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EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,266 E  
50,706 NType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: 1 (Sheet 1 of 2)

Collar Elev: 189.0

Date Drilled: 3/1/66 started 8:00 a.m.  
3/2/66 completed 2:00 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
				Cu		
0	7	7	Loose fill and aluvium (brown) Set casing to 13'			
0	63	63	Loose aluvium and overburden - Sand & Gravel			
63	68		Loose aluvium and overburden - Sand & Gravel - No sample			
68	73		Same - Sampled		.32	
73	78		Same - Sampled		.41	
78	84		Same		.37	
84	89		Same - Sampled. Hole caved at top. Has to water top to keep from salting samples. Sample salted.			
89	94		Contact 92' - Hard, consolidated aluvium. Fair of copper		0.81	
94	99		Consolidated hard aluvium. Fair Cu. Gila Cg.		1.31	
99	104		Same as above. Cu in samples		1.10	
104	109		Cons. hard aluvium - fair Cu in sample		0.89	
109	114		Hard cons. aluvium - Good cu in sample. Soft streak 112'-113'		1.57	
114	119		Hard Gila Cg. - Good Cu		1.65	
119	124'6"		Hard Gila Cg. - Cu Fair		1.58	
124'6"	126'6"		Down the hole tool attached. G. Cu sh. Hard Gila Cong.		1.62	
126'6"	131'5"		Hard Gila Cong. Gd. Cu show		1.40	
131'5"	136.5		Hard Gila Cong. Cu show fair		0.94	
136.5	141.5		Same. Water injection at 141.5' Water injection stopped		0.79	
141.5	147.0	5.5	Hard Gila cong. Cu show fair		1.10	
147.0	152.0	5.0	Hard Gila cong. Cu show fair		0.95	
152.0	157.0		Gila Cong. Fair Cu		0.73	
157.0	162.0		Gila Cong. Fair Cu		0.93	
162.0	167.5	5.5	Gila Cong. Fair Cu		0.68	
167.5	172.5		Gila Cong. Cu show		0.66	
172.5	177.5		Gila Cong. Cu show Tr - Stopped 3/1/66. Water in hole at 176.0 - Very hard drilling		0.65	
177.5	182.5		Sm. amt. water. Gila Cong. started 3/1/66			
			Sm. sample - Poor Tr. Cu		0.84	
182.5	188.0	5.5	Poor sample. Gila Cong. much softer. Cu show fair		1.06	
188.0	193.0		190' - Clay Sm. 3' - Wet sample. Possible fault gouge or clay on granite bedrock			



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DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: 1 (Sheet 2 of 2)

Collar Elev:

Date Drilled:

Logged By:

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
193.0	198.0		Water flowing at 193' - Wet clay sample material-Poor Sample	1.83		
198.0	203.0		Water flowing. Wet sample. Cu sh. Poor sample & circulation	1.19		
203.0	208.5	5.5	Water flowing. Wet sample. Cu sh. Poor circulation	.90		
208.5	213.5		Wet sample. Good Cu show. Gila Cg (?) Good penetration	1.70		
213.5	218.5		Wet sample. Trace Cu shown. Gila Cg (?) " "	0.37		
218.5	223.5		Wet sample. Fair Cu Lg. pieces Gila Cg (?) " "	0.61		
223.5	229.0	5.5	Wet sample. Fair Cu Lg. Pieces Gila Cg (?) " "	0.34		
			Hole water clear immediately after drilling stopped.			
			No overburdandance of material when water flowed			
229.0	231.5	2.5	Core Barrel put on. When hole washed, brown, altered material washed from hole	0.11		
231.5	236.0	4.5	Bedrock. Banded texture gray gnessic appear. Galena noticed. <del>Basic</del> Possibly from tarp. Fresh appearance last 1 ft. of core. Hole bottomed 2:00 p.m. 3/2/66	0.09		

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	75	75	Set casing to 13'. Boulder at 18'. Hole caving at 60'. Recent aluvium. Good penetration.	
75	80		Sampled. Recent aluvium	.85
80	85.5	5.5	Slow penetration to 82'. Softened up. Tan recent aluvium sampled.	.47
85.5	90.5	5.0	Boulder at 86. Fair penetration. Tan recent aluvium sampled	.46
90.5	95.5	5.0	Tan recent aluvium. Fair penetration. Boulders. Sampled	.44
95.5	100.5	5.0	Tan recent aluvium. Fair penetration. Sampled	.44
100.5	106.0	5.5	Tan recent aluvium. Good penetration. Sampled	.38
106.0	111.0	5.0	Gila Cmg. at 109.0' Mixed recental & Gila tan to dk. brown. Slow penetration. Cu show fair	1.35
	116.0	5.0	Dk. green to black Gila cong. Good Cu sh. Fair penetration	1.71
	121.0	5.0	Dk. green to black Gila Cong. Good Cu sh. Fair penetration	2.50
121.0	126.5	5.5	Dk. green to black Gila Cong. Good Cu sh. Fair penetration	2.19
126.5	131.5	5.0	Dk. green, black & tan Gila Cong. Good Cu show. Fair pen.	2.36
131.5	136.5		Dk. green with tan Gila Cong. Good Cu show. Fair pen. Good colors at 136.0'	2.35
136.5	141.5		Dk. green, black Gilz Cg. Very good Cu show. Good pen.	5.96
141.5	147.0	5.5	Dk. green, very black Gila Cg to 146.0'. Very good Cu show Good penetration. 146.0' tan clay seen come in	2.96
147.0	152.0		149' clay, tan seam out. Br. alt bedrock mica	.20
152.0	157.0		Mixed alt bedrock with green banded bedrock. Mica	.16
157.0	162.0		Green, gray banded bedrock. Mica	.19
162.0	167.5		Green, gray banded bedrock. Mica	.18

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,822 N  
50,480 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: DH #3

Collar Elev: 205.0

Date Drilled: 3/3/66 Started 1:00 p.m.  
Completed 3:30 p.m.

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	22		Recent aluvium tan to brown	
22	24		Gila Cgl. No sample	
24	29	5.0	Tan, grey, black Gila Cg. -V. Good Cu Good Penetration	2.92
29	34	5.0	Tan to light Gr. Gila Cg. -V. Good Cu Good Penetration	3.42
34	39	5.0	Tan to light Gr. Gila Cg. Good Cu sh. Good Penetration	2.74
39.0	44.5	5.5	Tan, light Gr. Gila Cg. Gd. Cu show. Fair Penetration	2.18
44.5	49.5	5.0	Tan, Gray Gila Cg. Gd, Cu. Sh. Fair Penetration	2.39
49.5	54.5	5.0	Tan, gray Gila Cg. Fair. Cu. Good Penetration	1.49
54.5	59.5	5.0	54.5 to 57.0 Gila Cg. 57' altered Enessie material Good Cu. Good Penetration	2.49
59.5	65.0	5.5	Altered Gnessie material, greenish. Tr. Cu. Good Penetration	1.64
65.0	70.0	5.0	Greenish, altered, gnessie material. Tr. Cu. Good Pent.	.64
70.0	75.0	5.0	Greenish, gnessic, material. Tr. Cu. Good Pent.	.51
75.0	80.0	5.0	Greenish, gnessic, material. Tr. Cu. Good Pent	.47
80.0	85.5	5.5	Dk green material. Fair Cu. Good Pent.	1.08
85.5	90.5	5.0	Dk green gnessic material to 87.0' - 87 to 90.5 Light tan to Br. altered igneous material. Tr. Cu. Good Penetration	.38
90.5	95.5	5.0	Dk green to Br altered igneous material. Tr. Cu. Good Pent.	
95.5	100.5	5.0	Dk greenish igneous material. No show of Cu. Ground hardening. Moisture in sample. Poor Pent.	
100.5	106.0	5.5	Greenish, gray, bedrock. Ground fine. Hard <del>sh</del> slow penetration. No Cu. sh. - Moisture in hole	.09

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,675 N  
50,354 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: DH #4

Collar Elev: 188.0

Date Drilled: 3/4/66

Started 8:00 a.m.

Logged By: HWH

Completed 3:30 p.m.

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0	46.0		Recent aluvium. Very Hd. Bld. at 42" to 45'			
46	49.5	3.5	Tan, gray to black Gila Cg. Copper Show. Hard. Slow Pent.	1.08		
49.5	54.5	5.0	Tan, gray, black Gila Cg. Cu. Sh. Hard. Slow Pent	1.79		
54.5	59.5	5.0	Tan, brown, iron stained Gila Cg. Tr. Cu., softer drilling. Good Pent.	.67		
59.5	65.0	5.5	Tan, to gray Gila Cg. HH. Hd & Soft. Fair Cu. Fair Pent.	1.69		
65.0	70.0	5.0	Gray to Black Gila Cg. Alt. Hd. & Soft. Good Cu. Fair Pent.	2.89		
70.0	75.0	5.8	Gray to Black Gila Cg. A.H. Hd to soft. V. Good Cu. Fair Pent.	4.73		
75.0	80.0	5.0	Tan to gray Gila Cg. AH Hd. to sf. Fair cu. Fair Pent.	1.69		
80.0	85.5	5.5	Tan to Br. Gilz Cg. Hd. Fair Cu Fair Pent.	1.43		
85.5	90.5	5.0	Tan, Gr to Black Gila Cg. Hd. Fair Cu. Fair Pent.	1.48		
90.5	95.5	5.0	Gray to black Gilz Cg. soft. V. Good Cu. Good Pent	5.55		
95.5	100.5	5.0	Gray to black Gila Cg. Soft. Good Cu. Good Pent.	2.09		
100.5	106.0	5.5	Tan to gray Gila Cg. Soft. Good Pen. Fr. Cu.	.50		
106.0	111.0	5.0	Tan & gray Gila Cg. Soft. Good Pen. Fair Cu.	1.24		
111.0	116.0	5.0	Tan to gray Gila Cg. Soft. Good Pen. Fr. Cu.	1.35		
116.0	121.0	5.0	Tan Gila Cg. Soft. Good Pen. Tr. Cu.	.66		
121.0	126.5	5.5	Tan, Brown altered, Gila Cg. as bedrock. Good Pen. Tr. Cu. soft material. Moisture contact 122.0	.32		
126.5	131.5	5.0	Light tan, whole altered, igneous granitic material. Highly altered Moisture. Tr. Cu. Soft. Good Pen.	.31		
131.5	136.5	5.0	Tan to Br. altered bedrock. Igneous granitic material. Fair Pent. Tr. Cu.	.16		
136.5	141.5	5.0	Fresh light tan to white granitic material. Hd. Fair Pent. Mica abundant quantz.	.14		
141.5	147.0	5.5	Fresh light tan granitic material to 145'. 145-147 greenish blue gnessic material. Very Hd. Banded	.09		

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,653 N  
50,480 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: DH #5

Collar Elev: 193.0

Date Drilled: 3/4/66 Start 4:15 pm  
3/7/66 Comp. 10:00 am

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	44.0		Recent aluvium. Casing set to 13.0'	
44.0	49.0	5.0	Contact of Gila 47.0'. Tannish Cu. Tr. Good Pen.	1.02
49.0	54.0	5.0	Tan; gray, black Gila Cg. Cu. Sh. Good Pen.	.69
54.0	59.0	5.0	Tan, gray, black Gila Cg. Cu. Sh. Fair Pent.	.79
59.0	64.0	5.0	Tan to Br. Black Gila Cg. Cu. Sh. Hardened up at 62' in crease in silica. Soft Black stk. 60 - 62'. Fair Pen.	.65
64.0	69.0	5.0	Hard, Wh. highly silicified zone 64' - 68'. Much quartz. Iron stained 68-69. Black to gray Gila. Cu. Fair. Slow pen. 64-68	1.34
69.0	74.0	5.0	Tan, to brown Gila Cg. Qtz iron stained. Good pent. Fair Cu. sh. Gila soft.	1.27
74.0	79.0	5.0	Brown, to gray Gila Cg. soft. Qts. iron stained. Good pent. Cu. show. Trace	.95
79.0	84.0	5.0	Tan, Gray to Bl. Gila Cg. Hd to 84.0 Softened at 84.0 Good Cu. Sh. Fair Pent.	1.24
84.0	89.0	5.0	Brown altered material to 86.0 Soft. Gila Cg. Silicified zone to 89.0. Change at 89.0. Cu. Sh. Contact 86.0'	.51
89.0	94.0		Green altered gnessic igneous material at 89.0' to 94.0. Soft. No Cu sh.	.13
94.0	99.0		Hd. gnessic, igneous material. Bedrock Greenish-gray, Qts fresh. Numerous qts fragments in cuttings. No Cu sh.	.18
99.0	104.0		Greenish, gray gnessic igneous material. Bedrock. Qts. chips numerous Mica. Fresh material. No Cu.	.16

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,654 N  
50,662 EType of Drill: WD \_\_\_\_ DD \_\_\_\_ RD x CD \_\_\_\_

Inclination:

Hole No.: EP #6

Collar Elev: 199.0

Date Drilled: 3/7/66 Started 11:15 am  
Completed 2:45 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	64		Recent aluvium - Hd. Boulder 56 to 59'. Soft very brown seem 59-61 feet. Qts. chips white 61-64 (Composite sample 0 to 64)	.36			
64	69	5.0	Altered green gneissic material. Soft. Good Pent. Tr. Cu.	.33			
69	74	5.0	Altered green gneissic material. Soft. Good Pent. No. Cu.	.26			
74	79	5.0	Tan, igneous material (probably granite) Qts. hard, No Cu.	.14			
79	84	5.0	Tan to brown altered igneous material (granite). Qts. iron	.11			
<del>84</del> 84	<del>89</del> 89	<del>5.0</del>	stained. Harder with numerous qts chips. No Cu				
84	89	5.0	Gray to greenish blud gneissic granite. Hard. Slow Pen. No Cu. Silicified fresh material	.13			
89	94	5.0	Gray, greenish blue gneissic granite. More qts. Hard. Slow Pen. No Cu. Silicified. Sulphides noted. Fresh	.11			
94	99	5.0	Gray, greenish blue gneissic granite. Silicified. Very hd. No Cu	.09			
99	104		Gray, greenish blue, gneissic granite. Silicified. Very Hd. No Cu.	.13			

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,802 N  
50,770 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #7

Collar Elev: / 10 209.0

Date Drilled: 3/7/66 3:15 p.m. started  
5:15 p.m. completed

Logged By:

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0	44	44	Recent aluvium. Sampled 24-44.0		.33	
					.33	
					.37	
					.68	
44.0	49.0	5.0	Tan to gray Gila Cgl. Cu Sh. Fair Pent. Contact		1.03	
49.0	54.0	5.0	Gray to black Gila Cg. F.Cu. Show. Hd. Fair Pent		1.88	
54.0	59.0	5.0	Gray to black Gila Cg. F.Cu. Show. Med Hd. Fair Pent		1.45	
59.0	64.0	5.0	Tan to gray Gila Cg. F.Cu. Show. Med H. Fair Pen.		1.24	
64.0	69.0	5.0	Tan to gray Gila Cg. F.Cu. Show. Med. H. Fair Pen		.92	
69.0	74.0	5.0	Tan Altered Igneous material Granite at 69.0 Med H. Fair Pen		.54	
74.0	79.0	5.0	Brown, Altered, Granite. Iron stained. Soft. Good Pen.		.39	
79.0	84.0	5.0	Brown, altered, Granitic material. Iron stained. Soft. Good Pen		.05	
			Greenish altered mat. 83.0'			
84.0	89.0	5.0	Brown, Highly altered Granitic material. Damp sample.		.03	
			Alteration to Clay. No Cu. Good Pen.			
89.0	94.0	5.0	Brown, altered. Gneissic, Granite. No Cu. Soft to 93.0		.07	
			Hardening. Wet. and Damp Hole			
94.0	99.0	5.0	Brown Alt. Gneissic material. No Cu. Soft.		.13	
			Sample wet.			
99.0	104.0	5.0	Water at 99.5'. Brown, altered Gneissic Granite.		.05	
			No Cu. Soft.			

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,785 N  
50,636 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #8

Collar Elev: 213.0

Date Drilled: 3/8/66 started 8:30 am  
completed 11:00 am

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
				% Cu		
0	47.0	47.0	Recent aluvium. Sampled 240 - 44.0	0.32	Ave.	
47.0	49.0	2.0	Gila Cong. Sampled 44.0 - 49.0 Cu. sh.	.73		
49.0	54.0	5.0	Tan, green, gray to black Gila Cg. Silicified. Cu sh. Fair Penet	1.94		
54.0	59.0	5.0	Br., gray, to black Gila Cg. Silicified. Cu Good. Hd. Fair Penet	1.23		
59.0	64.0	5.0	Tan, Br. to black Gila Cg. Very black 61-62. Good Cu. Hd. Silicified. Fair Pen.	1.37		
64.0	69.0	5.0	Br. Gray to Black Gila Cg. Iron Stained Cuttings 67-69.0 Cu Sh. Highly Silicified. Hard. Fr. Pen.	1.08		
69.0	74.0	5.0	Br. Gr. to Black Gila Cg. to 73.0. Altered Brown, Iron Stained Igneous Material 73 to 74.0 Fair Cu. Hd. Fr. Pen.	1.08		
74.0	79.0	5.0	Black to Br. Highly Silic. Qtx cutting. slum. No Cu. Show Softers. Good Pen. Gila Cong.	0.62		
79.0	84.0	5.0	Black, Br. to Tan. Gila Cg. Highly Silicified. Much Qts in Cuttings. Hard. Fair Penet. Tr. Cu in Cuttings	0.51		
84.0	89.0	5.0	Brown, Black to Gray Gila Cong. Highly Silicified. Fair Cu. Show. H.H. Fair Pen.	2.08		
89.0	94.0	5.0	Gila Cg. Br to Black to 92.0. 93.0-94. Greenish Altered Gn essic Granite. Fair Pen.	0.30		
94.0	99.0	5.0	Altered. Greenish-Blue Gnessic material. No Cu sh. Mica Fr. Pen. Greenish	0.15		
99.0	104.0	5.0	Blue-Green Gnessic material to 102.0. 102-104 Br Highly Alt. material Gnessic Gr. Sample Damp. Mica Water in Hole shen starting from 104.0'	0.21		



EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,865 N  
50,277 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #9 (Sheet 1 of 2)

Collar Elev: 192.0

Date Drilled: 3/8/66 started 11:30 am  
3/9/66 completed 3:30 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY % Cu.		
0	13.0	13.0	Boulders rolling in hole. Abandoned. First try			
0	64.0	64.0	Tools trapped in hole. Abandoned. Second try			
0	109.0	109.0	Recent aluvium. Many boulders and fine sand. Third try			
109.	114.0	5.0	Tan, Brown Black Gila Cg. Hard. Much Qts. Highly Silicified. Cu. Tr. Fair - Fair Pent.	0.99		
114.0	119.0	5.0	Tan, Br. to Black Gila Cg. Hard. Numerous Qts. cuttings silicified. Fair Cu. Sh. Fair Pen.	0.88		
119.0	124.0	5.0	Tan, Gr. to Black. Hd. Gila Cg. Highly Silicified. <del>Fine</del> Fair Pent. Good Cu. Sh. Softer Bottom 2' feet	0.88		
124.0	129.0	5.0	Same as above	1.14		
129.0	134.0	5.0	Tan, Gray to Black with Iron St. Qts. Gila Cg. Good Pent. Softer Form. Good Cu. Sh.	0.81		
134.0	139.0	5.0	Tan, Gray, to Black Gila Cg. Good Pent. Fair Cu. Sh.	0.60		
139.0	144.7	5.7	Tan, Gray to Bl. Gila Cg. Fair Pen. Tr. Cu. Iron Stained Qts Cuttings.	0.31		
144.7	149.7	5.0	Tan, Gray to Black Gila Cg. Fair Pen. Tr. Cu. Iron <del>By</del> Stained Altered Clay particles noticed	0.42		
149.7	154.7	5.0	Tan to Black Gilz Cg. Fair Pen. Tr. Cu.	0.83		
154.7	159.7	5.0	Gray to Black Gila Cg. Some Iron Staining. Fair Pen. Good Cu.	0.71		
159.7	165.2	5.7	Gray to Black Gila Cg. with some iron staining. Very Hd. at Bottom of Run. Tr. Cu.	0.68		
165.2	170.2	5.0	Brown to Balck <del>Gila</del> Gila Cg. Iron Staining. Sample Damp. Tr. Cu. Change to Br. at 167.0	0.83		
170.2	175.2	5.0	Same as above	1.12		
175.2	180.2	5.0	Highly Silicified. Tan to Black Gila Cg. Qts. Iron Stained Tr. Cu.	0.70		
180.2	185.9	5.7	Tan, with some Black Gilz Cg. Iron Stained. Tr. Cu.	0.68		
185.9	190.9	5.0	Gila Cg. to 187.0. Clay Seam 187.0-189.0 Brown, highly altered or weathered igneous material. No Cu. Sh. Soft	0.30		
190.9	195.9	5.0	Altered, weathered, granitic material. Tr. Cu. Br. Ir. Stained Qts.	0.22		

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El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #9

Collar Elev:

Date Drilled: 3/9/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
195.9	200.9	5.0	Altered weather, brownish granitic material. No Cu. Iron St. Qtz.	0.19		
200.9	206.4	5.7	Brownish, alt. weathered granitic material. Kaolonite in cuttings. No Cu Soft	0.22		
206.4	211.4	5.0	Brown, highly weathered granitic material. Kaolonite visible No Cu visible. Soft.	0.30		
211.4	216.4	5.0	Same as above	0.27		
216.4	221.4	5.0	Same as above	0.29		
221.4	226.11	5.7	Same as above to 222.5' Last 3' of cutting hardening. Blue green gneissic granite. Fresh appearance No Cu visible	0.10		

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle      Coordinates: 50,870 N  
50,575 E

Type of Drill: WD \_\_\_\_ DD \_\_\_\_ RD X CD \_\_\_\_      Inclination:

Hole No.: EP #10      Collar Elev: 197.0

Date Drilled: 3/10/66      Started 8:30 am      Logged By: HWH  
Completed 12:00 noon

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
				Cu		
0.0	3.0	3.0	Tan to Gray Gila Cg. Tr. Cu	1.10		
3.0	8.0	5.0	Gray, Tan Gila Cg. Fair Cu. Fair Pen	0.69		
8.0	13.0	5.0	Tan, Gray, Gila Cg. Some Iron Staining. Good Cu. Good Pen.	3.08		
13.0	18.5	5.5	Gray, Tan Gila Cg. Some Iron Staining. Good Cu. Fair Pen	2.68		
18.5	24.0	5.5	Gray, greenish, Gila Cg. Good Cu. Hard. Fair Pen	3.62		
24.0	29.0	5.0	Gray, Black, Tan Gila Cg. Iron Staining. Hard. Fair Pen. V. Good Cu.	2.49		
29.0	34.0	5.0	Brown to Tan Gila Cg. Iron Staining. Fair Cu. Fair Pen.	1.22		
34.0	39.0	5.0	Brown to Black Gila Cg. Much Iron Staining. Fair Cu. Soft. Good Pen	0.49		
39.0	44.0	5.0	Brown, Black Gila Cg. Much Iron Staining. Tr. Cu. Good Pen. Soft	0.41		
44.0	49.0	5.0	Gila Cg. to 45.0. 45.0 to 49.0 Tan, Brown altered, weathered Igneous material. Granitic. No Cu. vis	0.07		
49.0	54.0	5.0	Weathered, Granitic material to 51.0. Gray, gneissic granite highly silicified to 54.0. Iron Stained. No Cu vis	0.07		
54.0	59.0	5.0	Gray to greenish gneissic granite. Iron stained. No Cu vis	0.10		
59.0	64.0	5.0	Same as above to 62.0 - 62.0-64.0 - Fresh greenish and white banded gneissic granite. No Cu Vis.	0.13		

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,868 N  
50,679 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #11

Collar Elev: 198.0

Date Drilled: 3/10/66 Started 1:00 pm  
Completed 3:00 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
				Cu		
0.0	3.0	3.0	Set casing in overburden			
3.0	9.0	6.0	Recent overburden and aluvium	0.23		
9.0	14.0	5.0	Recent Al.	0.28		
14.0	19.0	5.0	Recent Aluv.	0.31		
19.0	24.0	5.0	Recent Aluv.	0.36		
24.0	29.0	5.0	Recent aluv. to 25.0 contact. Tan, Gray with Black Gila Cg. Fair Pent. Fair Cu	2.80		
29.0	34.0	5.0	Tan, Gray to Black Gila Cg. Good Cu	2.52		
34.0	39.0	5.0	Tan, Gray to Black Gila. Very Brown at 39.0. Tr Cu	2.75		
39.0	44.0	5.0	Tan, Gray, Black Gila C. Fair Cu. Hd. Fair Pen	1.51		
44.0	49.0	5.0	Tan, Gray, Black Gila Cg. Highly Silicified. Good Cu. Fair Pen	1.77		
49.0	54.0	5.0	Tan, Gray, Black Gila Cg. Fair Cu. 40 53.0 Contact with Iron Stained, Granite, Weathered and altered	1.74		
54.0	59.0	5.0	Highly Silicified, granitic material. Iron stained. No Cu Vis	0.70		
59.0	64.0	5.0	Tan to Brown, Iron Stained Granitic Material. Tr. Cu.	0.18		
64.0	69.0	5.0	Same as above. No Cu	0.09		
69.0	74.0	5.0	Same as above. No Cu	0.05		
74.0	79.0	5.0	Altered gneissic granite to 77.0' Fresh, greenish blue gneissic material. Highly silicified. Hd. No Cu	0.04		
79.0	84.0	5.0	Fresh bluish gray gneissic material. No Cu.	0.04		

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,879 N  
50,759 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #12

Collar Elev: 198.0

Date Drilled: 3/10/66 Started 3:45 pm  
3/11/66 Completed 9:45 am

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0	21	21	Recent aluvium. Gila Cg. 21-24			
21	24	3	Sampled 19'-24.0' 19-24	1.16		
24	29.0	5.0	Tan, Gray to Black Gila Cg. Good Cu.	1.06		
29.0	34.0	5.0	Gray to Black Gila Cg. Good Cu.	1.03		
34.0	39.0	5.0	Tan, to Gray Gila Cg. Fair Cu. Hd.	.55		
39.0	44.0	5.0	Tan, to Gray Gila Cg. Hard Good Cu	.85		
44.0	49.0	5.0	Tan to Gray Gila Cg. Hard. Good Cu.	.91		
49.0	54.0	5.0	Brown altered, weathered igneous type material at 52.0	.99		
			Copper Sh. Soft Contact 52.0			
54.0	59.0	5.0	Brown, altered, weathered igneous mat. Granitic	.26		
59.0	64.0		Altered gneissic granite to 61.0. 61.0-64.0 Fresh	.09		
			Blue gray, to greenish bedrock			
64.0	69.0		Alternating soft, brown weathered streaks of gneissic	.07		
			material with fresh blue-gray to greenish gneissic granite Mica			
69.0	74.0		Hd. blue, green and gray gneissic granite. Mica plentiful	.07		

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,985 N  
50,775 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #13

Collar Elev: 212.0

Date Drilled: 3/11/66 Started 10:30 am  
Completed 2:00 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.3	3.0	3.0	Casing Set. Recent overburden	-		
3.0	9.0	6.0	Recent aluvium - sampled	.27		
9.0	14.0	5.0	Recent aluvium - sampled	.42		
14.0	19.0	5.0	Contact of Tan, Iron Stained Gila Cg. at 14.0'. Cu. showing	1.03		
19.0	24.0	5.0	Brown, Tan with Black Qts Gila Cg. Copper visible	.48		
24.0	29.0	5.0	Brown, Tan, with Black Qts particles. Plentiful Gila Cg. Good Cu. vis	.94		
29.0	34.0	5.0	Tan to Brown Gila Cg. Fair Cu. visible	1.39		
34.0	39.0	5.0	Tan to Br. Gila Cg with rich alt. black streaks. Hd. Good Cu.	.90		
39.0	44.0	5.0	Tan to Br. Gila Cg. with alt. rich black streaks. Very good Cu. Hd. Soft very Br. streak at 43.0 feet	1.34		
44.0	49.0	5.0	Hd. Tan to Br. very silicified boulder. Black streaks carrying Cu. Fair Cu in sample. Gila Cg. Granitic in appearance	.45		
49.0	54.0	5.0	Very Hd. Tan to Brown, highly silicified Gila Cg. Tr. Cu vis. Granitic in appearance	.25		
54.0	59.0	5.0	Same as above	.24		
59.0	64.0	5.0	Soft at 60'. Brown, weathered, highly iron stained granitic material. Contact 60.0 Tr. Cu. Sample Damp	.17		
64.0	69.0	5.0	Alternating soft and hard layers of tan to very brown granitic material. Kaolinite seen. No Cu. vis	.14		
69.0	74.0	5.0	Same as above to 73.0. Gnessic granite weathered at 73.0. Cu visible	.13		
74.0	79.0	5.0	Gnessic granite, heavily iron stained. Tr. Cu.	.11		
79.0	84.0	5.0	Same as above. No Cu visible. Less altered and much fresher, gray to blue in appearance at 82.0	.08		
84.0	89.0	5.0	Blue, gray, fresh gnessic material. Contact 85.0 Mica	.15		
89.0	94.0	5.0	Same as above. Mica	.07		

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

50,880 N

50,852 N

Type of Drill: WD \_\_\_\_ DD \_\_\_\_ RD x CD \_\_\_\_

Inclination:

Hole No.: EP #114

Collar Elev: 211.0

Date Drilled: 3/11/66

Started

2:30 pm

Logged By:

HWH

Completed

4:15 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	4.0	4.0	Set casing to 3.0. Recent aluvium. Sampled Cu vis.	.39		
4.0	9.0	5.0	Recent aluvium. Smp.	.18		
9.0	14.0	5.0	Hd Boulder Granite 9-10.0. Recent aluvium. Sampled	.26		
14.0	19.0	5.0	Recent aluvium. Sampled	.24		
19.0	24.0	5.0	Recent aluvium. Sampled	.37		
24.0	29.0	5.0	Recent aluvium. Sampled	.46		
29.0	34.0	5.0	Recent aluvium. Sampled	.59		
34.0	39.0	5.0	34.0-38.0 Recent Al. 38.0-39.0 Tan Gila Cg. Cu. Sh.	.79		
39.0	44.0	5.0	Tan, gray, to black Gila Cg. Hd at Bottom. Cu. Show	.88		
44.0	49.0	5.0	Tan, Gray to black Gila Cg. Hd. Good Cu.	1.18		
49.0	54.0	5.0	Tan, Gray, many black particles, in Gila Cg. Very Hd. Good Cu	.90		
54.0	59.0	5.0	Gray, to black Gila Cg. Hard. Good Cu	1.16		
59.0	64.0	5.0	Some gray, mostly tan to brown Gila Cg. Hd. Good Cu	1.35		
64.0	69.0	5.0	Light gray to tan Gila Cg. Hd. Good Cu	.96		
69.0	74.0	5.0	Gila to 70.0. Altered, weathered, highly iron stained, brown granitic material. Contact 70.0. Softer at 70.0	.49		
74.0	79.0	5.0	Brown altered, <del>weak</del> weathered gneissic granite. No Cu. vis. Strongly iron stained	.18		
79.0	84.0	5.0	Same as above	.10		
84.0	90.0	6.0	Gray. to blue, highly silicified gneissic granite	.04		

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	3.0	3.0	Set casing. Rc. aluvium		-		
3.0	9.0	6.0	Recent al. Smpd		.26		
9.0	14.0	5.0	Rc. aluvium. Sampled		.32		
14.0	19.0	5.0	Rc. aluvium. Sampled		.32		
19.0	24.0	5.0	Rc. aluvium. Sampled		.48		
24.0	29.0	5.0	Rc. aluvium		.78		
29.0	34.0	5.0	Recent aluv - Tr. Cu		.56		
34.0	39.0	5.0	Recent aluvium. Tr. Cu		.44		
39.0	44.0	5.0	Tan to gray Gila Cg. Fair Cu. Contact at 40.0		.43		
44.0	49.0	5.0	Gray, highly silicified Gila Cg. Hd. Fair Cu. Iron stained		.71		
49.0	54.0	5.0	Same as above		.24		
54.0	59.0	5.0	Tan to gray Gila Cg. to 58.0 - 58.0-59.0 highly silic. igneous rock		.11		
59.0	64.0	5.0	Gray, quartzitic, gnessic granite. Fresh. No Cu vis		.07		
64.0	70.0	6.0	Gray to bluish, quartzitic, gnessic granite. Fresh		.07		



EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,838 N  
50,975 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: DH #16

Collar Elev: 203.0

Date Drilled: 3/12/66

Started

10:15 am

Logged By:

HWH

Completed

12:00 noon

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0	3.0	3.0	Set casing			
3.0	9.0	6.0	Recent overburden		.38	
9.0	14.0	5.0	Recent overburden		.46	
14.0	19.0	5.0	Recent overburden. Boulder 17-19'		.41	
19.0	24.0	5.0	Recent overburden		.36	
24.0	29.0	5.0	Recent overburden		.31	
29.0	34.0	5.0	Recent overburden		.45	
			(2)			
34.0	39.0	5.0	Gila Cg contact at 35.0 Tan with black staining on pebbles. Tr Cu Difficult to spot		.68	
39.0	44.0	5.0	Same as above. Tr. Cu. Gila Questionable		.64	
44.0	49.0	5.0	Same as above. Tr. Cu. Gilz Questionable		.33	
49.0	54.0	5.0	Gila Cg. tan, to 52'. Iron stained granitic material at 52'.		.28	
54.0	59.0	5.0	Altered greenish gnessic granite. Iron stained		.22	
59.0	64.0	5.0	Alternating green gnessic granite, & granitic material with Qts plentiful Bluish-gray soft gnessic material. In at 62.0'		.11	
64.0	70.0	6.0				

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,939 N  
51,022 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #17

Collar Elev: 205.0

Date Drilled: 3/12/66 Started 12:30 pm  
Completed 2:00 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	3.0	3.0	Set casing			
3.0	9.0	6.0	Recent aluvium	1.07		
9.0	14.0	5.0	Contact 10' of Gila Cg. gray to black with iron staining. Good Cu. Poor sample in volume	1.72		
14.0	19.0	5.0	Tan, Gray to Black Gila Cg. Iron stained. Good Cu. Poor sample in volume	1.62		
19.0	24.0	5.0	Tan, Gray to Black Gila Cg. Very Good Cu to 22.0' 22.0-24.0. Very Hd. Bld. Slow pen.	1.46		
24.0	29.0	5.0	Tan, Brown to Black (numerous chips) Gila. Very Good Cu.	1.07		
29.0	34.0	5.0	Tan, Brown, to Black (numerous chips) Gila Ca. V. Good Cu	1.15		
34.0	39.0		Tan, Brown to Black Gila. Goo Cu. Altered granitic material Iron stained at 38.0	.99		
39.0	44.0	5.0	Brown, heavily iron stained, altered, weathered. Granitic Mater. Tr. of Cu. Damp sample	.24		
44.0	49.0	5.0	Brown, heavily iron stained, altered, weathered gnessic granite Tr. of Cu. Sample very damp	.12		
49.0	54.0	5.0	Same as above	.11		
54.0	59.0	5.0	Same as above to 58.0. Blue, gray, granific material in at 58.0	.07		
59.0	64.0	5.0	Blue, gray, quartzific, material to bottom. Gnessic appearance Slightly iron stained	.10		

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,820 N 51,189 E Wrong?

Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #18

Collar Elev: ~~27~~ 218.0Date Drilled: 3/12/66 started 3:00 pm  
completed

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	3.0	3.0	Set casing				
3.0	9.0	6.0	Recent aluvium		.09		
9.0	14.0	5.0	Recent aluvium		.37		
14.0	19.0	5.0	Recent alubium		.39		
19.0	24.0	5.0	Recent aluvium. Poor volume of sample		.33		
24.0	29.0	5.0	Recent aluvium to 27.0 Gila Cg. Tan, much black Tr. of Cu		.44		
29.0	34.0	5.0	Tan, much black Gila Cg. Fair Cu.		.59		
34.0	39.0	5.0	Tan, Gray to Black Gila Cg. Fair Cu.		.77		
39.0	44.0	5.0	Tan, Gray to Black Gila Cg. to 42.0'. Iron stained Gnessic granite at 42. Silicified		.35		
44.0	49.0	5.0	Altered gnessic granite. Heavily iron stained to 47.0 Brown, much altered 47-49.0		.18		
49.0	54.0	5.0	Green, altered gneissic material in at 49.0' Damp sample		.24		
54.0	59.0	5.0	Brown, heavily iron stained gneissic material. Damp samp.		.18		
59.0	64.0	5.0	Very brown, heavily iron stained, gnessic granite. Very damp sample		.18		

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,732 N 50,733 E Wrong? 50,973 JRR  
Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_ Inclination:  
Hole No.: EP #19 Collar Elev: 207.0  
Date Drilled: 3/13/66 Started 7:30 am Logged By: HWH  
Completed 9:30 am

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	3.0	3.0	Set casing	
3.0	9.0	6.0	Recent aluvium. Sampled	.18
9.0	14.0	5.0	Recent aluvium. Sampled	.15
14.0	19.0	5.0	Recent aluvium. Sampled	.20
19.0	24.0	5.0	Recent aluvium. Sampled	.35
24.0	29.0	5.0	Recent aluvium. Sampled	.33
29.0	34.0	5.0	Recent aluvium. Sampled	.44
34.0	39.0	5.0	Recent aluvium. Sampled. Gila Cg. at 38.0. Tan. Tr. Cu.	.50
39.0	44.0	5.0	Tan, Black, stained. Gila Cg. Tr. Cu	.57
44.0	49.0	5.0	Tan, black stained. Gila Cg. Fair Cu	.53
49.0	54.0	5.0	Tan, black stained. Gila Cg. Fair Cu	.48
54.0	59.0	5.0	Tan, Black stained Gila Cg. Fair Cu	.55
59.0	64.0	5.0	Gila Cg to 60.0. Contact altered green to tan gneissic granite. Much mica. Iron stained	.64
64.0	69.0	5.0	Greenish altered gneissic granite. strongly iron stained	.18
69.0	75.0	6.0	Same as above to 70.0. at 70.0 Blue to gray fresh gneissic granite. Mica.	.09

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,846 N  
51,312 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #20

Collar Elev: 220.0

Date Drilled: 3/13/66 started 10:15 am  
completed 11:15 am

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	3.0	3.0	Casing set			
3.0	9.0	6.0	Recent alluvium. Sampled		.44	
9.0	14.0	5.0	Contact of Gila Cg. at 9.0' Gray to Black Gila. Good Cu.	1.88		
14.0	19.0	5.0	Gray to black. Iron stained Gila. Good Cu	.53		
19.0	24.0	5.0	Tan, altered, brown Gila Cg. Fair Cu	.18		
24.0	29.0	5.0	Brown, highly iron stained, granitic material. In at 25.0	.11		
29.0	34.0	5.0	Brown, highly iron stained granitic material	.13		
34.0	39.0	5.0	Brown, highly iron stained granitic. Kaolinite	.18		
39.0	44.0	5.0	Brown, highly altered granite to 43.0. Fresh gr. at 43. Iron stained	.11		
44.0	50.0	5.0	Brown, iron stained, granite	.08		

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	3.0	3.0	Set casing			
3.0	9.0	6.0	Unable to sample. Boulders			
9.0	14.0	5.0	Sampled. Recent Al.			
14.0	19.0	5.0	Recent aluvium. Sampled		.04	
19.0	24.0	5.0	Recent aluvium. Sampled		"	
24.0	34.0	10.0	Sampled. Unable to identify formation. Wet sample completely covered with mud. Appears to be aluvium. May be poor sample. Poor circulation in hole due to constant caving above. Finally cleaned hole but circulation not restored.		"	
34.0	39.0	5.0	Unable to identify sample. Sample still wet		"	
39.0	44.0	5.0	Unable to identify sample. Sampled. Still wet Hole caved 10' fet. Only could get rods into 34.0 feet. Bottomed.		"	

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	13.0	13.0	Set casing. Sampled	.04
13.0	18.0	5.0	Recent aluvium. Sampled	.13
18.0	24.0	6.0	Recent aluvium. Sampled	.24
24.0	29.0	5.0	Recent aluvium. Sampled	.22
29.0	34.0	5.0	Recent aluvium. Sampled	.33
34.0	39.0	5.0	Recent aluvium. Sampled	.26
39.0	44.0	5.0	Recent aluvium. Sampled	.30
44.0	49.0	5.0	Recent aluvium. Sampled	.42
49.0	54.0	5.0	Recent aluvium to 51.0. Contact of Gila cg. at 51.0 Tan to gray Gila cg. Good Cu	.77
54.0	59.0	5.0	Tan, gray Gila cg. Very Hd highly silicified. Tr. Cu	.31
59.0	64.0	5.0	Tan to gray Gila cg. with alternating hd. and soft streaks Bottom 2 feet very black. Very good Cu. last 2'. Good Cu for 5'	.30
64.0	69.0	5.0	Tan, gray, with much black Gila cg. Very Gd. Cu.	.77
69.0	74.0	5.0	Tan, tray to black Gila cg. Softer. Good Cu	.59
74.0	79.0	5.0	Tan Gila cg. Very hd boulder 77' to 79'. Tr. Cu	.44
79.0	84.0	5.0	Tan, gray with black, some green, Gila Cg. Good Cu Green material is gneiss. Much softer	.77
84.0	89.0	5.0	Green, altered gnessic granite. Soft. contact 84.0	.66
89.0	94.0	5.0	Green to Bl. altered weathered gnessic Gr. Tr. Cu	.28
94.0	99.0	5.0	Green to black gnessic granite. Highly iron stained	.33
99.0	104.0	5.0	Same as above to 102.0. 102' to bottom, fresh green is blue to gray gnessic granite. Qts stringers. Same as core.	.08

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,045 N  
50,506 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #23

Collar Elev: 209.0

Date Drilled: 3/14/66 started 10:00 am Logged By: HWH  
3/15/66 completed 10:15 am - Shut down on 3/14/66 at 3:00 pm to  
replace fuel pump

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	14.0	14.0	Set casing. Sampled recent aluvium	.20
14.0	19.0	5.0	Recent aluvium. Sampled	.24
19.0	24.0	5.0	Recent aluvium. Sampled	.30
24.0	29.0	5.0	Recent aluvium. Sampled	.39
29.0	34.0	5.0	Recent aluvium. Sampled	.11
34.0	39.0	5.0	Recent aluvium. Sampled	.39
39.0	44.0	5.0	Recent aluvium. Sampled	.37
44.0	49.0	5.0	Recent aluvium. Sampled	.43
49.0	54.0	5.0	Recent aluvium. Sampled. Fine Sand. Muddled sides of hole at 54.0'	.28
54.0	59.0	5.0	Recent aluvium. Sampled	.35
59.0	64.0	5.0	Recent aluvium. Sampled	.35
64.0	69.0	5.0	Recent aluvium. Sampled	.45
69.0	74.0	5.0	Recent aluvium. Sampled. Very fine sand in at 74.0 Mudding hole	.38
74.0	79.0	5.0	Recent aluvium. No circulation. Muddled Hole	.13
79.0	84.0	5.0	Circulation return. Split sample for 10' interval. Recent al.	.15
84.0	90.0	6.0	Changed rods. Recent aluvium	.46
90.0	95.0	5.0	Contact 91.0 Tan, dark Gila Cg. Fair Cu	.80
95.0	100.0	5.0	Dark, black Gila Cg. V. Good. Cu.	2.06
100.0	105.0	5.0	Tan, gray, much black Gila Cg. Good Cu	.90
105.0	110.0	5.0	Tan, Gray, to Black Gila Cg. Good Cu	.77
110.0	115.0	5.0	Same as above. Good Cu. Hit rock or fracture at 115.0	.74
			Reduced circ. fine cuttings	
115.0	120.0	5.0	Reduced Cir. Very fine cuttings like blow sand. Stained black	.99
			Reduced _____ in sample. Mudding hole. Cu. show. Contact 114.0'	
120.0	125.0	5.0	Altered bed rock granitic material. Highly iron stained. Poor returns	.11
125.0	130.0		Gray altered gnessic granite	.07
130.0	135.0		Very iron stained gnessic granite. Brown	.03
135.0	140.0		Heavily iron stained gnessic granite	.05



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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,972 N  
51,458 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #24

Collar Elev: 204.0

Date Drilled: 3/15/66 started 12:00 noon  
completed 3:00 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.3	3.0	3.0	Set casing			
3.0	5.0	2.0	Recent aluvium. Sampled	.23		
5.0	10.0	5.0	Recent aluvium	.22		
10.0	15.0	5.0	Recent aluvium	1.10		
15.0	20.0	5.0	Recent aluvium	.79		
	25.0	5.0	Recent aluvium	.39		
25.0	30.0	5.0	Recent aluvium	.26		
30.0	35.0	5.0	Recent aluvium	.35		
35.0	40.0	5.0	Recent aluvium	.33		
40.0	45.0	5.0	Recent aluvium	.48		
45.0	50.0	5.0	Recent aluvium	.57		
50.0	55.0	5.0	Recent aluvium	.26		
55.0	60.0	5.0	Recent aluvium	.70		
60.0	65.0	5.0	Recent aluvium	.66		
65.0	70.0	5.0	Recent aluvium	.55		
70.0	75.0	5.0	Recent aluvium	.53		
75.0	80.0	5.0	Recent aluvium	.30		
80.0	85.0	5.0	Recent aluvium	.39		
85.0	90.0	5.0	Recent aluvium	.53		
90.0	95.0	5.0	Contact of Gila. Light tan at 91.0. Tr. Cu	1.07		
95.0	100.0	5.0	Light gray to tan Gila Cg. Very Hd. Good Cu	.71		
100.0	105.0	5.0	Very black Gila Cg. Very, very good Cu. Soft	3.34		
105.0	110.0	5.0	Hit drift at 110'. Very black to that point. Very Gd Cu	2.91		
			Highly iron stained, brown material in returns just before rods dropped. Dropped rods 10' farther in hole with no resistance. No circulation			
110.0	120.0	10.0	No sample. Open hole.			

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DRILL HOLE LOG

Property: Emerald Isle Coordinates: 51,131 N  
50,536 E

Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_ Inclination:

Hole No.: EP #25 (Sheet 1 of 2) Collar Elev: 215.0

Date Drilled: 3/15/66 started 3:30 pm  
completed 6:00 pm Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	3.0	3.0	Set casing	
3.0	5.0	2.0	Recent aluvium	.15
5.0	10.0	5.0	Recent aluvium	.09
10.0	15.0	5.0	Recent aluvium	.07
15.0	20.0	5.0	Recent aluvium )	
20.0	25.0	5.0	Recent aluvium )	
25.0	30.0	5.0	Recent aluvium )	
30.0	35.0	5.0	Recent aluvium )	
35.0	40.0	5.0	Recent aluvium ) .04	
40.0	45.0	5.0	Recent aluvium )	
45.0	50.0	5.0	Recent aluvium )	
50.0	55.0	5.0	Recent aluvium )	
55.0	60.0	5.0	Recent aluvium )	
60.0	65.0	5.0	Recent aluvium	.20
65.0	70.0	5.0	Recent aluvium	.16
70.0	75.0	5.0	No return. Very fine sand, mudding hole for circulation Circ. return	.13
75.0	80.0	5.0	Recent aluvium	.22
80.0	85.0	5.0	Dark Gray Gila Cg. Tr. Cu. Contact 80.0'	.34
85.0	90.0	5.0	Black to Gray Gila Cg. Hard. Fair Cu.	.37
90.0	95.0	5.0	Black to Gray Gila Cg. Hard. Tr. Cu.	.38
95.0	100.0	5.0	Black to Gray Gila Cg. Hd. Some Iron Staining. Tr. Cu.	.45
100.0	105.0	5.0	Black to Gray Gila Cg. Softer. Some Iron Staining. Tr. Cu.	.26
105.0	110.0	5.0	Same as above. Tr. Cu.	.30
110.0	115.0	5.0	Same as above. Tr. Cu.	.30
115.0	120.0	5.0	Same as above. Fair Cu	.30
120.0	125.0	5.0	Same as above. Fair Cu	.42
125.0	130.0	5.0	Same as above. Tr. Cu	.37
130.0	135.0	5.0	Same as above. Tr. Cu	.53
135.0	140.0	5.0	Same as above. Tr. Cu	.31

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #25 (Sheet 2 of 2)

Collar Elev: 215

Date Drilled: 3/15/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
140.0	145.0	5.0	Black Gila Cg. Good Cu. Good Cu. in at 143.0	1.10		
145.0	150.0	5.0	Black Gila Cg. V. Good Cu.	1.34		
150.0	155.0	5.0	Brown altered gnessic granite. 150.0	.37		
155.0	160.0	5.0	Brown altered gnessic granite	.42		
160.0	165.0	5.0	Brown altered gnessic granite. Kaolonite	.30		
165.0	170.0	5.0	Brown altered gnessic granite. Kaolonite	.31		
170.0	175.0	5.0	Greenish altered gnessic. Kaolonite	.13		
175.0	181.0	6.0	To 180 altered gnessic material. At 180 fresh quartzite gnessic material	.09		

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	13.0	13.0	Recent Overburden, Set Casing to 13.0'	0.13
13.0	15.0	2.0	Recent Overburden	.21
15.0	20.0	5.0	Recent Overburden	.21
20.0	25.0	5.0	Recent Overburden	.18
25.0	30.0	5.0	Recent Overburden	.26
30.0	35.0	5.0	Recent Overburden	.31
35.0	40.0	5.0	Recent Overburden	.21
40.0	45.0	5.0	Recent Overburden	.27
45.0	50.0	5.0	Recent Overburden	.33
50.0	55.0	5.0	Tan with Black Gila Cg at 53.0 Contact Tr. Cu	.45
55.0	60.0	5.0	Tan, Black Gila Cg. Tr. Cu	.31
60.0	65.0	5.0	Tan, Black Gila Cg. Fair Cu	.34
65.0	70.0	5.0	Tan, Black, Gila Cg. Fair Cu	.57
70.0	75.0	5.0	Tan, Gray to Black Gila Cg. Good Cu	.66
75.0	80.0	5.0	Tan, Gray to Black Gila Cg. Fair Cu	.46
80.0	85.0	5.0	Tan, Gray to Black Gila Cg. Fair Cu	.58
85.0	90.0	5.0	Black Gila Cg. Soft. Good Cu	.66
90.0	95.0	5.0	Black, Gray Gila Cg. Good Cu	.66
95.0	100.0	5.0	Tan, Gray, Gila Cg. Fair Cu	.54
100.0	105.0	5.0	Altered, Brownish, soft Gnessic Granite 101.0 Soft for 2'. Greenish altered Gnessic Material	
105.0	110.0	5.0	Greenish altered Gnessic Granite. Iron stained heavily. Soft Mica	
110.0	115.0	5.0	Greenish Gray, hard Gnessic Granite 113.0. Fresh appearance. Mica	.28
115.0	120.0	5.0	Black to gray Gnessic Granite	.19

EL PASO NATURAL GAS COMPANY  
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El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,436 E  
51,137 NType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #27

Collar Elev: 197.0

Date Drilled: 3/21/66 - Started 9:30 AM  
3/22/66 - Completed 9:30 AM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	13.0	13.0	Recent Aluvium. Set Casing to 13.0'				0.07
13.0	15.0	2.0	Recent Aluvium				.11
15.0	20.0	5.0	Recent Aluvium				.11
20.0	25.0	5.0	Recent Aluvium				.04
25.0	30.0	5.0	Recent Aluvium				.07
30.0	35.0	5.0	Recent Aluvium				.07
35.0	40.0	5.0	Recent Aluvium. Hole caving badly at 38.0' mudding. No circulation. Poor sample				.07
40.0	45.0	5.0	Hole caving. Recent aluvium. Mudding. Poor circulation and sample				.04
45.0	50.0	5.0	Hole caving. Recent Aluvium. Mudding. Poor circulation and sample				.04
50.0	55.0	5.0	Hole caving. Recent Aluvium. Mudding. Poor Circulation and sample				.04
55.0	60.0	5.0	Hole caving. Recent Aluvium. Mudding. Poor circulation and sample				
60.0	80.0	20.0	Recent Aluvium. Poor circulation. No sample return. No samples taken this interval. No pressure on pull down				
80.0	100.0	20.0	Recent Aluvium. Poor circulation. No sample return. No sample taken this interval. No pressure on pull down				
100.0	105.0	5.0	Contact and return of cuttings at 100.0. Tan, iron Stained Gila Cg. Tr. Cu. Iron stained				.22
105.0	110.0	5.0	Tan to gray Gila Cg. Tr. Cu. Iron stained				.20
110.0	115.0	5.0	Tan to gray Gila Cg. Tr. Cu. Iron stained				.22
115.0	120.0	5.0	Tan, gray to black Gila Cg. Tr. Cu. Iron stained				.22
120.0	125.0	5.0	Tan, gray, Gila Cg. Iron stained. Very fine returns, Tr. Cu				.42
125.0	130.0	5.0	Tan, gray, Black with white qts. Iron stained. Tr. Cu Harder. Lost circulation at 126.0				.37
130.0	135.0	5.0	Black Gila Cg. Soft. Fair Cu. Iron stained. Poor circulation				.31
135.0	140.0	5.0	Black. More brown appearing, stronger Iron stained Gila Cg. Very soft. Poor circulation. Fair Cu. Quartzite to granite appearance in larger pebbles in return.				.21
140.0	145.0	5.0	Brown to tan Gila Cg. Iron stained. Gila Cg. Poor Cu				.12
145.0	150.0	5.0	Brown, tan Gila Cg. Iron stained, Poor Circ. Tr. Cu				.14
150.0	155.0	5.0	Brown, Iron stained Gila Cg. Tr. Cu. Circulation better				0.13
155.0	160.0	5.0	Brown, Iron stained Gila Cg. Tr. Cu. Circulation better				0.14
			Hole caved when adding next rod. Hole abandoned.				

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MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

## DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,975 N  
50,277 E

Type of Drill: WD DD RD X CD

Inclination:

Hole No.: EP #28 (Sheet 1 of 2)

Collar Elev: 190.0

Date Drilled: 3/22/66 Started 10:15 AM  
Completed 3:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	13.0	13.0	Set Casing. Recent Aluvium. Sampled	.14
13.0	15.0	2.0	Recent Aluvium	.05
15.0	20.0	5.0	" "	.04
20.0	25.0	5.0	" "	.07
25.0	30.0	5.0	" "	.07
30.0	35.0	5.0	" "	.07
35.0	40.0	5.0	" "	.07
40.0	45.0	5.0	" "	tr.
45.0	50.0	5.0	" "	tr.
50.0	55.0	5.0	" "	tr.
55.0	60.0	5.0	" "	tr.
60.0	65.0	5.0	" "	tr.
65.0	70.0	5.0	" "	tr.
70.0	75.0	5.0	" "	tr.
75.0	80.0	5.0	" "	tr.
80.0	85.0	5.0	" "	tr.
85.0	90.0	5.0	" "	tr.
90.0	95.0	5.0	" "	tr.
95.0	100.0	5.0	" "	tr.
100.0	105.0	5.0	" "	.20
105.0	110.0	5.0	" "	.31
110.0	115.0	5.0	" "	.31
115.0	120.0	5.0	" "	.25
120.0	125.0	5.0	Tan, Black Gila Cg. Fair Cu. Contact 121.0'	.44
			Poor return and circulation	
125.0	130.0	5.0	Same as above. Fair Cu	.53
130.0	135.0	5.0	Tan, Gray to black Gila Cg. Trace Cu. Better circulation	.31
135.0	140.0	5.0	Same as above. Tr. Cu. Fair circulation	.35
140.0	145.0	5.0	Tan, Black to gray Gila Cg. FAIR Cu. Good return. Soft	0.49
145.0	150.0	5.0	Tan, Black to gray Gila Cg. Tr. Cu	0.24
150.0	155.0	5.0	Contact 151.0 - Brown, Iron stained, Highly altered granitic material	.18
155.0	160.0	5.0	Same as above	.20
160.0	165.0	5.0	Kaolonite. Brown, iron stained granitic material	.20
165.0	170.0	5.0	Same as above	.19
170.0	175.0	5.0	Same as above	.11
175.0	180.0	5.0	Soft, altered granitic material. Brown	.13
180.0	185.0	5.0	" " " " " Kaolonite	.11

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #28 (Sheet 2 of 2)

Collar Elev: 190.0

Date Drilled: 3/22/66

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
185.0	190.0	5.0	Soft, altered Granitic material. Brown. Kaolonite			.13
190.0	195.0	5.0	Same as above			.11
195.0	200.0	5.0	Same as above			.11
200.0	205.0	5.0	Soft, Brown, highly altered granite. Kaolonite			.11
205.0	210.0	5.0	Soft, Brown, highly altered granite. Kaolonite			.13
210.0	215.0	5.0	Soft, Brown, highly altered granite. Kaolonite			.07
215.0	220.0	5.0	Soft, Brown, highly altered granite. Kaolonite			tr.

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,834 N  
50,156 E  
Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_ Inclination:  
Hole No.: EP #29 (Sheet 1 of 2) Collar Elev: 189.0  
Date Drilled: 3/22/66 Started 4:00 p.m. Logged By: HWH  
3/23/66 Completed 12:30 a.m.

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	13.0	13.0	Set casing. Sampled. Recent Aluvium			tr.	
13.0	15.0	2.0	Recent Aluvium			tr.	
15.0	20.0	5.0	Recent Aluvium			tr.	
20.0	25.0	5.0	Recent Aluvium			tr.	
25.0	30.0	5.0	Recent Aluvium			tr.	
30.0	35.0	5.0	Recent Aluvium			tr.	
35.0	40.0	5.0	Recent Aluvium			tr.	
40.0	45.0	5.0	Recent Aluvium			tr.	
45.0	50.0	5.0	Recent Aluvium			tr.	
50.0	55.0	5.0	Recent Aluvium			tr.	
55.0	60.0	5.0	Recent Aluvium			tr.	
60.0	65.0	5.0	Recent Aluvium			tr.	
65.0	70.0	5.0	Recent Aluvium			tr.	
70.0	75.0	5.0	Recent Aluvium			tr.	
75.0	80.0	5.0	Recent Aluvium			tr.	
80.0	85.0	5.0	Recent Aluvium			tr.	
85.0	90.0	5.0	Recent Aluvium			tr.	
90.0	95.0	5.0	Recent Aluvium			tr.	
95.0	100.0	5.0	Recent Aluvium			.08	
100.0	105.0	5.0	Recent Aluvium			.09	
105.0	110.0	5.0	Recent Aluvium			.09	
110.0	115.0	5.0	Recent Aluvium			.12	
115.0	120.0	5.0	Recent Aluvium			.25	
120.0	125.0	5.0	Recent Aluvium			.15	
125.0	130.0	5.0	Contact 126.0'. Tan to Gray Gila Cg. Hard. Fair Cu			.38	
130.0	135.0	5.0	Tan, Gray to Black Gila Cg. Iron Stained. Fair Cu. Hard			.55	
135.0	140.0		Tan to Brown, Much Black Gila Cg. Hard. Heavily iron stained. Fair Cu.			.59	
140.0	145.0	5.0	Black to Gray Gila Cg. Hard. Good Cu.			.73	
145.0	150.0	5.0	Black to Gray Gila Cg. Hard. Good Cu.			1.12	
150.0	155.0	5.0	Tan, Black to Gray Gila Cg. Hard. Good Cu.			1.19	



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DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD x RD \_\_\_ CD \_\_\_

Inclination:

Hole No.: EP #29 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 3/23/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
155.0	160.0	5.0	Tan, Black to Gray Gila Cg. Hard. Good Cu.			1.52
160.0	165.0	5.0	Brown to Black Gila Cg. Hard. Good Cu.			1.50
165.0	170.0	5.0	Brown to Black Gila Cg. Hard. Good Cu.			.90
170.0	175.0	5.0	Brown to Black Gila Cg. Very Hd. Fair Cu.			.60
175.0	180.0	5.0	Brown to Black Gila Cg. Hard. Good Cu.			1.15
180.0	185.0	5.0	Brown to Black Gila Cg. Highly Silicified. Very Hd. Tr. Cu.			.46
185.0	190.0	5.0	Black, Brown Gila Cg. Highly Silicified. Very Hd. Fair Cu.			.57
190.0	195.0	5.0	Black, Brown Gila Cg. Hard. Fair Cu.			.58
195.0	200.0	5.0	Black, Brown Gila Cg. Hard. Tr. Cu.			.48
200.0	205.0	5.0	Altered, weathered granitic material at 200 contact. Soft.			
			Poor circulation and return			.22
205.0	210.0	5.0	Brown, altered granitic material. Poor circulation and return			.20
210.0	215.0	5.0	Brown, altered granite. Poor circ. and return			.10
215.0	220.0	5.0	Brown, altered, granite. Kaolinite. Good circulation & return			.11
			Samples 200-215 - Moist and Damp when hole bottomed.			
			Water in <del>hole</del> hole.			

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,631 N  
50,165 EType of Drill: WD \_\_\_ DD x RD \_\_\_ CD \_\_\_

Inclination:

Hole No.: EP #30 (Sheet 1 of 2)

Collar Elev: 186.0

Date Drilled: 3/23/66

Started 2:30 pm

Logged By: HWH

3/24/66

Completed 9:30 am

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	13.0	13.0	Set casing. Recent Aluvium				.07
13.0	15.0	2.0	Recent Aluvium				.15
15.0	20.0	5.0	Recent Aluvium				.25
20.0	25.0	5.0	Recent Aluvium				.34
25.0	30.0	5.0	Recent Aluvium				.24
30.0	35.0	5.0	Recent Aluvium				.26
35.0	40.0	5.0	Recent Aluvium				.24
40.0	45.0	5.0	Recent Aluvium				.22
45.0	50.0	5.0	Recent Aluvium				.22
50.0	55.0	5.0	Recent Aluvium				.18
55.0	60.0	5.0	Recent Aluvium				.13
60.0	65.0	5.0	Recent Aluvium				.11
65.0	70.0	5.0	Recent Aluvium				.14
70.0	75.0	5.0	Recent Aluvium				.18
75.0	80.0	5.0	Recent Aluvium				.22
80.0	85.0	5.0	Recent Aluvium				.22
85.0	90.0	5.0	Recent Aluvium				.30
90.0	95.0	5.0	Recent Aluvium				.31
95.0	100.0	5.0	Recent Aluvium to 97.0 Contact Hd. Gila at 97.0				.46
100.0	105.0	5.0	Gray to Black, Iron Stained Gila Cg. Hard. Tr. Cu.				.42
105.0	110.0	5.0	Gray to Black Iron Stained Gila Cg. Hard. Tr. Cu.				.42
110.0	115.0	5.0	Same as above. Tr. Cu.				.39
115.0	120.0	5.0	Gray Gila Cg. Highly Silicified. Tr. Cu.				.37
120.0	125.0	5.0	Tan, Gray to Black Gila Cg. Highly Silicified. Very Hd. Good Cu. Show				1.31
125.0	130.0	5.0	Tan, Gray to Black Gila Cg. Highly Silicified. Very Hd. Good Cu				1.21
130.0	135.0	5.0	Tan, Gray to Black Gila Cg. Highly Silicified. Very Hd. Good Cu				1.69
135.0	140.0	5.0	Tan, Gray to Black Gila Cg. Highly Silicified. Very Hd. Good Cu				1.53
140.0	145.0	5.0	Gray to Black, Iron Stained Gila Cg. Highly Silicified. Very Hd. Good Cu				1.45
145.0	150.0	5.0	Gray, Tan, Black Gila Cg. Very Hd. Highly Silicified. Good Cu				1.31
150.0	155.0	5.0	Same as above. Good Cu				1.12
155.0	160.0	5.0	Gray, Tan Black Gila Cg. Very Hard. Highly Silicified. Fair Cu				.59

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #30 (Sheet 2 of 2)

Collar Elev:

Date Drilled:

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
160.0	165.0	5.0	Tan to Brown Gila Cg. Softer. Good Cu.				.66
165.0	170.0	5.0	Tan to Brown Gila Cg. Fair Cu				.57
170.0	175.0	5.0	Brown to Tan Gila Cg. Soft. Fair Cu				.58
175.0	180.0	5.0	Brown to Tan Gila Cg. Somewhat Harder. Fair Cu				.50
180.0	185.0	5.0	Brown to Black Gila Cg. Tr. Cu. Kaolonite				.42
185.0	190.0	5.0	Brown to Black Gila Cg. Fair Cu.				.50
190.0	195.0	5.0	Brown to Black Gila Cg. Good Cu.				.77
195.0	200.0	5.0	Brown to Black Gila Cg. Tr. Cu				.35
200.0	205.0	5.0	Brown to Black Gila Cg. Cu Showing. Sample Returning Wet. Hit Water				.35
205.0	210.0	5.0	Brown, Black Gila Cg. Sample Damp. Fair Cu. Dry Sample Circulation Returned				.27
210.0	215.0	5.0	Brown, Black Gila Cg. Sample Damp. Cu Visible				.49
215.0	220.0	5.0	Much, altered, granitic material in appearance. Tr. Cu. Sample Badly Masked. Kaolonite Softer. Proable contact of altered bedrock 217.0'				.36
220.0	225.0	5.0	Circulation poor. Air Holding Water Back in Hole. Hard to Get Cuttings to Return. Trying to Dry Hole. No Return at 221.0				
225.0	230.0	5.0	No Return				.18
230.0	235.0	5.0	Fine, brown altered granite. Hard. All particles in cuttings even sized due to hardness. Return coming back. Hole drying.				
235.0	240.7	5'7"	Return coming back, fine, even grained altered granite. Hole drying but return less in volume than usual. Composite sample made from 220.0 - 240'7"				

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,938 N  
50,439 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #31

Collar Elev: 202.0

Date Drilled: 3/24/66 - Started 1:00PM  
3/24/66 - Completed 4:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	13.0	13.0	Set Casing	.20
13.0	15.0	2.0	Recent Aluvium	.22
15.0	20.0	5.0	Recent Aluvium	.22
20.0	25.0	5.0	Recent Aluvium	.76
25.0	30.0	5.0	Recent Aluvium	.58
30.0	35.0	5.0	Recent Aluvium	.96
35.0	40.0	5.0	Recent Aluvium	.61
40.0	45.0	5.0	Recent Aluvium	.47
45.0	50.0	5.0	Recent Aluvium	.49
50.0	55.0	5.0	Recent Aluvium	1.21
55.0	60.0	5.0	Recent Aluvium	.61
60.0	65.0	5.0	(?) Contact of Tan Gila Cg. at 61.0. Fair Cu ?	.77
65.0	70.0	5.0	Tan Gila Cg. Good Cu Hard?	1.25
70.0	75.0	5.0	Tan Gila Cg. Good Cu Hard?	1.31
75.0	80.0	5.0	Tan Gila Cg. Good Cu Hard?	1.41
80.0	85.0	5.0	Light gray Gila Cg. Hard. Contact at 80.0 Good Cu	1.68
85.0	90.0	5.0	Light gray to tan Gila Cg. Highly Silicified. Hard. Good Cu	1.73
90.0	95.0	5.0	Gray, tan with some Black Gila Cg. Highly Silicified. Hd. Good Cu	1.49
95.0	100.0	5.0	Tan, Black Gila Cg. All Black at 99.0. Softer. V. good Cu	3.06
100.0	105.0	5.0	Black to Brown Gila Cg. Soft. Good Cu	2.39
105.0	110.0	5.0	Black to Brown Gila Cg. Hard. Good Cu	1.53
110.0	115.0	5.0	Black to Brown Gila Cg. Hard. Good Cu	1.08
115.0	120.0	5.0	Brown with Black Gila Cg. Hard. Good Cu	.92
120.0	125.0	5.0	Started run. Lost circulation at 121. Lowered rods to 135.0. Had to drill in, but no returns or circulation. Rods in a bind, hole going crooked at 133.0. Had to pull out to avoid sticking rods. Hole bottomed at 135.0' - Mud on bit when rods were pulled.	

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,797 N  
50,059 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #32 (Sheet 1 of 2)

Collar Elev: 186.0

Date Drilled: 3/25/66 Started: 7:30 AM  
Completed 11:30 AM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	13.0	13.0	Set Casing. Recent Aluvium			.04
13.0	15.0	2.0	Recent Aluvium			.10
15.0	20.0	5.0	" "			.04
20.0	25.0	5.0	" "			.06
25.0	30.0	5.0	" "			.08
30.0	35.0	5.0	" "			.10
35.0	40.0	5.0	" "			.05
40.0	45.0	5.0	" "			.05
45.0	50.0	5.0	" "			.04
50.0	55.0	5.0	" "			.05
55.0	60.0	5.0	" "			.05
60.0	65.0	5.0	" " Mudded Hole			.11
65.0	70.0	5.0	" "			.08
70.0	75.0	5.0	" "			.08
75.0	80.0	5.0	" "			.07
80.0	85.0	5.0	" " Mudded Hole			.07
85.0	90.0	5.0	" "			.08
90.0	95.0	5.0	" "			.08
95.0	100.0	5.0	" "			.08
100.0	105.0	5.0	" " Mudded Hole			.08
105.0	110.0	5.0	Recent Aluvium. Very fine. Poor circulation			.13
110.0	115.0	5.0	" " " "			.11
115.0	120.0	5.0	Recent Aluvium. Very fine material. Poor circulation			
			Mudded			.11
120.0	125.0	5.0	Recent Aluvium. Mudded. Good circulation			.13
125.0	130.0	5.0	Recent Aluvium. Somewhat harder			.15
130.0	135.0	5.0	Contact of Gila Cg. Hard. Silicified at 131.0'			.38
			Gray, brown, with Black Gila Cg. Tr. Cu Show			
135.0	140.0	5.0	Gray, Brown to black Gila Cg. V. hd. Highly silicified			
			Fair Cu. Very black at 139.0'			.54
140.0	145.0	5.0	Black, brown Gila Cg. Hard. Some narrow soft streaks. Tr Cu			.44
145.0	150.0	5.0	Gray, Black Gila Cg. Some Iron staining. Very hd. Tr. Cu			.28
150.0	155.0	5.0	Gray, Black Gila Cg. Very hd. Tr. Cu			.44
155.0	160.0	5.0	Gray to black Gila Cg. Very hd. Good Cu show.			1.03
160.0	165.0	5.0	Brown to tan, with some Black Gila Cg. Hard. Good Cu			1.38
165.0	170.0	5.0	Brown, Tan with some Black Gila Cg. Hard. Good Cu			1.04
170.0	175.0	5.0	Brown, Black Gila Cg. Hard Good Cu			.90
175.0	180.0	5.0	Tan, Gray, Black Gila Cg. Hard to 178.0. Soft after. Fair Cu			.47

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #32 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 3/25/66

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
180.0	185.0	5.0	Brown, Black Gila Cg. Soft. Tr. Cu. Kaolinite			.48
185.0	190.0	5.0	Brown Gila Cg. Tr. Cu			.55
190.0	195.0	5.0	Brown Gila Cg., with some Black. Fair Cu. Kaolinite			.65
195.0	200.0	5.0	Brown, Iron stained altered Granite in at 196.0' contact.			.50
200.0	205.0	5.0	Brown, Iron stained, altered Granite. Sample damp			.32
205.0	210.0	5.0	Brown, Heavily Iron stained, altered Granite. Kaolinite. Sample damp			.35
210.0	215.0	5.0	Brown, altered Granite, Heavily Iron stained. Kaolinite. Sample damp			.37
215.0	220.0	5.0	Brown, altered Granite. Heavily Iron stained. Kaolinite. Sample damp			.25

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,684 N  
50,052 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #33 (Sheet 1 of 2)

Collar Elev: 182.0

Date Drilled: 3/25/66 Started 1:00 PM  
Completed 6:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	13.0	13.0	Recent Aluvium. Sampled. Set casing	.07
13.0	15.0	2.0	" "	.05
		5.0	" "	.05
	25.0	5.0	" "	.05
25.0	30.0	5.0	" "	.05
30.0	35.0	5.0	" "	.05
35.0	40.0	5.0	" "	.26
40.0	45.0	5.0	" "	.26
45.0	50.0	5.0	" "	.34
50.0	55.0	5.0	" "	.35
55.0	60.0	5.0	" "	.36
60.0	65.0	5.0	" "	.32
65.0	70.0	5.0	" "	.27
70.0	75.0	5.0	" "	.26
75.0	80.0	5.0	" "	.30
80.0	85.0	5.0	" "	.32
85.0	90.0	5.0	" "	.38
90.0	95.0	5.0	" " to 93.0. Tan, consolidated Gila contact at 93.0 (?) Tr. Cu. (Recent Aluvium?)	.43
95.0	100.0	5.0	Brown to Tan, with some Black, Gila Cg. Hard. Tr. Cu (Recent Aluvium?)	.39
100.0	105.0	5.0	Brown with some Black Gila Cg. Softer. Tr. Cu (Recent Aluv?)	.24
105.0	110.0	5.0	Same as above. Tr. Cu (Recent Aluvium?)	.16
110.0	115.0	5.0	Brown to Tan Gila Cg. Soft. Tr. Cu (Recent Aluvium?)	.19
115.0	120.0	5.0	Brown Gila Cg. Soft. Tr. Cu (Recent Aluvium?)	.18
120.0	125.0	5.0	" " " " " " " "	.18
125.0	130.0	5.0	Brown with some Black Gila Cg. Soft. Tr. Cu (Recent Aluvium?)	.15
130.0	135.0	5.0	Brown Gila Cg. Soft. Tr. Cu (Recent Aluvium?)	.24
135.0	140.0	5.0	Brown with some Black Gila Cg. TR. Cu (Recent Aluvium?)	.28
140.0	145.0	5.0	Brown to Tan Gila Cg. Tr. Cu (Recent Aluv.?)	.33
145.0	150.0	5.0	Brown with some Black & Green Gila Cg. Very hard at 149.0 Tr. Cu (Contact?)	.34
150.0	155.0	5.0	Brown Gila Cg. Very hard. Fair Cu	.66
155.0	160.0	5.0	Brown to Tan, some Black Gila Cg. Very hard. Good Cu	.99
160.0	165.0	5.0	Brown with Black Gila Cg. Fair Cu in at 163.0. Very gd. Cu	2.04
165.0	170.0	5.0	Tan to Brown with Black Gila Cg. Very hard. Good Cu	1.93
170.0	175.0	5.0	Tan to Brown with some Black Gial Cg. Hard. Good Cu	1.16

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_\_ DD \_\_\_\_ RD X CD \_\_\_\_

Inclination:

Hole No.: EP #33 (Sheet 2 of 2)

Collar Elev: 182.0

Date Drilled: 3/25/66

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
175.0	180.0	5.0	Tan, Brown Gila Cg. Good Cu			1.51
180.0	185.0	5.0	Tan to Brown Gila Cg. Good Cu			.92
185.0	190.0	5.0	Tan to Brown Gila Cg. Hard. Good Cu			.89
190.0	195.0	5.0	Brown Gila Cg. Hard Good Cu			.77
195.0	200.0	5.0	Tan to Brown Gila Cg. Hard. Fair Cu			.71
200.0	205.0	5.0	Tan to Brown Gila Cg. Tr. Cu			.42
205.0	210.0	5.0	Tan to Brown Gila Cg. Tr. Cu			.43
210.0	215.0	5.0	Brown to Black Gila Cg. Fair Cu			.48
215.0	220.0	5.0	Brown to Black Gila Cg. Hard. Tr. Cu			.44
220.0	225.0	5.0	Brown, Black Gila Cg. Hard. Wet sample. Water in hole at 220.0. Good Cu. Blue Cu			.77
225.0	230.0	5.0	Black to Brown Gila Cg. Wet sample. Water in hole. Good Cu Blue Cu			.70
230.0	235.0	5.0	Black to Brown Gila Cg. Wet sample. Good Cu. Blue			.82
235.0	240.0	5.0	Black to Brown Gila Cg. Wet sample. Altered Brown Granitic material in at 239.0 Contact			.50
240.0	245.0	5.0	Altered Brown, Soft Granitic material. Wet Sample			.33
245.0	250.0	5.0	Altered Brown, soft Granite. Wet sample.			.26



EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,923 N  
50,057 E  
Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_ Inclination:  
Hole No.: EP #34 (Sheet 1 of 2) Collar Elev: 187.0  
Date Drilled: 3/26/66 Started 9:30 am Logged By: HWH  
Completed 3:00 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium. Set Casing to 13.0'	.05
20.0	40.0	20.0	Recent Aluvium	.08
40.0	60.0	20.0	Recent Aluvium	.05
60.0	80.0	20.0	Recent Aluvium	.04
80.0	100.0	20.0	Recent Aluvium	.07
100.0	105.0	5.0	Recent Aluvium. Sampled	.08
105.0	110.0	5.0	Recent Aluvium. Sampled	.07
110.0	115.0	5.0	Recent Aluvium. Sampled	.10
115.0	120.0	5.0	Recent Aluvium. Sampled	.09
120.0	125.0	5.0	Recent Alufium. Sampled	.16
125.0	130.0	5.0	Recent Aluvium. Sampled	.17
130.0	135.0	5.0	Recent Aluvium. Sampled	.13
135.0	140.0	5.0	Recent Aluvium. Lost Circulation. No Sample. Tools Stuck. Used water to free tools and clean hole	
140.0	145.0	5.0	Tan to Black Gila Cg. Tr. Cu. Hard. Contact 140.0	.29
145.0	150.0	5.0	Black to Brown. Iron Stained Gila Cg. Fair Cu. Hard	.61
150.0	155.0	5.0	Black to Brown Gila Cg. Kron Stained. Fair Cu. Hard	.61
155.0	150.0	5.0	Black, Gray with Iron Staining. Gila Cg. Fair Cu. Hard	.67
160.0	165.0	5.0	Brown, with some Black, Gila Cg. Fair Cu. Hard	.61
165.0	170.0	5.0	Tan to Gray Gila Cg. Soft. Streak at 167. Good Cu	.70
170.0	175.0	5.0	Tan to Gray Gila Cg. Hard. Fair Cu	.65
175.0	180.0	5.0	Tan to Gray Gila Cg. Hard. Fair Cu	.64
180.0	185.0	5.0	Brown to Black Gila Cg. Soft. Fair Cu	.55
185.0	190.0	5.0	Altered, soft granitic appearing material in at 185. Brown Soft. Tr. Cu. Contact at 185.0	.33
190.0	195.0	5.0	Brown, Altered, granitic material. Kaolonite. Tr. Cu. Soft	.28
195.0	200.0	5.0	Brown, Altered, granitic appearing material. Kaolonite. Soft. Fair Cu.	.24
200.0	205.0	5.0	Brown to Tan, altered Granitic material. More Qts present and Harder. Tr. Cu.	.19
205.0	210.0	5.0	Brown, Altered Granitic Material. Cu. visible	.16
210.0	215.0	5.0	Brown, Altered Granitic. No Cu visible	.14

EL PASO NATURAL GAS COMPANY  
 MINING DIVISION  
 P. O. Box 1492  
 El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #34 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 3/26/66 Started 9:30 am

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY	
215.0	220.0	5.0	Brown, Altered, Granite. No Cu Visible. Kaolonite		.18
220.0	225.0	5.0	Brown Heavily Iron Stained Altered Granite. Kaolonite No Cu visible		.11
225.0	230.0	5.0	Brown, Heavily Iron Stained Altered Granite. Kaolonite No Cu visible		.11
230.0	235.0	5.0	Brown, to Red Hematite Stained, Altered Granite. Kaolonite Sample red in appearance. Reduced circulation at 230.0		.39
235.0	240.0	5.0	Poor Sample. Barely circulation and cuttings Return. Altered Granite		.18

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,513 N  
50,509 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #35

Collar Elev: 189.0

Date Drilled: 3/27/66 Started 8:00 AM  
Completed 10:45 AM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium. Set casing to 13.0. Sampled	.13
20.0	25.0	5.0	" " Sampled	.33
25.0	30.0	5.0	" " "	.33
30.0	35.0	5.0	" " "	.34
35.0	40.0	5.0	" " "	.33
40.0	45.0	5.0	Recent Aluvium "	.41
45.0	50.0	5.0	" " "	.36
50.0	55.0	5.0	Contact of Brown to Black Gila Cg. at 50.0. Soft. Tr. Cu	.34
55.0	60.0	5.0	Brown, Black Gila Cg. Tr. Cu. Somewhat harder	.37
60.0	65.0	5.0	Brown, Gray to Black Gila Cg. Tr. Cu	.54
65.0	70.0	5.0	Brown Gila to 68.0'. Contact altered Granite at 68.0'	.35
70.0	75.0	5.0	Altered Green Gnessic Granite	.46
75.0	80.0	5.0	Green, Blue Gnessic Granite	.26

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,793 N  
50,895 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #36

Collar Elev: 206.0

Date Drilled: 3/27/66 Started 11:45 AM  
Completed 1:45 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	20.0	20.0	Recent Aluvium, Set casing to 3.0 Sampled			.25
20.0	25.0	5.0	" " Sampled			.45
25.0	30.0	5.0	" " "			.39
30.0	35.0	5.0	Aluvium more consolidated. Sampled. No Cu visible			.46
35.0	40.0	5.0	" " " Black, Aluvium at 38.0'			.54
			Contact Black Gila Cg. at 38.0. Fair Cu			
40.0	45.0	5.0	Black to Brown Gila Cg. Tr. Cu. Very soft			.47
45.0	50.0	5.0	Black to Brown Gila Cg. Tr. Cu. Very soft			.41
50.0	55.0	5.0	Black, Brown Gila Cg. Tr. Cu. Very soft			.53
55.0	60.0	5.0	Black, Brown, Gray Gila Cg. Hard. Good Cu			1.37
60.0	65.0	5.0	Black, Brown, Gray Gila Cg. Hard. Good Cu			.78
65.0	70.0	5.0	Black, Brown, Gila Cg. Softer. Good Cu			.92
70.0	75.0	5.0	Green Gnessic Granite in at 70.0. Altered Gnessic Granite 72.0 - 75.0			.38
75.0	80.0	5.0	Altered Gnessic Granite. Fresher appearing to 78.0. Blue Green Gnessic Granite 78.0 - 80.0			.11

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	10.0	10.0	Recent Aluvium. Set 3' casing. Sampled	.04
10.0	20.0	10.0	Gila Cg. contact at 11.0' Black. Hard, consolidated. Tr. Cu	.27
20.0	25.0	5.0	Brown, Iron Stained Gila Cg. Some Black. Hard. Tr. Cu	.57
25.0	30.0	5.0	Brown, Gray to Black Gila Cg. Hard. Fair Cu	.68
30.0	35.0	5.0	Brown, Gray to Black Gila Cg. Hard. Good Cu	1.06
35.0	40.0	5.0	Brown, Iron stained Gila Cg. Hard Fair Cu. Brown, strongly iron stained Granite at 39.0'	.54
40.0	45.0	5.0	Altered, Granite. Brown. Iron stained. Soft. Kaolonite	.22
45.0	50.0	5.0	Granite, Brown, Iron stained. Fresher appearance	.20
50.0	55.0	5.0	Altered Brown Granite. Hard. Very dusty	.13
55.0	60.0	5.0	Altered Brown Granite. Hard. Very dusty	.10

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 MINING DIVISION  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,941 N  
51,140 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #38

Collar Elev: 208.0

Date Drilled: 3/27/66 Started 4:00 pm  
5:45 pm

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	5.0	5.0	Recent Aluvium. Sampled			.05	
5.0	10.0	5.0	Recent Aluvium. Sampled			.05	
10.0	15.0	5.0	Recent Aluvium. Sampled			.04	
15.0	20.0	5.0	Recent Aluv. to 18.0 - Black Gila Cg. at 18.0. Tr. Cu.			.17	
20.0	25.0	5.0	Tan, Black Gila Cg. Soft. Fair Cu			.39	
25.0	30.0	5.0	Black, Brown Gila Cg. Soft. Tr. Cu.			.24	
30.0	35.0	5.0	Gila Cg. to 32.0. Brown, Altered Granite in at 32.0			.09	
35.0	40.0	5.0	Brown, Highly Altered, Iron Stained Granite. Kaolonite			.07	
40.0	45.0	5.0	Brown, Highly Altered, Iron Stained Granite. Samples Damp			.09	
45.0	50.0	5.0	Brown, Highly Altered, Iron Stained Granite. Samples Damp			.08	

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,052 N  
50,682 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_Bottom of Pit  
Inclination:

Hole No.: EP #39

Collar Elev: 185.0

Date Drilled: 3/28/66 Started 10:30 am  
Completed 11:15 am

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	5.0	5.0	0.0-1.0 Gila Cg. Altered, Brown Granite, Cu show (salted sample)			.79
5.0	10.0	5.0	Altered, Brown, Heavily Iron Stained Granite. Cu show (salted sample)			.08
10.0	15.0	5.0	Altered, Brown, Heavily Iron Stained Granite. Cu show (salted sample) ?			.09
15.0	20.0	5.0	Altered, Brown, Heavily Iron Stained Granite			.07
20.0	25.0	5.0	Brown, Heavily Iron Stained, Altered Granite. Good Sample			tr
25.0	30.0	5.0	Same as above. No Cu. visible			tr
30.0	35.0	5.0	Brown, Heavily Iron Stained, Altered Granite. No Cu			tr
35.0	40.0	5.0	Brown, Heavily Iron Stained, Altered Granite			.04

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,063 N  
50,798 E Bottom of PitType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #40

Collar Elev: 195.0

Date Drilled: 3/28/66

Started 11:25

Logged By: HWH

Completed 11:45

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	5.0	5.0	Brown, Altered Gila Cg. Good Cu			1.08
5.0	10.0	5.0	Brown, Black Gila Cg. Good Cu			.99
10.0	15.0	5.0	Brown, Black, Gila Cg. Tr. Cu.			.48
15.0	20.0	5.0	Gila Cg to 16.0. Brown, Iron Stained, Altered Granite with Kaolinite 16'. No Cu. visible			.12



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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,057 N  
50,893 E Bottom of PitType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #41

Collar Elev: 193.0

Date Drilled: 3/28/66

Started 11:50 am

Logged By: HWH

Completed 12:05 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	5.0	5.0	Brown, Gila Cg. Good Cu			.90
5.0	10.0	5.0	Black to Brown Gila Cg. Fair Cu.			.55
10.0	15.0	5.0	Black Gila Cg. Tr. Cu.			.48
15.0	20.0	5.0	Black Gila Cg. to 18.0. Altered Brown Granite			.16
			18 to 20.0 Sample Mixed. Tr. Cu			

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,026 N

50,977 E

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination: Bottom of Pit

Hole No.: EP #42

Collar Elev: 198.0

Date Drilled: 3/28/66

Started 12:10 pm

Logged By: HWH

Completed 12:50 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	5.0	5.0	Brown Gila Cg. Fair Cu			.59	
5.0	10.0	5.0	Gray to Brown Gila Cg. Fair Cu			.68	
10.0	15.0	5.0	Gray to Brown Gila Cg. Tr. Cu			.25	
15.0	20.0	5.0	Gray to Brown Gila Cg. Iron Stained. Tr. Cu.			.28	
20.0	25.0	5.0	Gray, Brown Gila Cg. to 22.0. Brown heavily Iron Stained			.18	
			Granite in at 22.0'				
25.0	30.0	5.0	Brown, Heavily Iron Stained Granite			.14	
30.0	35.0	5.0	Brown, Heavily Iron Stained Granite. Fresher. Hard			.11	
35.0	40.0	5.0	Brown, Iron Stained, Very Hard Granite			tr	

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,754 N  
51,085 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #43

Collar Elev: 207.0

Date Drilled: 3/28/66 Started 1:30 PM  
Completed 3:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY	
0.0	5.0	5.0	Recent Aluvium. Sampled. Set casing to 3.0'	0.10	
5.0	10.0	5.0	Contact. Brown, altered Gila Cg. at 7.0'. Tr. Cu	0.26	
10.0	15.0	5.0	Tan, Gray to Black Gila Cg. Tr. Cu	.38	
15.0	20.0	5.0	Tan, Gray to Black Gila Cg. Tr. Cu	.38	
20.0	25.0	5.0	Tan, Gray to Black Gila Cg. Tr. Cu	.50	
25.0	30.0	5.0	Red, Hemstatite showed Granitic material at 27.0'. Tr. Cu	.57	
30.0	35.0	5.0	Brown, Reddish altered Granitic material - Kaolonite Limenite	1.01	{?}
35.0	40.0	5.0	Brown, Reddish altered Granite, Kaolonite, Soft, Limenite	.77	{?}
40.0	45.0	5.0	Brown altered Granite. Soft. Kaolonite	.11	
45.0	50.0	5.0	Tan to Gray altered Granite. Harder	.09	
50.0	55.0	5.0	Gray, Green to Blue Gnessic Granite. Fresh. Hard	.08	
55.0	60.0	5.0	Green to Blue Gnessic Granite. Fresh. Hard	.09	

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,658 N  
50,900 E

Type of Drill: WD \_\_\_ DD \_\_\_ RD \_\_\_ CD \_\_\_

Inclination:

Hole No.: EP #44

Collar Elev: 204.0

Date Drilled: 3/28/66 Started 3:30 PM  
Completed 5:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	10.0	10.0	Recent Aluvium. Sampled				tr.
10.0	20.0	10.0	" " "				0.20
20.0	25.0	5.0	" " "				0.24
25.0	30.0	5.0	" " "				0.34
30.0	35.0	5.0	" " "				0.44
35.0	40.0	5.0	Recent " to 37.0'. Brown Gila Cg. Contact at 37.0'				0.41
			Tr. Cu				
40.0	45.0	5.0	Tan, to Gray Gila Cg. Tr. Cu. Rather soft				0.44
45.0	50.0	5.0	Brown to Black Gila Cg. Tr. Cu. Soft				0.57
50.0	55.0	5.0	Gila Cg. to 52.0. Greenish, altered, Gnessic Granite at 52.0				0.61
55.0	60.0	5.0	Green, to Brown, Gnessic Granite. Highly altered and iron stained.				0.13
60.0	65.0	5.0	Brown, heavily Iron stained Granite. Soft				0.08
65.0	70.0	5.0	Brown, Iron stained Granite. Harder. More Qts. Fresher				0.09
70.0	75.0	5.0	Gray to Blue Gnessic Granite. Fresh. Hard				0.07
75.0	80.0	5.0	Fresh, unaltered, Green to Blue Gnessic Granite				0.10

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,223 N  
50,873 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #45

Collar Elev: 226.0

Date Drilled: 3/29/66

Started 8:15 am

Logged By: HWH

Completed 9:45 am

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	5.0	5.0	Recent Aluvium. Sampled. Set Casing to 3.0'			0.05
5.0	10.0	5.0	Recent Aluvium. Sampled			tr
10.0	15.0	5.0	Recent Aluvium. Sampled			0.13
15.0	20.0	5.0	Recent Aluvium. Sampled			0.43
20.0	25.0	5.0	Recent Aluvium. Sampled			tr
25.0	30.0	5.0	Recent Aluvium. Sampled			tr
30.0	35.0	5.0	Recent Aluvium. Sampled			tr
35.0	40.0	5.0	Recent Aluvium. Sampled			tr
40.0	45.0	5.0	Recent Aluvium. Sampled			tr
45.0	50.0	5.0	Recent Aluvium			tr
50.0	55.0	5.0	Soft, Highly Altered, Granite. First Consolidated Material Damp and Clay seam at 50.0'			tr
55.0	60.0	5.0	Green to Brown, Highly Altered Granite Soft			tr
60.0	65.0	5.0	Altered, Brown to Green Granite. Soft			tr
65.0	70.0	5.0	Altered, Brown, Granite. Soft			tr
70.0	75.0	5.0	Harder, More Qts in Altered Granite			tr
75.0	80.0	5.0	Fresher appearing Iron Stained Granite			tr

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,190 N  
50,943 EType of Drill: WD \_\_\_\_ DD \_\_\_\_ RD X CD \_\_\_\_

Inclination:

Hole No.: EP #46

Collar Elev: 220.0

Date Drilled: 3/29/66

Started 10:15

Logged By: HWH

Completed 11:45

FROM TO		FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	5.0	5.0	Recent Aluvium. Set Casing to 3' Sampled				tr
5.0	10.0	5.0	Recent Aluvium. Sampled				tr
10.0	15.0	5.0	Recent Aluvium.				tr
15.0	20.0	5.0	Recent Aluvium. Granite Boulders				tr
20.0	25.0	5.0	Boulders to 23.0. Soft Recent Aluvium 23.0-25				tr
25.0	30.0	5.0	Recent Aluvium				tr
30.0	35.0	5.0	Red to Brown Heavily Iron Stained Granite. Soft Hematite				tr
35.0	40.0	5.0	Brown, Highly Altered Granite Soft				tr
40.0	45.0	5.0	Brown Highly Altered Granite. Some Grey Gneissic Granite. Mixed				tr
45.0	50.0	5.0	Brown, Iron Stained. Granite.				tr
50.0	55.0	5.0	Brown, Iron Stained. Granite. Fresh appearance. More Qts. Harder				tr
55.0	60.0	5.0	Brown, Iron Stained, Granite. Hard. Much Qts.				tr

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,138 N  
51,006 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #47

Collar Elev: 214.0

Date Drilled: 3/29/66

Started 12:30 pm

Logged By: HWH

Completed 1:30 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	5.0	5.0	Recent Aluvium. Sampled. Set 3' Casing (?)			0.61
5.0	10.0	5.0	Recent Aluvium (?)			0.68
10.0	15.0	5.0	Recent Aluvium (?)			0.87
15.0	20.0	5.0	Recent Aluvium (?)			0.27
20.0	25.0	5.0	Recent Aluvium. Altered Granitic Material at 23.0. Soft			tr
25.0	30.0	5.0	Soft Granitic Material. Somewhat harder. Altered			tr
30.0	35.0	5.0	Altered, Iron Stained, Granite. Hard. Mixed Gray Granite			tr
35.0	40.0	5.0	Very Hrd. Brown, Iron Stained, with Gray Granite. Much Qts in Gray Granite			tr

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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 51,221 N  
50,642 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #48

Collar Elev: 221.0

Date Drilled: 3/29/66

Started 2:00 pm

Logged By: HWH

Completed 4:55 pm

FROM		TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY	
0.0	20.0	20.0	Recent Aluvium. Set 3' Casing. Sampled		tr	
20.0	40.0	20.0	Recent Aluvium. Sampled		0.11	
40.0	60.0	20.0	Recent Aluvium. Sampled		0.22	
60.0	65.0	5.0	Recent Aluvium		0.28	
65.0	70.0	5.0	Recent Aluvium		0.21	
70.0	75.0	5.0	Recent Aluvium		0.14	
75.0	80.0	5.0	Recent Aluvium. Hole Caved. Mudded Hole. Very fine No circulation		0.13	
80.0	85.0	5.0	Recent Aluvium. Poor Sample & Circulation		0.17	
85.0	90.0	5.0	Brown, Iron Stained, Granitic appearing Gila Cg. Tr. Cu Contact 85.0'. Good Returns		.32	
90.0	95.0	5.0	Hole Caved at 92.0. Mudding Hole Again to Repair Circulation. Brown, Granitic appearing Gila Cg. Tr. Cu. Poor Sample		.18	
95.0	100.0	5.0	Gray to Black, Iron Stained Gila Cg. Much Qts in cuttings Tr. Cu. Mudding Hole		.10	
100.0	105.0	5.0	Same as above. Tr. Cu.		.06	
105.0	110.0	5.0	Tan, Gray Altered Appearing Gila Cg. Tr. Cu. Soft		.08	
110.0	115.0	5.0	Hole Caved at 110.0' Mudded Hole. Tan to Gray Gila Cg. Much Qts. but soft drilling. Poor Sample		.05	
115.0	120.0	5.0	Tan to Gray Gila Cg. Much Qts. Tr. Cu. Better circulation but still soft and caving. Good Sample		.06	
120.0	125.0	5.0	Tan, Gray Gila Cg. Much Qts. Soft. Tr. Cu.		.07	
125.0	130.0	5.0	Gila Cg. to 128.0' Contact of Brown, Highly Altered Granite		.04	
130.0	135.0	5.0	Brown Highly Altered Granite. Soft. Strongly Iron Stained Kaolonite			tr
135.0	140.0	5.0	Same as above. Kaolonite		.05	
140.0	145.0	5.0	Tan to Gray Altered Granite. Kaolonite		.04	
145.0	150.0	5.0	Fresher Tan to Gray, Iron Stained Granite. Harder		.05	
150.0	155.0	5.0	Brown, Highly Altered Granite. Kaolonite		.04	
155.0	160.0	5.0	Same as above		.04	



EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle      Coordinates: 50,515 N  
50,202 E

Type of Drill: WD \_\_\_\_ DD \_\_\_\_ RD X CD \_\_\_\_      Inclination:

Hole No.: EP #49 (Sheet 1 of 2)      Collar Elev: 183.0

Date Drilled: 3/30/66      Started 8:15 AM      Logged By: H.W. Horst  
Completed 11:45 AM

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium	.04
20.0	40.0	20.0	" "	.10
40.0	60.0	20.0	" "	.09
60.0	65.0	5.0	Contact of Gray Gila Cg. at 16.0. Tr. Cu.	.18
65.0	70.0	5.0	Gray to Black Gila Cg. Tr. Cu. Hard	.20
70.0	75.0	5.0	Tan, Gray, Gila Cg. Tr. Cu. Hard	.18
75.0	80.0	5.0	Tan, Gray, Gila Cg. Tr. Cu. Softer	.19
80.0	85.0	5.0	Black, Brown Gila Cg. Tr. Cu. Soft	.26
85.0	90.0	5.0	Brown, Iron Stained Gila Cg. Tr. Cu. Hard	.20
90.0	95.0	5.0	Brown, Gray to Black Gila Cg. Tr. Cu. Hard	.24
95.0	100.0	5.0	Tan, Gray to Black Gila Cg. Tr. Cu. Hard	.32
100.0	105.0	5.0	Tan, Gray Gila Cg. Tr. Cu. Very hard. Iron staining	.30
105.0	110.0	5.0	Tan, Gila Cg., Brown, also. Tr. Cu. Hard	.27
110.0	115.0	5.0	Tan, Brown Gila Cg. Tr. Cu. Hard	.26
115.0	120.0	5.0	Tan, Gray to Black Gila Cg. Tr. Cu. Hard	.28
120.0	125.0	5.0	Tan to Brown Gila Cg. Tr. Cu. Hard	.30
125.0	130.0	5.0	Tan, Gray to Black Gila Cg. Softer. Tr. Cu	.37
130.0	135.0	5.0	Tan, Gray Gila Cg. Flow rock (red) in sample. Tr. Cu. Soft	.42
135.0	140.0	5.0	Tan, Gray, Black Gila Cg. Tr. Cu. Hard	.35
140.0	145.0	5.0	Tan to Gray Gila Cg. Hard. Tr. Cu	.26
145.0	150.0	5.0	Brown to Black Gila Cg. Softer. Tr. Cu	.24
150.0	155.0	5.0	Brown, Gray to black Gila Cg. Very hard. Tr. Cu	.26
155.0	160.0	5.0	Brown, Gray to black Gila Cg. Very hard. Tr. Cu	.36
160.0	165.0	5.0	Brown, Black Gila Cg. Softer. Tr. Cu	.31
165.0	170.0	5.0	Brown, Gray to Black Gila Cg. Softer. Tr. Cu	.32
170.0	175.0	5.0	Brown, Gray Gila Cg. Tr. Cu	.18
175.0	180.0	5.0	Brown, black Gila Cg. Tr. Cu. Soft	.28
180.0	185.0	5.0	Brown to black with White Qts. Gila Cg. Tr. Cu Soft	.25
185.0	190.0	5.0	Black to white, Iron stained Gila Cg. Tr. Cu. Soft. Altered appearance	.18
190.0	195.0	5.0	Brown to black, Heavily Iron stained Gila Cg. Soft. Tr. Cu Weathered, altered appearance. Clay seam (Kaolinite) in at 194.0. Hole damp & sample contact 194.0	.44
195.0	200.0	5.0	Brown to greenish cast, highly altered gneissic granite Heavily Iron stained	1.10 (?)
200.0	205.0	5.0	Greenish, Brown, Highly altered and Iron stained gneissic granite	1.25 (?)
205.0	210.0	5.0	Brown, Heavily Iron stained, gneissic granite. Kaolinite Soft.	1.64 (?)

EL PASO NATURAL GAS COMPANY  
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 El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #49 (Sheet 2 of 2)

Collar Elev: 183.0

Date Drilled: 3/30/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY				
210.0	215.0	5.0	Brown, heavily Iron stained, gneissic granite. Kaolinite. Hole very damp. Circulation poor and returns cut off. Hole bottomed.	Soft		1.05	(?)	

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent aluvium. Sampled. Set 3' Casing	.15
20.0	25.0	5.0	" " "	.32
25.0	30.0	5.0	Brown to Black Gila Cg. (?) Black stained. Recent Al.	.30
30.0	35.0	5.0	" " " " " " " "	.32
35.0	40.0	5.0	" " " " " " " "	.27
40.0	45.0	5.0	Brown Gila Cg. Soft (?) " " " "	.23
45.0	50.0	5.0	" " " " " " " "	.23
50.0	55.0	5.0	" " " " " " " "	.19
55.0	60.0	5.0	Soft, recent Aluvium	.12
60.0	65.0	5.0	Recent Aluvium	.12
65.0	70.0	5.0	Recent Aluvium	.12
70.0	75.0	5.0	Recent Aluvium	tr.
75.0	80.0	5.0	Recent Aluvium. Cu. visible	tr.
80.0	85.0	5.0	Recent Aluvium	tr.
85.0	90.0	5.0	" " "	.15
90.0	95.0	5.0	" " " Contact of Gila Cg. Black at 94.0'	.11
95.0	100.0	5.0	Brown, heavily stained Gila Cg. Granitic in appearance Harder. Tr. Cu	.16
100.0	105.0	5.0	Brown, heavily iron stained Gila Cg. Tr. Cu. Hard	.25
105.0	110.0	5.0	Brown, heavily Iron stained Gila Cg. Tr. Cu. Hard	.24
110.0	115.0	5.0	Brown, black heavily Iron stained Gila Cg. Tr. Cu. Hard	.28
115.0	120.0	5.0	Brown, black, Iron stained Gila Cg. Very Hard. Tr. Cu	.33
120.0	125.0	5.0	Brown, black, Iron stained Gila Cg. Much Qts. Very Hd. Tr. Cu.	.39
125.0	130.0	5.0	Brown, Gray to black Gila Cg. Very hard. Tr. Cu	.39
130.0	135.0	5.0	Brown, Gray to black Gila Cg. Very hard. Tr. Cu	.29
135.0	140.0	5.0	Brown, Gray to black. Gila Cg. Softer. Tr. Cu	.39
140.0	145.0	5.0	Brown, gray to black, Iron stained Gila Cg. Tr. Cu. Med. Hard	.53
145.0	150.0	5.0	Brown, Gray Gila Cg. Med. Hard. Tr. Cu	.48
150.0	155.0	5.0	Same as above. Tr. Cu	.44
155.0	160.0	5.0	Tan, gray Gila Cg. Tr. Cu. Medium hard	.49
160.0	165.0	5.0	Tan, gray Gila Cg. Tr. Cu. Hard	.42
165.0	170.0	5.0	Tan, gray Gila Cg. Tr. Cu. Hard	.36
170.0	175.0	5.0	Tan, gray Gila Cg. Tr. Cu. Very hard	.26
175.0	180.0	5.0	Tan, Gila Cg. Iron stained. Hard	.24
180.0	185.0	5.0	Tan, gray Gila Cg. Soft streak, altered at 183.0' Tr. Cu. Kaolomite	.18
185.0	190.0	5.0	Gray to tan Gila Cg. Hard. Tr. Cu	tr.
190.0	195.0	5.0	Brown, black Gila Cg. Softened. Altered, weathered appearance Tr. Cu	tr.

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #50 (Sheet 2 of 2).

Collar Elev:

Date Drilled: 3/30/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
195.0	200.0	5.0	Brown, heavily Iron stained. Altered appearing Gila Cg. Tr. Cu <del>KMSXKXKX</del> Kaolonite			tr.
200.0	205.0	5.0	Tan, Gila Cg. Tr. Cu			tr.
205.0	210.0	5.0	Tan, altered appearing Gila Cg. Kaolonite Tr. Cu Softer			tr.
210.0	215.0	5.0	Brown, Iron stained Gila Cg. Tr. Cu Soft			tr.
215.0	220.0	5.0	Brown, Iron stained Gila Cg. Soft. Tr. Cu			tr.
220.0	225.0	5.0	Black Gial Cg. Soft. Tr. Cu			tr.
225.0	230.0	5.0	Black, Brown Gila Cg. Med. Soft. Tr. Cu			tr.
230.0	235.0	5.0	Black to brown altered appearing Gial Cg. Tr. Cu. Soft			tr.
235.0	240.0	5.0	Black, brown, altered Gila. Soft. Tr. Cu. Clay in Cuttings. Contact 239.0'			tr.
240.0	245.0	5.0	Brown altered Granite			tr.
245.0	250.0	5.0	Poor air circulation. Hole packing due to moisture. Brown altered Granite. Put water in hole to check last five feet cuttings. Altered grinite in cutting when water used to wash out hole			tr.

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,634 N  
49,958 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #51 (Sheet 1 of 2)

Collar Elev: 182.0

Date Drilled: 3/31/66 Started 8:00 AM  
Completed 2:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium. Set Casing to 3'. Sampled	tr.
20.0	40.0	20.0	" " Sampled. Hole caving. Mudded Hole	.24
40.0	60.0	20.0	" " " Hole caving. Mudding Hole	.30
60.0	80.0	20.0	Recent Aluvium	.24
80.0	85.0	5.0	" "	.19
85.0	90.0	5.0	" "	.19
90.0	95.0	5.0	" "	.19
95.0	100.0	5.0	" "	
100.0	105.0	5.0	" "	.18
105.0	110.0	5.0	" "	.21
110.0	115.0	5.0	" "	.20
115.0	120.0	5.0	" "	.16
120.0	125.0	5.0	" "	.13
125.0	130.0	5.0	" " Somewhat Harder	.12
130.0	135.0	5.0	" "	.11
135.0	140.0	5.0	" "	.11
140.0	145.0	5.0	Had to wash hole with water due to circulation problems.	.12
	150.0	5.0	Poor sample return & circulation. Recent aluvium	.16
	155.0	5.0	Same as above	.18
			Improved circulation. Contact of Black Gila Cg. at 153.0'	
			Tr. Cu	
155.0	160.0	5.0	Black to brown Gila Cg. Loosely consolidated. Tr. Cu	.31
160.0	165.0	5.0	Brown, Hard Gila Cg. Fair Cu	.33
165.0	170.0	5.0	Tan, very hard, highly silicified Gila Cg. Good Cu	.72
170.0	175.0	5.0	Tan, iron stained, highly silicified Gila Cg. Good Cu	1.29
175.0	180.0	5.0	Tan, iron stained, highly silicified Gila. Very Hd. Good Cu	1.12
180.0	185.0	5.0	Brown, Gila Cg. Soft streak - 181 - 185.0. Fair Cu	1.10
185.0	190.0	5.0	Brown, Gila Cg. Alternating soft & hard streaks. Soft streaks appeared altered. Tr. Cu	.77
190.0	195.0	5.0	Tan, gray Gila Cg. Hard. Tr. Cu	.48
195.0	200.0	5.0	Tan, brown, soft Gila Cg. Tr. Cu	.34
200.0	205.0	5.0	Tan, gray to black Gila Cg. Alternating soft & hard streaks	.31
			Tr. Cu	
205.0	210.0	5.0	Gray, black Gila Cg. Alternating soft and Hd. Tr. Cu	.37
210.0	215.0	5.0	Gray, Black Gila Cg. Soft. Tr. Cu	.42
215.0	220.0	5.0	Gray, black Gila Cg. Soft. Tr. Cu	.39
220.0	225.0	5.0	Gray, black Gila Cg. Soft. Tr. Cu	.31
225.0	230.0	5.0	Brown, black Gila Cg. Soft. Tr. Cu. Altered appearance	.33
			Brown, black & white Cg. Soft. Altered appearance, Tr. Cu	
			Hole getting damp. Reduced volume of sample	.24

EL PASO NATURAL GAS COMPANY  
 MINING DIVISION  
 P. O. Box 1492  
 El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #51 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 3/31/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
230.0	235.0	5.0	Brown, black & white Cg. Soft. Altered appearance, Tr. Ca Hole getting damp. Reduced volum of sample. Poor Circulation and return			.22
235.0	240.0	5.0	Brown, black & white, altered material. Kaolonite. Tr. Ca Poor circulation. Poor returns			.22
240.0	245.0	5.0	No sample. No returns. Fines from bottom of hole had altered granitic appearance. Brown. No circulation and hole bottomed. All rods pulled from hole heavily caked and coated with mud from bottom of hole.			

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,751 N  
49,961 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #52

Collar Elev: 182.0

Date Drilled: 3/31/66 Started 3:00 PM  
4/1/66 Completed 4:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium. Set 3' Casing. Sampled	.10
20.0	40.0	20.0	" " Sampled	tr.
40.0	60.0	20.0	" " "	tr.
60.0	80.0	20.0	" " "	tr.
80.0	100.0	20.0	" " "	tr.
100.0	105.0	5.0	" " "	tr.
105.0	110.0	5.0	" " "	tr.
110.0	115.0	5.0	" " "	.20
115.0	120.0	5.0	" " "	.18
120.0	125.0	5.0	" " " Consolidated	.24
125.0	130.0	5.0	" " " "	.28
130.0	135.0	5.0	Recent Aluvium to 134.0'. Brown Gila Cg. at 139.0. Tr. Cu	.35
135.0	140.0	5.0	Brown, gray Gila Cg. Very hard. Tr. Cu	.39
140.0	145.0	5.0	Brown, gray, Gila Cg. Very Hard Tr. Cu	.26
145.0	150.0	5.0	Brown, Gila Cg. Very soft. Clay in cuttings. Tr. Cu	.28
150.0	155.0	5.0	Brown to gray Gila Cg. Soft. Altered appearance Tr. Cu	.36
155.0	160.0	5.0	Brown, black Gila Cg. Med. Hard. Very black at 139.0. Tr. Cu	.39
160.0	165.0	5.0	Brown, black Gila Cg. Hard. Good Cu	1.13
165.0	170.0	5.0	Brown, gray Gila Cg. Hard. Good Cu	1.14
170.0	175.0	5.0	Brown, gray Gila Cg. Hard. Good Cu	1.45
175.0	180.0	5.0	Brown, Gray Gila Cg. Hard. Good Cu	1.50
180.0	185.0	5.0	Brown, gray Gila Cg. Hard. Good Cu	1.44
185.0	190.0	5.0	Black, brown Gila Cg. Hard. Good Cu	1.33
190.0	195.0	5.0	Black, gray, Gila Cg. Hard. Very good Cu	1.45
195.0	200.0	5.0	Brown, black Gila Cg. Hard. Good Cu	1.10
200.0	205.0	5.0	Brown Gila Cg. Hard. Fair Cu	.83
205.0	210.0	5.0	Brown Gila Cg. Softer. Good Cu	.98
210.0	215.0	5.0	Brown Gila Cg. Soft. Altered appearance. Fair Cu	.56
215.0	220.0	5.0	Brown, heavily Iron stained Gila Cg. Soft. Tr. Cu. Altered appearance	.44
220.0	225.0	5.0	No returns or circulation. Hole wet. Small sample & poor. Probably not from bottom of hole. Contact (220.0?)	.31
225.0	230.0	5.0	Same as above	.28
230.0	235.0	5.0	Returns from bottom of hole. Brown, altered granite	.26
235.0	240.0	5.0	Brown altered Granite. Good sample & returns	.20

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,872 N  
49,938 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP# 53

Collar Elev: 192.0'

Date Drilled: 4/2/66 Started 8:00 AM  
Completed 11:30 AM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
20.0	20.0	20.0	Recent Aluvium. Sampled				tr.
20.0	40.0	20.0	" " "				tr.
40.0	60.0	20.0	" " "				tr.
60.0	80.0	20.0	" " "				tr.
80.0	100.0	20.0	" " "				tr.
100.0	105.0	5.0	" " "				tr.
105.0	110.0	5.0	" " "				tr.
110.0	115.0	5.0	" " "				tr.
115.0	120.0	5.0	" " "				tr.
120.0	125.0	5.0	Recent Aluvium				tr.
125.0	130.0	5.0	" " "				tr.
130.0	135.0	5.0	" " "				tr.
135.0	140.0	5.0	" " "				tr.
140.0	145.0	5.0	" " "				tr.
145.0	150.0	5.0	Recent Aluvium to 148.0'. Contact black Gila Cg. at 148.0'				.14
150.0	155.0	5.0	Brown, Iron stained Gila Cg. Hard. Some black. Fair Cu				.26
155.0	160.0	5.0	Gray to black Iron stained Gila Cg. Hard. Fair Cu				.50
160.0	165.0	5.0	Gray to black. Iron stained Gila Cg. Alternating hard to soft streaks. Fair Cu				.53
165.0	170.0	5.0	Black to brown, alternating soft to hard Gila Cg. Tr. Cu				.39
170.0	175.0	5.0	Black, brown, Iron stained Gila Cg. Med. Hard. Tr. Cu				.35
175.0	180.0	5.0	Black, brown, Iron stained Gila Cg. Hard. Fair Cu				.59
180.0	185.0	5.0	Black, gray Iron stained Gila Cg. Hard. Fair Cu				.67
185.0	190.0	5.0	Black, gray, Iron stained Gila Cg. Hard. Good Cu				.83
190.0	195.0	5.0	Black, gray, alternating soft to hard streaks. Good Cu				1.06
195.0	200.0	5.0	Black, gray, Gila Cg. Medium hard. Good Cu				1.21
200.0	205.0	5.0	Brown, some black Gila Cg. altered appearance. Good Cu				.95
205.0	210.0	5.0	Brown, Iron stained Gila Cg. to 209.0. Altered Granite				
			209.0 Contact				.76
210.0	215.0	5.0	Brown, Heavily Iron stained Granite. Kaolonite. Soft				.48
215.0	220.0	5.0	Brown, Iron stained Granite. Kaolonite. Soft.				.41
220.0	225.0	5.0	Brown, heavily Iron stained, altered Granite. Kaolonite. Soft.				
			Hole wet & damp.				.46
225.0	230.0	5.0	Brown, altered, Iron stained Granite. Soft. Kaolonite				.37



EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,714 N  
50,173 E

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_ Inclination:

Hole No.: EP #54 (Sheet 1 of 2)-1st Try 20.0' Collar Elev: 191.0'  
2nd Try

Date Drilled: 4/2/66 Started 12:30 PM Logged By: H.W. Horst  
4/3/66 Completed 10:30 AM

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium. Sampled	.28
20.0	40.0	20.0	" " " Hole caving badly at 35.0'	.40
40.0	60.0	20.0	" " " Poor sample. Reduced circulation	.30
			Good from 53.0' - 60.0'	
60.0	70.0	10.0	Recent Aluvium. Sampled	.30
70.0	80.0	10.0	" " "	.32
80.0	85.0	5.0	" " "	.30
85.0	90.0	5.0	" " "	.28
90.0	95.0	5.0	" " to 93.0'. Contact black Gila Cg. 93.0. Tr. Cu	.27
95.0	100.0	5.0	Black, brown Gila Cg. Hard. Tr. Cu	.25
100.0	105.0	5.0	Black to gray. Iron stained Gila Cg. Tr. Cu	.39
105.0	110.0	5.0	Gray, black, Iron stained Gila Cg. Fair Cu	.58
110.0	115.0	5.0	Gray, tan, Iron stained Gila Cg. Fair Cu	.66
115.0	120.0	5.0	Gray, black, Iron stained Gila Cg. Hard. Fair Cu	.65
120.0	125.0	5.0	Gray, tan, Iron stained Gila Cg. Hard. Fair Cu	.41
125.0	130.0	5.0	Gray, tan Gila Cg. Iron stained. Med. Hard. Good Cu	.70
130.0	135.0	5.0	Tan, gray Gila Cg. Iron stained. Soft. Good Cu	.88
135.0	140.0	5.0	Tan, gray Gila Cg. Iron stained. Very hard. Good Cu	.95
140.0	145.0	5.0	Tan, gray Gila Cg. Iron stained. Very hard. Good Cu	1.14
145.0	150.0	5.0	Tan, gray Gila Cg. Good Cu. Hard	1.61
150.0	155.0	5.0	Tan, gray, Gila Cg. Hard. Good Cu	1.39
155.0	160.0	5.0	Tan, gray Iron stained Gila Cg. Very hard. Good Cu	1.10
160.0	165.0	5.0	Tan, gray, Iron stained Gila Cg. Hard. Good Cu	1.17
165.0	170.0	5.0	Tan, gray, Gila Cg. Softer. Good Cu	1.01
170.0	175.0	5.0	Brown, black Gila Cg. Hard. Good Cu	1.11
175.0	180.0	5.0	Brown, black Gila Cg. Hard Good Cu	.99
180.0	185.0	5.0	Black, brown, Gila Cg. Softer. <del>Hard</del> Fair Cu	.73
185.0	190.0	5.0	Black, brown, Gila Cg. Soft. Fair Cu	.78
190.0	195.0	5.0	Brown, highly Iron stained. Altered appearance of Gila Tr. Cu. Granitic character. Soft	.59
195.0	200.0	5.0	Brown, highly Iron stained Gila Cg. Altered Granitic appearance, Fair Cu. Soft.	.60
200.0	205.0	5.0	Brown, Granitic appearing Gila Cg. Altered. Tr. Cu. Poor returns & sample. Hole getting damp.	.44
205.0	210.0	5.0	Brown, highly iron stained, altered appearing Gila. Fair Cu. Soft. Better sample & returns	.61
210.0	215.0	5.0	Brown, highly Iron stained Gila Cg. Fair Cu. Soft Fair returns & circulation	.56

EL PASO NATURAL GAS COMPANY  
 MINING DIVISION  
 P. O. Box 1492  
 El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #54 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 4/2/66

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
215.0	220.0	5.0	Brown, highly Iron stained Gila Cg. Hole damp. Dry sample still returning soft. Tr. Cu. Strong Granitic appearance. Kaolinite.			.33	
220.0	225.0	5.0	Water in hole at 220.0'. Hole would not flow water but sample wet. Altered Granite bedrock 220.? Contact			.55	
225.0	230.0	5.0	Wet sample. Altered, brown Granite. Kaolinite			.26	
230.0	240.0	10.0	Wet sample. Altered, brown Granite. Kaolinite			.22	

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,688 N  
49,860 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #55

Collar Elev: 180.0

Date Drilled: 4/366 Started 11:15 AM  
Completed 5:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	20.0	20.0	Recent Aluvium. Set 3' casing. Sampled			tr.
20.0	40.0	20.0	" " Sampled			tr.
40.0	60.0	20.0	" " "			tr.
60.0	80.0	20.0	" " "			tr.
80.0	100.0	20.0	" " "			tr.
100.0	120.0	20.0	" " "			.20
120.0	125.0	5.0	" " "			.31
125.0	130.0	5.0	" " "			.28
130.0	135.0	5.0	" " "			.34
135.0	140.0	5.0	" " "			.26
140.0	145.0	5.0	" " "			.18
145.0	150.0	5.0	" " Aluvium somewhat consolidated.			.16
150.0	155.0	5.0	" " Somewhat consolidated			tr.
155.0	160.0	5.0	" " to 157.0'. Contact brown, hard Gila Cg. Tr. Cu			.16
160.0	165.0	5.0	Brown, Iron stained Gila Cg. Tr. Cu. Hard to soft.			.22
165.0	170.0	5.0	Hard, brown, Iron stained, Gila Cg. Tr. Cu			.28
170.0	175.0	5.0	Gray, brown, Iron stained Gila Cg. Tr. Cu. Hard			.28
175.0	180.0	5.0	Gray, Iron stained Gila Cg. Fair Cu. Hard			.64
180.0	185.0	5.0	Gray, black, Iron stained Gila Cg. Hard. Fair Cu			.56
185.0	190.0	5.0	Brown, black, Iron stained Gila Cg. Softer. Good Cu			.79
190.0	195.0	5.0	Brown, Gray, Iron stained Gila Cg. Hard. Tr. Cu			.43
195.0	200.0	5.0	Black, brown, Gila Cg. Hard. Fair Cu			.49
200.0	205.0	5.0	Black, brown Gila Cg. Hard. Good Cu			.74
205.0	210.0	5.0	Black, brown, Gila Cg. Hard. Fair Cu			.66
210.0	215.0	5.0	Black, brown Gila Cg. Hard. Good Cu			.89
215.0	220.0	5.0	Brown, altered appearing Gila Cg. Tr. Cu			.43
220.0	225.0	5.0	Brown, altered appearing Gila Cg. Hard. Qtz. Pebbles. Tr. Cu			.26
225.0	230.0	5.0	Brown, highly Iron stained, Granitic appearing Gila Cg. Tr. Cu. Soft			.25
230.0	235.0	5.0	Brown, highly Iron stained. Altered Granite. Contact 230. Hole damp.			.25
235.0	240.0	5.0	Brown, highly Iron stained, altered Granite. Hole damp			.19

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,816 N  
49,861 E  
Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_ Inclination: \_\_\_\_\_  
Hole No.: EP #56 Collar Elev: 186.0  
Date Drilled: 4/4/66 Started 8:00 AM Logged By: H.W. Horst  
Completed 2:30 PM

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	20.0	20.0	Recent Aluvium. Set Casing to 3'. Sampled				tr.
20.0	40.0	20.0	" "				tr.
40.0	60.0	20.0	" "				tr.
60.0	80.0	20.0	" "				tr.
80.0	100.0	20.0	" "				tr.
	100.0	20.0	" "				tr.
	125.0	5.0	" "				tr.
125.0	130.0	5.0	" "				tr.
130.0	135.0	5.0	" "				tr.
135.0	140.0	5.0	" "				tr.
140.0	145.0	5.0	" "				tr.
145.0	150.0	5.0	" "				tr.
150.0	155.0	5.0	Contact of Gila Cg. at 150.0'. Brown. Hard. Tr. Cu				.23
155.0	160.0	5.0	Brown, hard, granitic in appearance. Gila Cg. Tr. Cu				.22
160.0	165.0	5.0	Gray, tan Gila Cg. Hard. Iron Stained. Tr. Cu				.24
165.0	170.0	5.0	Black, Iron stained Gila Cg. Tr. Cu. Hard				.26
170.0	175.0	5.0	Black to gray Iron stained Gila Cg. Hard. Tr. Cu				.22
175.0	180.0	5.0	Black, Iron stained Gila Cg. Hard Tr. Cu				.22
180.0	185.0	5.0	Gray, tan, Iron stained Gila Cg. Very hard. Good Cu				1.05
185.0	190.0	5.0	Gray, tan, Iron stained Gila Cg. Very hard. Highly silicified Fair Cu				.61
190.0	195.0	5.0	Tan, gray, highly silicified Gila Cg. Very hard. Fair Cu				.50
195.0	200.0	5.0	Tan, gray, highly silicified, Gila Cg. Very hard. Good Cu				1.21
200.0	205.0	5.0	Tan, gray, highly silicified, Iron stained Gila Cg. Very hard. Good Cu				1.56
205.0	210.0	5.0	Tan, gray, highly silicified. Iron stained Gila Cg. V. Hard. Good Cu				1.62
210.0	215.0	5.0	Tan, gray, " " " " " "				1.22
215.0	220.0	5.0	Tan, gray, altered appearing Gila Cg. Softer. Good Cu				.87
220.0	225.0	5.0	Dry sample. Reduced circulation. Hole wet. Brown, altered Granite. Contact 220.0				.38
225.0	230.0	5.0	Brown, altered Granite. Kaolonite. Wet sample. Drilling with water to get returns. Some Cu noted in sample probably from side of hole				.59

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,993 N  
49,960 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #57

Collar Elev: 202.0

Date Drilled: 4/13/66 Started 7:00 Am  
Completed 11:30 AM

Logged By: H. W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0.0	20.0	20.0	Recent Aluvium. Set casing to 3'	tr.
20.0	40.0	20.0	" "	tr.
40.0	60.0	20.0	" "	tr.
60.0	80.0	20.0	" "	tr.
80.0	100.0	20.0	" "	tr.
100.0	120.0	20.0	" "	tr.
120.0	140.0	20.0	" "	tr.
140.0	145.0	5.0	" " More consolidated. Boulders	tr.
145.0	150.0	5.0	" " " "	tr.
150.0	155.0	5.0	" " " "	tr.
155.0	160.0	5.0	" " " "	tr.
160.0	165.0	5.0	Recent Aluvium, " "	tr.
165.0	170.0	5.0	" " " "	.13
170.0	175.0	5.0	Contact of black stained Gila Cg. at 170.0 Soft. Tr. Cu	.26
175.0	180.0	5.0	Brown, Iron stained, black Gila Cg. Tr. Cu. Soft	.34
180.0	185.0	5.0	Black Gila Cg. Tr. Cu. Harder	.41
185.0	190.0	5.0	Black Gila Cg. Tr. Cu. Hard	.29
190.0	195.0	5.0	Black to brown, Iron stained Gila Cg. Alternating Soft to Hd. Tr. Cu	.32
195.0	200.0	5.0	Same as above.	.35
200.0	205.0	5.0	Brown, Iron stained Gila Cg. Alternating Soft to hard. Tr. Cu	.24
205.0	210.0	5.0	Brown, Iron Stained, Gila Cg. Medium Soft. Tr. Cu	.22
210.0	215.0	5.0	Brown, black, Iron stained Gila Cg. Soft. Tr. Cu	.50
215.0	220.0	5.0	Brown, black, heavily Iron stained Gila Cg. Soft. Tr. Cu	.39
220.0	225.0	5.0	Brown, highly Iron stained Gila Cg to 222.0. Brown, altered, Iron, stained Granitic material in at 222.0. Kaolinite Soft	.22
225.0	230.0	5.0	Brown, highly Iron stained Granite, altered, Kaolinite. Soft	.25
230.0	235.0	5.0	Brown, highly Iron stained & altered Granite, mixed with seam of Gneissic Granite at 230'. Soft, Kaolinite & Clay minerals	.24
235.0	240.0	5.0	Brown, highly altered, Iron stained Granite. Strong weathering with much Kaolinite and Clay minerals. Damp sample & hole. Soft	.28
240.0	245.0	5.0	Brown, Iron stained Granite. Medium soft. Fresher appearance	.22
245.0	250.0	5.0	Brown, Iron stained Granite. Harder	.20
250.0	255.0	5.0	Brown, Iron stained Granite. Hard. Med.	.22
255.0	260.0	5.0	Brown, Iron stained Granite. Med. hard.	.19

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,536 N  
49,956 EType of Drill: WD \_\_\_\_ DD \_\_\_\_ RD x CD \_\_\_\_

Inclination:

Hole No.: EP #58 (Sheet 1 of 2)

Collar Elev: 177.0

Date Drilled: 4/13/66 Started 1:00 pm

Logged By: HWH

Completed 6:00 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0.0	20.0	20.0	Recent aluvium. Set casing to 3'			.16
20.0	40.0	20.0	Recent aluvium.			.24
40.0	60.0	20.0	Recent aluvium			.26
60.0	80.0	20.0	Recent aluvium			.13
80.0	100.0	20.0	Recent aluvium			.11
100.0	120.0	20.0	Recent aluvium			tr.
120.0	125.0	5.0	Recent aluvium			tr.
125.0	130.0	5.0	Recent aluvium			.15
130.0	135.0	5.0	Recent aluvium			.13
135.0	140.0	5.0	Recent aluvium			.24
140.0	145.0	5.0	Recent aluvium to 144.0'. Contact, Black, Soft Gila Cg. at 144.0'. Tr. Cu			.28
145.0	150.0	5.0	Black Gila Cg. Leached appearance. Tr. Cu. Soft			.45
150.0	155.0	5.0	Brown, iron stained Gila Cg. Med. Hard. Tr. Cu			.41
155.0	160.0	5.0	Brown, iron stained Gila Cg. Med. Hard. Tr. Cu. granitic in appearance			.37
160.0	165.0	5.0	Tan, Gray, iron stained Gila Cg. Granitic in appearance. Hard Tr. Cu.			.24
165.0	170.0	5.0	Tan, Gray, altered appearing Gila Cg. Iron stained. Soft. Tr Cu			.36
170.0	175.0	5.0	Brown, altered. Iron stained Gila Cg. Soft. Tr. Cu.			.42
175.0	180.0	5.0	Tan, altered, iron stained Gila Cg. Soft. Tr. Cu. Leached appearance			.38
180.0	185.0	5.0	Brown, altered, iron stained Gila Cg. Soft. Tr. Cu. Leached appearance			.36
185.0	190.0	5.0	Brown, altered, iron stained Gila Cg. Soft. Tr. Cu. " " "			.32
190.0	195.0	5.0	Same as above. Tr. Cu.			.30
195.0	200.0	5.0	Brown, very altered, granitic appearing Gil Cg. Very Soft. Tr Cu			.18
200.0	205.0	5.0	Same as above. Tr. Cu. Leached appearance			.18
205.0	210.0	5.0	Brown, very altered, granitic appearing Gila Cg. Soft. Tr. Cu. Leached appearance			.20
210.0	215.0	5.0	Brown, altered, leached appearing Gila Cg. Granitic appearance. Soft Tr Cu			.22
215.0	220.0	5.0	Brown, altered leached appearing Gila Cg. to 319.0. Contact Brown, altered granitic material at 219.0 (Contact?)			.18
220.0	225.0	5.0	Brown, altered, iron stained granitic material. Soft			.15

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property:

Coordinates:

Type of Drill: WD \_\_\_\_ DD \_\_\_\_ RD x CD \_\_\_\_

Inclination:

Hole No.: EP #58

Collar Elev:

Date Drilled:

Logged By:

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
225.0	230.0	5.0	Brown, altered, iron stained granitic material. Med. hard.				.18
230.0	235.0	5.0	Brown, altered, iron stained granitic material. Med. Hard				.15
235.0	240.0	5.0	Brown, iron stained granitic material. Altered. Hard				.13
240.0	245.0	5.0	Brown, iron stained granitic material. Much Qts. Hard.				
			Fresher appearance. Poor circulation and sample return				.12
245.0	250.0	5.0	Poor circulation and sample. Pressure going up. Brown, iron stained granitic material. Fresh appearance. Much qts. in cuttings returned. Hole bottomed. Hole tight and rods stuck in hole at 220.0'. Near contact picked. Last five rods pulled completely covered with mud. Very stocky.				.11

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,586 N  
49,861 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #59 (Sheet 1 of 2)

Collar Elev: 178.0

Date Drilled: 4/14/66 Started 8:00 am  
4/15/66 Completed 12:30 pm

Logged By: HWH

FROM TO FT. DRILL			DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	20.0	20.0	Recent aluvium. Set 3' casing. Many boulders			tr.	
20.0	40.0	20.0	Recent aluvium. Many boulders			tr.	
40.0	60.0	20.0	Recent aluvium. Rollers broke off bit. Twisted rods in hole.				
			Broke break out tong. Down for repairs. Started again at 2:00 pm				
60.0	80.0	20.0	Recent aluvium. Boulders and remnants of bit in hole. Fished				
			out pieces of bit.			.15	
80.0	100.0	20.0	Recent aluvium. Many boulders			.13	
100.0	120.0	20.0	Recent aluvium. Many boulders			.13	
120.0	140.0	20.0	Recent aluvium			tr.	
140.0	145.0	5.0	Recent aluvium			tr.	
145.0	150.0	5.0	Recent aluvium			tr.	
150.0	155.0	5.0	Recent aluvium			.19	
155.0	160.0	5.0	Recent aluvium			.33	
160.0	165.0	5.0	Recent aluvium to 162.0'. Gray, iron stained Gila Cg. Tr. Cu.			.37	
			Contact 162.0'				
165.0	170.0	5.0	Tan, gray, iron stained Gila Cg. Hard. Much Qts. Tr Cu			.31	
170.0	175.0	5.0	Tan, gray, iron stained Gila Cg. Hard. Much Qts. Tr Cu			.38	
175.0	180.0	5.0	Tan, gray, iron stained Gila Cg. Alternating soft & hard streaks.			.36	
			Tr Cu				
180.0	185.0	5.0	Tan, gray, iron stained Gila Cg. Med. Hd. Tr. Cu.			.33	
185.0	190.0	5.0	Tan, <del>gray</del> iron stained Gila Cg. Med. Hd. Tr. Cu.			.43	
190.0	195.0	5.0	Tan, iron stained Gila Cg. Med. Hd. Tr. Cu.			.36	
195.0	200.0	5.0	Brown, highly iron stained, altered Gila Cg. Granitic in				
			appearance. Kaolonite. Tr. Cu.			.30	
200.0	205.0	5.0	Hole wet with water standing from setting overnight. no sample			no sample	
205.0	210.0	5.0	Small sample return but hole drying out. Tr. Cu.			.22	
210.0	215.0	5.0	Brown, heavily iron stained Gila Cg. Med. Hd. Good return. Tr. Cu.			.31	
215.0	220.0	5.0	Brown, soft, heavily iron stained Gila Cg. to 218.0.			.27	
			Hard gray gila cg. 218.0'. Tr. Cu.				
220.0	225.0	5.0	Brown, heavily iron stained Gila Cg. Alternating Hd. to Soft. Tr. Cu.			.24	
225.0	230.0	5.0	Brown, heavily iron stained Gila Cg. <del>Alternating Hd</del> Altered.				
			Soft. Tr. Cu. Leached appearance			.24	
230.0	235.0	5.0	Brown, Black, iron stained Gila Cg. Altered, Leached appearance.			.23	
			Tr. Cu.				



EL PASO NATURAL GAS COMPANY  
 MINING DIVISION  
 P. O. Box 1492  
 El Paso, Texas

DRILL HOLE LOG

Property:

Coordinates:

Type of Drill: WD \_\_\_\_ DD \_\_\_\_ RD x CD \_\_\_\_

Inclination:

Hole No.: EP #59 (Sheet 2 of 2)

Collar Elev:

Date Drilled:

Logged By:

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
235.0	240.0	5.0	Brown, black, iron stained Gila Cg. Hole getting wet. Reduced volume of sample. Poor circulation. Pressure rising. Going to water return for drilling and cuttings				.20
240.0	245.0	5.0	Contact of tan, altered, soft granite. Wet sample				.26
245.0	250.0	5.0	Tan, soft, altered granite. Kaolinite. Qts. and feldspar in large pieces. Wet sample. Mica				.22
250.0	255.0	5.0	Same as above				.42
255.0	260.0	5.0	Tan, soft altered granite. Kaolinite. Large <del>mi</del> pieces of quartz and feldspar. Mica.				.18

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,933 N  
50,175 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #60

Collar Elev: 190.0

Date Drilled: 4/15/66

Started 2:00 pm

Logged By: HWH

Completed 5:30 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	20.0	20.0	Recent aluvium. Set 3' casing				tr.
20.0	40.0	20.0	Recent aluvium				tr.
40.0	60.0	20.0	Recent aluvium				tr.
60.0	80.0	20.0	Recent aluvium				tr.
80.0	100.0	20.0	Recent aluvium				tr.
100.0	105.0	5.0	Recent aluvium				tr.
105.0	110.0	5.0	Recent aluvium				tr.
110.0	115.0	5.0	Recent aluvium				0.12
115.0	120.0	5.0	Recent aluvium				0.11
120.0	125.0	5.0	Recent aluvium				0.15
125.0	130.0	5.0	Recent aluvium to 127.0. Contact of Tan, Med. Hd. Gila Cg. at 127.0. Fair Cu				0.44
130.0	135.0	5.0	Tan, iron stained Gila Cg. Hard. Fair Cu				0.57
135.0	140.0	5.0	Tan, grey, iron stained Gila Cg. Hd. Fair Cu				0.71
140.0	145.0	5.0	Tan, iron stained Gila Cg. Med. Hd. Fair Cu				0.66
145.0	150.0	5.0	Tan, gray, iron stained Gila Cg. Med. Hd. Fair Cu				0.67
150.0	155.0	5.0	Black, iron stained Gila Cg. Med Hd. Good Cu				0.76
155.0	160.0	5.0	Black, Gila Cg. to 157. Altered granitic material to 160.0 Tr Cu				0.33
160.0	165.0	5.0	Hd. Qts stringer or boulder to 162. Black Gila Cg to 165.0 Tr Cu				0.28
165.0	170.0	5.0	Tan, highly altered granitic material at 166.0. Contact				0.22
170.0	175.0	5.0	Brown, highly altered, iron stained granite. Kaolonite. Soft.				0.19
175.0	180.0	5.0	Brown, highly altered, iron stained granite. Kaolonite. Soft.				0.19
180.0	185.0	5.0	Brown, highly altered, iron stained granite. Soft. Kaolonite. Hole wet. Reduced volume of cuttings				0.21
185.0	190.0	5.0	Same as above				0.12
190.0	195.0	5.0	Brown, heavily iron stained, altered granite. Kaolonite. Hole getting wetter. Cuttings return cut off				0.11

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,933 N  
49,859 EType of Drill: WD \_\_\_ DD \_\_\_ RD x CD \_\_\_

Inclination:

Hole No.: EP #61

Collar Elev: 205.0

Date Drilled: 4/16/66

Started 8:00 am

Logged By: HWH

Completed 4:00 pm

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	20.0	20.0	Recent aluvium. Set casing to 3'			tr.	
20.0	40.0	20.0	Recent aluvium			tr.	
40.0	60.0	20.0	Recent aluvium			tr.	
60.0	80.0	20.0	Recent aluvium			tr.	
80.0	100.0	20.0	Recent aluvium			tr.	
100.0	120.0	20.0	Recent aluvium			tr.	
120.0	140.0	20.0	Recent aluvium			tr.	
140.0	145.0	5.0	Recent aluvium			tr.	
145.0	150.0	5.0	Recent aluvium			tr.	
150.0	155.0	5.0	Recent aluvium			tr.	
155.0	160.0	5.0	Recent aluvium			tr.	
160.0	165.0	5.0	Recent aluvium			tr.	
165.0	170.0	5.0	Recent aluvium			tr.	
170.0	175.0	5.0	Recent aluvium. Contact of tan Gila Cg. at 173.0. Tr Cu Soft			tr.	
	180.0	5.0	Tan, iron stained Gila Cg. Granitic in appearance. Tr Cu Med Hd			tr	
	185.0	5.0	Tan, gray, iron stained Gila Cg. Fair Cu. Hard			0.28	
185.0	190.0	5.0	Brown to tan, iron stained Gila Cg. Fair Cu. Hard			0.54	
190.0	195.0	5.0	Tan, gray, iron stained Gila Cg. Good Cu. Hard			0.50	
195.0	200.0	5.0	Tan, gray, iron stained Gila Cg. Good Cu. Hard			0.83	
200.0	205.0	5.0	Tan, gray, iron stained Gila Cg. Fair Cu. Hard			0.79	
205.0	210.0	5.0	Tan, iron stained Gila Cg. Fair Cu. Soft			0.66	
210.0	215.0	5.0	Tan to brown iron stained Gila Cg. Fair Cu. Hard				
215.0	220.0	5.0	Tan, iron stained Gila Cg. Very fine at 218.0'. Circulation poor. Used water injection for returns. Fair Cu.			0.28	
220.0	225.0	5.0	Poor circulation and returns. Using water injection. Green gneissic granite in sample. Contact at 222.0'			0.57	
225.0	230.0	5.0	Brown, highly altered, iron stained granite. Water injection for sample return. Kaolinite			0.44	
230.0	240.0	10.0	Brown, highly altered, iron stained granite. Poor circulation and returns. Used water injection to get return			0.40	

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,869 N  
49,759 E  
Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_ Inclination:  
Hole No.: EP #62 Collar Elev: 203.0  
Date Drilled: 4/17/66 Started 8:00 AM Logged By: H.W. Horst  
Completed 6:00 PM

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent Aluvium. Set 3/4 casing.				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	" "				tr.
100	120	20	Recent Aluvium				tr.
120	140	20	" "				tr.
140	145	5	Recent Aluvium				tr.
145	150	5	" "				tr.
150	155	5	" " Somewhat consolidated				tr.
155	160	5	" " " "				tr.
160	165	5	Recent Aluvium. Somewhat consolidated				tr.
165	170	5	" " " "				tr.
170	175	5	Recent Aluvium to 174. Tan Gila Cg. at 174. Tr. Cu				tr.
175	180	5	Tan, Gila Cg. Med. hard. Iron stained. Tr. Cu				tr.
180	185	5	Tan, Iron stained Gila Gc. Tr. Cu				.25
185	190	5	Tan, brown, Iron stained Gila Cg. Fair Cu. Hard				.48
190	195	5	Brown, black, heavily Iron stained Gila Cg. Fair Cu. Med. hard				.73
195	200	5	Brown, black, heavily Iron stained Gila Cg., Tr. Cu. Softer				.42
200	205	5	Brown, Black, heavily Iron stained Gila Cg. Tr. Cu. Soft. <del>EXX</del>				.83
205	210	5	Hard, tan, gray Gila Cg. at 206.0. Iron stained. Good Cu				.83
210	215	5	Tan, gray, very hard Gila Cg. Iron stained. Good Cu				.80
215	220	5	Tan, gray, very hard, highly silicified Gila Cg. Iron stained.				
			Good Cu. Very good Cu at 219.0-220'				.59 (?)
220	225	5	Tan, gray, highly silicified, Iron stained Gila Cg. very hd. Good Cu				.51 (?)
225	230	5	Tan, gray, highly silicified. Iron stained Gila Cg. very hd. Good Cu				.24 (?)
230	231	1	Tan, Gila Cg. Good Cu. Bit broke in hole. Fished twice with magnet to clear hole. Unsuccessful. Ruined two bits trying to drill thru. Cone, shank, & bearings				.25 (?)

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,815 N  
49,670 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #63

Collar Elev: 196.0

Date Drilled: 4/18/66 Started 9:00 AM  
Completed 3:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent Aluvium. Set casing to 3'				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	Recent Aluvium				tr.
100	120	20	" "				tr.
120	140	20	" "				tr.
140	150	10	Recent Aluvium				tr.
150	155	5	" "				tr.
155	160	5	" "				tr.
160	165	5	Recent Aluvium				tr.
165	170	5	" "				tr.
170	175	5	" " Changed bit				tr.
175	180	5	Recent aluvium. Contact of Tan Gila Cg. Tr. Cu at 178.0				tr.
180	185	5	Tan Gila Cg. Soft. Tr. Cu				tr.
185	190	5	Tan Gila Cg. Soft. Iron stained. Tr. Cu				tr.
190	195	5	Tan, Gray Gila Cg. Med. hd. Iron stained. Fair Cu				.30
195	200	5	Tan, gray, Iron stained Gila Cg. Hard. Good Cu Streak in 198.0 to 200.0. Fair Cu for 5'				.59
200	205	5	Brown, black, heavily Iron stained Gila Cg. Soft. Fair Cu				.59
205	210	5	Black, brown, heavily Iron stained Gila Cg. Soft, leached appearance. Tr. Cu				.44
210	215	5	Black, brown, heavily Iron stained Gila Cg. Soft, leached appearance. Tr. Cu				.36
215	220	5	Tan, Iron stained Gila Cg. Highly silicified. Hard Good Cu in at 217.0'				.92
220	225	5	Tan, gray Gila Cg. Hd. Highly silicified. Good Cu. Reduce volume of sample. Changed bit				1.21
225	230	5	Tan, black Gila Cg. Very hd. Highly silicified. Very good Cu				1.73
230	235	5	Tan, black Gila Cg. Very hd. Highly silicified. Very good Cu				1.77
235	240	5	Tan, black Gila Cg. Very hd. to 238'. Very good Cu to 238. Brown altered, Iron stained Granite at 238.0				.55
240	245	5	Soft, highly altered, Iron stained granite. Kaolinite				.44
245	250	5	Same as above				.32
250	255	5	Soft, highly altered, Iron stained Granite. Kaolinite				.26
255	260	5	Soft, highly altered, Iron stained Granite. Kaolinite				.26
260	265	5	Soft, highly altered, Iron stained Granite. Kaolinite				.24
265	270	5	Same as above				.40
270	275	5	Brown, altered, Iron stained Granite. Harder				.28
275	280	5	Brown, altered, Iron stained Granite. Hard				.13

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,815 N  
49,465 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #64 (Sheet 1 of 2)

Collar Elev: 174.0

Date Drilled: 4/18/66 Started 4:30 PM

Logged By: H.W. Horst

4/20/66 Completed 1:30 PM - (Rain, Hail, Snow at 9:30 AM)

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent Aluvium	(Possible Consolidated) (Aluvium 160 - 190)			tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	Recent Aluvium				tr.
100	120	20	" "				tr.
120	140	20	" "				tr.
140	145	5	Recent Aluvium				tr.
145	150	5	" "				tr.
150	155	5	Recent Aluvium				tr.
155	160	5	" "				tr.
160	165	5	Recent Aluv. to 162.0. Contact Tan, Iron stained Gila Cg. at 162.0. Hard. Tr. Cu				tr.
165	170	5	Tan, Iron stained Gila Cg. Tr. Cu. Hard				tr.
170	175	5	Tan, Iron stained Gila Cg. Tr. Cu. Hard				tr.
175	180	5	Tan, Iron stained Gila Cg. Tr. Cu. Hard				tr.
180	185	5	Tan, Even, fine grained Gila Cg. Granitic appearance. Soft Tr. Cu. Changed bit				tr.
185	190	5	Soft, Tan, Iron Stained Gila Cg. Even grained, fine in size. Tr. Cu				tr.
190	195	5	Tan, Iron stained Gila Cg. Med. hd. Tr. Cu				tr.
195	200	5	Tan, Iron stained Gila Cg. Med. hd. Much Qtz. in cuttings. Tr. Cu				tr.
200	205	5	Tan, Iron stained Gila Cg. Tr. Cu. Med. hd.				.19
205	210	5	Tan, Iron stained Gila Cg. Tr. Cu. Med. hard				.20
210	215	5	Tan, Iron stained Gila Cg. Tr. Cu. Med. hard				.55
215	220	5	Tan, Gray, Iron stained Gila Cg. Fair Cu. Med. hard				.61
220	225	5	Gray, Iron stained, highly silicified Gila Cg. Hd. Good Cu				.70
225	230	5	Gray, Iron stained, highly silicified Gila Cg. Hd. Good Cu				.67
230	235	5	Gray, Black, Iron stained Gila Cg. Highly silicified. Hd. Good Cu. Changed bit				.67
235	240	5	Gray, Iron stained, highly silicified Gila Cg. Fair Cu. Hd				.54
240	245	5	Gray, Iron stained, highly silicified Gila Cg. Fair Cu. Hd				.68
245	250	5	Gray, Iron stained, highly silicified Gila Cg. Good Cu. Hd				.85
250	255	5	Gray, " " " " " " Cg. Good Cu. Hd				
255	260	5	Soft, altered seam at 250-254				
			Gray, Iron stained, highly silicified Gila Cg. Good Cu. Hd.				.91
			Broke bit at start of run to 265. Pulled rods, 2 cones missing from bit. Tried to fish pieces with magnet. Unsuccessful. Made 2 baskets, & tried to pick up remnants of bit. Unsuccessful, basket twisted off rods. Abandoned hole. Good ore in bottom hole. Water in hole.				

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,935N  
49,462EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #65 (Sheet 1 of 2)

Collar Elev: 171.0

Date Drilled: 4/21/66 Started 7:30 AM  
Completed 3:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	20.0	20.0	Recent Aluvium. Set casing to 3.0'				tr.
20.0	40.0	20.0	" "				tr.
40.0	60.0	20.0	" "				tr.
60.0	80.0	20.0	" "				tr.
80.0	100.0	20.0	" "				tr.
100.0	120.0	20.0	" "				tr.
120.0	140.0	20.0	" "				tr.
140.0	145.0	5.0	" " to 141.0' Contact of Tan Gila Cg. Much Qts. Hard				tr.
145.0	150.0	5.0	Trace Cu. Pulled & changed bit at 143. Cone broken				
150.0	155.0	5.0	Tan, gray Gila Cg. Highly silicified. Much Qts. Hard. Tr. Cu				tr.
155.0	160.0	5.0	Gray, Iron stained, highly silicified Gila Cg. Hard. Tr. Cu				tr.
			Gray, Gila Cg. to 159.0'. Soft, fine even grained, Gila Cg.				
			Granitic in appearance. Tr. Cu. Pulled bit. very worn, put on new bit.				tr.
160.0	165.0	5.0	Alternation Hd., soft Gila Cg. Some fine, even grained, other streaks hd. & silicified. Very fractured ground. Poor circulation. Water used to maintain returns. No Cu visible.				tr.
165.0	170.0	5.0	Same material as above. Poor circulation. Hard to get returns. Using water to seal sides				tr.
170.0	175.0	5.0	Same material as above. Circulation problems. Using water for any returns. Ground highly fractured & broken				tr.
175.0	180.0	5.0	Same as above.				tr.
180.0	185.0	5.0	No sample, returns shut off. Unable to maintain circulation				
185.0	190.0	5.0	No sample. No circulation				
190.0	195.0	5.0	Circulation returned with use of water. Samples badly mashed				
			No Cu visible. Hard. Highly quartzitic material. Gray				tr.
195.0	200.0	5.0	Circulation maintained with water. No Cu visible. Gray, highly silicified & hard material. Pulled rods & changed bit. Bit worn.				tr.
200.0	205.0	5.0	Gray, highly silicified material. Much Qts. in cuttings but soft				
			No Cu Visible. Gila Cg.				
205.0	210.0	5.0	Gray, Highly quartzitic material but soft. No Cu visible				tr.
210.0	215.0	5.0	Same as above				tr.
215.0	220.0	5.0	Gray, quartzitic material soft. No Cu visible				tr.
220.0	225.0	5.0	Gray, quartzitic material. Soft. No Cu visible. Sample Dry				tr.
225.0	230.0	5.0	" " " " " " " "				tr.
230.0	235.0	5.0	Wet sample. Needed water for returns. Quartzitic material				.15
235.0	240.0	5.0	" " " " " " " "				.14

EL PASO NATURAL GAS COMPANY  
 MINING DIVISION  
 P. O. Box 1492  
 El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #65 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 4/21/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
240.0	250.0	10.0	No sample. Gila Cg.			.33	
250.0	260.0	10.0	Composite sample. Returns, Dry sample. Black to Gray Gila Cg. Tr. Cu visible. Change at x 260.0			.33	
260.0	270.0	10.0	Altered, brown, Iron stained Granite. Wet sample. Soft. Water in hole			.30	
270.0	280.0	10.0	Altered brown, Iron stained Granite. Hole dried up and sample taken dry.			.24	



EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,815 N  
49,258 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #66 (Sheet 1 of 2)

Collar Elev: 160.0

Date Drilled: 4/22/66 Started 4:30 PM  
4/22/66 Completed 1:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0.0	20.0	20.0	Recent Aluvium. Set casing to 3'				tr.
20.0	40.0	20.0	" "				tr.
40.0	60.0	20.0	" "				tr.
60.0	80.0	20.0	" "				tr.
80.0	100.0	20.0	" "				tr.
100.0	120.0	20.0	" "				tr.
120.0	140.0	20.0	" "				tr.
140.0	145.0	5.0	" "				tr.
145.0	150.0	5.0	" "				tr.
150.0	155.0	5.0	" "				tr.
155.0	160.0	5.0	" "				tr.
160.0	165.0	5.0	Recent Aluvium. Pulled rods & changed bit				tr.
165.0	170.0	5.0	" "				tr.
170.0	175.0	5.0	" "				tr.
175.0	180.0	5.0	" "				tr.
180.0	185.0	5.0	" "				tr.
185.0	190.0	5.0	" "				tr.
190.0	195.0	5.0	" "				tr.
195.0	200.0	5.0	" "				tr.
200.0	215.0	15.0	" " to 212.0. Contact tan Gila Cg. Tr. Cu. No sample. Return to 211.0. Sample returns blown to 215.0' were very fine & probably represent 11 ft. drilled with no return. So sampled & labeled <del>wt</del> into composite sample.				.13
215.0	220.0	5.0	Poor sample. Probably salted from loose sand above when no returns were recovered. Section here drilled very hard & no representative cuttings obtained. Pulled rods & changed bit. Bit worn.				tr.
220.0	225.0	5.0	Tan to gray Gila Cg. Highly silicified. Hard. Fair Cu				.42
225.0	230.0	5.0	Gray to black, highly silicified. Iron stained Gila Cg. Fair Cu. Hd.				.53
230.0	235.0	5.0	Gray, highly silicified, Iron stained Gila Cg. Hard. Tr. Cu				.34
235.0	240.0	5.0	Gray, tan, highly silicified. Iron stained Gila Cg. Hd. Tr. Cu				.37
240.0	245.0	5.0	Tan, Iron stained, highly silicified Gila Cg. Hd. Good Cu				.81
245.0	250.0	5.0	Pulled rods & changed <del>bit</del> bit at 243.0. Hole wet. Reduced sample return. Tan, Gila Cg. Hard. Fair Cu				.48
250.0	255.0	5.0	Alternating hard & soft streaks of Gila Cg. Tan, Iron stained Fair Cu				.68

EL PASO NATURAL GAS COMPANY  
 MINING DIVISION  
 P. O. Box 1492  
 El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates:

of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP # 66 (Sheet 2 of 2)

Collar Elev:

Date Drilled: 4/22/66

Logged By: HWH

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
255.0	260.0	5.0	Alternating hd. & soft streaks of Tan, Iron stained Gila Cg. Tr. Cu			.49
260.0	265.0	5.0	Gray, altered Gila Cg. Granitic in appearance. Iron stained medium hard. Tr. Cu			.36
265.0	270.0	5.0	Gray, altered Gila Cg. Granitic appearance. Iron stained medium hard. Tr. Cu			.44
270.0	275.0	5.0	Gray Gila Cg. to 273.0. Brown, altered Granite, at 273.0 Kaolonite. Strong Iron staining. Soft.			.31
275.0	280.0	5.0	Brown, altered, <del>XXXXX</del> Granite. Highly Iron stained. Soft.			.33
280.0	300.0	20.0	Brown to tan, altered Granite. Iron stained. No returns 280.-295.0. Hole wet. Used water injection to regain circulation & get cuttings return.			.55

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
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El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,754 N  
49,764 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #67

Collar Elev: 182.0

Date Drilled: 4/22/66 Started 3:30 PM  
Completed 7:00 PM

Logged By: H.C. Lewis

FROM TO FT. DRILL			DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent aluvium. Set casing to 3'				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	" "				tr.
100	120	20	" "				tr.
120	125	5	Recent aluvium				tr.
125	130	5	" "				tr.
130	135	5	" "				tr.
135	140	5	" "				tr.
140	145	5	" "				tr.
145	150	5	" " Fine cuttings. Much mica				tr.
150	155	5	" " Hard drilling. Red cuttings. Boulders				tr.
155	160	5	Contact 152' Gila cong. Cu showing				.36
160	165	5	Br., Fe-st. Gila Cg. Fair Cu				.38
165	170	5	Gray-black color in cuttings. Fair Cu				.43
170	175	5	" " " " " " Tr. Cu				.24
175	180	5	Soft, gray zone. Some Cu				.30
180	185	5	Dark gray, fine cuttings. Fair Cu				.26
185	190	5	Hard, Cg., dark gray Cg. Tr. Cu				.30
190	195	5	" " " " " " Tr. Cu				.58
195	200	5	Gray, some white Qtz. Epidote. Tr. Cu				.54
200	205	5	Much white Qtz. some epidote & clay. Tr. Cu				.51
205	210	5	Fine, lt. gray cuttings. Cu showing in fines. Tr. Cu				.67
210	215	5	Gray, hard Cg. MnO <sub>2</sub> stain. Good Cu				.66
215	220	5	" " " " " " Fair Cu				.61
220	225	5	Dark gray, hard Cg. Fair Cu				.65
225	230	5	" " " " " " Tr. Cu				.48
230	235	5	" " " " " " Fair Cu				.37
235	240	5	" " " " " " Fair Cu				.33
240	245	5	Soft, clayey zone, 238-239. Top of granite				.37
245	250	5	Clayey, lt. tan color, altered granite. Cuttings moist				.35
			" " " " " " " " Wet. T.D. 250'				.44

EL PASO NATURAL GAS COMPANY  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,640 N  
49,760 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #68

Collar Elev: 176.0

Date Drilled: 4/26/66 Started 8:15 AM  
Completed 11:30 AM

Logged By: H.C. Lewis

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	20	20	Recent Aluvium. Set casing to 3'	tr.
20	40	20	" "	tr.
40	60	20	" "	tr.
60	80	20	" "	tr.
80	100	20	" "	tr.
100	120	20	" " Large boulder at 115'. Changed bit	.27
120	130	10	" "	.27
130	135	5	" " Harder	.30
135	140	5	" " More consolidated. Some red cuttings.	.41
140	145	5	Harder ground. Believe Gila Cg. contact at 144'. MnO <sub>2</sub>	.42
145	150	5	Gila Cg. No Cu visible. Some epidote	.42
150	155	5	" " " " " Boulder	.18
155	160	5	" " " " "	.22
160	165	5	Gila Cg. No Cu seen. Dark color in cuttings.	.35
165	170	5	" " No Cu "	.34
170	175	5	" " " " "	.48
175	180	5	" " " " "	.46
180	185	5	" " " " " White quartz coating- chalcedony (?)	.53
185	190	5	Gila Cg. No Cu seen.	.61
190	195	5	Gila Cg. No Cu seen	.61
195	200	5	Gila Cg. No Cu seen. Good dark color in cuttings	.62
200	205	5	Gila Cg. No Cu seen. Gila not well cemented	.61
205	210	5	Gila Cg. No Cu seen. Boulder	.31
210	215	5	Gila Cg. No Cu seen.	.49
215	220	5	Gila Cg. No Cu seen	.46
220	225	5	Gila Cg. No Cu seen	.39
225	230	5	Gila Cg. No Cu seen	.35
230	235	5	Gila Cg. No Cu seen. Hit white clay seam at 233.	.27
235	240	5	Gila Cg. No Cu seen. Contact at 238'	.28
240	245	5	Altered granite. Considerable quartz. Cuttings moist	.19
245	250	5	" " " " "	.20
T.D. 250				

EL PASO NATURAL GAS COMPANY.  
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DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,983 N  
49,758 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #69

Collar Elev: 210.0

Date Drilled: 4/26/66 Started 1:00 PM  
Completed 6:15 PM

Logged By: H.C Lewis

FROM TO FT. DRILL			DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent aluvium. Set casing to 3'				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	" "				tr.
100	120	20	" "				tr.
120	140	20	" "				tr.
140	160	20	" " Changed bit at 160.'				tr.
160	170	10	Poor cuttings, return. Near Gila contact, in fine sand				tr.
170	180	10	Gila Cg., contact at about 175.'				tr.
180	185	5	" " Tan, iron-stained, much Qtz.				tr.
185	190	5	Gila Cg.				tr.
190	195	5	Gila Cg.				tr.
195	200	5	Gila Cg.				tr.
200	205	5	Gila Cg.				tr.
205	210	5	Gila Cg.				.118
210	215	5	Gila Cg.				.14
215	220	5	Hit granite at 218 feet. Gray color. Tr. Cu				.28
220	225	5	Granite. Harder ground				.33
225	230	5	Granite. Hard drilling				.22
230	235	5	" " " Well consolidated. Tr. Cu				.20
235	240	5	Very hard drilling. Changed bit. Appears to be fresh Granite or large granite boulder. Could not drill with new bit. Pulled out of hole. T.D. 240 (Possibly no Gila, but went into alt. granite at 218' from aluvium.)				.11

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
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El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,937 N  
49,665 E  
Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_ Inclination:  
Hole No.: EP #70 Collar Elev: 280.0  
Date Drilled: 4/27/66 Started 8:30 AM Logged By: H.W. Horst  
Completed 5:15 PM

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
	20	20	Recent Aluvium. Set Casing to 3'				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	" "				tr.
100	120	20	" "				tr.
120	140	20	" "				tr.
140	160	20	" "				tr.
160	180	20	Difficulty with circulation. Composite sample made. Cu observed at 176.0. Tan Gila Cg. at 174.0. Soft				tr.
180	185	5	Tan, soft, Iron stained Gila Cg. Tr. Cu				tr.
185	190	5	Tan, Soft. Iron stained Gila Cg. Tr. Cu				.13
190	195	5	Tan, gray, Iron stained Gila Cg. Tr. Cu. Med. hard.				.tr
195	200	5	Tan, gray, Iron stained Gila Cg. Tr. Cu. Hard				.11
200	205	5	Tan, gray Gila Cg. alternating Soft & hard streaks. Tr. Cu				.13
205	210	5	Tan, gray Gila Cg. alternating soft & hard streaks. Tr. Cu				.21
210	215	5	Tan, gray, Gila Cg. Tr. Cu. Contact altered green to gray gnessic granite at 214.0. Soft at contact				.33
215	220	5	Gray gnessic granite. Qtz. increasing & getting harder at 220.0 Much fine material, altered brown, granitic in appearance				.41
220	225	5	Gray gnessic granite. Qtz. stringers. Very hd. Fine material. Brown, altered granite				.25
225	230	5	Gray, gnessic granite. Very hard. Fine material brown, altered granite.				tr.

EL PASO NATURAL GAS COMPANY  
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P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,694 N  
49,466 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #71

Collar Elev: 180.0

Date Drilled: 4/28/66 Started 9:00 AM  
Completed 4:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent Aluvium. Set 3' Casing				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	Recent Aluvium				tr.
100	120	20	" "				tr.
120	140	20	" "				tr.
140	160	20	Recent Aluvium				tr.
160	165	5	" "				tr.
165	170	5	" "				tr.
170	175	5	Recent Aluvium				tr.
175	180	5	Contact of Tan, Gila Cg. Med. hd. No Cu visible (Consolidated Aluv.?)				tr.
180	185	5	Tan, Gila Cg. Iron stained. No Cu visible	"	"		tr.
185	190	5	Tan to gray Gila Cg. Iron stained. Tr. Cu	"	"		tr.
190	195	5	Tan to gray Gila Cg. Hard. Iron stained Tr. Cu.	"	"		tr.
195	200	5	Tan, Iron stained Gila Cg. Soft. Tr. Cu	"	"		tr.
200	205	5	Tan, Iron stained Gila Cg. Med. Hd. Tr. Cu	"	"		.15
205	210	5	Tan, Iron stained Gila Cg. Med. hard. Tr. Cu	"	"		.13
210	215	5	Tan, Iron stained Gila Cg. Softer Tr. Cu	"	"		.14
215	220	5	Tan, Iron stained Gila Cg. Med. Hd. Tr. Cu (Contact 218.0?)		.1		.19
220	225	5	Gray, black Gila Cg. Hard. Fair Cu				.69
225	230	5	Black, gray Gila Cg. Hd. Iron stained. Fair Cu				.76
230	235	5	Brown, black Gila Cg. Hd. Iron stained. Fair Cu				.36
235	240	5	Black, Iron stained Gila Cg. Hard. Tr. Cu				.34
240	245	5	Gray, Iron stained Gila Cg. Hard. Good Cu				1.59
245	250	5	Gray, Iron stained Gila Cg. Hard. Good Cu				1.80
250	255	5	Gray, tan, Iron stained Gila Cg. Hard. Good Cu				.75
255	260	5	Gray, tan, Iron stained Gila Cg. Hard. Good Cu in Gila portion.				
			Hard Granite boulder 216-218. No Cu show in this footage				1.00
260	265	5	Brown, highly Iron stained Gila Cg. Hd. Good Cu				1.34
265	270	5	Brown, highly Iron stained Gila Cg. Softer. Fair Cu				.54
270	275	5	Tan, somewhat altered, Iron stained Gila Cg. Soft. Fair Cu				.74
			Circulation problems developing. Reduced volume of returns.				
			Adding water to soft cutting & seal fracture.				
275	280	5	Tan, altered Gila Cg. Fair Cu. Soft. Had to go to water to maintain circulation at 280.0. This sample dry.				.34
280	290	10	Brown, highly Iron stained. Altered granite. Soft				.54
290	300	10	Brown, highly Iron stained. Altered Granite. Soft				.43

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,760 N  
49,563 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #72

Collar Elev: 186.0

Date Drilled: 4/28/66 Started 5:00 PM  
4/29/66 Completed 12:00 Noon

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent Aluvium. Set 3' Casing				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	Recent Aluvium				tr.
100	120	20	" "				tr.
120	140	20	" "				tr.
140	160	20	" "				tr.
160	180	20	Recent Aluvium				tr.
180	185	5	Recent Aluvium. Somewhat consolidated, pressure feeding				tr.
185	190	5	" " " "				tr.
190	195	5	" " " "				tr.
195	200	5	" " " "				tr.
200	205	5	Recent Aluvium. Poor Circ., somewhat consol. pressure feeding				tr.
205	210	5	" " " "				tr.
210	215	5	Contact of tan, Gila Cg., Iron stained at 213.0', Tr. Cu showing. Poor circulation & sample. Water for returns				.39
215	220	5	Tan, Iron stained Gila Cg. Fair Cu. Circulation problems. Poor sample				.42
220	225	5	Brown, heavily Iron stained Gila Cg. Dry sample. Good Circu. Tr. Cu. Damp ground				.39
225	230	5	Brown, heavily Iron stained Gila Cg. Soft. Tr. Cu. Good Circu. Damp ground				.30
230	235	5	Brown, heavily Iron stained Gila Cg. Soft. Good Cu. Damp ground				.93
235	240	5	Tan, gray Gila Cg. Hard. Good Cu				1.50
240	245	5	Tan, gray Gila Cg. Hard. Good Cu				1.16
245	250	5	Gray, black, Iron stained Gila Cg. Hard. Good Cu				1.19
250	255	5	Tan, altered appearing Gila Cg. Soft. Good Cu. Hole damp				.90
255	260	5	Tan, altered appearing Gila Cg. Soft. Fair Cu. Hole damp				.80
260	265	5	Tan, altered appearing Gila Cg. Hole damp. Soft. Fair Cu Reduced volume of sample				.60
265	270	5	Tan, altered appearing Gila Cg. Hole damp. Soft. Tr. Cu. Reduced volume of sample				.47
270	275	5	Brown, altered, Iron stained granite. Dry sample. Granite at 273.0' Soft				.49
275	280	5	Brown, highly altered, Iron stained granite. Dry sample. Soft				.48
280	290	10	Brown, altered, Iron stained granite. Dry sample. Soft. Reduced volume of sample. Would have to add water to get returns. Hole bottomed				.43



FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	20	20	Recent Aluvium. Set casing to 3'	tr.
20	40	20	" "	tr.
40	60	20	" "	tr.
60	80	20	" "	tr.
80	100	20	" "	tr.
100	120	20	Recent Aluvium	tr.
120	140	20	" " Changed bit at 130.0'	tr.
140	160	20	" "	tr.
160	180	20	" "	tr.
180	200	20	Recent Aluvium. Somewhat consolidated	tr.
200	205	5	" " Consolidated	tr.
205	210	5	" " "	tr.
210	215	5	" "	tr.
215	220	5	Tan, Iron stained Gila Cg. in at 216.0. Tr. Cu. Contact	tr.
220	225	5	Tan, even grained, heavily Iron stained Gila Cg. Tr. Cu. Soft	.27
225	230	5	Brown, heavily Iron stained Gila Cg. Soft. Tr. Cu	.26
230	235	5	Tan, Iron stained, slightly altered Gila Cg. Med. hd. Tr. Cu	.17
235	240	5	Tan, Iron stained, slightly altered Gila Cg. Med. hd. Tr. Cu	.17
240	245	5	Brown, Iron stained, altered appearing Gila Cg. Soft. Tr. Cu	
			Leached appearance	.18
245	250	5	Same as above	.28
250	255	5	Brown, Iron stained, altered Gila Cg. Leached appearance. Soft. Tr. Cu	.40
255	260	5	Brown, soft Gila Cg. to 257.0. Soft. Harder Gila to 260.0. Tr. Cu	
			Fair Cu at 258 when hard	.64
260	265	5	Tan, Iron stained Gila Cg. Hd. streak 260-262. Very Good Cu. Soft.	.67
			Leached 262-265. Fair Cu for 5' section	
265	270	5	Brown, black Gila Cg. leached & altered. Soft. Tr. Cu	.60
270	275	5	Brown, Soft Gila to 272.0'. Hard granite boulder 272-275.0'	.30
275	280	5	Brown, altered, Iron stained granite in at 276. Contact bit plugged at 280. Bit pulled and iron stained, granite wedged in all crevices. Hole bottomed	.30

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle Coordinates: 50,871 N  
49,599 E  
Type of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_ Inclination: \_\_\_\_\_  
Hole No.: EP #74 Collar Elev: 186.0  
Date Drilled: 4/30/66 Started 12:30 PM Logged By: H.W. Horst  
4/30/66 Completed 4:00 PM

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0	20	20	Recent Aluvium. Set casing to 3'			tr.
20	40	20	" "			tr.
40	60	20	" "			tr.
60	80	20	" "			tr.
80	100	20	Recent Aluvium			tr.
100	120	20	" "			tr.
120	140	20	" "			tr.
140	160	20	" "			tr.
160	170	10	Recent Aluvium			tr.
170	175	5	" "			tr.
175	180	5	Contact of tan, hard, Iron stained Gila Cg. at 176'. Tr. Cu			tr.
180	185	5	Brown, heavily Iron stained Gila Cg. Med. hd. Tr. Cu			tr.
185	190	5	Tan, Iron stained Gila Cg. Hard. Tr. Cu			tr.
190	195	5	Gray, highly silicified, Iron stained Gila Cg. Tr. Cu. Hard			tr.
195	200	5	Gray, highly Iron stained Gila Cg. Tr. Cu. Hard			tr.
200	205	5	Black, gray, highly silicified Gila Cg. Tr. Cu. Med. hard			.56
205	210	5	Tan, gray, highly silicified, Iron stained Gila Cg. Hd. Tr. Cu			.32
210	215	5	Tan, gray, highly silicified, Iron stained Gila Cg. Very hd. Tr. Cu			.43
215	220	5	Tan, gray, highly silicified, Iron stained Gila Cg. Hard. Tr. Cu			.27
220	225	5	Tan, gray, highly silicified, Iron stained Gila Cg. Hd. Tr. Cu			.20
225	230	5	Tan, silicified Gila Cg. to 228.0. Contact of tan, altered Iron stained granite. Soft			.20
230	235	5	Tan, Iron stained, altered granite. Soft. Kaolinite, Mica			.13
235	240	5	Tan, Iron stained, altered granite. Soft. Kaolinite			.13

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,436 N  
49,451 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #75

Collar Elev: 159.0

Date Drilled: 5/1/66 Started 8:00 AM  
Completed 3:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Recent Aluvium. Set casing to 3'				tr.
20	40	20	" "				tr.
40	60	20	" "				tr.
60	80	20	" "				tr.
80	100	20	" "				tr.
100	120	20	Recent Aluvium				tr.
120	140	20	" "				tr.
140	160	20	" "				tr.
160	180	20	" "				.12
180	190	10	Recent Aluvium. to 189.0. Contact of Tan, Iron stained Gila Cg.				.16
190	200	10	Tan, Iron stained Gila Cg. Cu visible				.20
200	210	10	Tan, Brown, Iron stained Gila Cg. Alternating soft to hard No Cu visible				.25
210	220	10	Tan, brown, Iron stained Gila Cg. Altered Granitic appearance No Cu visible. Leached characteristics				.14
220	230	10	Brown, black, altered, leached appearing Gila Cg. Soft. No Cu visible				.18
230	240	10	Brown, black, altered Gila Cg. to 238.0. Contact of Leached altered, Brown Granite.				.33
240	250	10	Brown, Iron stained altered Granite. Some Gnessic in texture Soft. Leached appearance. Kaolinitic, Mica				.42
250	260	10	Same as above				.40
260	280	20	Brown altered Iron stained Granite. Soft. Leached appearance. Hole getting damp at 280'. Still good dry returns				.19
280	300	20	Brown, altered, Iron stained Granite. Kaolinite & Mica. Dry returns to 293. Pressure building up. Had to use water injection to return cuttings and maintain circulation. Hole bottomed.				.14

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,287 N  
49,876 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #76

Collar Elev: 173.0

Date Drilled: 5/1/66 Started 4:00 PM  
5/2/66 Completed 1:00 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY			
0	20	20	Set casing to 3'. Recent aluvium				tr.
20	40	20	Recent Aluvium				tr.
40	60	20	" "				tr.
60	80	20	" "				.29
80	100	20	" "				.30
100	120	20	Recent Aluvium				.13
120	140	20	Recent Aluvium to 137.0. Tan, strongly altered & Leached. Black Gila Cg. in at 137.0 Cu show visible				.24
140	150	10	Tan, to Gray, soft, Altered Gila Cg. Cu visible. Leached appearance				.28
150	160	10	Gray to Black, Soft, altered Gila Cg. Cu visible. Leached appearance				.36
160	170	10	Gray, Hard, Gila Cg. No Cu visible				.31
170	180	10	Tan, Gray, Iron stained Gila Cg. Soft. No Cu visible. Leached appearance				.34
180	190	10	Brown, altered, heavily Iron stained Granite in at 181. Soft				.32
190	200	10	Brown, highly Altered, Iron stained Granite. Soft				.21
200	220	20	Brown, highly altered, Iron stained Granite. Soft. Hole getting damp. Still blowing good dry sample				.26
220	240	20	Brown, highly Altered, Iron stained Granite. Soft. Kaolinite, Mica. Hole damp but good dry sample. Volume				.44
240	260	20	Brown, Highly altered, Iron stained Granite. Soft. Kaolinite, Mica. Drilled with no pull down pressure. Able to keep hole dry and good returns to 254. Pressure building in hole from walls packing at 254. Had to use water injection to keep cuttings returning and free rods and bit. Hole bottomed.				.59

EL PASO NATURAL GAS COMPANY  
MINING DIVISION  
P. O. Box 1492  
El Paso, Texas

DRILL HOLE LOG

Property: Emerald Isle

Coordinates: 50,228 N  
50,276 EType of Drill: WD \_\_\_ DD \_\_\_ RD X CD \_\_\_

Inclination:

Hole No.: EP #77

Collar Elev: 196.0

Date Drilled: 5/2/66 Started 2:00 PM  
5/3/66 Completed 3:30 PM

Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY		
0	20	20	Set Casing to 3'. Recent Aluvium			.05
20	40	20	Recent Aluvium			.09
40	60	20	" "			.16
60	80	20	" "			.25
80	100	20	Recent Aluvium to 85.0 Recent Consolidated Aluvium or Tan, Iron stained Granite 85 to 100'			.26
100	120	20	Green, gray, Gnessic granite in at 105.' Much Mica in cuttings at 115-117. Tan, granitic material			.21
120	140	20	Tan to Brown Granite with much Qtz. Alternating streaks of Soft, very altered Gnessic Granite. Green to Brown, heavily Iron stained. Good returns. Dry sample			.27
140	160	20	Tan to Brown altered Granite with Soft streaks of very altered green Gnessic Granite to 150'. In at 150' Blue, gray, Gnessic Granite. Hard. Good returns. Dry hole.			.04
160	180	20	Blue, gray, Gnessic Granite. Fresh appearance. Hard at 165. Soft, altered, damp streak for 1 foot. Returns shut off. Good returns, Dry sample again.at 166 to 180.0			.03
180	200	20	Blue, gray, gnessic Granite. Fresh appearance. Hard. Fuel pump troubles at 196. Shut down 1-1/2 hrs. for repairs. Hole blew water immediately after starting up again. Blew hole dry and gained circulation (dry again). Estimate of 4 - 5 gallons water/minute. Hole bottomed			.02

Property: Emerald Isle	Coordinates: 50,042 N 50,635 E
Type of Drill: WD ____ DD ____ RD <u>X</u> CD ____	Inclination:
Hole No.: EP #78	Collar Elev: 205.0
Date Drilled: 5/4/66 Started 8:00 AM Completed 11:30 AM	Logged By: H.W. Horst

FROM	TO	FT. DRILL	DESCRIPTION OF MATERIAL AND REMARKS	ASSAY
0	20	20	Recent Aluvium. Set casing to 3'	.10
20	30	10	Black to Gray Gila Cg (?) to 35. Possibly Recent Aluvium. No Cu visible at 35'. Green to black	.18
30	40	10	Highly altered, greenish black Gnessic material	.11
40	50	10	Green, Black Gnessic material. Highly altered. Much Mica	.06
50	60	10	Consolidated, harder, green, black Gnessic material. Highly altered. Much Mica	tr.
60	80	20	Brown, heavily Iron stained Granite in at 60'. Alternating streaks of Gnessic material. Green in color. Predomenetly Brown Granite. Granite highly altered, soft drilling	.03
80	100	20	Brown, heavily Iron stained, highly altered Granite. Some thin seams of green Gnessic material	.04
100	120	20	Brown, Iron stained Granite. Predominate. 105-109. Blue Gnessic material. Narrow streaks of quartz, hard. 109-110. Very soft, highly altered Granite. Brown this section damp. Dry sample. Good returns.	tr.
120	140	20	Hole blowing water after change of rods. Very small amount. Dried up water and blowing good sample of dry cuttings at 128.0. Brown, Iron stained Granite. More Qtz. and fresher appearance.	tr.
140	160	20	Brown, Iron stained Granite. Hole wet after changing rods. Blew hole dry and got good sample returns and dry cuttings from 145-160. Bottomed hole. Cleaned up hole after drilling. Hole estimated at 5-7 gallons water/minute	nil.

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1"=20' NOTEDIRECTION \_\_\_\_\_  
INCLINATION Vertical  
STARTED 5-12-70  
COMPLETED \_\_\_\_\_  
DEPTH \_\_\_\_\_  
NOTES BY JLHOLE NO. A-2  
PROPERTY Cu-34  
LOCATION Emerald Isle  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 1 OF \_\_\_\_\_

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION					SECTION	Cu		
Alluvium. Rock Bit to 220' but attempted to core at 50', 90', 145' & 205'. Casing set to 220'										5	.042		
										5	.037		
										5	.032		
										5	.037		
										5	.037		
										5	.026		
										5	.037		
										5	.032		
										5	.026		
										5	.042		
50													
53 Boulders & Cob-		No Cu		50	3'					5	.074		
58 } No Core													
62 bles of granite		No Cu		50	4								
& Gneiss. Clayey		Little Fe-stain		15	6								
68 Sand. Some of the smaller clasts are biotite schist										5	.042		
										5	.042		
										5	.026		
										5	.037		
										5	.026		
90 Boulders & Cobbles		No Cu		80	5					5	.026		
95 of Granite &		Little Fe-stain		65	3					5	.026		
98 Granite Gneiss. Clayey Sand.										5	.026		
										5	.021		
										5	.026		
										5	.032		
										5	.026		
										5	.026		
										5	.016		
										5	.026		
										5	.021		
										5	.021		
145 Alluvium										5	.021		
149 Cobbles of granite & granite gneiss. Apparently sand was washed away				12	4					5	.037		
										5	.026		
										5	.042		
										5	.026		
										5	.037		
										5	.042		

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD

### SCALE

D DRILL RECORD

1" = 4' ← Also NOTE

DIRECTION \_\_\_\_\_  
INCLINATION Vertical  
STARTED 5-12-70  
COMPLETED \_\_\_\_\_  
DEPTH \_\_\_\_\_  
NOTES BY JL

HOLE NO. A-2  
PROPERTY Cu-34  
LOCATION Emerald Isle  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 2 OF \_\_\_\_\_

[illegible]





EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION Vertical  
 STARTED 5-12-70  
 COMPLETED \_\_\_\_\_  
 DEPTH \_\_\_\_\_  
 NOTES BY JL

 HOLE NO. A-6  
 PROPERTY Cu-34  
 LOCATION Emerald 12e  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 4 OF \_\_\_\_\_
SCALE 1"=4'

ROCK AND ALTERATION	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
			REC.	SECTION	Cu				SECTION	Cu
246 Conglomerate sand to boulder size, some angular pebbles & cobbles. Clasts mostly granite & granite gneiss. 251	Talc, limonite & chalcantite (?) in interstices	100	5		.305					
slightly better cemented 253		100	2							
		100	4		.247					
257 Well indurated	Granite boulder									
	Trichrysocolla in fracs	100	5		1.340					
262										
	Good chrysocolla dissem.	100	5		1.450					
267										
	Limonite in interstices	100	5							
272										
	Good dissem chrysocolla	100	5		.841					
277										
		100	5						10	.105

SCALE 1" = 4'

[illegible]

SCALE 1" = 4'

[illegible]



[illegible]



HOLE NO. 4-2  
PROPERTY Ln-34  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 10 OF \_\_\_\_\_

EL PASO NATURAL GAS COMPANY.  
DIAMOND DRILL RECORD

SCALE 1"=4'

[illegible]



SCALE 1" = 4'

[illegible]

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD

SCALE

1" = 4'

DIRECTION

INCLINATION

Vertical

STARTED

5-12-70

COMPLETED

DEPTH

JL

NOTES BY

HOLE NO.

A-2

PROPERTY

Cu-37

LOCATION

Emerald Isle

COLLAR COORD. N.

E.

COLLAR ELEV.

SHEET

12

OF

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION	Cu					SECTION		
525 Granite Gneiss Moderately altered. 527 Some Kaolinization Limonite in fracs.	+	No pyrite	90		3								
529-534 highly alter. 530 ed. Much limonite stain. Kaolinized. Talc in fracs. Soft, 532 broken up	+		70		3								
535 Moderately altered. ✓ broken up. Many vertical fractures	+		100		2	.221							
538 Slight to moderate alteration. Limonite & talc in fracs but core generally grey & not Fe-stained.	+		100		3								
543	+	Mn-stain in fracs	100		3								
548	+		100		5	.158							
552	+		100		5								
555	+	Fe & Mn-stain in fractures	100		4								
556	+		100		3	.147							
	+		110		1								
	+		80		5								

HOLE NO. A-2  
PROPERTY Cu-34  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 13 OF \_\_\_\_\_

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD

SCALE 1"=4'

[illegible]



EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION Vertical  
 STARTED 5-12-70  
 COMPLETED \_\_\_\_\_  
 DEPTH \_\_\_\_\_  
 NOTES BY HCL

 HOLE NO. A-2  
 PROPERTY Cu-34  
 LOCATION \_\_\_\_\_  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 15 OF \_\_\_\_\_

SCALE

1"=4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS						
				REC.	SECTION	% Cu					SECTION				
631 Granite Gneiss Broken, altered. Brecciated quartz veins. Chlorite.		Fe-and Mn-staining along fractures.													
634			100	3											
635 Highly altered and brecciated granite		Same. Much limonite.	100	1		.105									
637 gneiss. Chlorite		Pale yellow veinlets at	100	2											
638 slickensides. No CaCO <sub>3</sub> .		638 - altered epidote(?) oxidized pyrite xtals.	33	1											
Same.															
			100	4											
642						.053	✓								
Broken, but less altered biotite granite.			93	3											
645 Many fragments. Visible biotite.															
			95	3											
648															
Same.						.021									
		Gouge zone - slickensides	75	4											
652															
653			100	1											
Hard, less altered 652-656'. No CaCO <sub>3</sub>		Very fine FeS <sub>2</sub> xtals in gray clay along fractures.	100	3											
656															
Very altered & brecciated to 660'. Soft, friable.		Same limonite.	66	3		.026									
659 Much talc or sericite. No CaCO <sub>3</sub> .			100	1											
660 More solid, less altered granite gneiss.			100	2											
662						.021									
664			90	2											
Same, Chlorite.		Many relict FeS <sub>2</sub> veinlets -													

 EFCD LAB - TUCSON  
 (ppm)  
 Au Ag Pb Zn Cu Mo  
 0.03 1.2 41 945 453 3

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDDIRECTION \_\_\_\_\_  
INCLINATION -90  
STARTED 5-12-70  
COMPLETED \_\_\_\_\_  
DEPTH \_\_\_\_\_  
NOTES BY HCLHOLE NO. A-2  
PROPERTY Cu-34  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 16 OF \_\_\_\_\_SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION	% Cu				SECTION			
Granite gneiss, fairly solid core.		oxidized to limonite. MnO <sub>2</sub> staining.	100	4	.042			✓ Feu Ag		EFCD LAB (ppm)			
668 Broken, altered granite gneiss. High angle fracturing.			95	3				0.11 1.2		Pb Zn Cu Mo			
671 Same. Fairly fresh granite 672-674'. 674 No CaCO <sub>3</sub>		Limonite stain.	100	3						18 +1000 62 3			
674.5 Less altered granite gneiss fragments. May have hit string gauge zone. Poor core recovery.		Same.	33	1	.021								
681 Same.		MnO <sub>2</sub> staining Few FeS <sub>2</sub> xtals.	21	6.5									
683 Alternate soft, broken 685 and fairly hard, fresh granite gneiss. No CaCO <sub>3</sub>			100	2									
688 Same			100	2									
692 692.5 Fault gouge. Slickensides.		Tr. hematite	95	3	.016								
Highly altered and broken. Pegmatitic - 696 some feldspar xtals.		Gouge	100	4									
More solid, dense core. Altered.		FeS <sub>2</sub> xtals in gray altered zone 695.B'	10	0.5									
		Blebs hematite after pyrite xtals.	100	3.5									
			100	5	.016								

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE  $1" = 4'$ DIRECTION \_\_\_\_\_  
INCLINATION -90  
STARTED 5-12-70  
COMPLETED \_\_\_\_\_  
DEPTH \_\_\_\_\_  
NOTES BY HCLHOLE NO. H-2  
PROPERTY C-34  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 17 OF \_\_\_\_\_

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS						
				REC.	SECTION	Mo Cu					SECTION				
701 Very broken, altered granite gneiss. Slight $\text{CaCO}_3$ test.		Fine $\text{FeS}_2$ xtals.													
705 Altered, but more solid core.				75	4										
707 Same. Stronger $\text{CaCO}_3$ reaction. Fracts $40^\circ$ to core.				100	2	.011									
710 Very altered granite gneiss.			$\text{FeS}_2$ blebs. Some limonitic staining.	100	3										
713 Altered, but solid core segments. Flat slicken- sides at 716', with clay.				100	3										
716 Same.			Minute $\text{FeS}_2$ xtals	83	3	.021	✓								
720 Same. Thin gray clay seams in fractures. Altered.				75	4										
724 Same. Chlorite.			$\text{FeS}_2$ xtals in gray clay.												
726 726.3 Clay or gouge zone.			Same.	92	4										
729 Very altered granite gneiss. Chlorite.				100	2	.016									
730 Less altered. Some biotite present. Chlorite.				20	0.5										
731 732 Broken fragments granite gneiss. Gray clay seams.				100	2.5										
				100	1										
				50	1										
				100	1										
			83	3	.032										

EFCD LAB-TUCSON  
(PPM)

Au	Ag	Pb	Zn	Cu	Mo
0.13	1.0	47	72	61	3

.021

✓

.016

.032

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 4'DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 5-12-70  
COMPLETED \_\_\_\_\_  
DEPTH \_\_\_\_\_  
NOTES BY HCLHOLE NO. A-2  
PROPERTY Cu-34  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 18 OF \_\_\_\_\_

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION	% Cu				SECTION			
Highly altered granite gneiss. Brecciated. Slight $\text{CaCO}_3$ test. <u>738</u>		Tr. $\text{FeS}_2$ . Some hematite staining.	100	3									
Same, with somewhat less alteration. Chlorite. Biotite. <u>742</u>			96	4									
Same to 744!													
Pegmatite 744-745! Feldspar. <u>745</u>		$\text{CaCO}_3$ in pegmatite.	100	3		.042	✓						
Alt. granite gneiss 745-747! Biotite, chlorite. Pegmatite 747-754. <u>748</u> Feldspar, qtz. & calcite.		$\text{CaCO}_3$ .	90	3									
Pegmatite, altered <u>753</u>		$\text{FeS}_2$ x'tals	75	5									
Alt. brecc. granite gneiss. Chlorite, biotite <u>756</u>			83	3		.032							
Thin pegmatite 758! <u>759</u>		$\text{CaCO}_3$	83	3									
Highly altered, brecc. granite gneiss. <u>762</u> Biotite & chlorite.			83	3									
Very strong alteration 762-765! <u>765</u>		Scattered $\text{FeS}_2$ x'tals.	100	3		.037							
Same. <u>768</u>		Limonite staining.	87	3									
Same <u>770</u>			100	2									

EFCO LAB-TUCSON (PPM)

Au	Ag	Pb	Zn	Cu	Mn
0.13	-1.0	37	74	64	3





EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION -90°  
 STARTED 5-12-70  
 COMPLETED \_\_\_\_\_  
 DEPTH \_\_\_\_\_  
 NOTES BY HCL

 HOLE NO. A-2  
 PROPERTY CU-34  
 LOCATION \_\_\_\_\_  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 20 OF \_\_\_\_\_
SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS						
				REC.	SECTION	NO.	CU					SECTION			
Altered, but fairly hard 807 granite gneiss. Chlorite		Very small FeS <sub>2</sub> x'tals. CaCO <sub>3</sub> .	100	3											
Same.			90	2											
809 Same. Slickensides		Limonite. CaCO <sub>3</sub> .	100	2											
811 Granite gneiss frag- ments.			100	2	.021										
813 Same.		Limonite	45	2											
815 Broken, but fairly			80	1											
816 hard fragments			75	1											
817 granite gneiss. Chlorite		Same lime.	100	3											
1/2"x1" calcite x'tal-819'			100	3											
820 Brecc., altered granite gneiss. Chlorite.		CaCO <sub>3</sub>	100	3	.016										
823 Broken fragments granite gneiss.			100	3											
826 Slickensides. Chlorite		Small calcite x'tals - 825'	100	2											
828 Same.			100	1											
829 Same.			100	3	.021										
Altered pegmatite. 832 Strong alteration 831-832'		CaCO <sub>3</sub> in pegmatite.	95	3											
Broken, altered pegma- tite. Orthoclase feldspar x'tals. Chlorite.		CaCO <sub>3</sub>	66	5											
835 Broken, angular frag- ments granite gneiss. Chlorite.		Tr. FeS <sub>2</sub> .													
840					.032										

EFCO LAB-TULSON (P.A.M.)

 Au Ag Pb Zn Cu Mo  
 0.17 -1.0 55 70 115 3





EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 4'DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 5-12-70  
COMPLETED 6-10-70  
DEPTH 1000'  
NOTES BY HCLHOLE NO. A-2  
PROPERTY CU-34  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 23 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION	% Cu				SECTION			
<u>912</u> Altered granite gneiss to 917'			99	3									
<u>914</u>			80	2		.032							
<u>916</u>			100	2									
<u>918</u> Pegmatitic granite, 917-918'. Chlorite. From 918', altered, broken granite gneiss to about 923', then less altered to 928'.		Minute FeS <sub>2</sub> x'tals. Hematite staining.	100	2									
<u>922</u>			90	4		.037							
<u>925</u>			100	3									
<u>928</u> slickensides and thin gouge seams.			100	3		.042							
<u>932</u> Fairly hard granite gneiss. Unaltered biotite. Some vertical fracturing.		Slight hematite stain.	100	4									
<u>936</u> Same. Highly altered 934-936'.			100	4		.026							
<u>940</u> Gouge clay		Few FeS <sub>2</sub> x'tals in fractures.	100	4									
<u>942</u> Broken fragments altered granite gneiss. Biotite			75	2		.021							
<u>944</u> Same More solid core. Strong qtz. 945'.			100	2									

EFCO LAB-TULSON  
(PPM)Au Ag Pb Zn Cu Mo  
0.20 1.0 25 85 151 4



EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 4'DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 5-12-70  
COMPLETED 6-10-70  
DEPTH 1000'  
NOTES BY HCLHOLE NO. A-2  
PROPERTY \_\_\_\_\_  
LOCATION \_\_\_\_\_  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 25 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS						
				REC.	SECTION	% Cu					SECTION				
981 Broken, angular fragments granite gneiss. Altered. Biotite & chlorite.	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KK KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ	CaCO <sub>3</sub>	80	3											
984 Same, strong alteration 986-987'.		Limonite	100	5											
987			100	1											
988 Same.							.016								
		CaCO <sub>3</sub>	50	4											
992 Strong alteration, clayey zone in granite gneiss.		Limonite	100	3											
995 Slickensides Some qtz.		Tr. FeS <sub>2</sub> in black grngc - 994'.	90	2			.042								
997 Biotite & chlorite. Same.			100	3											
1000  T.D. 1000' JUNE 10, 1970 RECOVERED 220' NXWL CASING. NONE LEFT IN HOLE.															

EFOD LAB - TULSON (ppm)

Al	Ag	Pb	Zn	Cu	Mo
0.13	1.0	61	73	58	-1







EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD

SCALE

1" = 4'

DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 849'  
NOTES BY HCLHOLE NO. DDH A-3  
PROPERTY CW-34  
LOCATION EMERALD ISLE, ARIZ.  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 3 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION				SECTION	% Cu			
Alluvium. Sand, gravel, cobbles, & boulders. Granite and gneiss. Some schist and qtz. fragments. 75 Phlogopite and biotite mica.										.032			
										.037			
										.037			
										.021			
										.032			
										.016			
										.026			

80

85

90

95

100

105

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 4'DIRECTION \_\_\_\_\_  
INCLINATION - 90°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 349'  
NOTES BY HCLHOLE NO. DDH A-3  
PROPERTY CW-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 4 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION				SECTION	% Cu			
Alluvium. Sand, gravel, cobbles, and boulders. Granite and gneiss. Some schist and qtz. 110 fragments. Biotite and phlogopite mica.										.032			
										.032			
										.026			
										.032			
										.011			
115'													
120													
125													
130													
135										.011			
140										.021			

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 2'DIRECTION \_\_\_\_\_  
INCLINATION -30°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 349'  
NOTES BY HCLHOLE NO. DDH A-3  
PROPERTY CU-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 5 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS					
				REC.	SECTION	% Cu				SECTION	% Cu			
Alluvium. Silt, sand, gravel, cobbles and boulders. Granite and gneiss. Qtz fragments. 145 Biotite and phlogopite mica.											.021			
											.026			
150											.026			
											.016			
155											.026			
160														
165														
Granite boulder cored. Could not rock bit.														
170				100	5									
silt, clay, sand, and gravel to 172'.		Iron-staining				Nil								
172		Some CaCO <sub>3</sub>		50	2									
Granite boulder 172-176'.														
175				100	3									

100 5

Nil

50 2

100 3

Iron-staining

Some CaCO<sub>3</sub>





EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION -90°  
 STARTED 6-12-70  
 COMPLETED 7-9-70  
 DEPTH 949'  
 NOTES BY HCL

 HOLE NO. DDH A-5  
 PROPERTY CL-34  
 LOCATION EMERALD ISLE, ARIZONA  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 8 OF 25
SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	% REC.	CORE ASSAYS				SLUDGE ASSAYS			
				SECTION	% Cu			SECTION	% Cu		
Alluvium. Sand, gravel cobbles, and boulders.									.053		
250											
252 cored hard granite.											
253 boulder 252-255.			50	1					.042		
255 Some gneissic fragments.			30	2	.084						
									.110		
260											
									.210		
TOP GILA CONG. 264'. 265 started coring 265'. Gila conglomerate. Angular fragments. Granite, qtz. some 269 epidote.		Tr. $\text{CuSiO}_3$ fragments in pin 264-265'. Leached $\text{CuSiO}_3$ 265-266'. Limonite and $\text{MnO}_2$ staining. Hematite.	100	4	.305						
Same			100	5	.236						
274											
Gila cong. Fragments granite, gneiss, epidote		Leached $\text{CuSiO}_3$ .	90	3							
277 Biotite mica. Some silt and clay. Fragments recemented.		$\text{MnO}_2$ around fragments. Possibly some tenorite(?) No $\text{CaCO}_3$	100	5	.189						





EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION -30°  
 STARTED 6-12-70  
 COMPLETED 7-9-70  
 DEPTH 343'  
 NOTES BY HCL

 HOLE NO. DDH A-3  
 PROPERTY Cu-34  
 LOCATION EMERALD ISLE, ARIZONA  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 10 OF 25
SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
				REC.	SECTION	% Cu			SECTION		
Gila cong. Soft, broken. Granite fragments, epidote. Sandy zones. Plica.		Fe and MnO <sub>2</sub> staining. No CaCO <sub>3</sub> . No Cu visible.	60	5	.53						
<u>320</u> Same.			100	3							
<u>323</u> Same.		Fairly strong MnO <sub>2</sub> zone.	75	4	.50						
<u>327</u> Gila cong. Broken.		Same. No Cu visible	80	3							
<u>330</u> Same. Large biotite granite boulder.		MnO <sub>2</sub> or tenorite(?) or possibly black chrysocolla.	100	3							
<u>333</u> Same.		Limonite staining.	100	5	1.29						
<u>338</u> Gila cong. Some granitic fragments.		MnO <sub>2</sub> with white talc or kaolin. Limonite. No visible Cu. Black may be tenorite or black chrysocolla.	100	4							
<u>342</u> Same.			90	5	1.14						
<u>347</u> Same. Fragments show fracturing.		Limonite + MnO <sub>2</sub> .	100	5							



[illegible]





EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 4'DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 6-12-70  
COMPLETED 7-2-70  
DEPTH 849'  
NOTES BY HCLHOLE NO. DDH A-3  
PROPERTY CW-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 15 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION	% Cu				SECTION			
Altered biotite granite 492 gneiss. Koolin. or sericite. Some phlogopite mica.		Limonite, tr. hematite, MnO <sub>2</sub> stained.	75		4								
			83		3	.032							
495													
497			95		2								
Same. Highly altered and brecciated. Many small fragments.		Same											
			70		5								
502													
Same. Biotite showing more lineation - gneissic.		Same				.011							
			60		5								
507													
Extremely altered biotite granite gneiss. Slickensides 509', with clay.			100		4					5	.07		
511													
						.084							
Same			40		5								
516													
			90		5								
521						.21							
At about 521' core is more gneissic with increasing fine biotite, phlogopite and epidote.		Black coating (MnO <sub>2</sub> ?) on fractures. Limonite.	100		5								

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION -90°  
 STARTED 6-12-70  
 COMPLETED 7-9-70  
 DEPTH 849'  
 NOTES BY HCL

 HOLE NO. DDH A-3  
 PROPERTY CW-34  
 LOCATION EMERALD ISLE, ARIZONA  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 16 OF 25
SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
				REC.	SECTION	% Cu		SECTION			
<u>526</u> Gneiss. Fine-grained. Epidote, biotite and phlogopite.		Black coating on fractures. Also limonite.									
			100	4							
<u>530</u> Gneiss. Much biotite. Epidote.		Limonite along fractures. Resembles relict pyrite(?) stringers.				.51					
			100	5							
Biotite gneiss to 535'											
<u>535</u> From 535-551' altered granite gneiss.			100	3							
<u>538</u>											
			95	3		.03					
<u>541</u> Very altered 541-551'. Decomposed into small fragments. Much talc, kaolin or sericite.		Limonite staining with MnO <sub>2</sub> .									
			100	4							
<u>545</u>											
			100	4							
<u>549</u>						.11					
			100	2							
<u>551</u> Highly altered broken granite gneiss. Kaolin or sericite.		Limonitic staining. Black MnO <sub>2</sub> staining.									
			100	3							
<u>554</u>											
			100	4		.04					
<u>558</u> Fault gouge - 558'											
<u>560</u>		Limonite.	100	2							

DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 849'  
NOTES BY HCL

HOLE NO. DDH A-3  
PROPERTY CAL-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 17 OF 25

SCALE 1" = 4'

[illegible]



EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD
 DIRECTION \_\_\_\_\_  
 INCLINATION -90°  
 STARTED 6-12-70  
 COMPLETED 7-9-70  
 DEPTH 849'  
 NOTES BY HCL

 HOLE NO. DDH A-3  
 PROPERTY AL-34  
 LOCATION EMERALD ISLE, ARIZONA  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 18 OF 25
SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS					SLUDGE ASSAYS				
				REC.	SECTION	% Cu				SECTION			
596 Highly altered, broken biotite granite gneiss. Many fragments. Pegmatitic 600'.		MnO <sub>2</sub> on fractures.		95	5	.11							
601 Pegmatitic granite gneiss to 605'. Pink orthoclase.		Slight CaCO <sub>3</sub>		100	3								
604 Feldspar x'tals. More		MnO <sub>2</sub> & Fe <sub>2</sub> O <sub>3</sub>		80	1								
605 quartz.													
Deep core recovery. Broken granite fragments.				30	5	.10							
610 Alternating granite gneiss and pegmatitic granite to 617'. Clay on fractures.		MnO <sub>2</sub> on fractures		100	5	.05							
615 Vertical fracturing		Limonite.		100	2								
617 Banded biotite granite gneiss. Fracture angle 30-55°.				100	5	.06							
622 Some high angle fracturing. Kaolin		MnO <sub>2</sub> on fractures.		100	2								
624 or sericite along fractures.		Limonite.											
Pegmatitic 626'		Tr. CaCO <sub>3</sub> .		100	4								
628						.07							
630				90	2								

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE 1" = 4'DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 849'  
NOTES BY HCLHOLE NO. DDH A-3  
PROPERTY Cu-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 19 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
				REC.	SECTION	% Cu			SECTION		
Altered, broken biotite 632 granite gneiss. Some clay. 633		Limonite and MnO <sub>2</sub> staining.	90	2							
			100	1							
Same. Highly brecciated at 633'. Strong clay zone 636.5'. Many small oxidized stringers. 638		Relict FeS <sub>2</sub> veinlets with MnO <sub>2</sub> .	80	5							
Strongly brecciated and altered granite gneiss 641 638-652'.				3		.09					
644 Strong fracturing.		Limonite and MnO <sub>2</sub> staining along fractures.	90	3							
646			100	2							
Altered clay 647. Narrow, pegmatitic lense 649 648'.		Clay seam	100	3		.08					
			100	3							
652 Clay zone - lost 1.5' core. 654 From 652-659.5' is fine-grained dike. 655 Altered. Broken.		May contain some minute sulfide xstals. Limonite and MnO <sub>2</sub> stain.	80	2							
			100	1		.55					
			67	3							
658											
Altered biotite granite gneiss at 659.5'.			100	4							
662						.16					
			100	4							



EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD

SCALE 1" = 4'

DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 849'  
NOTES BY HCLHOLE NO. DDH A-3  
PROPERTY CU-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 21 OF 25

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
				REC.	SECTION	% Cu			SECTION		
Biotite granite gneiss. Some alteration, but more fresh granite. Some 703 chlorite.		Some limonite.	90	5		.04					
Same. Alteration on fractures.			100	3							
706											
Same. Coarse-grained on pegmatitic at about 708.		Native copper on fractures at 707. Dendritic MnO <sub>2</sub> stains.	98	5		.12					
711											
Broken, altered biotite granite gneiss. Vert. fracturing.		Much MnO <sub>2</sub> staining. Some limonite.	90	4		.14					
715											
Same			100	2		.12					
718		Same.	90	1							
Same.			100	2							
720						.21					
Very broken, altered granite gneiss. Highly fractured.		Strong limonite and manganese staining.	75	2							
722			80	2							
724			85	2		.09					
Same.											
726											
Clay zone 726-727. More solid granite gneiss 727-730. Angular fragments.		No Cu visible.	90	4		.06					
730											
Fairly hard, dense granite gneiss.		Native copper along fractures. Thin coating cuprite along fractures at 733' with native copper.	93	3		.11					
733											
Hard dense granite gneiss. Biotite, some chlorite.		Tr. native Cu in frags.	100	4		.07					

DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 6-12-70  
COMPLETED 7-9-70  
DEPTH 849'  
NOTES BY HCL

HOLE NO. DDH A-3  
PROPERTY CU-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 22 OF 25

SCALE 1" = 4'

ROCK AND ALTERATION	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
			REC.	SECTION	g/g Cu		SECTION			
737 Hard, dense, granite gneiss. Biotite, and biotite altered to chlorite. 740 Many small fractures. Same.	Native Cu flakes along oxidized fracture planes.	90	3	.08						
745 Same. Numerous hair-thin fractures.	Limnrite along fractures. Relict pyrite. Tr. native Cu.	100	5	.04						
750 Hard, dense, fairly fresh granite gneiss. Biotite and chlorite.	Native Cu on fractures. Limnrite.	100	5	.06						
755 Broken 755-756. Thin dense and hard granite.	Tr. native Cu on fractures.	90	5	.07						
760 Hard, dense biotite granite gneiss. Some chlorite.	At 756.5', native copper in crystal form. Dendritic xtal 1/4" on fracture plane.	100	5	.08						
765 Same, fairly fresh but shows alteration along fracture plans.	Native copper in fract. Relict sulfide veinlets. Limnrite, goethite(?). Some MnO2.	100	5	.04						
770	First sulfide show - 767'. Very thin flakes CuFeS2 and FeS2 along fractures. Limnrite.	100	5	.06						

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE  $1" = 4'$ 
 DIRECTION \_\_\_\_\_  
 INCLINATION  $91^{\circ}$   
 STARTED  $6-12-70$   
 COMPLETED  $7-9-70$   
 DEPTH  $849'$   
 NOTES BY  $HCL$ 

 HOLE NO.  $DDH A3$   
 PROPERTY  $CV-34$   
 LOCATION  $Emerald 15/e$   
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET  $23$  OF  $25$ 

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
				REC.	SECTION			SECTION			
Badly altered & broken granite gneiss. 772 Chlorite.		Much limonite, some hematite.			784						
Same, 774			100		4	nil					
Altered, but more fresh granite gneiss. Some 777 slickensides 775'. Clay along seams. Some porphyritic texture.		Some limonite.	100		4	.02					
781			100		4						
Strong oxidation zone. Possible water course 784 zone.		Relict sulfide stringers. One small blue natrite. copper at 782' in fract.	50		3	.02					
Fresh, more dioritic zone 784-785', then altered 789 oxidized, clayey zone to 789'.		Tr. dissem. $FeS_2$ in fresh rock.	50		3						
789			50		4	.04					
789 Altered, strongly oxidized 790 zone.		$\frac{1}{4}"$ vein $FeS_2$ , possibly some $CuFeS_2$ .	50		1						
791 clay 790-790.5'. Broken granite gneiss 793 fragments.			100		1						
Altered granite gneiss 795 Biotite, chlorite. sericite or talc. 797 Feldspar altered.		$FeS_2$ along fracture at 794'.	100		2	.06					
Same. Vertical fracturing. Clay.			100		2						
801 Partial pegmatite 802'. Large gte. & feldspar x'tals.		Limonite stain	100		4	Nil.					
803 Clay zone at 803'.		Limonite	100		2						











EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORDSCALE  $1'' = 4'$ DIRECTION \_\_\_\_\_  
INCLINATION  $90^{\circ}$   
STARTED  $7-14-70$   
COMPLETED  $7-29-70$   
DEPTH  $613'$   
NOTES BY  $HCL$ HOLE NO.  $DDH A-4$   
PROPERTY  $CU-34$   
LOCATION  $EMERALD 1512$   
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET  $3$  OF  $18$ 

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS			
				REC.	SECTION	% Cu			SECTION		
Alluvium. Sand, gravel, cobbles, and boulders. Some clay lenses. Granite, gneiss, schist, 75 quartz, feldspar and pegmatite. Biotite, phlogopite. Epidote.	80										
										.02	
85											
										.03	
90											
										.02	
95											
										.02	
100											
										.03	
105											
										.01	
										.03	

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[illegible]





DIRECTION \_\_\_\_\_  
INCLINATION -90°  
STARTED 7-14-70  
COMPLETED 7-29-70  
DEPTH 613'  
NOTES BY WCH

HOLE NO. DDH A-4  
PROPERTY CU-34  
LOCATION EMERALD ISLE, ARIZONA  
COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
COLLAR ELEV. \_\_\_\_\_  
SHEET 14 OF 18

SCALE 1" = 4'

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS			SLUDGE ASSAYS							
				REC.	SECTION	% Cu				SECTION				
465 Gila conglomerate. Silty sandy lenses with gravel & granite cobbles. Clay. Altered.		Linumite and MnO <sub>2</sub> . No Cu visible.	70	7	.22									
469 Same. Talc or sericite clay.		MnO <sub>2</sub> coating around granite fragments.	75	4	.11									
474 Andesite boulder 469-470' Slickensides. Granite 471-472' Broken, altered.		MnO <sub>2</sub> Epidote stain. Linumite. No CuSiO <sub>3</sub> .	100	5	.08									
479 Gila cong. Granite fragments in coarse granitic sand. White clay 477-479'.		MnO <sub>2</sub> , linumite.	100	5	.09									
484 Tan, silty, sandy, clay cement. Granite fragments. Earthy odor.		Little MnO <sub>2</sub> as stringers. No CuSiO <sub>3</sub> . No CaCO <sub>3</sub> .	100	5	.12									
490 Same, with more coarse material. Granite fragments.		More MnO <sub>2</sub>	70	6	.05									
495 Gila conglomerate, but becoming a more arkosic sand with granite fragments.		MnO <sub>2</sub> , little linumite. No CuSiO <sub>3</sub> .	100	5	.12									

EL PASO NATURAL GAS COMPANY  
DIAMOND DRILL RECORD

SCALE

1" = 4'

 DIRECTION \_\_\_\_\_  
 INCLINATION -90°  
 STARTED 7-14-70  
 COMPLETED 7-29-70  
 DEPTH 613'  
 NOTES BY HCL

 HOLE NO. DDH A-4  
 PROPERTY CU-34  
 LOCATION EMERALD ISLE, ARIZONA  
 COLLAR COORD. N. \_\_\_\_\_ E. \_\_\_\_\_  
 COLLAR ELEV. \_\_\_\_\_  
 SHEET 15 OF 18

ROCK AND ALTERATION	LOG	GEOLOGY	%	CORE ASSAYS				SLUDGE ASSAYS				
				REC.	SECTION	% Cu				SECTION		
Arkosic Gila cong. Coarse granitic sand with granite fragments. Little 500 epidote.		Fair MnO <sub>2</sub> Some limonite. No CaSiO <sub>3</sub> .		80	5	.06						
Same. Some tan silty sand lenses.		Same. No CaCO <sub>3</sub>		100	5	.05						
505 Same.				100	2							
507 Arkosic Gila cong. Some granite frag- ments. Slickensides sericite, or talc seams. Some silty lenses. Epidote.		Little MnO <sub>2</sub> and limonite. No CaCO <sub>3</sub> or visible CaSiO <sub>3</sub> .		93	6	.08						
513 TOP GRANITE-513' Altered mica gneiss or schist 513-514'. 516 clayey.				66	3							
Altered granite gneiss. Biotite and chlorite. Clay along fractures. Slickensides 519'.		Some limonite on fractures. Few specks hematite.		50	5	.09						
521 Highly altered and 523 brecciated granite gneiss. Chlorite.		Fair MnO <sub>2</sub> in fractures.		100	2							
526 Same, very				67	3	.05						
528 altered. Chlorite or epidote staining.		MnO <sub>2</sub> and limonite.		100	2							
530				40	2							

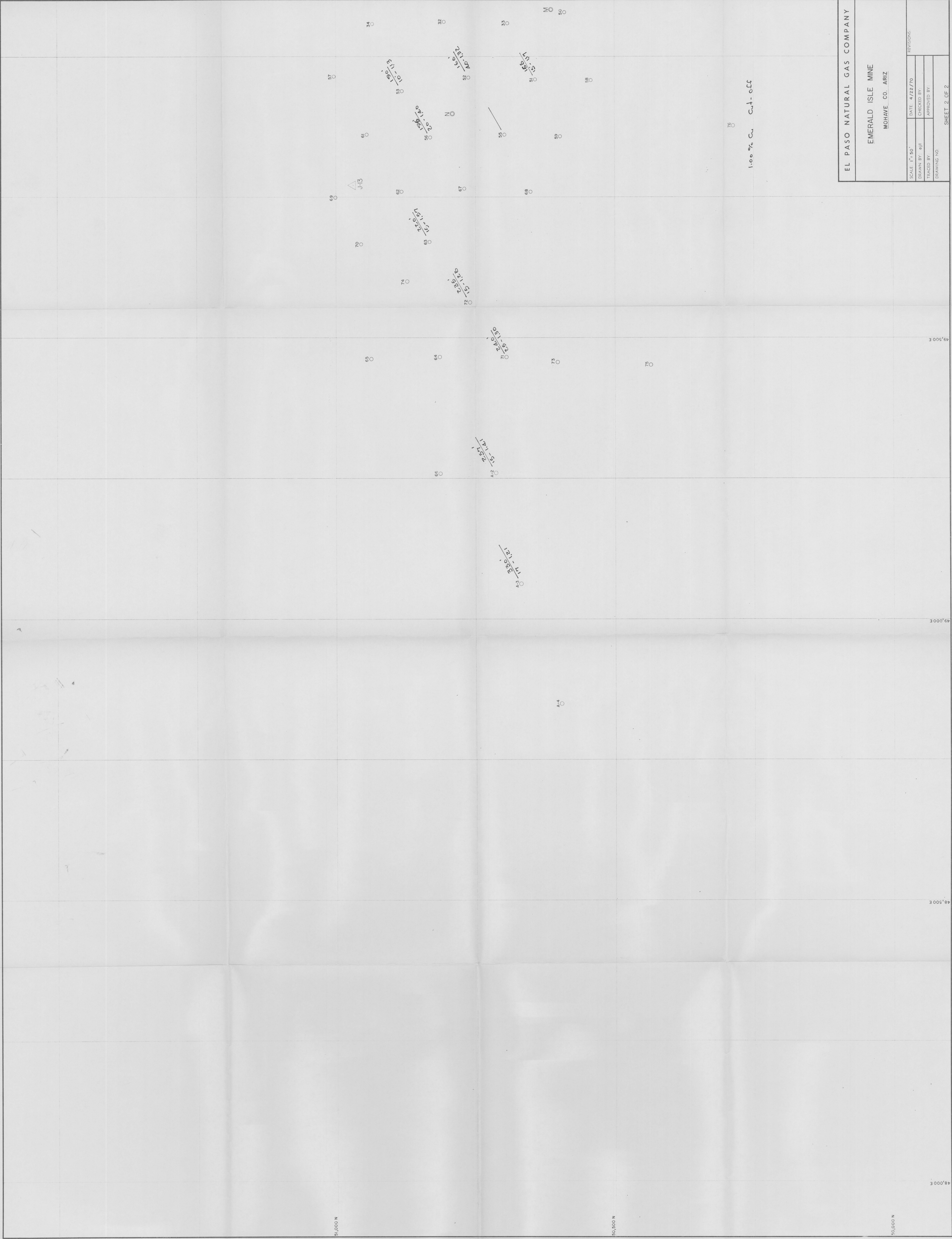












EL PASO NATURAL GAS COMPANY			
EMERALD ISLE MINE			
MOHAVE CO. ARIZ			
REVISIONS			
SCALE 1"=50'	DATE 4/22/70	CHECKED BY	APPROVED BY
DRAWN BY: ajl			
TRACED BY			
DRAWING NO.			
SHEET 2 OF 2			



EL PASO NATURAL GAS COMPANY

CLAIM MAP

EMERALD ISLE AREA

showing EXPLORATION & VALIDATION HOLES

REVISIONS	
DATE	JUNE 17, 1966
DRAWN BY	C. E. B.
CHECKED BY	
TRACED BY	L. W. U.
APPROVED BY	
DRAWING NO.	

- Legend:
- - Exploration hole
  - - Validation hole
  - - Deduced ground
  - - Claims not held by EPNG





