey. Open calcite seam with rust at 163.9 ft. Seam 60° to core axis.
165.4 - 168.4	Rhyodacite, grey and light green. Ellyptical color banding from 167.1 ft. to 168.0 ft., ellypsoids 2 cm x 4 cm. Open rust seam perpendicular to core axis at 168.0 ft.
168.4 - 171.4	Rhyodacite, grey-green, medium grained becoming coarser. 2 cm quartz stringer 80° to core axis at 168.9 ft., rusting on edges of quartz stringer. 0.2 ft. banded quartz at 171.3 ft., banding 65° to 75° to core axis.
171.4 - 174.4	Rhyodacite, grey-green, medium grained. Faint ropey texture 70° to core axis.
174.4 - 177.4	Rhyodacite, grey green, becoming coarse grained. Ropey texture slightly more distinct. 1 cm chert seam at 176.0 ft. 45° to core axis. Fine pyrite with chert seam.
177.4 - 180.4	Rhyodacite as above in first 1.5 ft., lower 1.5 ft. grades from above into fine grained green andesite with rust seams. Rust coating on outside of core. Fine pyrite speckled through transition zone from 179.0 ft. to 180.0 ft., estimated 0.5% fine pyrite. Final foot has rust seams at varying angles to core. Lost water at 180.0 ft.
180.4 - 183.0	Shear zone, undulating shearing 90° to core axis. Rhyodacite, grey, medium grained. A little carbonate. Quartz stringer 1 cm wide at 180.9 ft. Quartz vein from 181.9 ft. to 182.4 ft., grey, friable, 80° to core axis.
183.0 - 185.6	Rhyodacite, gey, medium grained. Few quartz-carbonate seams, odd one undulating, most seams at high angle to core axis.
185.6 - 189.2	Quartz diorite, medium grained, grey with buff sericitic hue. Contact with rhyodacite is a sharp 85° to core axis. Abundant grey quartz eyes 2 mm to 3 mm in diameter. Grey quartz and carbonate seams up to 3 mm wide make up to 8% of total rock. Fine pyrrhotite and chalcopyrite disseminated throughout. Total sulphide content estimated at 0.2%.

Footage	Description
189.2 - 193.0	Quartz diorite continuing from above, becoming less sericitic. Decreased quartz eyes. Decreased sulphides, now estimated at 0.1%.
193.0 - 196.0	Contact zone, irregular contact between quartz diorite and andesite to 194.8 ft. Remainder andesite, fine to medium grained, grey-green. Fracture lines 45° to core axis.
196.0 - 199.0	Andesite, fine grained, grey-green. Frequent fracture lines, predominently 45° to core axis.
199.0 - 202.0	Andesite, medium grained, grey-green. Fracture lines decreasing from above, now estimated at 5% of total rock. Fractures filled with carbonate.
202.0 - 215.5	Andesite, medium grained at start becoming fine grained and tending to rhyolite at end of section. Frequent fractures filled with carbonate seams, estimated to be 6% of total rock.
215.5 - 245.6	Rhyolite flow top. Chaotic mixture of light and dark green swirls and fragments. Predominently very hard with some lesser soft argillitic sections. Pervesive pyrrhotite and chalcopyrite mineralization throughout, highly variable in quantity. Overall sulphide content estimated to be ½% of which chalcopyrite makes up one third.
245.6 - 245.9	Albite porphyry, contacts 50° to core axis.
245.9 - 251.3	Rhyolite tending to andesite, fine grained, dark green. 1.0 ft. of flow top material in three scattered patches in overall length. Minor fine pyrrhotite mineralization, estimated at 0.3%. Rare chalcopyrite.
251.3 - 254.7	Quartz feldspar porphyry, medium to coarse grained, quartz and feldspar uniformly present in equal amounts throughout. A little pyrrhotite and chalcopyrite mineralization, estimated at 0.1%. Porphyry contacts 40° to core axis.
254.7 - 264.3	Andesite with some sections of rhyolite, fine grained, green. Increased sulphides from formerly. Fine pyrrhotite and chalcopyrite mineralization and coarse blebs and stringers of sulphide. Overall sulphide content estimated at 2%, mostly as pyrrhotite. Chalcopyrite content estimated at 0.3%. Strongest sulphide concentration is from 257.0 ft. to 259.0 ft. and at 259.8 ft. where 0.1 ft. wide sulphide stringer 90° to core axis is 30% pyrrhotite and 5% chalcopyrite.
264.3 - 272.5	Quartz diorite, medium grained, unaltered. Rare fracture with platey pyrite at high angle to core axis.
272.5 - 275.0	Argillite or andesite, fine grained, green, soft. Much carbonate as elongated blebs and irregular seams. Carbonate content estimated at 15% of rock. Irregular sulphides, pyrrhotite and chalcopyrite. Sulphides estimated at 0.6% of which chalcopyrite makes up one fifth.
275.0 - 282.0	Quartz diorite. Medium grained and sericitic to 280.5 ft. with minor fine pyrrhotite and chalcopyrite. Total sulphides estimated at 0.1% in this section. Becoming coarser grained with decreased sulphides and no sericite from 280.5 ft.

Footage	Description
282.0 - 296.6	Volcanic, fine grained, green and light green. Rhyolitic to 292.0 ft., thereafter andesitic. Well fractured with multiple quartz-carbonate seems at varying angles to core. Quartz-carbonate makes up to 12% of total rock. Irregular patchy sulphides, strongest from 286.8 ft. to 287.8 ft., here sulphides 6% of core, one fifth of this is chalcopyrite, remainder is pyrrhotite. Strong patchy sulphides from 288.7 ft. to 289.0 ft., 5% chalcopyrite and 10% pyrrhotite. Overall sulphide content estimated at 0.6% of which one half is chalcopyrite.
296.6 - 299.1	Andesite, medium to fine grained, grey. Decreased fracturing. Decreased sulphides. Quartz-carbonate seams now 10% of rock. Total sulphide content estimated at 0.2%.
299.1 - 302.5	Quartz diorite tending to quartz-albite porphyry. Sericitic in first 0.4 ft., thereafter medium grained, massive and unaltered. Occasional chlorite slip plane with platey pyrite. Fine disseminated pyrrhotite and chalcopyrite throughout. Sulphides estimated at 0.2% of total rock. Upper contact 60° to core axis, lower contact 65° to core axis.
302.5 - 317.0	Andesite, fine grained, grey-green. Weakly fractured, many very fine carbonate seems, mostly 55° to core axis. Occasional wavey 0.5 cm carbonate seam with pyrrhotite and chalcopyrite semi-parallel to core axis. Fine pyrrhotite and chalcopyrite dissemeinated throughout and continuing to bottom of hole. Overall sulphide content estimated at 0.2%.
317.0	End of hole. Good sludge recovery to 180.0 ft. None thereafter.

Core Samples

From	To	Length	Au ppb	Ag ppm	Cu %
160.2	161.4	1.2	48	1.4	0.02
161.4	162.4	1.0	8	0.8	0.04
162.4	165.4	3.0	5	1.4	0.01
165.4	168.4	3.0	5	1.4	0.01
168.4	171.4	3.0	75	1.4	0.01
171.4	174.4	3.0	22	1.2	-.01
174.4	177.4	3.0	11	1.4	0.01
177.4	180.4	3.0	25	1.0	0.01
180.4	183.0	2.6	151	0.8	0.01
183.0	185.6	2.6	243	1.0	-.01
185.6	189.2	3.6	528	0.6	0.02
189.2	193.0	3.8	51	0.6	-.01
193.0	196.0	3.0	21	1.6	0.01
196.0	199.0	3.0	4	2.0	0.02
199.0	202.0	3.0	8	2.2	0.02

Core Samples

From	To	Length	Au ppb	Ag ppm	Cu %
202.0	207.0	5.0	16	1.6	0.02
207.0	212.0	5.0	4	1.0	0.02
212.0	215.5	3.5	3	1.0	0.02
215.5	218.5	3.0	14	1.8	0.07
218.5	221.5	3.0	14	1.6	0.04
221.5	224.5	3.0	82	0.6	0.03
224.5	227.5	3.0	4	1.4	0.02
227.5	230.5	3.0	26	1.6	0.07
230.5	233.5	3.0	18	1.2	0.04
233.5	236.5	3.0	16	1.6	0.06
236.5	239.5	3.0	7	1.2	0.02
239.5	242.5	3.0	3	1.4	0.02
242.5	245.6	3.1	10	1.4	0.06
245.6	248.6	3.0	7	1.2	0.02
248.6	253.1	4.5	8	1.4	0.02
253.1	254.7	1.6	14	1.2	0.03
254.7	257.0	2.3	12	2.8	0.10
257.0	259.0	2.0	12	3.4	0.11
259.0	262.0	3.0	2	3.2	0.15
262.0	264.3	2.3	16	2.8	0.09
264.3	269.0	4.7	18	0.8	0.02
269.0	272.5	3.5	3	0.6	0.02
272.5	275.0	2.5	36	4.4	0.03
275.0	278.0	3.0	14	0.6	0.02
278.0	280.5	2.5	5	0.4	0.01
280.5	282.0	1.5	33	3.6	0.21
282.0	285.0	3.0	23	2.0	0.11
285.0	288.0	3.0	122	2.4	0.22
288.0	291.0	3.0	117	5.4	0.31
291.0	294.0	3.0	462	2.4	0.04
294.0	296.6	2.6	8	1.0	0.04
296.6	299.1	2.5	21	1.2	0.02
299.1	302.5	3.4	18	1.0	0.03
302.5	307.0	4.5	19	1.4	0.03
307.0	312.0	5.0	58	2.4	0.09
312.0	317.0	5.0	10	1.2	0.02

Sludge Samples

From	To	Length	Au ppb	Ag ppm	Cu %
20	40	20	2	0.1	0.10
40	60	20	4	0.5	0.06
60	80	20	-2	0.1	0.01
80	100	20	4	0.1	0.01
100	120	20	14	0.2	0.01
120	140	20	4	0.2	0.01
140	160	20	4	0.1	0.01
160	180	20	210	0.3	0.02

Core logged by:

W Don Sutherland

W. Don Sutherland P. Eng.

Core size: BQ = 1 ½" diam.

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 17

Bearing -

Inclination -90°

Depth 337 ft.

Grid Location:

Latitude 2470 N
Departure 25 W

Drilling dates:

1983.09.25 - 1983.09.27

Footage	Description
0.0 - 9.0	Casing
9.0 - 20.5	Rhyolite, fine grained, light and dark green. Multiple fracture lines at varying angles to core. Carbonate fracture filling makes up to 8% of rock. A few seams with pyrrhotite and chalcopyrite. Sulphide content estimated at 0.3% of rock.
20.5 - 47.1	Albite porphyry, very dense. Abundant albite phenocrysts in grey groundmass. Upper contact 55° to core axis.
47.1 - 50.0	Andesite, fine grained, grey. Well fractured. Irregular pyrrhotite and chalcopyrite. Sulphide content estimated at 0.5%.
50.0 - 50.5	Contact zone, siliceous with buff sericitic hue, very hard.
50.5 - 62.0	Albite porphyry. Abundant albite phenocrysts in dark grey groundmass. Short siliceous sections with buff sericitic tint. Tending to quartz diorite at 52.5 ft. to 52.8 ft. and 60.3 ft. to 60.8 ft. Textural alignment 35° to core axis.
62.0 - 96.6	Andesite, fine grained, green to dark green. Frequent fracture lines at varying angles to core. Prominent fracture direction is 45° to core axis. Minor scattered sulphides. Overall sulphide content estimated to be 0.2%.
96.6 - 111.0	Dacite, grey and ropey, aligned sub-parallel to core axis. Minor cubic pyrite disseminated throughout. Pyrite content estimated at 0.1%.
111.0 - 122.0	Contact zone, mixture of siliceous quartz diorite and grey and ropey dacite. 15% cherty quartz as irregular replacement and fracture filling. Minor sulphides, confined to siliceous quartz diorite sections.
122.0 - 144.0	Quartz diorite, medium to coarse grained, grey, weakly sericitic. Rare chalcopyrite, less than 0.1%. Few quartz seams and a few fine fracture lines filled with carbonate. Lower contact 85° to core axis. Last 2.0 ft. sericitic with abundant quartz eyes in bubb groundmass.
144.0 - 151.2	Dacite, grey and ropey, aligned 65° to core axis. A few quartz seams at varying angles to core making up to 5% of total rock. A few chert blebs, making up 2% of total rock. Minor disseminated cubic pyrite, less than 0.05%. Lower contact with quartz diorite is 75° to core axis

Footage	Description
151.2 - 155.2	Quartz diorite, medium to coarse grained, grey and buff. Quartz stringers make up to 3% of rock. Disseminated cubic pyrite estimated at 0.1%, lesser disseminated chalcopyrite. Thin fracture with galena and pyrite 45° to core axis at upper contact. A little mariposite on lower contact which is at 80° to core axis.
155.2 - 167.4	Dacite, grey and ropey, aligned at varying undulating angles to core axis. Weakly sheared in part, particularly in last 1.5 ft. where it contains 5% banded grey quartz. Shear direction 75° to core axis. No sulphides.
167.4 - 196.5	Quartz diorite, medium grained, moderately sericitic. Abundant 2 mm to 3 mm quartz eyes in siliceous sericitic buff colored groundmass. Frequent fine fracture lines. A few quartz stringers, odd one with 0.5 cm bleb of chalcopyrite. Sulphides disseminated throughout, pyrrhotite, chalcopyrite and pyrite in descending order of abundance. Overall sulphide content estimated at 0.15%.
196.5 - 201.5	Quartz diorite, medium grained, grey, less altered than above. Frequent fracture lines. Minor sericite. Sulphide content estimated at 0.1%, mostly pyrrhotite and pyrite.
201.5 - 219.8	Quartz diorite, abundant quartz eyes 2 mm to 3 mm in buff colored sericitic groundmass. Odd quartz stringer. Many thin fracture lines at a high angle to core axis. A few slip planes with platey pyrite, odd slip plane with fine tourmaline tufts. Minor disseminated sulphides, pyrrhotite, pyrite and chalcopyrite in descending order of abundance. Overall sulphide content estimated at 0.1%.
219.8 - 258.5	Quartz diorite, medium grained, grey to pale green. Weakly sericitic, markedly less than above. Several fine fracture lines. Sections up to 2.0 ft. of quartz albite porphyry. Final 4.0 ft. is moderately sericitic with estimated 0.1% sulphides as disseminated pyrrhotite and chalcopyrite. Less sulphides in remainder of section.
258.5 - 281.0	Albite porphyry predominating, grading to quartz diorite with weak sericitization in part. Weakly fractured.
281.0 - 289.0	Quartz diorite, weakly altered with slight kaolinization. Coarse texture. Minor disseminated sulphides, less than 0.1%.
289.0 - 289.4	Albite porphyry, massive and unaltered. Abundant albite phenocrysts is dark grey groundmass.
298.4 - 308.4	Quartz diorite, medium grained, buff to green. Abundant 2 mm to 4 mm quartz eyes in buff colored siliceous groundmass. Minor disseminated pyrrhotite and chalcopyrite, sulphide content estimated at less than 0.1%.
308.4 - 313.6	Quartz diorite, highly altered. Abundant quartz eyes in khaki colored siliceous and sericitic groundmass. Odd 0.5 cm quartz stringer, less than 3 cm width of quartz in entire section. A little fine disseminated pyrrhotite and pyrite, total sulphide content now less than 0.1%.

Footage	Description
313.6 - 318.0	Quartz diorite, blue-grey, much less altered than above. A few quartz seams at 25° to core axis.
318.0 - 334.3	Quartz diorite, medium grained, blue-grey. Minor altered sections with khaki tint.
334.3 - 337.0	Albite porphyry, abundant albite phenocrysts in dark grey groundmass.
337.0	End of hole. Good sludge recovery throughout.

Core Samples

From	To	Length	Au ppb	Ag ppm
50.0	50.5	0.5	7	0.2
52.5	53.3	0.8	11	0.6
60.3	60.8	0.5	14	0.6
111.0	114.5	3.5	4	1.2
114.5	116.3	1.8	7	0.8
116.3	117.6	1.3	14	0.6
117.6	119.6	2.0	10	1.2
119.6	122.0	2.4	2	1.0
122.0	127.0	5.0	11	0.4
127.0	132.0	5.0	88	0.4
132.0	137.0	5.0	2	0.2
137.0	142.0	5.0	10	0.4
142.0	144.0	2.0	12	0.6
144.0	147.0	3.0	41	1.4
147.0	151.2	4.2	5	1.6
151.2	155.2	4.0	29	2.0
155.2	157.5	2.3	4	1.6
157.5	161.5	4.0	5	1.2
161.5	164.5	3.0	14	1.2
164.5	167.4	2.9	2640	2.0
167.4	171.0	3.6	15	0.4
171.0	176.0	5.0	10	0.8
176.0	181.0	5.0	130	0.6
181.0	186.0	5.0	12	0.6
186.0	191.0	5.0	11	0.6
191.0	196.5	5.5	8	0.4
196.5	201.5	5.0	32	0.4

Core Samples

From	To	Length	Au ppb	Ag ppm
201.5	206.5	5.0	12	0.4
206.5	211.5	5.0	16	0.6
211.5	216.5	5.0	14	0.4
216.5	219.8	3.3	8	0.4
250.5	254.5	4.5	16	0.4
254.5	258.5	4.0	49	0.4
281.0	286.0	5.0	30	0.4
286.0	289.0	3.0	25	0.8
298.4	303.4	5.0	16	0.4
303.4	308.4	5.0	32	0.6
308.4	313.6	5.2	11	0.4
313.6	318.0	4.4	11	0.2

Sludge Samples

From	To	Length	Au ppb	Ag ppm
0	20	20	4	1.0
20	40	20	2	4.4
40	60	20	-2	0.8
60	80	20	34	0.6
80	100	20	10	0.4
100	120	20	8	0.4
120	140	20	28	1.0
140	160	20	44	0.9
160	180	20	700	1.6
180	200	20	170	0.5
200	220	20	56	0.2
220	240	20	238	0.3
240	260	20	10	0.1
260	280	20	60	0.2
280	300	20	126	0.4
300	320	20	56	0.3
320	337	17	16	0.3

Core logged by:

W Don Sutherland

W. Don Sutherland P. Eng.

Core Size: BQ = 1 ½" diam.

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 18

Bearing -

Inclination -90°

Depth 148 ft.

Grid Location:

Latitude 2370 N
Departure 25 W

Drilling dates:

1983.09.27 - 1983.09.28

Footage	Description
0.0 - 2.0	Casing
2.0 - 52.5	Diabase, medium grained, grey, predominently massive. Minor disseminated pyrite, less than 0.2%. A few chlorite seams 45° to core axis.
52.5 - 88.0	Diabase, medium grained, grey-green. Minor epidotization. Occasional epidote seam at 60° to core axis. Rare thin carbonate seam 80° to core axis.
88.0 - 110.0	Diabase, medium grained, grey-green, very dense. Rare carbonate seam 65° to core axis. Quartz-carbonate seam 1 cm wide 15° to core axis at 194.5 ft. Rare disseminated pyrite, less than 0.1%. No magnetite in core, core does not move compass needle.
110.0 - 148.0	Diabase, medium grained, dark grey. 2 mm quartz seam with fine pyrite at 113.5 ft. Minor epidotization adjacent to quartz seam, elsewhere diabse is massive and unaltered. Rare disseminated pyrite, less than 0.1%. 3 mm quartz-epidote seam at 146 ft.
148.0	End of hole. Good sludge return throughout.

Sludge Samples

From	To	Length	Au ppb	Ag ppm
0	20	20	6	1.6
20	40	20	4	-.1
40	60	20	2	-.1
60	80	20	4	-.1
80	100	20	2	-.1
100	120	20	4	-.1
120	140	20	6	0.1
140	148	8	4	-.1

Core logged by:

W. Don Sutherland

W. Don Sutherland P. Eng.

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 19

Bearing -

Inclination -90°

Depth 305 ft.

Grid Location:

Latitude 2570 N
Departure 75 E

Drilling Dates:

1983.09.28 - 1983.09.30

Footage	Description
0.0 - 2.0	Casing
2.0 - 6.5	Quartz-albite porphyry, medium grained, grey to pink. A few rust seams 20° to core axis.
6.5 - 10.5	Contact zone, mixture of quartz-albite porphyry and rhyolite.
10.5 - 24.0	Rhyolite flow top, chaotic mixture of dark and light green swirls and fragments. Irregular sulphides as disseminations and blotchy concentrations. Estimated overall sulphide content 1.5%, pyrrhotite and chalcopyrite in the ratio of 4:1.
24.0 - 56.0	Rhyolite flow top continuing from above. Moderate sulphides as seams and irregular concentrations. Overall sulphide content estimated at 4%, pyrrhotite and chalcopyrite in the ratio of 10:1.
56.0 - 69.0	Rhyloite flow top continuing, chaotic mixture of dark and light green rhyolite. Reduced sulphides, now estimated at 2% of rock with pyrrhotite to chalcopyrite ratio 10:1.
69.0 - 80.0	Rhyolite flow top, chaotic mixture of light and dark green rhyolite. Sulphides further reduced, now estimated at 0.6%.
80.0 - 102.0	Rhyolite, fine grained, dark green. Moderately fractured with numerous carbonate seams, prevalent direction 55° to core axis. Some carbonate seams with fair sulphides. Overall sulphide content estimated at 0.2% with pyrrhotite and chalcopyrite in the ratio of 5:1. Fine grained aplite dyke from 94.0 ft. to 95.0 ft., contacts 15° to core axis.
102.0 - 142.0	Rhyodacite, fine to medium grained, grey-green, medium hard. Moderately fractured with many quartz-carbonate seams at varying angles to core, predominent fracture direction 40° to 60° to core axis. Rare sulphides.
142.0 - 157.0	Andesite, fine grained, grey-green. Frequent carbonate seams, prevalent direction 45° to core axis. Rare fine pyrite and pyrrhotite disseminated throughout, overall sulphide content estimated at less than 0.1%.
157.0 - 162.2	Andesite, continuing from above. Occasional quartz stringer, one 2 cm wide at 157.5 ft. with weathered ankerite patches, direction of stringer 15° to core axis. Occasional slip plane with platey pyrite.
162.2 - 164.8	Shear zone, weakly sheared medium grained grey-green andesite. Shear direction 60° to core axis. 5% quartz as cherty seams parallel to sheering.

Footage	Description
164.8 - 167.8	Shear zone, moderately sheared and crenulated chloritic andesite. Shearing becoming more intense toward 167.8 ft. Lower contact at 80° to core axis. 30% irregular grey cherty quartz.
167.8 - 175.0	Dacite, medium grained, grey, faintly ropey. Odd carbonate seam.
175.0 - 179.0	Shear zone, intensely sheared chloritic dacite, crenulated and undulating. 40% quartz as stringers, veins and irregular patches. Minor disseminated pyrite, estimated at 0.2%.
179.0 - 182.0	Dacite, medium grained, grey, weakly sheared. 5% quartz and carbonate as narrow stringers and discontinuous elongated blebs.
182.0 - 184.0	Dacite continuing from above. Grey quartz stringer 1 cm wide 90° to core axis at 182.3 ft. Open quartz-carbonate seam at 183.2 ft., core rust coated for 0.6 ft. surrounding open seam. Lost water here.
184.0 - 193.0	Dacite, medium grained, grey and ropey. Weakly sheared with quartz-carbonate seams making up 10% of rock in final 2.0 ft.
193.0 - 217.0	Andesite, medium grained, grey-green. Occasional irregular quartz seam. A few carbonate seams filling fractures. Quartz and carbonate make up 1% of total rock.
217.0 - 221.8	Andesite, weakly sheared with increase in quartz and carbonate. Quartz and carbonate make up to 15% of rock.
221.8 - 224.8	Shear zone, well sheared chloritic andesite. Many quartz-carbonate seams 35° to 45° to core axis. Quartz-carbonate seams make up to 20% of rock.
224.8 - 234.5	Dacite, medium grained, grey-green.
234.5 - 240.0	Volcanic, banded green and brown phase of andesite. Well stressed. Many quartz-carbonate seams 40° to core axis.
240.0 - 254.0	Rhyodacite grading to rhyolite, fine grained, grey. Well stressed from 247.0 ft. to 248.5 ft. with abundant quartz-carbonate seams 35° to core axis, less in remainder. Section around 247.0 ft. is 20% quartz-carbonate seams, remainder is 8% quartz-carbonate seems.
254.0 - 305.0	Rhyolite, light and dark green irregular flow top material but much less chaotic than higher section in hole. Scattered patchy sulphides, noteably at 278.0 ft. and 298.5 ft. Minor disseminated sulphides in remainder. Overall sulphide content is less than 0.2 %. Frequent quartz-carbonate seams make up 4% of rock.
305.0	End of hole. Good sludge recovery to 183.2 ft. None thereafter.

Core Samples

From	To	Length	Au ppb	Ag ppm	Cu %
10.5	15.0	4.5	40	2.2	0.04
15.0	20.0	5.0	73	2.8	0.11
20.0	24.0	4.0	381	2.8	0.16
24.0	27.0	3.0	107	3.6	0.11
27.0	31.0	4.0	144	3.0	0.11
31.0	36.0	5.0	27	3.0	0.09
36.0	41.0	5.0	11	2.4	0.09
41.0	46.0	5.0	239	2.6	0.06
46.0	51.0	5.0	8	2.0	0.06
51.0	56.0	5.0	14	2.2	0.11
56.0	61.0	5.0	23	2.6	0.04
61.0	66.0	5.0	15	3.6	0.06
66.0	69.0	3.0	32	1.4	0.06
157.0	162.0	5.0	7	2.4	0.01
162.0	164.8	2.6	5	1.8	0.01
164.8	167.8	3.0	18	1.8	0.02
167.8	170.8	3.0	4	2.0	-.01
170.8	175.0	4.2	2	2.2	
175.0	179.0	4.0	30	1.8	
179.0	182.0	3.0	14	1.8	
182.0	184.0	3.0	5	1.8	
217.0	221.8	4.8	73	2.0	0.02
221.8	224.8	3.0	18	1.8	0.02
234.5	240.0	5.5	7	2.0	0.01
277.9	278.9	1.0	32	1.8	0.12

Sludge Samples

From	To	Length	Au ppb	Ag ppm	Cu %
0	20	20	54	1.0	0.07
20	40	20	260	2.7	0.19
40	60	20	56	0.8	0.10
60	80	20	22	0.6	0.08
80	100	20	6	0.4	0.03
100	120	20	4	0.3	0.02

Sludge Samples

From	To	Length	Au ppb	Ag ppm	Cu %
120	140	20	4	0.1	0.02
140	160	20	42	0.3	0.03
160	180	20	22	0.4	0.02

Core logged by:

W Don Sutherland

W. Don Sutherland P. Eng.

Core size BQ = 1½" diam.

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 20

Bearing -

Inclination -90°

Depth 227 ft.

Grid Location:

Latitude 2670 N
Departure 75 E

Drilling Dates:

1983.09.30 - 1983.10.01

Footage	Description
0.0 - 6.0	Casing
6.0 - 6.4	Andesite, fine grained, dark green.
6.4 - 7.2	Quartz vein, pink quartz. Vein direction 40° to core axis. Minor chalcopyrite.
7.2 - 11.5	Rhyolite, fine grained, predominently dark green with minor light green flow top material. A few quartz stringers at 35° and 50° to core axis.
11.5 - 13.3	Soft grey argillaceous material to 12.5 ft., remainder is pink quartz with thin carbonate fractures. Minor pyrrhotite and chalcopyrite in quartz, predominently in carbonate fracture filling cutting quartz vein.
13.3 - 24.0	Lapilli, brown elliptical bombs surrounded by chaotic andesite. Section from 16.0 ft. to 22.9 ft. has abundant carbonate seams cementing soft green agillitic fragments. Quartz vein from 19.8 ft. to 20.3 ft. Rust stringer at start. Irregular 5 cm wide blue-grey quartz stringer at 20.4 ft. This stringer contains 3% pyrrhotite, minor chalcopyrite and sparce galena.
24.0 - 45.0	Rhyolite flow top, light and dark green material in chaotic mixture, very hard. 1.5 cm grey quartz stringer at 42.5 ft. cuts core at 10° to core axis. A little pyrrhotite and chalcopyrite in flow top material. Pyrrhotite content estimated at 0.5%, chalcopyrite content estimated at 0.1%.
45.0 - 52.0	Rhyodacite, dense, fine to medium grained, grey.
52.0 - 58.5	Rhyolite flow top as above. A little pyrrhotite, estimated at 0.5 %. Rare chalcopyrite.
58.5 - 62.5	Rhyolite, fine grained, dark green. A few carbonate seams. Odd quartz stringer.
62.5 - 66.8	Quartz veining. 0.4 ft. quartz vein followed by 0.8 ft. rhyolite flow top material, followed by 0.8 ft. quartz vein, followed by 1.3 ft. dark green rhyolite, followed by 1.0 ft. quartz vein. Quartz is pinkish-grey. Veins cut core at 35° to core axis. Carbonate stringer with strong sulphides cuts quartz vein from 66.6 ft. to 66.8 ft. Carbonate seem is 40° to core axis. Estimated sulphide content of carbonate seam is 40% coarse arsenopyrite, 0.5% chalcopyrite and minor galena and sphalerite. A little pyrrhotite and chalcopyrite disseminated in quartz vein adjacent to heavy sulphides in carbonate seam.

Footage	Description
66.8 - 77.2	Rhyolite, dark green. Several carbonate seems, mostly 40° to core axis. Rare quartz stringer.
77.2 - 80.0	Argillite, soft, fine grained, grey. Many carbonate seams. Possibly a mud layer in volcanic sequence.
80.0 - 138.0	Rhyolite, mixture of dark green rhyolite and light green and dark green flow top material. Aplite dykes from 82.0 ft. to 82.6 ft. and 88.2 ft. to 89.2 ft. Irregular pyrrhotite and minor chalcopyrite in flow top rhyolite. Overall sulphide content estimated at 7% pyrrhotite and 0.05% chalcopyrite. Aplite dyke from 97.9 ft. to 98.4 ft. Occasional short section of soft grey argillitic material. Short sections of strong pyrrhotite and moderate chalcopyrite at 107.2 ft, 121.0 ft. and 136.2 ft. Sulphide sections are from 1 cm to 3 cm wide.
138.0 - 142.0	Rhyolite flow top material. Increased sulphides, pyrrhotite now estimated at at 8% of rock , chalcopyrite estimated at 0.5%.
142.0 - 178.0	Rhyolite flow top material, dark and light green. Scattered concentrations of pyrrhotite, less than formerly. Minor chalcopyrite. Pyrrhotite content estimated at less than 1%, chalcopyrite at less than 0.1%. Odd bleb of blue-grey quartz. Narrow aplite dykes at 164.0 ft., 165.8 ft. and 167.0 ft. Dykes are predominently grey to white with scattered albite phenocrysts.
178.0 - 186.0	Andesite, fine grained, light green. Lower contact with dacite gradational over 3 cm. Contact is 90° to core axis.
186.0 - 188.4	Dacite, grey and ropey. Rare 1 cm bleb of grey quartz.
188.4 - 189.9	Dacite, grey and ropey with stress direction 70° to core axis. Lensing 0.5 cm grey quarts and carbonate stringer 70° to core axis. Large 5 cm quartz-carbonate bleb in final 0.2 ft.
189.9 - 190.1	Quartz vein, banded grey quartz 90° to core axis. Vein contains 4% coarse sphalerite, 2% coarse chalcopyrite, minor pyrite, several fine strands of silver-white metallic which may be galena or native silver and four specks of native gold. Largest gold speck is 1 mm in diameter, partially buttered on core.
190.1 - 190.6	Dacite, grey and ropey, medium grained. 1 cm lensing quartz stringer 30° to core axis in first 0.1 ft.
190.6 - 194.4	Dacite, grey and ropey, slight increase in grain size. Rare carbonate seams.
194.4 - 194.9	Stress zone. First 0.1 ft. is grey and ropey dacite, followed by 0.2 ft. of grey quartz with carbonate inclusions, followed by 0.1 ft. of carbonate breccia aligned 80° to core axis as is the quartz vein. Final 0.1 ft. is soft grey-green argillic material with fine disseminated pyrite estimated at 2%. A little pyrite on edge of quartz vein, no sulphides in vein itself.
194.9 - 197.2	Argillite, fine grained, light grey-green, moderately silicified. Frequent carbonate seams making up to 12% of rock, these at 70° to 80° to core axis. Occasional narrow cross fracture filled with quartz. Minor pyrite in quartz filled fractures.

Footage	Description
197.2 - 199.2	Decite, grey and ropey, finer grained than above. Rare quartz stringer 80° to core axis. Becoming brecciated in final 0.3 ft.
199.2 - 200.0	Breccia, chloritic decite fragments in carbonate cement. Open seam at 200.0 ft. Final 0.3 ft. is grey and white quartz. No sulphides in quartz. Lost water at 200.0 ft.
200.0 - 200.6	Breccia, crushed volcanic material, slightly rust coated. 1 cm wide irregular quartz stringer 90° to core axis.
200.6 - 203.2	Possibly lapilli, medium grained green with irregular brown blotches. A few quartz-carbonate stringers and seams making up 12% of rock.
203.2 - 204.8	Breccia, moderately brecciated material similar to above. Carbonate and quartz breccia filling. Open seam at 204.1 ft. with slight rust staining on both sides of open seam. Material adjecent to seam could be a 0.1 ft. wide pebble bed.
204.8 - 212.2	Argillite, fine grained, grey, soft. Many discontinuous carbonate seams and lenses are possible drying crack filling.
212.2 - 214.0	Quartz vein, grey to khaki. Contacts 70° to core axis. Minor volcanic inclusions. Weakly fractured and recemented with white quartz. A little pyrite coating on fracture planes.
214.0 - 220.5	Argillite, fine grained, light grey, medium soft. Much irregular carbonate replacement in first 0.5 ft., thereafter rock grading toward andesite. A little fine pyrrhotite and chalcopyrite, estimated at less than 0.2%. Rare seam with pyrite.
220.5 - 227.0	Andesite, fine grained, dark green, tending to rhyolite. A few carbonate seams, decreasing toward 227.0 ft.
227.0	End of hole. Good sludge recovery to 200.0 ft., none thereafter.

Core Samples

From	To	Length	Au ppb	Ag ppm
6.4	7.2	0.8	12	0.8
7.2	11.5	4.3	5	1.0
11.5	13.3	1.8	8	2.0
13.3	16.0	2.7	11	2.6
16.0	19.8	3.8	7	2.2
19.8	22.9	3.1	11	2.2
62.5	63.7	1.2	12	1.0
63.7	66.8	3.1	26	4.4
138.0	142.0	4.0	14	2.6
186.0	188.4	2.4	184	2.4
188.4	189.9	1.5	12	2.8
189.9	190.1	0.2	3.33*	6.07*

*ounces per ton

Core Samples

From	To	Length	Au ppb	Ag ppm
190.1	190.6	0.5	122	2.6
190.6	194.4	3.8	26	2.6
194.4	194.9	0.5	32	6.0
194.9	197.2	2.3	111	2.0
197.2	199.2	2.0	2	1.8
199.2	200.0	0.8	638	1.8
200.0	200.6	0.6	7	1.8
200.6	203.2	2.6	8	1.8
203.2	204.8	1.6	18	1.8
204.8	208.0	3.2	19	1.8
208.0	212.2	4.2	32	2.0
212.2	214.0	1.8	12	0.8
214.0	217.5	3.5	11	2.2
217.5	220.5	3.0	16	2.4

Sludge Samples

From	To	Length	Au ppb	Ag ppm	Cu %
0	20	20	36	1.6	0.06
20	40	20	294	0.8	0.04
40	60	20	10	0.3	0.02
60	80	20	10	0.5	0.02
80	100	20	4	0.5	0.04
100	120	20	136	0.4	0.03
120	140	20	22	0.6	0.05
140	160	20	14	0.8	0.09
160	180	20	56	0.7	0.07
180	200	20	0.38*	14.5	0.02

*ounces per ton

Core logged by:

W Don Sutherland

W. Don Sutherland P. Eng.

ODESSA EXPLORATIONS INC.

O'Sullivan Lake Gold Property

Diamond Drill Hole 21

Bearing N 60° W

Inclination -60°

Depth 466 ft.

Grid Location:

Latitude 2700 N
Departure 650 W

Drilling Dates:

1983.10.02 - 1983.10.05

Footage	Description
0.0 - 14.0	Casing
14.0 - 36.5	Andesite, fine to medium grained, green to grey. Frequent fracture seams filled with carbonate, increasing to 36.5 ft. Odd thin quartz stringer. Overall carbonate content 2% to 30.0 ft., thereafter 8%.
36.5 - 42.0	Andesite, green to grey, possible pillow structures. Quartz stringer 20° to core axis from 36.5 ft. to 37.0 ft., 37.5 ft. to 38.0 ft. and 41.4 ft. to 42.0 ft. Stringers are 1 cm to 2 cm in width, white quartz with lesser grey quartz. A little pyrrhotite and chalcopyrite in quartz stringers and adjacent volcanic.
42.0 - 48.5	Lapilli. Green andesite with fragmented brown elliptical bombs. Carbonate seams make up to 4% of rock.
48.5 - 63.0	Argillite, fine grained, grey to green. A few carbonate seams 55° to core axis. 4 mm quartz seam at 52.0 ft. perpendiculer to seams and faulted 1.5 cm by carbonate seam. 3 cm wide medium grained grey dykes at 52.7 ft., 53.9 ft. and 55.4 ft., resemble greywake and may be minor greywake horizons in argillite. Direction of dykes is 45° to core axis.
63.0 - 80.0	Quartz-albite porphyry, medium grained, grey. Rare fracture with platey pyrite. White quartz stringer 75° to core axis from 76.4 ft. to 77.4 ft. Coarse pyrite in quartz stringer makes up 5% of rock.
80.0 - 83.5	Argillite, fine grained, grey. A few quartz seams 45° to core axis. Cross bedding evident in argillite. Crumpling of layers in final 1.0 ft.
83.5 - 84.5	Quartz-albite porphyry.
84.5 - 88.0	Andesite, fine grained, dark green, soft. Frequent lensing quartz seams make up to 10% of rock. Quartz-albite porphyry from 85.4 ft. to 86.0 ft., quartz seams and inclusions of andesite in porphyry.
88.0 - 94.5	Contact zone, gneissic quartz diorite, moderately stressed. Gneissosity is 35° to core axis. 2 cm quartz lens at upper contact.
94.5 - 110.5	Quartz diorite, medium grained, blue grey. Relatively unaltered, becoming finer grained with minor pyrite and chalcopyrite in last 3.0 ft.

Footage	Description
110.5 - 114.5	Quartz diorite, moderately stressed 35° to core axis. A few grey quartz stringers, making up to 6% of rock. Disseminated chalcopyrite estimated at 0.1%, lesser pyrite.
114.5 - 125.0	Quartz diorite, blue-grey, fine to medium grained. Minor disseminated pyrite, estimated at 0.2% and lesser chalcopyrite, estimated at 0.1%.
125.0 - 129.0	Quartz diorite, moderately stressed 50° to core axis. Numerous quartz seems up to 0.5 cm wide making up to 6% of rock. Minor pyrite disseminated throughout, estimated at less than 0.2%. Sparce disseminated chalcopyrite.
129.0 - 166.0	Quartz diorite, medium grained, blue-grey. A few fine fracture lines, otherwise relatively fresh and unaltered.
166.0 - 167.0	Rhyolite, fine grained, dark green, very hard.
167.0 - 168.6	Quartz diorite, medium to fine grained, grey to khaki. Contacts at 35° to core axis.
168.6 - 189.6	Andesite, medium grained, dark green. Frequent carbonate seams at varying angles to core. Rare sulphides.
189.6 - 199.3	Andesite, fine grained, light green and dark green. Abundnant fractures, predominently 40° to core axis. Quartz carbonate makes up 20% of rock. Minor coarse disseminated pyrite. Last 2.0 ft. is intensely variable with light and dark green lenses and fragments in multiple banding 70° to core axis. Minor coarse disseminated pyrite in this section also. Indefinite 5 cm sulphide-quartz-carbonate veinlet 50° to core axis at 195.0 ft., veinlet 70% quartz and carbonate, 10% chalcopyrite and 20% pyrrhotite.
199.3 - 199.8	Lamprophyre dyke, medium grained, grey and pink, granular.
199.8 - 200.4	Quartz vein, light grey frieble quartz. Contact angle 65° to core axis. A few bright green chlorite coatings on fractures. Minor chalcopyrite, pyrite and pyrrhotite, sulphides less than 0.1%. Several very fine specks of native gold.
200.4 - 466.0	Diabase. Fine to medium grained, dark grey to 207.0 ft. From 207.0 ft. to end of hole at 466.0 ft. diabase is massive, unaltered, medium grained, grey.
466.0	End of hole. Good sludge return to 160 ft., moderate sludge return thereafter.

Core Samples

From	To	Length	Au ppb	Ag ppm
24.0	28.5	4.5	-2	0.1
28.5	32.5	4.0	-2	0.1
32.5	36.5	4.0	-2	0.1
36.5	39.3	2.8	0.078*	2.0

*ounces per ton

Core Samples

From	To	Length	Au ppb	Ag ppm	Cu %
39.3	41.2	1.9	14	2.2	
41.2	42.0	0.8	16	2.2	
42.0	46.0	4.0	-2	0.2	
60.0	63.0	3.0	-2	0.2	
63.0	66.0	3.0	-2	-.1	
66.0	69.0	3.0	4	0.1	
69.0	72.0	3.0	26	0.1	
72.0	75.0	3.0	28	0.1	
75.0	76.4	1.4	16	0.2	
76.4	77.4	1.0	1.26*	11.6	
77.4	80.0	2.6	102	0.3	
80.0	82.0	2.0	20	1.1	
82.0	85.4	3.4	-2	0.9	
85.4	88.0	2.6	126	2.2	
88.0	91.5	3.5	5	1.0	
91.5	94.5	3.0	30	1.2	
110.5	114.5	4.0	16	1.0	0.02
125.0	129.0	4.0	8	1.2	0.03
189.6	194.6	5.0	7	2.0	0.01
194.6	196.1	1.5	743	3.8	0.11
196.1	199.3	3.2	75	1.8	0.02
199.3	199.8	0.5	0.22*	2.4	-.01
199.8	200.4	0.6	2.04*	2.2	0.04
200.4	204.4	4.0	216	0.1	

*ounces per ton

Sludge Samples

From	To	Length	Au ppb	Ag ppm	Cu %
20	40	20	720	0.9	0.02
40	60	20	22	0.5	0.01
60	80	20	0.712*	16.5	-.01
80	100	20	200	0.7	0.01
100	120	20	58	0.7	0.02

*ounces per ton

Sludge Samples

From	To	Length	Au ppb	Ag ppm	Cu %
120	140	20	30	0.5	0.01
140	160	20	48	0.3	0.01
160	170	10	46	3.4	0.12
170	190	20	34	0.4	0.02
190	210	20	0.143*	2.3	0.04
210	230	20	0.039*	1.0	
230	250	20	256	0.3	
250	270	20	150	0.3	

*ounces per ton

Core logged by:

W Don Sutherland

W. Don Sutherland P. Eng.

Core Size: BQ = 1 1/2" Diam.

GENERAL LITHOLOGICAL DESCRIPTION OF SAMPLES

All three samples (4-278, 10-243, 20-187) are of the same original rock type, that of intermediate igneous origin, ie. dacitic or quartz dioritic/granodioritic in composition. Grain size in the least deformed sample (20-187) suggests that these samples originated as thick volcanic flows or high level intrusions (sills or dykes.

These rocks have all been metamorphosed to lower greenschist grade, just barely into the biotite zone. Biotite is just beginning to develop at the expense of chlorite.

Within this suite of rocks a sequence of increasing deformation can be plotted. Sample 20-187 is essentially undeformed; 4-278 shows minor evidence of deformation, a weak foliation and strained plagioclase (subgrains developed); while 10-243 has a very well developed chlorite foliation in addition to intensely deformed plagioclase crystals. These variations are likely due to increased proximity to shear zones, sample 10-243 closest to the shear.

Subsequent to metamorphism and deformation the rocks have been carbonatized, ie. ankeritic dolomite introduced via hydrothermal alteration processes. There appears to be a relationship between the intensity of deformation and alteration, in that the more intensely deformed the sample, the greater the percentage of dolomite introduced. This would suggest that the original shear zone acted as a zone of weakness for the introduction of hydrothermal fluids.

Descriptions by Jennifer Pell
PhD Geology Student
University of Calgary

November, 1983

SAMPLE #4-278

MINERALOGY

Mineral	Percentage	Comments
Dolomite (prob. Ankerite)	30-35	undeformed, apparently overgrowing other constituents; maximum grain size 0.5 mm
Plagioclase (Andesine)	40	some twinned grains, An 35-40; some zoned; much intense deformation evident in plag. grains, subgrains developed; maximum grain size 0.75 mm
Mg-Chlorite (Ripidolite)	15	grains to 0.125 mm size
Biotite	1-2	developed on edges of chlorite grains
Quartz	2-5	0.25 mm sized grains
Zircon	trace	
Opaques	trace	
Rutile	trace	

TEXTURE

A very weak foliation is developed, outlined by subparallel alignment of chlorite grains.

Minor crosscutting quartz veinlets, 0.5 mm wide, are present.

SAMPLE #10-243

MINERALOGY

Mineral	Percentage	Comments
Dolomite (prob. Ankerite)	35-40	randomly oriented equant grains, undeformed; overgrow chlorite foliation; maximum grain size 0.5 mm
Mg-Chlorite (Ripidolite)	20-25	defines foliation; grains less than 0.25 mm size
Biotite	2	fine grained, on edges of chlorite grains
Quartz	10-15	grains generally 0.125 mm size; largely unstrained
Plagioclase (Andesine)	15	An 35-40; maximum grain size 0.5 mm; some grains twinned, others show intense deformation with subgrains developed; approximately 5% twinned, 10% with subgrains
Rutile	trace	
Opaques	trace	

TEXTURE

This sample displays a very well developed foliation, defined by parallel alignment of chlorite grains; the carbonate appears to have been introduced after deformation, as it overgrows the chlorite foliation.

SAMPLE #20-187

MINERALOGY

Mineral	Percentage	Comments
Mg-Chlorite (Ripidolite)	15-20	masses of platelike crystals with radiating texture; grains average 0.5 mm in size
Biotite	10	0.125 mm average grain size; associated with chlorite aggregates, generally on edges of grains
Dolomite (prob. Ankerite)	15-20	0.125 to 0.25 mm sized grains; predominantly untwinned
Quartz	10	grains 0.125 to 0.5 mm size on average; unstrained
Plagioclase (Andesine)	40	An 35-40; grains up to 2.0 mm size; some show concentric zoning, indicative of original igneous origin
Zircon	trace	in biotite grains with pleochroic halos, indicative of presence of radioactive elements
Rutile	trace	
Opaques	trace	prob. Pyrite, cubic crystal shape evident
Myrmekite	1-2	intergrowth of quartz and plagioclase on fine scale; grain aggregates up to 0.5 mm

TEXTURE

This is a massive structureless rock, grains tend to be equant, no foliation is evident.

A vein up to 2.0 mm wide cuts through the sample, it has a core of quartz, and is rimmed by carbonate.

Ministry of Natural Resources
Ontario

Report of Work

#22

File: 615411

The M

42L06NE0017 26 O'SULLIVAN LAKE

900

Name and Postal Address of Recorded Holder

W. Don Sutherland | D-9732

P.O. Box 128, Blind River, Ontario P0R 1B0

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed: 2,000

for Performance of the following work. (Check one only)

- ☐ Manual Work
- ☐ Shaft Sinking Drifting or other Lateral Work.
- ☐ Compressed Air, other Power driven or mechanical equip.
- ☐ Power Stripping
- ☒ Diamond or other Core drilling
- ☐ Land Survey

Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.
TB	615411	40	TB	615424	40	TB	615434	40
	615412	40		615425	40		615435	40
	615413	40		615426	40		615436	40
	615414	40		615427	40		615437	40
	615415	40		615428	40		615438	40
	615416	40		615429	40		615439	40
	615422	40		615430	40		615440	40
	615423	40		615431	40		[redacted]	[redacted]

All the work was performed on Mining Claim(s): [redacted], 615444, 615449

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Drilling Contractor:

Midwest Drilling
1072 King Edward St.
Winnipeg, Manitoba
R3H 0R2

Drilling Dates: 1983.09.20 to 1983.10.05

Date of Report: Dec. 22, 1983

Recorded Holder or Agent (Signature): W Don Sutherland

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

W. Don Sutherland P.O Box 128

Blind River, Ontario P0R 1B0

Date Certified: Dec. 22, 1983

Certified by (Signature): W Don Sutherland

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment		
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.	Names and addresses of owner or operator together with dates when drilling/stripping done.	
Diamond or other core drilling	Signed core log showing; footage, diameter of core, number and angles of holes.		Work Sketch (as above) in duplicate
Land Survey	Name and address of Ontario land surveyer.	Nil	Nil

768 (81/3)

Ministry of Natural Resources
Ontario

Report of Work

#22

The Mining Act

Instructions – Supply required data on a separate form for each type of work to be recorded (see table below).
– For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

Name and Postal Address of Recorded Holder	Prospector's Licence No.
W. Don Sutherland P.O. Box 128, Blind River, Ontario P0R 1B0	P-9752

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.
2,000	TB	615441	40	TB	615450	40	TB	615461	40
for Performance of the following work. (Check one only)		615442	40		615451	40		615462	40
☐ Manual Work		615443	40		615452	40		615463	40
☐ Shaft Sinking Drifting or other Lateral Work.		615444	40		615453	40		615464	40
☐ Compressed Air, other Power driven or mechanical equip.		615445	40		615454	40		615465	40
☐ Power Stripping		615446	40		615455	40		615466	40
☑ Diamond or other Core drilling		615447	40		615456	40		615467	40
☐ Land Survey		615449	40		615460	40		615468	40

All the work was performed on Mining Claim(s): 615443, 615444, 615449

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Drilling Contractor
Midwest Drilling
1072 King Edward St.
Winnipeg, Manitoba
R3H 0R2

Drilling Dates:
1985.09.20 to 1985.10.05

Date of Report	Recorded Holder or Agent (Signature)
Dec. 22, 1985	W Don Sutherland

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying	Date Certified	Certified by (Signature)
W. Don Sutherland P.O. Box 128 Blind River, Ontario P0R 1B0	Dec. 22, 1985	W Don Sutherland

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment		
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.	Names and addresses of owner or operator together with dates when drilling/stripping done.	
Diamond or other core drilling	Signed core log showing; footage, diameter of core, number and angles of holes.		Work Sketch (as above) in duplicate
Land Survey	Name and address of Ontario land surveyor.	Nil	Nil

768 (81/3)

Ministry of Natural Resources
Ontario

Report of Work

#22

Instructions – Supply required data on a separate form for each type of work to be recorded (see table below).
– For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

The Mining Act

Name and Postal Address of Recorded Holder	Prospector's Licence No.
W. Don Sutherland P.O. Box 128 Blind River, Ontario P0R 1B0	D-9752

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.	Mining Claim Prefix	Mining Claim Number	Work Days Cr.
2,000	TB	615469	40						
for Performance of the following work. (Check one only)		615470	40						
☐ Manual Work		615471	40						
☐ Shaft Sinking Drifting or other Lateral Work.									
☐ Compressed Air, other Power driven or mechanical equip.									
☐ Power Stripping									
☑ Diamond or other Core drilling									
☐ Land Survey									

All the work was performed on Mining Claim(s): 615443, 615444, 615449

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Drilling Contractor:
Midwest Drilling
1072 King Edward St.
Winnipeg, Manitoba
R3H 0R2

Drilling Dates: 1983.09.20 to 1983.10.05

Date of Report	Recorded Holder or Agent (Signature)
Dec. 22, 1983	W. Don Sutherland

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying		
W. Don Sutherland Blind River, Ontario P0R 1B0	P.O. Box 128 Date Certified: Dec. 22, 1983	Certified by (Signature): W. Don Sutherland

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
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