

Drill Hole No. MH-100

Date: 2/13/78

Bearing: N 25 E Inclination: 59 N.

Drilled By: Boyles Bros. Bob Kesty

Coordinates: North 626,546.97 East 1,455,933.01

Logged By: Ferryl C. Gale

Elevation: 948.34

Total Depth: T.D. 229.0 ft. Core: 0.0-229.0'

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
0.0	15.0			<i>artesian water at 6 ft.</i>				Cased hole, no sample, colluvium.
15.0	33.0							Very broken; greenish-tan sandstone; orange iron oxide staining in fractures.
33.0	42.0							Lt. gray fine to medium grained sandstone; well-cemented; locally darker gray color; qtz. filled threads & stringers; leached or vuggy along some qtz. stringers; minute fractures carbon filled.
42.0	52.6							Lt. gray fine to medium grained sandstone abundant qtz filled fractures; (47.7-47.9 large qtz fracture filling, vuggy also). Darker gray locally. (42.0 ft. Bedding Dip 88°S.
52.6	59.2							Lt. gray fine grained sandstone; well-cemented; occ. qtz threads (55.0-55.2, 56.6-57.0 lenses of black shales, carbon rich, qtz filled fractures along bedding); Bedding Dip. 77°S.
59.2	63.6							Black shales interbedded w/ dark gray sandstone; locally black shales carbon rich.
63.6	74.6							Black fine-grained sandstone interbedded

Drill Hole No. MH-100

Date: 2/14/78

Bearing: N 25 E Inclination: 59 N.

Drilled By:

Coordinates: North East

Logged By:

Elevation:

Total Depth:

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO ₄		
								w/ gray fine-grained sandstone lenses; disseminated graphite locally; bedding is gnarled; (qtz patches 65.2-65.4, 70.0-72.0) occasional qtz. threading along bedding plane. Bedding Dip. 76°S.
74.6	86.2	Box 5						Dark gray fine-grained sandstone; well-cemented, (96.9-77.0 thin black shale lamina); occ. qtz. stringer; between 84.0 & 85.0 two qtz. & calcite stringers; locally wisps of black shale in sandstone.
				84.0' Bedding Dip 79°S.				
86.2	97.0							Lt gray fine-grained sandstone; well cemented locally dark gray in color. (87.5-90.0 qtz. & calcite stringer has invaded fracture in sandstone; qtz thread fractures filling occasionally. Bedding dip 76°S. Darker locally due to influence of carbon rich black shales. (96.0 ft. Bedding Dip 83°S.
97.0	109.0							Dark gray fine-grained sandstone, well-cemented, (97.6-98.0 black shale lamina, silicously cemented compadent) scattered

Drill Hole No. MH-100

Date: 2/21/78

Bearing: N 25 E Inclination: 59 N

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								wisps of black shale; occ. thin threads of calcite & qtz. filling fractures. <i>(99.0 Bedding Dip 75°S)</i>
109.0	117.3							Dark gray fine-grained sandstone; well-cemented; (111.0-111.5 carbon rich black shales lamina; occ. calcite & qtz. filled fractures. <i>(115.0 Bedding Dip 80°S)</i>
117.3	119.3							Interbedded black shales & gray sandstone; thinly laminated, gnarled bedding, mottled appearance.
119.3	121.0							Dark gray fine-grained sandstone, well-cemented; occ. large wisps of black shales. Bedding Dip 72°S.
121.0	132.4							Dark gray fine-grained sandstone; well-cemented; occ. qtz. thread; (128.0-129.5 large qtz & calcite stringer 0.1 ft. wide) Interbedded black shales & gray sandstone lamina 131.0-132.0; bedding dip 83°S.
132.4	144.0							Lt. gray fine grained well-cemented sandstone, occ. wisps of black shale; (qtz. stringer & patches 140.0-143.0) finely crystalline

Drill Hole No. MH-100

Date: 2/21/78

Bearing: _____ Inclination: _____

Drilled By: _____

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Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								lt. green mineral? might be a clay or hydrothermal mineral??? associated w/ the qtz.
144.0	152.0							Lt. gray fine-grained sandstone; well-cemented grading into dark gray sandstone; occ. qtz & calcite stringer.
152.0	155.0							Black sandstone w/ thin lamina of gray sandstone, mottled appearance (calcite stringer 152.0)
155.0	162.4							Dark fine-grained sandstone, interbedded w/ black shales; stringers of qtz. & calcite occ.
162.4	163.4		2781	1.0'				Barite zone; scattered nodules in black sandstone; approx. 5% BaSO ₄ .
163.4	165.0							Black & lt. gray fine grained sandstone; wisps of black shales occ. in sandstone; calcite filling thread fractures.
165.0	167.5		2782	2.5'				Barite zone; elongated nodules of Barite aligned along bedding approx. 30% BaSO ₄ interbedded w/ black shales, Bedding dip 64°S. abundant bedding filling filled w/

(168.0 ft Bedding Dip 60°S.

(171.0 ft. " " 38°S.

Drill Hole No. MH-100

Date: 2/21/78

Bearing: _____ Inclination: _____

Drilled By: _____

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Elevation: _____

Total Depth: _____

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO ₄		
								calcite. (Could be Weitherite BaCO ₃ ??)
								This is a possibility since the CO ₃
								radical is present.
167.5	171.5		2783	4.0'				Barite zone; nodular barite along bedding;
								abundant calcite or (Witherite BaCO ₃ ??)
								Bedding dip 71°S.
171.5	175.0		2784	3.5'				Barite zone; nodular barite along bedding
								planes, abundant calcite or Witherite.
								Approx. 20% Barite. Bedding dip 70°S.
175.0	178.0		2785	3.0'				Barite zone; approx. 30% ; nodular Barite
								along bedding planes, abundant calcite
								or possible Witherite. Bedding Dip 72°S.
178.0	181.5		2786	3.5'				Barite zone; nodular Barite approx. 30%
								locally thinly bedded barite, locally
								scattered nodules, disseminated pyrite.
								Bedding dip, 83°S. true dip.
181.5	182.6		2787	1.1'				Barite zone; very weak scattered Barite
								nodules, approx. 5% BaSO ₄ , host rock
								black & gray silty sandstone.
182.6	186.1		2788	3.5'				Barite zone; large elongated barite

Drill Hole No. MH-100

Date: 2/24/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								nodules along bedding, thinly bedded
								locally, approx. 40% BaSO ₄ . Bedding dip
								76°S. true dip, abundant calcite possibly
								some Witherite.
186.1	188.0							Dark gray fine-grained sandstone fractures
								filled w/ calcite & qtz. also Carbon rich
								filled fractures w/ evidence of bedding
								slicks. Bedding dip 82°S. true dip.
188.0	189.4							Dark gray fine grained silty sandstone
								thread fractures filled w/ qtz & calcite;
								locally thin lamina of black shales. Weak
								diss. pyrite.
189.4	189.9		2789	0.5'				Barite zone; sparsely scattered barite
								nodules in black silty sandstone, app. 5%
								Barite. Bedding dip 87°S. true dip.
189.9	190.0							Gray sandstone, fine-grained well-cemented;
								occ. wisps of black shales. Weak diss pyrite.
190.9	192.1		2790	1.2'				Barite zone; approx. 10% BaSO ₄ scattered
								barite nodules in dark silty sandstone;
								weak disseminated pyrite.

Drill Hole No. MH-100

Date: 2/27/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
192.1	199.5							Gray fine-grained silty sandstone; well-cemented; occ. dark gray lamina of silty sandstone, scattered wisps of black shales, occ. thread fractures filled w/ qtz & calcite; bedding dip 86°S, true dip. Weak disseminated pyrite, also veneered along fractures. (199.0 Bedding Dip 83°S.
199.5	211.0							Dark & lt. gray silty sandstone. (202.2-206.0 carbon rich black sandstone, fine crystalline disseminated pyrite), occ. qtz. & calcite fracture fillings. Bedding dip 89°S. true dip, occ. wispy black shales, pyrite fracture fillings. (207.0 St Bedding Dip 74°S.
211.0	221.0							Lt. gray fine-grained well cemented sandstone; (lamina of black, carbon rich silty sandstone 212.0-214.0) grading back into lt. gray sandstone occ. qtz & calcite fracture filling. Bedding dip 67°S true dip. (219.0 Bedding Dip 86°S
221.0	226.0							Lt. gray fine grained sandstone, well-cemented, occ qtz threads stringers & patches. Bedding dip 76°S true dip.

DRILL HOLE LOG

Drill Hole No. MH-100

Date: _____

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

[illegible]

Bottom Hole corals - 626, 670, 23

1,455,984.71

762.67

10/77

Samples Shipped to Houston

MH-100

<u>Sample</u>	<u>Footage</u>	<u>Specific Gravity</u>	<u>% BaSO4</u>
MH-100-2781	162.4-163.4		
-100-2782	165.0-167.5		
-100-2783	167.5-171.5		
-;00-2784	171.5-175.0		
-100-2785	175.0-178.0		
-100-2786	178.0-181.5		
-100-2787	181.5-182.6		
-100-2788	182.6-186.1		
-100-2789	189.4-189.9		
-100-2790	190.0-192.1		

Test Sample:

MH-100-2812 164.0-165.0

FANCY HILL - DIAMOND DRILL HOLES
INDIVIDUAL CORE ANALYSES BY INTERVALS

SAMPLE	LOG #	DEPTH	INTERVAL	A. P. SPECIFIC GRAVITY	CALCULATED % BaSO ₄
MDDH 100					
2781	2000	162.4-163.4	1.0	2.801	3.70
2812	-	164.0-165.0	1.0	2.838	7.06
2782	2001	165.0-167.5	2.5	3.130	30.81
2783	2002	167.5-171.5	4.0	3.318	43.99
2784	2003	171.5-175.0	3.5	3.288	41.70
2785	2004	175.0-178.0	3.0	3.042	24.13
2786	2005	178.0-181.5	3.5	2.960	17.56
2787	2006	181.5-182.6	1.1	2.787	2.41
2788	2007	182.6-186.1	3.5	2.934	15.39
-	-	186.1-189.4	3.3	2.761	0.00
2789	2008	189.4-189.9	0.5	2.852	8.31
-	-	189.9-190.9	1.0	2.761	0.00
2790	2009	190.9-192.1	1.2	2.830	6.34
		Total	28.1		
		Weighted Average		3.016	22.06