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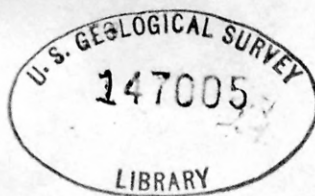
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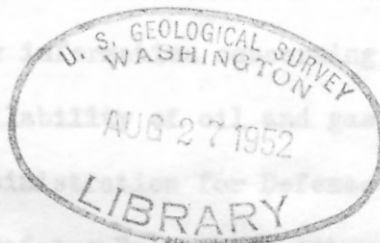
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U.S. Geological Survey
Reports-Open File series

Descriptions of cores from seventy-five wells in the
Scurry Reef, Scurry County, Texas

by
Howard E. Rothrock, 1893 -

Geological Survey
United States Department of the Interior
The following core descriptions represent a part of the
work done by the Geological Survey in connection with a reservoir
study of Scurry Reef, Scurry County, Texas, Bureau of
Mines. The project was undertaken as a result of an agreement
between these agencies and the Petroleum Administration for Defense.
The purpose of the project was to supply information on the
oil fields in Scurry County and the availability of oil and gas
from them as an aid to the Petroleum Administration for Defense in
meeting its responsibilities under the Defense Production Act.



The generosity of the owner of the Scurry Reef is gratefully acknowledged. Some of the cores were
the personnel of the Austin office of the Geological Survey for use
This report and accompanying illustrations are preliminary
and have not been edited or reviewed for conformity with Geological
Survey standards and nomenclature.
Economic Geology, University of Texas. Core descriptions were made
by Richard E. Bergenback, William A. Heck, Donald A. Myers,
Elmer D. Patterson, Philip T. Stafford, and Robert T. Torgler,
geologists, U. S. Geological Survey.

4/22/52

From **FUELS BRANCH** 4233
PCA

Descriptions of cores from seventy-five wells in the
Scurry Reef, Scurry County, Texas

by

Howard E. Rothrock

INTRODUCTION

The following core descriptions represent a part of the work done by the Geological Survey in connection with a reservoir study of Scurry Reef made cooperatively with the U. S. Bureau of Mines. The project was undertaken as a result of an agreement between these agencies and the Petroleum Administration for Defense. The purpose of the project was to supply information concerning the oil fields in Scurry County and the availability of oil and gas from them as an aid to the Petroleum Administration for Defense in meeting its responsibilities under the Defense Production Act.

The generosity of the companies named in these descriptions is gratefully acknowledged. Some of the cores were collected by the personnel of the Austin office of the Geological Survey for use in a reef study being conducted in cooperation with the Bureau of Economic Geology, University of Texas. Core descriptions were made by Richard E. Bergenback, William A. Heck, Donald A. Myers, Elmer D. Patterson, Philip T. Stafford, and Robert T. Terriere, geologists, U. S. Geological Survey.

The cores described in this report were taken from wells in the Scurry Reef, a subsurface feature of Permian and Carboniferous age in Scurry County in West Texas (fig. 1). The locations of these wells are shown in fig. 2 and they are cross indexed on following pages both by the series numbers shown on the figure and by company names.

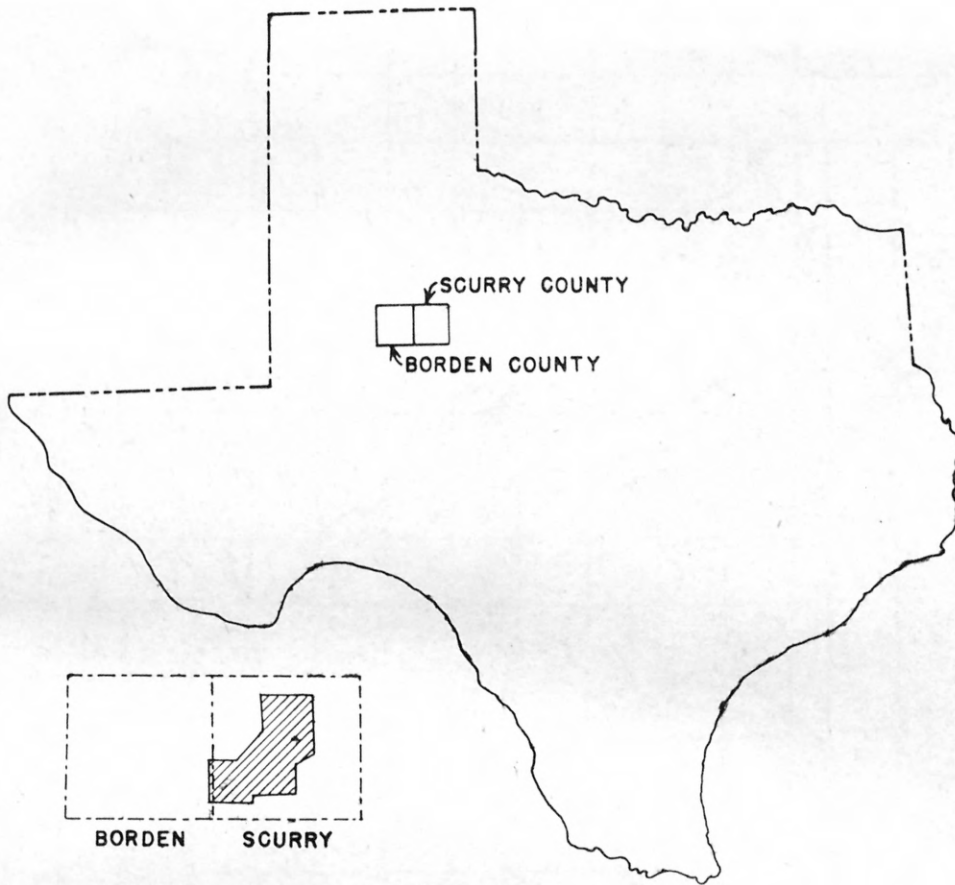


FIGURE 1.-INDEX MAP OF TEXAS SHOWING AREA COVERED BY THIS REPORT.

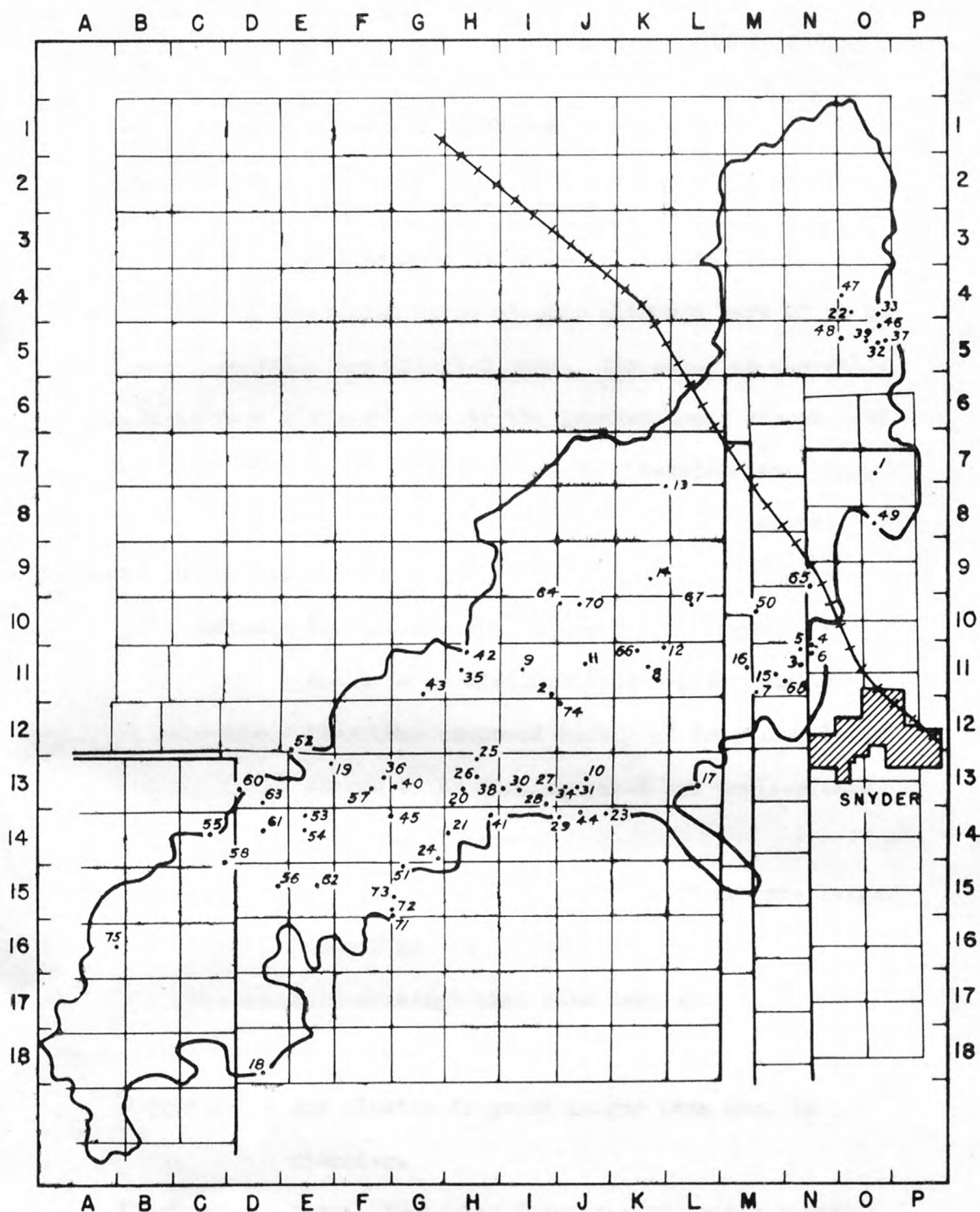


FIGURE 2.—INDEX MAP SHOWING LOCATION AND SERIES NUMBERS OF CORES FROM WELLS IN THE SCURRY REEF, SCURRY COUNTY, TEXAS.

CORE DESCRIPTION

Common characteristics

All of the limestone described in the following core descriptions is considered to be clastic although part of it may represent chemically precipitated ooze. Its color is generally light olive gray although some of the leached areas are stained a light brown with oil. The limestone is classified according to the size of its constituent grains into three categories defined as follows:

Calcilutite - Limestone composed mostly of fragments too small to be distinguished megascopically.

Calcarenite - Limestone composed mostly of fragments large enough to be distinguished but smaller than 2 mm. in diameter.

Calcirudite - Limestone composed mostly of fragments larger than 2 mm. in diameter.

The specific meanings that have been applied to some other terms are given below:

Phenoclast - Any clastic fragment larger than 2mm. in diameter.

Fissures - Short, irregular fractures in contrast with joints which are straighter, more extensive and more thorough-going.

General characteristics - Continued

Pin point

porosity - Containing megascopically visible pore spaces smaller than 1 mm. in diameter.

Vug

- A pore larger than 1 mm. in diameter.

Crinoid

- Crinoidal debris consisting entirely of columnal segments except for a very few tiny circular segments that may have come from the arms or pinnules of the crinoid.

Measurements are given in both the English and metric systems. The English system of feet and inches is used for depths and bed thicknesses; the metric system for the size of grains, phenoclasts and vugs.

The initials "K.B." after the surface elevation indicates that datum is the top of the Kelly Bushing that generally is about 2 feet higher than the derrick floor.

Index of cored wells in Scurry Reef,
Scurry County, Texas

Arranged by U.S.G.S. Series number

U.S.G.S. Series number	Company, lease, well number	Coordinates of index map
1.	Sunray Oil Corporation, Cloud No. 3	O-7
2.	General Crude Oil Company, Land No. 3	I-11
3.	Montex Drilling Company, Joyce No. 6	M-11
4.	Montex Drilling Company, Payne No. 2	N-11
5.	Montex Drilling Company, Joyce No. 4	N-11
6.	Montex Drilling Company, Payne No. 1	N-11
7.	Montex Drilling Company, Harrell No. 4	M-11
8.	Pan American Producing Company, Woolever No. 1	K-11
9.	Pan American Producing Company, Casstevens No. 1	I-11
10.	Pan American Producing Company, Biggs No. 1-A	J-13
11.	Pan American Producing Company, Carrell No. 5	J-11
12.	Pan American Producing Company, Davis No. 2	K-11
13.	Sunray Oil Corporation, Hardy No. 2-A	K-8
14.	Hiawatha Oil and Gas Company, Carden No. 1	K-9
15.	Montex Drilling Company, Harrell No. 2	M-11
16.	Cities Service Oil Company, Austin No. 4	M-11
17.	Cities Service Oil Company, Etheridge No. 1	I-13
18.	Cities Service Oil Company, Pearson No. 5	D-18

Index - Continued

U.S.G.S. Series number	Company, lease, well number	Coordinates of index map
19.	Cities Service Oil Company, Johnson No. H-2	E-13
20.	Sun Oil Company, Voss No. 10	H-13
21.	Sun Oil Company, Fenton No. 1	H-14
22.	Sun Oil Company, Brice No. 11	O-4
23.	Sun Oil Company, Arledge No. A-1	J-14
24.	Sun Oil Company, Ramsey No. 4	G-14
25.	Sun Oil Company, Voss No. 1	H-13
26.	Sun Oil Company, Voss No. 12	H-13
27.	Sun Oil Company, Lemons No. 6	I-13
28.	Sun Oil Company, Lemons No. 7	I-13
29.	Sun Oil Company, Arledge No. 2	J-14
30.	Sun Oil Company, Bynum No. 1	I-13
31.	Sun Oil Company, Lemons No. 1	J-13
32.	Sun Oil Company, Brice No. 16	O-5
33.	Sun Oil Company, Brice No. 18	O-4
34.	Sun Oil Company, Lemons No. 4	J-13
35.	Sun Oil Company, Randal No. C-2	H-11
36.	Sun Oil Company, Boyles No. 1	F-13
37.	Sun Oil Company, Brice No. 10	O-5
38.	Sun Oil Company, Bynum No. 2	I-13

Index - Continued

U.S.G.S. series number	Company, lease, well number	Coordinates of index map
39.	Sun Oil Company, Brice No. 7	O-5
40.	Sun Oil Company, Eiland No. 1	G -13
41.	Sun Oil Company, Fenton No. A-1	H-14
42.	Sun Oil Company, Randal No. C-4	H-11
43.	Sun Oil Company, Randal No. A-3	G-11
44.	Sun Oil Company, Arledge No. 1	J-14
45.	Sun Oil Company, Rosenberg No. 1	G-14
46.	Sun Oil Company, Brice No. 17	O-5
47.	Sun Oil Company, Brice No. 1	O-4
48.	Sun Oil Company, Brice No. 3	O-5
49.	Cities Service Oil Company, Popnoe No. A-3	O-8
50.	Cities Service Oil Company, Von Roeder No. 2	M-10
51.	Cities Service Oil Company, McLaughlin No. B-3	G-15
52.	Cities Service Oil Company, Patterson No. 6	E-12
53.	Lion Oil Company, McLaughlin No. 36	E -14
54.	Lion Oil Company, McLaughlin No. 45	E-14
55.	Lion Oil Company, Zelma No. 4	C-14
56.	Lion Oil Company, Ohlenbusch No. 6	D-15
57.	Lion Oil Company, McLaughlin No. 24	F-13
58.	Lion Oil Company, Zelma No. 1	C-14

Index - Continued

U.S.G.S. series number	Company, lease, well number	Coordinates of index map
59.		
60.	Lion Oil Company, Strom No. 25	D-13
61.	Lion Oil Company, Strom No. 2	D-14
62.	Lion Oil Company, McLaughlin No. 35	E-15
63.	Lion Oil Company, Strom No. 18	D-13
64.	Wilshire Oil Company, Lunsford No. 8	J-10
65.	Montex Drilling Company, Country Club No. 3	N-9
66.	Ohio Oil Company, Hayes No. 2	K-11
67.	Wilshire Oil Company, Rinehart No. 1	L-10
68.	Montex Drilling Company, Joyce No. 5	M-11
69.		
70.	Lone Star Oil Company, Bynum No. 4	J-10
71.	Lone Star Oil Company, McLaughlin No. 3	G-15
72.	Lone Star Oil Company, McLaughlin No. 2	G-15
74.	Phillips Petroleum Company, Mebane No. 4	J-12
75.	Honolulu Oil Corporation, Canning Y-2	B-16

Index of cored wells in Scurry Reef,
Scurry County, Texas

Arranged by company names

U.S.G.S. series number	Company, lease, well number	Coordinates of index map
16.	Cities Service Oil Company, Austin No. 4	M-11
17.	Cities Service Oil Company, Etheridge No. 1	L-13
19.	Cities Service Oil Company, Johnson No. H-2	E-13
51.	Cities Service Oil Company, McLaughlin No. B-3	G-15
52.	Cities Service Oil Company, Patterson No. 6	E-12
18.	Cities Service Oil Company, Pearson No. 5	D-18
49.	Cities Service Oil Company, Popnoe No. A-3	O-8
50.	Cities Service Oil Company, Von Roeder No. 2	M-10
2.	General Crude Oil Company, Land No. 3	I-11
14.	Hiawatha Oil and Gas Company, Carden No. 1	K-9
75.	Honolulu Oil Corporation, Canning No. Y-2	B-16
57.	Lion Oil Company, McLaughlin No. 24	F-13
62.	Lion Oil Company, McLaughlin No. 35	E-15
53.	Lion Oil Company, McLaughlin No. 36	E-14
54.	Lion Oil Company, McLaughlin No. 45	E-14
56.	Lion Oil Company, Ohlenbusch No. 6	D-15
61.	Lion Oil Company, Strom No. 2	D-14
63.	Lion Oil Company, Strom No. 18	D-13
60.	Lion Oil Company, Strom No. 25	D-13
58.	Lion Oil Company, Zelma No. 1	C-14
55.	Lion Oil Company, Zelma No. 4	C-14

Index - Continued

U.S.G.S. series number	Company, lease, well. number	Coordinates of index map
70.	Lone Star Producing Company, Bynum No. 4	J-10
73.	Lone Star Producing Company, McLaughlin No. 1	G-15
72.	Lone Star Producing Company, McLaughlin No. 2	G-15
71.	Lone Star Producing Company, McLaughlin No. 3	G-15
65.	Montex Drilling Company, Country Club No. 3	N-9
15.	Montex Drilling Company, Harrell No. 2	M-11
7.	Montex Drilling Company, Harrell No. 4	M-11
5.	Montex Drilling Company, Joyce No. 4	N-11
68.	Montex Drilling Company, Joyce No. 5	M-11
3.	Montex Drilling Company, Joyce No. 6	M-11
6.	Montex Drilling Company, Payne No. 1	N-11
4.	Montex Drilling Company, Payne No. 2	N-11
66.	Ohio Oil Company, Hays No. 2	K-11
10.	Pan American Producing Company, Biggs No. 1-A	J-13
9.	Pan American Producing Company, Casstevens No. 1	I-11
11.	Pan American Producing Company, Carrell No. 5	J-11
12.	Pan American Producing Company, Davis No. 2	K-11
8.	Pan American Producing Company, Woolever No. 1	K-11
74.	Phillips Petroleum Company, Mebane No. 4	J-12
44.	Sun Oil Company, Arledge No. 1	J-14
29.	Sun Oil Company, Arledge No. 2	J-14
23.	Sun Oil Company, Arledge No. A-1	J-14
36.	Sun Oil Company, Boyles No. 1	F-13

Index-Continued

U.S.G.S. Series Number	Company, lease, well number	Coordinates of index map
47.	Sun Oil Company, Brice No. 1	O-4
48.	Sun Oil Company, Brice No. 3	O-5
39.	Sun Oil Company, Brice No. 7	O-5
37.	Sun Oil Company, Brice No. 10	O-5
22.	Sun Oil Company, Brice No. 11	O-4
32.	Sun Oil Company, Brice No. 16	O-5
46.	Sun Oil Company, Brice No. 17	O-5
33.	Sun Oil Company, Brice No. 18	O-4
30.	Sun Oil Company, Bynum No. 1	I-13
38.	Sun Oil Company, Bynum No. 2	I-13
40.	Sun Oil Company, Eiland No. 1	G-13
21.	Sun Oil Company, Fenton No. 1	H-14
41.	Sun Oil Company, Fenton N. A-1	H-14
31.	Sun Oil Company, Lemons No. 1	J-13
34.	Sun Oil Company, Lemons No. 4	J-13
27.	Sun Oil Company, Lemons No. 6	I-13
28.	Sun Oil Company, Lemons No. 7	I-13
24.	Sun Oil Company, Ramsey No. 4	G-14
43.	Sun Oil Company, Randal No. A-3	G-11
35.	Sun Oil Company, Randal No. C-2	H-11
42.	Sun Oil Company, Randal No. C-4	H-11

Index - Continued

U.S.G.S. Series number	Company, lease, well number	Coordinates of index map
45.	Sun Oil Company, Rosenberg No. 1	G-14
25.	Sun Oil Company, Voss No. 1	H-13
20.	Sun Oil Company, Voss No. 10	H-13
26.	Sun Oil Company, Voss No. 12	H-13
1.	Sunray Oil Corporation, Cloud No. 3	O-7
13.	Sunray Oil Corporation, Hardy No. 2-A	K-8
64.	Wilshire Oil Company, Lunsford No. 8	J-10
67.	Wilshire Oil Company, Rinehart No. 1	L-10

COPE DESCRIPTION

Well: Cities Service Oil Company, Austin No. 4

Location: 467 ft. from south and east lines of lot 31, sec. 39,
Kirkland and Fields Survey.

U.S.G.S. Series number: C16

Elevation: 2407 ft. K.B.

Depth of reef top: 6681 ft.

Depths in feet		Available Core %	Description
From	To		
6697.0	6710.0	85	Calcirudite, bioclastic, contains claystone fragments; vugs and pin point porosity common, incipient stylolites; crinoids, fusulinids, and brachiopods common, bryozoans rare.
6710.0	6753.0	68	Calcarenite, fine-grained, bioclastic; contains claystone stringers in top portion, claystone fragments in lower one-half; vertical joints; crinoids and unidentified shell fragments common.
6753.0	6763.0	70	Calcirudite; stylolites; vugs and pin point porosity abundant; unidentified shell fragments abundant, crinoids, fusulinids and bryozoans common.
6763.0	6796.5	80	Calcarenite, very fine-grained and calcilutite; open joints at 6787-6793; drusy vugs and pin point porosity abundant, especially in lower part; crinoids common, brachiopods rare.
6796.5	6804.0	80	Calcarenite, oolitic in part; open vertical joints in top 2 ft., vugs and pin point porosity abundant and horizontally banded; crinoids, fusulinids and foraminifera common.

CORE DESCRIPTION

Well: Cities Service Oil Company, Etheridge No. 1

Location: 2173 ft. from the south and east lines of sec. 207,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C17

Elevation: 2428 ft. K.B.

Depth of reef top: 6794 ft.

Depths in feet		Available Core %	Description
From	To		
6807.0	6810.0	98	Calcilutite, contains three 2 in. claystone beds and, at 6809, numerous claystone fragments; poorly developed oblique joints; fusulinids, crinoids and brachiopods common, ammonoids rare.
6810.0	6814.0	98	Calcilutite and claystone, thinly and irregularly intercalated; calcilutite contains claystone fragments; oblique jointing; fusulinids, crinoids, and unidentified shell fragments common.
6814.0	6832.0	95	Calcirudite; consists of calcarenite and calcilutite fragments in a calcilutite matrix; fragments have a maximum diameter of 10 cm. and average 1 cm; vertical joints, stylolites; fusulinids, unidentified shell fragments, crinoids are common, brachiopods rare.
6832.0	6837.0	85	Calcilutite, bioclastic; poorly developed oblique joints; vugs common; fusulinids, crinoids, brachiopods, and unidentified shell fragments common.

CORE DESCRIPTION

Well: Cities Service Oil Company, Johnson No. H-2

Location: 850 ft. from north line, 330 ft. from east line of sec. 200, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C19

Elevation: 2432 ft. K.B.

Depth of reef top: 6724 ft.

Depths in feet		Available Core %	Description
From	To		
6737.0	6755.0	78	Calcarenite; vertical joints well developed, stylolites; crinoids and unidentified shell fragments common, fusulinids rare.
6755.0	6760.0	92	Calcarenite and calcilutite interbedded; well developed stylolites, incipient vertical joints, vugs rare; unidentified shell fragments and crinoids common, brachiopods rare.
6760.0	6778.0	73	Calcarenite; contains scattered calcilutite masses as much as 2 cm. in diameter and very thin claystone stringers; vertical joints in lower part, stylolites; crinoids and unidentified shell fragments common, bryozoans and brachiopods rare.
6778.0	6787.5	88	Calcarenite, intercalated calcilutite; stylolites, occasional vugs, pin point porosity; unidentified shell fragments abundant, crinoids, bryozoans and brachiopods common, gastropods rare.

Cities Service Oil Company, Johnson No. H-2 - Continued

Depths in feet		Available Core %	Description
From	To		
6787.5	6812.0	71	Calcilutite; stylolites, vertical joints; vugs common in upper 5 ft.; unidentified shell fragments, crinoids, bryozoans and brachiopods common.
6812.0	6836.0	60	Calcarenite; stylolites, vertical joints; fissures in upper half; crinoids, fusulinids, unidentified shell fragments, brachiopods and bryozoans common, corals rare.
6836.0	6840.0	78	Calcirudite, composed of sub-angular to subrounded calcilutite phenoclasts as much as 4 cm. in diameter in calcilutite matrix; contains claystone fragments as much as 1 cm. long; stylolites, vertical and oblique calcite veins; fusulinids and crinoids common, brachiopods rare.
6840.0	6846.0	74	Calcarenite, interbedded with calcilutite; calcite-lined vertical and oblique joints; stylolites; occasional vugs in lower part; fusulinids and crinoids common, brachiopods rare.
6846.0	6863.0	85	Calcarenite; vertical joints, some open; stylolites in lower part; vugs common; some vugs and open joints are drusy; fusulinids, crinoids, and unidentified shell fragments common.

Cities Service Oil Company, Johnson No. H-2 - Continued

Depths in feet		Available Core %	Description
From	To		
6863.0	6871.0	87	Calcarenite, very fine-grained; vertical joints, some open; stylolites, vugs and pin point porosity abundant; fusulinids, brachiopods and crinoids common, corals rare.
6871.0	6890.5	78	Calcilutite; vertical joints; vugs and pin point porosity abundant except in bottom 5 ft.; fusulinids abundant, crinoids and foraminifera common.
6890.5	6895.5	00	
6895.5	6910.0	75	Calcilutite to very fine-grained calcarenite; vertical and oblique joints, some open; calcite-filled fissures; vugs and pin point porosity common, abundant in middle 5 ft.; fusulinids, crinoids and unidentified shell fragments common, brachiopods rare.
6910.0	6926.0	00	
6926.0	6933.0	54	Calcilutite; contains claystone stringers as much as 7 mm. thick and lenticular calcilutite masses as much as 3 x 5 mm. in cross section; stylolites; fusulinids and crinoids common.

CORE DESCRIPTION

Well: Cities Service Oil Company, McLaughlin No. B-3

Location: 330 ft. from north line, 1530 ft. from west line, sec. 184, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C51

Elevation: 2353 ft. K.B.

Depth of reef top: 6719 ft.

Depths in feet		Available Core %	Description
From	To		
6754.0	6760.0	85	Calcilutite, bioclastic; oblique joints, stylolites; vugs and pin point porosity common in lower 10 ft.; fusulinids abundant.
6760.0	6763.0	85	Claystone, with interbedded argillaceous calcarenite; claystone contains occasional rounded calcilutite fragments as much as 4.5 cm. in diameter; vertical joints rare; crinoids common in the calcarenite layers.
6763.0	6765.0	89	Calcilutite, bioclastic; lower part contains claystone fragments as much as 3 cm. in diameter and claystone bands up to 1 cm. thick; vertical joints; unidentified shell fragments common, fusulinids and other foraminifera rare.
6765.0	6766.0	90	Claystone, contains finely disseminated pyrite crystals and occasional calcilutite fragments up to 1.5 cm. in diameter.

Cities Service Oil Company, McLaughlin No. B-3 - Continued

Depths in feet		Available Core %	Description
From	To		
6766.0	6767.0	90	Calcirudite, bioclastic, consists of subrounded calcilutite and chert fragments in argillaceous calcilutite matrix; fragments have maximum diameter of one cm; vertical joints; unidentified shell fragments, crinoids, and fusulinids are common, foraminifera rare.
6767.0	6769.0	90	Claystone; thin bands contain subrounded corroded calcilutite fragments; disseminated pyrite and tar.
6769.0	6772.0	80	Calcilutite, bioclastic; disseminated pyrite and claystone, occasional claystone fragments, and claystone bands as much as 3 cm. thick; vertical joints; tar-filled vugs rare; unidentified shell fragments are abundant, crinoids common, fusulinids rare.
6772.0	6777.0	75	Calcirudite; composed of subangular to subrounded calcilutite fragments as much as 7 mm. in diameter in argillaceous calcilutite matrix; matrix contains disseminated pyrite; stylolites; fusulinids and crinoids common, brachiopods rare.

CORE DESCRIPTION

Well: Cities Service Oil Company, Patterson No. 6

Location: 1200 ft. from west line, 330 ft. from south line of
sec. 215, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C52

Elevation: 2465 ft. K.B.

Depth to reef top: 6868 ft.

Depths in feet		Available Core	Description
From	To	%	
6863.5	6868.0	?	Claystone, horizontally fissile, occasional calcilutite beds as much as 3 cm. thick, claystone contains disseminated pyrite crystals, tar is present along cleavage planes; fish scales and discinid brachiopods common in the claystone, in the calcilutite crinoids and brachiopods common and fusulinids rare.
6868.0	6890.0	?	Calcirudite, composed of calcilutite and large fossil fragments in bioclastin calcarenite matrix, fragments have maximum diameter of 4 cm.; stylolites, vertical and oblique joints; crinoids and unidentified fossil fragments abundant, fusulinids common, brachiopods rare.
6890.0	6891.0	?	Calcarenite, very fine-grained, and calcilutite, contains one oblique 2 in. claystone bed; well developed vertical joints.

Cities Service Oil Company, Patterson No. 6 - Continued

Depths in feet		Available Core %	Description
From	To		
6891.0	6905.0	?	Calclirudite, consists of calcilutite and calcarenite fragments as much as 16 cm. in diameter in calcareous claystone matrix; occasional pyrite crystals, scattered claystone fragments, stylolites, vertical joints; crinoids, fusulinids and bryozoans common, brachiopods rare.
6905.0	6906.0	?	Claystone, contains disseminated pyrite crystals and fragmental layers as much as 1 in. thick; crinoids abundant.
6906.0	6908.0	?	Calcarenite, near base subrounded calcilutite fragments are rare; crinoids rare.
6908.0	6909.5	?	Claystone, fissile, calcareous; contains disseminated pyrite crystals; pyritized pelecypods common, brachiopods rare.
6909.5	6912.5	?	Calcilutite, argillaceous and calcareous claystone; vertical joints; brachiopods (" <u>Chonetes</u> ") common, ammonoids rare.
6912.5	6925.5	?	Calcarenite, contains occasional pyritic claystone fragments; stylolites; horizontal, oblique and vertical joints; calcite-filled cavities in top portion; crinoids, fusulinids and foraminifera common.

Cities Service Oil Company, Patterson No. 6 - Continued

Depths in feet		Available Core %	Description
From	To		
6925.5	6962.0	?	Calcilutite; occasional horizontal claystone partings, well developed oblique joints; stylolites, calcite-filled fissures; crinoids, fusulinids, foraminifera and brachiopods rare.

CORE DESCRIPTION

Well: Cities Service Oil Company, Pearson No. 5

Location: 874 ft. from south line, 9 ft. from west line, sec. 162,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C18

Elevation: 2271 ft. K.B.

Depth of reef top: 6678 ft.

Depths in feet		Available Core %	Description
From	To		
6667.0	6676.0	100	Claystone, slightly calcareous, fissile; discinid brachiopods, fish scales and unidentified pyritized spines common, plant fragments (?) and bryozoans rare.
6676.0	6677.0	80	Calcilutite, bioclastic; oblique joints well developed; crinoids abundant, fusulinids and unidentified shell fragments common.
6677.0	6678.0	100	Calcilutite, bioclastic; occasional claystone chips and calcilutite fragments; disseminated pyrite crystals as large as 1 mm. square common; drusy vugs as wide as 3 mm. in diameter rare, calcite-filled fissures as much as 1 mm. wide occasional, irregular crystalline calcite masses as much as 5 mm. rare, poorly developed stylolites and vertical joints; crinoids, shell fragments, and fenestellid bryozoans common.

Cities Service Oil Company, Pearson No. 5 - Continued

Depths in feet		Available Core %	Description
From	To		
6678.0	6687.0	89	Calcilutite and calcirudite interbedded, calcirudite contains calcilutite fragments as much as 3 cm. in diameter and averaging 0.6 cm. in much calcilutite matrix; vugs, pin point porosity, and open fissures common; stylolites and oblique joints poorly developed; crinoids, unidentified shell fragments, bryozoans, corals and brachiopods common.

CORE DESCRIPTION

Well: Cities Service Oil Company, Popnoe No. A-3

Location: 1667 ft. from north and west lines of sec. 158,
Blk. 3, Houston and Great Northern Survey.

U.S.G.S. Series number: C49

Elevation: 2446 ft. K.B.

Depth of reef top: 6855 ft.

Depths in feet		Available Core %	Description
From	To		
6855.5	6870.5	85	Calcilutite and claystone interbedded as 1½- to 4-foot beds. Calcilutite is bioclastic and contains occasional claystone fragments as much as 3 cm. in diameter. Claystone contains pyrite in the form of disseminated crystals and occasional nodules as much as 2.5 cm. in diameter. Claystone is horizontally fissile. In the calcilutite crinoids are abundant, bryozoans common, unidentified shell fragments common, spiriferoid brachiopods rare. In the claystone, unidentified pyritized spines and shell fragments are common, trilobite fragments rare.
6870.5	6872.0	82	Calcirudite, bioclastic. Consists of subrounded to subangular bioclastic calcilutite and calcarenite fragments as large as 5 cm. in diameter in an argillaceous calcilutite matrix. Clay content increases downward. Contact with underlying claystone is sharp. Crinoids abundant, unidentified shell fragments abundant, bryozoans common, brachiopods (<u>Linoproductus?</u>) rare.

Cities Service Oil Company, Popnoe No. A-3 - Continued

Depths in feet		Available Core %	Description
From	To		
6872.0	6876.0	82	Claystone, fissil, contains disseminated pyrite crystals. At base is a 3-inch bioclastic calcilutite layer containing claystone fragments. Pyritized unidentified shell fragments and pyritized plant fragments rare.
6876.0	6877.5	85	Calcilutite, bioclastic; stylolites, vertical joints. Contains 3-inch claystone layer at top. Crinoids and unidentified shell fragments abundant, bryozoans common, fusulinids rare.
6877.5	6886.0	85	Claystone, fissile. Contains two 4-inch calcilutite bands and several 3-inch zones of bioclastic material. Pyrite is present as disseminated crystals and as nodules as much as 2 cm. in diameter. Occasional thin stringers of tar and tarry nodules 2 mm. in diameter. Discinid brachiopods and crinoids are rare in the claystone. In the bioclastic zones crinoids are common and bryozoans rare.
6886.0	6888.5	?	Calcilutite, bioclastic, contains two 3-inch claystone layers and much secondary and recrystallized amber-colored calcite; stylolites very common and well developed; crinoids and unidentified shell fragments abundant, fusulinids rare.

Cities Service Oil Company, Popnoe No. A-3 - Continued

Depths in feet		Available Core %	Description
From	To		
6838.5	6896.0	?	Calcirudite and claystone horizontally interbedded. Calcirudite consists of subrounded and subangular calcilutite and fine-grained calcarenite phenoclasts in claystone matrix. The fragments average about 1 cm. in diameter and for the most part have a maximum diameter of 2.5 cm. although rare calcarenite fragments are as large as 15 cm. Calcirudite beds average 9 in. thick. Claystone is fissil and pyritic and contains a few thin stringers of crinoidal debris. Claystone beds average 4 in. thick. Calcirudite fragments contain a few drusy vugs, open vertical joint at 6890.6; in the phenoclasts crinoids are common, fusulinids, corals and brachiopods rare.
6896.0	6898.5	?	Calcirudite. Composed of subrounded to subangular calcilutite and calcarenite fragments in claystone matrix. Fragments have maximum size of 20 cm. Stylolites, calcite-filled joints. Crinoids and unidentified shell fragments abundant, brachiopods and fusulinids rare.

Cities Service Oil Company, Popnoe No. A-3 - Continued

Depths in feet		Available Core	Description
From	To	%	
6898.5	6901.0	?	Claystone and calcirudite interbedded. Claystone beds are about 2 in. thick; calcirudite beds about 4 in. Calcirudite consists of calcilutite and calcarenite fragments with a maximum diameter of 3 cm. in claystone matrix; contains tar-coated stylolites. Claystone contains disseminated pyrite crystals and numerous stringers of crinoidal debris. Crinoids and unidentified shell fragments are abundant, brachiopods and fusulinids rare in the calcirudite. The claystone contains discinid brachiopods.
6901.0	6904.5	?	Calcirudite, consists of calcilutite and calcarenite fragments as much as 8 cm. in diameter in matrix of calcareous claystone. Stylolites. Crinoids and unidentified shell fragments are abundant, brachiopods and fusulinids rare.
6904.5	6906.0	?	Claystone, calcareous. Contains thin stringers of crinoid and unidentified shell fragments, dipping about 10°. At base is a 2 in. thick bed of calcarenite. Discinid brachiopods and crinoids (in stringers) are common. In the basal calcarenite, fragments are abundant and fusulinids rare.

Cities Service Oil Company, Popnoe No. A-3 - Continued



Depths in feet		Available Core %	Description
From	To		
6906.0	6917.5	?	Calcarenite, bioclastic, grading downward into calcilutite at about 6911; well developed oblique joints, some open, some lined with drusy calcite and some calcite filled; occasional drusy vugs; crinoids common, fusulinids and bryozoans rare; brachiopods (<u>Linoproductus?</u>) rare in basal portion.
6917.5	6922.5	?	Calcarenite, bioclastic. Matrix contains disseminated clay, increasing in quantity downward. Incipient vertical joints, oblique claystone partings. Shell fragments are concentrated along claystone partings. Crinoids and unidentified shell fragments abundant, brachiopods common, bryozoans rare.
6922.5	6926.0	?	Claystone and calcarenite interbedded. Claystone predominates, especially in lower part. Beds are oblique and range in thickness from very thin stringers to 1.8 ft. Claystone contains disseminated pyrite crystals and patches of tar. Calcarenite is bioclastic and contains claystone disseminated in the matrix and as phenoclasts. In the calcarenite crinoids and unidentified shell fragments are abundant, brachiopods common, and bryozoans rare. The claystone is unfossiliferous.

Cities Service Oil Company, Popnoe No. A-3 - Continued

Depths in feet		Available Core %	Description
From	To		
6926.0	6934.0	?	Calcarenite, bioclastic, contains occasional rounded to sub-rounded calcilutite fragments and claystone fragments as much as 2 cm. in diameter. Calcarenite is cut by one 2-inch calcareous claystone bed. Two sets of calcite-filled vertical joints intersect at about 45°. Stylolites, scattered drusy vugs, oblique joints; crinoids and unidentified shell fragments abundant, brachiopods common, bryozoans rare.

CORE DESCRIPTION

Well: Cities Service Oil Company, Von Roeder No. 2

Location: 467 ft. from south and west lines of the NW $\frac{1}{4}$ sec. 16,
Blk. 1, J. P. Smith Survey.

U.S.C.S. Series number: C50

Elevation: 2388 ft. K.B.

Depth of reef top: 6640 ft.

Depths in feet		Available Core %	Description
From	To		
6658.0	6670.0	67	Calcirudite; composed of angular and subrounded calcarenite and calcilutite fragments in an argillaceous bioclastic calcarenite matrix; fragments have a maximum diameter of 5 cm. and vary in average size from 3 mm. at the top to 1 cm. at the bottom; contains in basal portion occasional claystone stringers up to $\frac{1}{2}$ in. thick; stylolites common; vertical jointing well developed; pin point porosity is common; fusulinids and crinoids common, brachiopods and corals rare.
6670.0	6673.5	75	Calcarenite, bioclastic; contains very irregular limey claystone stringers; incipient stylolites common; pin point porosity common; fusulinids common to abundant, crinoids common.
6673.5	6675.5	75	Claystone, calcareous; contains disseminated pyrite crystals; unfossiliferous.

Cities Service Oil Company, Von Roeder No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6675.5	6691.0	65	Calcarenite, bioclastic; top 1 ft. contains thin, irregular claystone stringers, angular phenoclasts as wide as 5 mm. at 6679; stylolites; pin point porosity common; crinoids and fusulinids are common, brachiopods rare.
6691.0	6695.0	60	Calcilutite, leached stylolites; vertical joints, mostly sealed with calcite; brachiopods rare.
6695.0	6709.0	34	Calcarenite, oolitic; stylolites; pin point porosity; crinoids and fusulinids common; brachiopods common in upper part.
6709.0	6746.0	63	Calcarenite; extremely leached zones 3 or 4 cm. thick alternate with slightly leached zones; vugs common in highly leached zones; vertical joints and fissures, occasionally open; stylolites rare; crinoids, fusulinids and unidentified shell fragments common, forams and brachiopods rare.
6746.0	6752.0	00	
6752.0	6763.0	68	Calcarenite, bioclastic; claystone stringers as much as 1 cm. thick common in middle portion, dip 35°; drusy vugs as much as 2 mm. in diameter common; fusulinids and crinoids common, brachiopods, corals and bryozoans rare.

Cities Service Oil Company, Von Roeder No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6763.0	6767.0	58	Calcarenite, contains nearly horizontal claystone stringers as much as 1 in. thick; vugs and open fissures common; fusulinids common, brachiopods and crinoids rare.
6767.0	6768.0	58	Claystone, imperfectly fissile; pyrite crystals as large as 2 mm. square.
6768.0	6769.0	58	Calcarenite, contains claystone stringers as much as 1 in. thick; fusulinids common.
6769.0	6776.0	58	Calcarenite, bioclastic; vertical joints; vertical fissures rare; vugs as much as 3 mm. in diameter, most of them are leached out fossil material; crinoids, unidentified shell fragments, and brachiopods common.
6776.0	6788.5	00	
6788.5	6816.0	20	Calcarenite; contains calcilutite fragments as much as 3 cm. in diameter; oblique sealed joints and fissures; stylolites; claystone break near middle represented by 3 cm. of core; unidentified shell fragments and crinoids common.
6816.0	6837.0	00	
6837.0	6847.5	90	Calcilutite and calcarenite interbedded; calcilutite slightly predominates; beds range in thickness from 1 to 5 ft.; stylolites, sealed joints at 6814; crinoids, unidentified shell fragments and brachiopods common, fusulinids rare.

Cities Service Oil Company, Von Roeder No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6847.5	6861.0	59	Calclutite; vertical joints, stylolites, occasional drusy vugs as much as 4 mm. in diameter; crinoids are common, fusulinids and brachiopods rare.
6861.0	6867.0	55	Calcarenite, very fine-grained; claystone bed 4 in. thick at 6861.5; stylolites, poorly developed vertical joints; fusulinids, crinoids and shell fragments are common.
6867.0	6872.0	55	Calclutite, contains a $\frac{1}{2}$ in. claystone break at 6875; calcite-filled vugs and fissures; crinoids, unidentified shell fragments and brachiopods common, fusulinids rare.
6872.0	6887.0	11	Calcarenite; contains claystone stringers as much as $\frac{1}{2}$ in. thick; stylolites and vertical joints well developed; fusulinids and brachiopods common, crinoids rare.

CORE DESCRIPTION

Well: General Crude Oil Company, Land No. 3

Location: 467 ft. from the south and east lines of sec. 247,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C2

Elevation: 2460 ft. K.B.

Depth to top of reef: 6755 ft.

Depths in feet		Available Core	Description
From	To	%	
6766.0	6773.5	?	Calcarenite, contains three beds of calcilutite 1 to 1½ ft. thick and at the top a claystone bed 2 in. thick; stylolites; calcite-filled vugs and fissures; open vugs rare; crinoids rare to common, brachiopods, bryozoans and gastropods rare.
6773.5	6780.0	?	Calcilutite; stylolites, vertical joints, vugs rare; crinoids common, brachiopods and corals rare.
6780.0	6786.0	?	Calcarenite, contains a calcilutite bed 2½ ft. thick in middle; stylolites, crystalline calcite masses as much as 2 mm. in diameter; fusulinids and crinoids common, bryozoans and brachiopods rare.
6786.0	6788.0	?	Calcilutite; stylolites, vertical joints, vugs in uppermost part (mostly leached fossils); fusulinids common, crinoids, bryozoans, foraminifera.

General Crude Oil Company, Land No. 3 - Continued

Depths in feet		Available Core %	Description
From	To		
6788.0	6802.5	?	Calcarenite contains very small amounts of disseminated carbonaceous material; stylolites, vertical and oblique joints; fusulinids and crinoids common, brachiopods (<u>Linoproductus?</u>) unidentified spines and bryozoans rare.
6802.5	6805.0	00	
6805.0	6809.0	?	Calcarenite, bioclastic; stylolites, joints; fusulinids and unidentified shell fragments common, brachiopods, crinoids and corals (<u>Endothyra?</u>) rare.
6809.0	6810.0	?	Calcilutite; calcite-filled fissures and vugs common, drusy vugs rare; fusulinids, unidentified shell fragments, foraminifera and brachiopods common.
6810.0	6812.5	?	Calcarenite; stylolites, calcite-filled vugs; crinoids and fusulinids common, bryozoans rare.
6812.5	6824.5	?	Calcilutite; stylolites, calcite-filled fissures and vugs; crinoids common, brachiopods (productid), unidentified fragments and bryozoans rare.

General Crude Oil Company, Land No. 3 - Continued

Depths in feet		Available Core %	Description
From	To		
6824.5	6840.5	?	Calcarenite, bioclastic , contains two 1-foot calcilutite beds; stylolites, calcite-filled vugs; fusulinids and crinoids common, bryozoans rare.
6840.5	6848.0	?	Calcilutite, contains minor thin calcarenite zones; stylolites rare, calcite-filled fissures and vugs; fusulinids and crinoids common, foraminifera rare.
6848.0	6851.5	?	Calcarenite, bioclastic , stylolites; crinoids and fusulinids common, brachiopods rare.
6851.5	6856.0	?	Calcarenite and calcilutite intercalated; stylolites, vertical joints; fusulinids and crinoids common, bryozoans rare.
6856.0	6856.5	?	Calcarenite, bioclastic , contains limestone and claystone fragments; unidentified shell fragments and fusulinids are common.
6856.5	6859.5	?	Claystone, massive, contains disseminated pyrite crystals; unfossiliferous.
6859.5	6860.0	?	Calcarenite and claystone intercalated. Calcarenite is bioclastic , contains fissures. Claystone contains disseminated pyrite. Fusulinids are rare to common.

General Crude Oil Company, Land No. 3 - Continued

Depths in feet		Available Core	Description
From	To	%	
6860.0	6865.0	?	Calcarenite, bioclastic , vugs and pin point porosity common; fusulinids and crinoids common, bryozoans rare.
6865.0	6874.0	?	Calcilutite; stylolites; vugs common in upper half where porous zones alternate with non-porous zones; lower half is dense. Unidentified shell frag- ments common, fusulinids, bryozoans and crinoids rare.

CORE DESCRIPTION

Well: Hiawatha Oil and Gas Company, Carden No. 1

Location: 1953.4 ft. from east line, 1995.6 ft. from south line
of sec. 293, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C14

Elevation: 2452 ft. K.B.

Depth of reef top: 6637 ft.

Depths in feet		Available Core %	Description
From	To		
6640.0	6648.0	100	Calcareenite, fine-to very fine-grained; stylolites common in upper 2 ft.; vertical joints rare; fusulinids and bryozoans rare.
6648.0	6650.5	84	Calcilutite, contains a very fine-grained calcarenite bed 1 ft. thick; unfossiliferous except for fusulinids rare in basal 1½ ft.
6650.5	6655.0	100	Calcareenite, very fine-to fine-grained, argillaceous in top and basal portions; basal 1 ft. contains disseminated pyrite crystals; fusulinids and bryozoans common, foraminifera, crinoids, brachiopods and gastropods rare.
6655.0	6656.5	27	Claystone, calcareous, fissil; contains fusain and disseminated pyrite crystals, basal portion contains limestone stringers. Fish plates and brachiopods are common, fusulinids, gastropods, corals and plant remains (<u>Calamites</u> stem?) are rare.

Hiawatha Oil and Gas Company, Carden No. 1 - Continued

Depths in feet		Available Core %	Description
From	To		
6656.5	6659.0	80	Claystone interbedded with very fine-grained calcarenite; claystone is fissile and contains lime fossils; calcarenite contains calcite-filled vugs and fissures; fusulinids are generally common, but are abundant in basal portion, brachiopods common, bryozoans, corals and foraminifera rare.
6659.0	6667.0	60	Calcarenite; fine-to very fine-grained; contains minor thin claystone stringers in top portion; occasional well developed stylolites and calcite-filled fractures; fusulinids common, brachiopods, bryozoans and foraminifera rare.
6667.0	6673.0	73	Calcarenite, very fine-grained; contains a calcilutite bed 1.5 ft. thick near top; pin point porosity common 6670-71; fusulinids and bryozoans rare to common, unidentified shell fragments rare.
6673.0	6678.0	60	Calcarenite, medium-to very fine-grained; stylolites; pin point porosity common, developed mostly by leaching of fossils; fusulinids common, unidentified shell fragments, bryozoans, crinoids and foraminifera rare.
6678.0	6681.5	69	Calcarenite, very fine-to fine-grained; small crystalline calcite masses, vertical joints; pin point porosity common; fusulinids rare.

Hiawatha Oil and Gas Company, Carden No. 1 - Continued

Depths in feet		Available Core %	Description
From	To		
6681.5	6686.0	93	Calcarenite, fine-to very fine-grained, vertical joints common; pin point porosity common; fusulinids and unidentified shell fragments, bryozoans and crinoids rare.
6686.0	6690.5	71	Calcarenite, fine-to very fine-grained, contains a calcilutite zone 1 ft. thick in center; pin point porosity common, leached stylolites; drusy vugs rare in top 1 ft.; fusulinids common.
6690.5	6693.5	50	Calcarenite, fine-grained, to calcilutite; stylolites, joints and calcite-filled fissures common; pin point porosity common; fusulinids common, bryozoans rare.
6693.5	6699.5	85	Calcarenite, very fine-grained, stylolites, vertical joints, pin point porosity, and vugs common; fusulinids common to abundant, brachiopods and bryozoans rare.
6699.5	6701.0	53	Calcarenite, very fine-grained grading into calcilutite; stylolites common; calcite-filled vugs and fissures; pin point porosity common; fusulinids common.
6701.0	6704.0	?	Calcilutite, grading into very fine-grained calcarenite in topmost portion; incipient vertical joints; stylolites rare; fusulinids common, crinoids rare.

Hiawatha Oil and Gas Company, Carden No. 1 - Continued

Depths in feet		Available Core %	Description
From	To		
6704.0	6710.0	87	Calcarenite, fine-to very fine-grained; incipient vertical joints; stylolites very common. Fusulinids are common, bryozoans and crinoids rare.
6710.0	6711.0	100	Calcarenite, very fine-grained; stylolites abundant, fusulinids abundant.
6711.0	6713.0	100	Calcilutite, stylolites common; incipient vertical joints; calcite-filled vugs; fusulinids common, crinoids rare.
6713.0	6718.0	54	Calcilutite; stylolites; calcite-filled vugs and fissures common; fusulinids, crinoids and fenestellid bryozoans rare.
6718.0	6725.0	72	Calcilutite; stylolites common, filled with considerable black clay, containing pyrite crystals; pin point porosity rare to common; brachiopods, corals, fusulinids and crinoids rare. (Fusulinids and crinoids are common along stylolites)
6725.0	6726.0	100	Calcarenite, argillaceous; incipient stylolites abundant; crinoids are abundant.
6726.0	6728.5	?	Calcilutite in top 6 in. contains calcirudite composed of crinoid debris and calcarenite fragments in calcilutite matrix. Calcite-filled vugs and fissures common; incipient stylolites; crinoids common, brachiopods and bryozoans rare.

CORE DESCRIPTION

Well: Honolulu Oil Corporation and Cascade Petroleum Company,
Canning No. Y-2

Location: 2200 ft. from north line, 650 ft. from east line of
sec. 125, Blk. 25, Houston and Texas Central Survey.

U.S.G.S. Series number: C75

Elevation: 2324 ft. K.B.

Depth of reef top: 6645 ft.

Depths in feet		Available Core	Description
From	To	%	
6653.0	6655.0	?	Calcarenite; incipient oblique joints and incipient stylolites common; pin point porosity and small vugs common; crinoids common.
6655.0	6657.5	?	Calcarenite, contains occasional fragments of calcilutite; incipient stylolites rare; pin point porosity and vugs common; crinoids common, fusulinids rare.
6657.5	6659.0	?	Calcarenite; pin point porosity and vugs common; crinoids common, fusulinids rare.
6659.0	6661.0	?	Calcarenite, fine-grained, oolitic; contains oblique joints, stylolites and thin claystone stringers; unfossiliferous.
6661.0	6663.0	00	
6663.0	6664.5	?	Calcilutite to very fine-grained calcarenite; slightly oolitic in part; incipient vertical joints and claystone stringers common; crinoids and foraminifera common.

Honolulu Oil Corporation and Cascade Petroleum Company, Canning
No. Y-2 - Continued

Depths in feet		Available Core	Description
From	To	%	
6664.5	6669.0	?	Calcarenite, very fine-grained, oolitic; incipient stylolites rare; crinoids common, foraminifera rare.
6669.0	6675.0	?	Calcarenite, very fine-grained, oolitic; incipient vertical joints common; pin point porosity abundant, developed largely in fossils; crinoids and unidentified shell fragments common; fusulinids rare.
6675.0	6676.0	?	Calcarenite, very fine-grained, to calcilutite; incipient vertical joints; foraminifera common, crinoids rare.
6676.0	6681.5	00	
6681.5	6683.0	?	Calcarenite, very fine-grained and calcilutite; pin point porosity and drusy vugs common in thin zones; crinoids rare.
6683.0	6687.5	?	Calcilutite and very fine-grained oolitic calcarenite; pin point porosity and drusy vugs abundant and largely associated with vertical fractures and fossil material; unidentified shell fragments common.

Honolulu Oil Corporation and Cascade Petroleum Company, Canning
No. Y-2 - Continued

Depths in feet		Available Core	Description
From	To	%	
6687.5	6689.0	?	Calcilutite; incipient vertical joints; pin point porosity abundant in certain horizontal zones; unfossiliferous.
6689.0	6694.0	00	
6694.0	6697.0	?	Calcarenite, fine-to very fine-grained, oolitic; incipient vertical joints. Pin point porosity abundant, drusy vugs common; crinoids and foraminifera common.
6697.0	6701.0	?	Calcilutite and very fine-grained calcarenite; pin point porosity and drusy vugs abundant, frequently representing leached fossil material; vugs commonly contain pyrite crystals; crinoids are rare, unidentified leached shell fragments common.
6701.0	6703.0	00	
6703.0	6710.5	?	Calcarenite, very fine-grained, oolitic; stylolites end in thin claystone stringers; crinoids and foraminifera common, unidentified shell fragments rare.
6710.5	6711.5	21	Calcilutite and very fine-grained calcarenite; stylolites with much clay along them; claystone galls common; fusulinids, foraminifera and ostracods rare.

Honolulu Oil Corporation and Cascade Petroleum Company, Canning
Y-2 - Continued

Depths in feet		Available Core %	Description
From	To		
6711.5	6713.5	00	
6713.5	6715.0	?	Calcarenite, very fine-grained; pin point porosity and drusy vugs abundant; fusulinids and foraminifera common, crinoids rare.
6715.0	6720.0	?	Calclutite and very fine-grained oolitic calcarenite; pin point porosity; fusulinids and foraminifera rare.

CORE DESCRIPTION

Well: Lion Oil Company, McLaughlin No. 24

Location: 1980 ft. from south and east lines of sec. 201,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C57

Elevation: 2435 ft. K.B.

Depth of reef top: 6688 ft.

Depths in feet		Available Core %	Description
From	To		
6690.0	6691.0	95	Calcilutite; stylolites; oblique joints; vugs and pin point porosity abundant especially near stylolites; unidentified recrystallized shell fragments.
6691.0	6698.0	90	Calcilutite; vugs and pin point porosity abundant; crinoids and unidentified recrystallized shell fragments.
6698.0	6702.0	70	Calcilutite; stylolites, incipient vertical joints; brachiopods and unidentified shell fragments rare.
6702.0	6705.0	93	Calcilutite; stylolites; pin point porosity and vugs common; unidentified shell fragments are common.
6705.0	6712.0	79	Calcilutite; stylolites; well developed vertical joints; pin point porosity; vugs common; unidentified shell fragments common, fusulinids and brachiopods rare.

Lion Oil Company, McLaughlin No. 24 - Continued

Depths in feet		Available Core %	Description
From	To		
6712.0	6715.5	89	Calcilutite, contains claystone bands as much as 1 mm. thick; vertical joints; pyrite rare; fusulinids and unidentified shell fragments common, crinoids rare.
6715.5	6717.0	100	Calcilutite; incipient vertical joints; pin point porosity; unidentified shell fragments and foraminifera common.
6717.0	6721.0	60	Calcilutite; contains claystone bands; stylolites; calcite-filled vertical joints; unidentified shell fragments and fusulinids common.
6721.0	6724.0	100	Calcilutite; stylolites; pin point porosity abundant in irregular patches; unidentified shell fragments are abundant.
6724.0	6729.0	76	Calcilutite, stylolites; vertical joints; unidentified shell fragments are common.
6729.0	6734.0	76	Calcilutite, contains thin horizontal claystone stringers; stylolites; crinoids rare, unidentified shell fragments common.
6734.0	6741.0	81	Calcilutite, thin claystone stringers in lower part; well developed stylolites; contains scattered, irregular leached areas as much as 3 cm. in diameter; unidentified shell fragments common.

Lion Oil Company, McLaughlin No. 24 - Continued

Depths in feet		Available Core %	Description
From	To		
6741.0	6742.5	75	Calcarenite, very fine-grained; occasional stylolites; pin point porosity and occasional vugs; unidentified shell fragments and fusulinids common.
6742.5	6748.0	78	Calcilutite; drusy vugs and open joints common, pin point porosity abundant; fusulinids common.
6748.0	6752.5	100	Calcilutite; incipient oblique joints. Vugs and pin point porosity are less abundant than in overlying rock and diminish in quantity downward. Fusulinids are common.
6752.5	6755.0	100	Calcilutite; stylolites; vertical joints; vugs rare, pin point porosity common; fusulinids common, brachiopods and bryozoans rare.
6755.0	6764.0	90	Calcilutite; stylolites, vertical joints poorly developed; pin point porosity; fusulinids and crinoids rare.
6764.0	6766.0	75	Calcilutite; stylolites, vertical joints in lower portion; inter-connected, elongate vugs, pin point porosity; brachiopods and crinoids rare.

Lion Oil Company, McLaughlin No. 24 - Continued

Depths in feet		Available Core %	Description
From	To		
6766.0	6771.0	82	Calcilutite; stylolites and vertical joints in lower portion; inter-connected, elongate vugs, pin point porosity; brachiopods and crinoids rare.
6771.0	6777.0	72	Calcilutite; stylolites, vertical joints; vugs rare, pin point porosity; fusulinids and brachiopods rare.
6777.0	6780.0	70	Calcarenite, very fine-grained; pin point porosity (mostly due to leaching of fusulinids); fusulinids common.
6780.0	6781.0	?	Calcilutite; vertical joints; stylolites; pin point porosity, vugs common; unidentified shell fragments and foraminifera common, fusulinids rare.
6781.0	6782.0	00	
6782.0	6783.0	70	Calcilutite, incipient vertical joints; pin point porosity; fusulinids and brachiopods are rare.
6783.0	6784.5	00	
6784.5	6792.5	70	Calcilutite; stylolites, calcite-filled fissures; vertical joints; crinoids and foraminifera are rare.

Lion Oil Company, McLaughlin No. 24 - Continued

Depths in feet		Available Core %	Description
From	To		
6792.5	6793.0	70	Calcilutite, contains limonite pseudomorphous after pyrite; open vertical joints, pin point porosity; crinoids rare.
6793.0	6794.0	100	Calcilutite, dense, contains horizontal claystone stringers; unfossiliferous.
6794.0	6796.0	100	Calcilutite; stylolites; incipient vertical joints; fusulinids and unidentified shell fragments common.
6796.0	6796.5	100	Calcilutite; stylolites; pin point porosity; fusulinids rare.
6796.5	6798.5	65	Calcilutite, containing horizontal claystone stringers; stylolites; fusulinids common.
6798.5	6802.0	68	Calcilutite; stylolites, vertical joints, pin point porosity; fusulinids rare.
6802.0	6808.0	78	Calcilutite; stylolites, vertical joints, vugs rare, pin point porosity; fusulinids common.
6808.0	6810.0	75	Calcarenite, very fine-grained; calcite-filled vertical joints; pin point porosity rare; fusulinids and unidentified shell fragments abundant.

Lion Oil Company, McLaughlin No. 24,--Continued

Depths in feet		Available Core	Description
From	To	%	
6810.0	6814.0	60	Calcilutite to very fine-grained calcarenite; vertical and oblique joints; fusulinids and unidentified shell fragments abundant.
6814.0	6815.5	80	Calcilutite; vertical joints; calcite-filled fissures and large vugs; fusulinids rare.
6815.5	6821.5	85	Calcilutite; poorly developed vertical joints, stylolites; fusulinids abundant, unidentified shell fragments common, bryozoans rare.
6821.5	6823.0	90	Calcarenite, containing irregular claystone stringers; fusulinids rare.
6823.0	6827.0	90	Calcarenite; contains vugs and pin point porosity; unidentified shell fragments and crinoids common, fusulinids rare.
6827.0	6831.0	97	Calcarenite; stylolites, pin point porosity; crinoids, unidentified shell fragments and fusulinids common.
6831.0	6832.0	94	Calcarenite; poorly developed oblique joints; crinoids and fusulinids common.
6832.0	6835.5	83	Calcarenite; pin point porosity, poorly developed vertical joints; fusulinids and crinoids common.

Lion Oil Company, McLaughlin No. 24 - Continued

Depths in feet		Available Core %	Description
From	To		
6835.5	6845.0	79	Calcarenite, very fine-grained; stylolites, incipient vertical joints; fusulinids abundant.
6845.0	6850.5	80	Calcarenite, very fine-grained with argillaceous stringers; stylolites, vertical joints; fusulinids common to abundant.
6850.5	6856.0	87	Calcilutite; stylolites, in- cipient oblique joints; fusulinids common, brachio- pods rare.
6856.0	6862.0	100	Calcilutite, containing dissem- inated pyrite partly altered to limonite and oblique clay- stone stringers; vertical joints; fusulinids common.
6862.0	6865.5	66	Calcilutite, bioclastic and calcarenite; vertical joints, stylolites; vugs, pin point porosity; fusulinids abundant.
6865.5	6872.0	90	Calcarenite; stylolites, oblique joints; fusulinids common.
6872.0	6880.0	80	Calcarenite, argillaceous; stylolites, incipient vertical joints; fusulinids common.
6880.0	6882.0	75	Calcarenite, very fine-grained, bioclastic claystone stringers; stylolites, vertical joints; unidentified shell fragments common to abundant, fusulinids common.

Lion Oil Company, McLaughlin No. 24 - Continued

Depths in feet		Available Core %	Description
From	To		
6882.0	6883.0	100	Calcarenite, bioclastic, interbedded with an equal amount of black chert. Beds are as much as $2\frac{1}{2}$ in. thick; vertical joints; fusulinids common in both the calcarenite and the chert.

CORE DESCRIPTION

Well: Lion Oil Company, McLaughlin No. 35

Location: 1837 ft. from north line, 1802 ft. from east line of sec. 182, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C62

Elevation: 2374 ft.

Depth of reef top: 6706 ft.

Depths in feet		Available Core %	Description
From	To		
6822.0	6826.5	69	Calcilutite, bioclastic ; small vertical fissures, incipient vertical joints, incipient stylolites; unidentified shell fragments and fusulinids abundant.
6826.5	6827.5	100	Calcilutite, bioclastic ; incipient vertical joints, incipient stylolites; open oblique fissures, partly drusy; unidentified shell fragments abundant, fusulinids common.
6827.5	6829.0	100	Calcilutite, bioclastic ; stylolites, incipient vertical joints; fossils as above.
6829.0	6830.0	00	
6830.0	6831.5	100	Calcilutite, bioclastic ; contains numerous thin claystone stringers, incipient stylolites; fossils as above.
6831.5	6834.0	80	Calcilutite, bioclastic ; unidentified shell fragments abundant, fusulinids rare.

Lion Oil Company, McLaughlin No. 35 - Continued

Depths in feet		Available Core %	Description
From	To		
6834.0	6842.0	80	Calcilutite, bioclastic , contains numerous small claystone stringers, occasional stylolites; unidentified shell fragments abundant, fusulinids common, crinoids, foraminifera and brachiopods rare.
6842.0	6843.0	00	
6843.0	6844.0	100	Calcilutite; unidentified shell fragments common, brachiopods rare.
6844.0	6845.5	100	Calcilutite with small calcite-filled fissures; unidentified shell fragments and crinoids common.
6845.5	6854.5	84	Calcilutite, very fine, almost lithographic; stylolites; unidentified shell fragments and fusulinids common.
6854.5	6858.0	100	Calcilutite, almost lithographic; stylolites, calcite-filled fissures; unidentified shell fragments and crinoids common, brachiopods rare.
6858.0	6862.0	00	
6862.0	6863.5	73	Calcilutite; stylolites, calcite-filled fissures; unidentified shell fragments and crinoids common, brachiopods rare.

Lion Oil Company, McLaughlin No. 35 - Continued

Depths in feet		Available Core %	Description
From	To		
6863.5	6865.0	Core missing	Claystone (determination from Lion Oil Company records)
6865.0	6866.5	50	Calcirudite, composed of calcilutite in bioclastic calcarenite matrix; un- identified shell fragments abundant, fusulinids, crinoids and brachiopods common.
6866.5	6870.0	91	Calcilutite, contains one calcarenite zone 2 in. thick in center; stylolites, calcite-filled fissures; unidentified shell fragments common, fusulinids and crinoids rare.
6870.0	6873.0	50	Calcirudite composed of calcilu- tite fragments in calcarenite matrix, contains a bed of calcilutite 1 ft. thick; stylolites, calcite-filled fissures; unidentified shell fragments and crinoids common, brachiopods rare.
6873.0	6878.5	85	Calcilutite; pin point porosity; unidentified shell fragments, fusulinids and crinoids common.
6878.5	6882.0	90	Calcilutite; crinoids, un- identified shell fragments and brachiopods common.
6882.0	6885.0	53	Calcilutite; drusy vugs common; unidentified shell fragments are common.

Lion Oil Company, McLaughlin No. 35 - Continued

Depths in feet		Available Core %	Description
From	To		
6885.0	6887.0	00	Calcilutite; drusy vugs common, incipient vertical joints in basal foot; unidentified shell fragments and fusulinids common.
6892.0	6900.0	98	Calcilutite; dense, argillaceous, contains zones of coarse fragmental material in claystone matrix; stylolites; fusulinids and crinoids common, brachiopods rare.
6900.0	6903.0	75	Calcarenite, unidentified shell fragments abundant, crinoids and fusulinids common.
6903.0	6904.0	67	Calcilutite, dense, argillaceous; stylolites; crinoids and fusulinids common, brachiopods rare.
6904.0	6905.5	00	
6905.5	6907.0	87	Calcarenite; contains occasional claystone stringers; many fusulinids are hollow, some are lined with drusy calcite; pin point porosity; unidentified shell fragments abundant, fusulinids common.
6907.0	6910.0	97	Calcilutite; contains claystone stringers; many fusulinids are hollow; pin point porosity; unidentified shell fragments abundant, fusulinids common.

Lion Oil Company, McLaughlin No. 35 - Continued

Depths in feet		Available Core %	Description
From	To		
6910.0	6911.0	90	Calcarenite, contains calcilutite fragments as much as 5 mm. in diameter; stylolites; unidentified shell fragments abundant, fusulinids and crinoids common.
6911.0	6913.0	72	Calcarenite, stylolites, claystone stringers; unidentified shell fragments abundant, crinoids, fusulinids and brachiopods common.
6913.0	6916.0	76	Calcilutite; stylolites, claystone stringers; unidentified shell fragments, crinoids, fusulinids and brachiopods common.
6916.0	6919.0	100	Calcilutite; stylolites, claystone stringers; unidentified shell fragments and crinoids common.
6919.0	6926.5	95	Calcarenite; vugs, pin point porosity; unidentified shell fragments abundant, fusulinids common. One poorly preserved orthoconic cephalopod was found.
6926.5	6931.0	100	Calcarenite; stylolites, incipient vertical joints, calcite-filled fissures; unidentified shell fragments abundant, fusulinids rare to common.

CORE DESCRIPTION

Well: Lion Oil Company, McLaughlin No. 36

Location: 1808.68 ft. from west line, 664.98 ft. from north line
of sec. 197, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C53

Elevation: 2396 ft. K. B.

Depth of reef top: 6623 ft.

Depths in feet		Available Core %	Description
From	To		
6633.5	6636.5	88	Calcarenite, oolitic with claystone stringers; calcite-filled fractures at 6634; unidentified shell fragments common, fusulinids rare.
6636.5	6637.5	100	Calcarenite, oolitic, contains large dark patches and claystone stringers, incipient stylolites; unidentified shell fragments.
6637.5	6638.0	50	Calcarenite; drusy vugs, pin point porosity; unidentified shell fragments.
6638.0	6639.0	50	Calcarenite, oolitic; incipient stylolites; unidentified shell fragments.
6639.0	6644.0	50	Calcarenite, oolitic; incipient stylolites; vugs, pin point porosity; unidentified shell fragments.
6644.0	6645.5	00	
6645.5	6646.5	91	Calcarenite, oolitic; pin point porosity, vugs in basal portion; unidentified shell fragments.

Lion Oil Company, McLaughlin No. 36 - Continued

Depths in feet		Available Core %	Description
From	To		
6646.5	6648.0	45	Calcarenite, oolitic; pin point porosity and occasional vugs; unidentified shell fragments common, gastropods and brachiopods rare.
6648.0	6652.0	00	
6652.0	6653.5	50	Calcarenite; oolitic with claystone stringers, stylolites; occasional small vugs; unidentified shell fragments, crinoids and bryozoans rare.
6653.5	6658.0	94	Calcarenite, oolitic; stylolites rare; pin point porosity, large drusy vugs; unidentified shell fragments common, crinoids and brachiopods rare.
6658.0	6662.0	63	Calcarenite, oolitic; pin point porosity; unidentified shell fragments; fusulinids rare.
6662.0	6669.5	72	Calcarenite, oolitic; pin point porosity, vugs; unidentified shell fragments; fusulinids rare.
6669.5	6671.0	100	Calcarenite, oolitic, dense; unidentified shell fragments, fusulinids rare.
6671.0	6674.0	85	Calclutite; stylolites, calcite-filled fissures; fusulinids rare.

Lion Oil Company, McLaughlin No. 36 - Continued

Depths in feet		Available Core %	Description
From	To		
6674.0	6677.0	33	Calcarenite, very fine-grained; fusulinids rare.
6677.0	6687.5	70	Calcilutite; incipient stylolites, calcite-filled fissures, crinoids in lower part.
6687.5	6689.0	00	
6689.0	6698.5	42	Calcilutite; calcite-filled fissures, incipient stylolites; unidentified shell fragments and crinoids common.
6698.5	6700.0	80	Calcilutite; incipient stylolites, calcite-filled fissures; pin point porosity in upper part only; vugs rare; unidentified shell fragments common, fusulinids rare.
6700.0	6702.0	00	
6702.0	6711.0	78	Calcilutite; calcite-filled fissures, incipient stylolites; vugs, pin point porosity; fusulinids rare, brachiopods rare in lower part.
6711.0	6719.0	75	Calcilutite, dense; calcite-filled fissures, incipient stylolites; fusulinids rare.
6719.0	6723.0	00	

Lion Oil Company, McLaughlin No. 36 - Continued

Depths in feet		Available Core %	Description
From	To		
6723.0	6731.5	86	Calcilutite, calcite-filled fissures, incipient stylo- lites; bryozoans rare.
6731.5	6734.5	77	Calcilutite; incipient stylo- lites; vugs, pin point porosity; crinoids, fusul- inids and bryozoans rare.
6734.5	6735.0	100	Calcilutite, dense; fusulinids rare.
6735.0	6735.5	100	Calcilutite; leached open fissures; fusulinids rare.
6735.5	6743.0	88	Calcilutite, dense; stylolites coated with claystone and bitumen; unfossiliferous.
6743.0	6745.0	00	
6745.0	6745.5	100	Calcilutite, dense; incipient stylolites, slightly leached open fissures; unfossil- iferous.
6745.5	6746.5	83	Calcilutite; open fissures. Unfossiliferous.
6746.5	6747.5	00	
6747.5	6750.0	100	Calcilutite, dense; small areas of recrystallized calcite; unfossiliferous.

Lion Oil Company, McLaughlin No. 36 - Continued

Depths in feet		Available Core %	Description
From	To		
6750.0	6762.0	90	Calcilutite recrystallized as above; incipient stylo- lites, thin claystone stringers in upper part only; fusulinids and crinoids rare to common.
6762.0	6763.0	00	
6763.0	6778.0	91	Calcilutite, very dense; re- crystallized as above; incipient stylolites, occasional thin clay- stone stringers; cri- noids and fusulinids rare, brachiopods rare in lower portion.
6778.0	6779.0	100	Calcarenite, dense; crinoids.
6779.0	6781.5	00	
6781.5	6784.0	92	Calcilutite, dense; incipient stylolites.
6784.0	6790.0	80	Calcilutite; pin point porosity; vugs in upper part; fusulinids and brachiopods rare.
6790.0	6795.0	61	Calcarenite; incipient stylolites; fusulinids and brachiopods.
6795.0	6801.5	73	Calcilutite; incipient stylolites; pin point porosity.
6801.5	6806.5	93	Calcarenite, very fine- grained; incipient stylolites; fusulinids.

Lion Oil Company, McLaughlin No. 36 - Continued

Depths in feet		Available Core %	Description
From	To		
6806.5	6812.0	88	Calcilutite with small areas of recrystallized calcite; crinoids rare.
6812.0	6817.0	62	Calcarenite, very fine- grained, recrystallized as above ; incipient stylolites; fusulinids rare.
6817.0	6820.5	69	Calcilutite, dense, re- crystallized as above.
6820.5	6821.5	100	Calcarenite, very fine- grained , recrystallized as above; crinoids rare.
6821.5	6824.5	89	Calcilutite, recrystallized as above; fusulinids rare.
6824.5	6827.5	67	Calcilutite; incipient stylolites; vugs, pin point porosity.
6827.5	6831.0	96	Calcarenite, bioclastic; incipient stylolites, pin point porosity; fusulinids and crinoids.
6831.0	6834.5	65	Calcarenite, bioclastic, dense; fusulinids and crinoids.
6834.5	6836.0	00	

CORE DESCRIPTION

Well: Lion Oil Company, McLaughlin No. 45

Location: 1808 ft. from west line, 1976 ft. from north line of
sec. 197, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C54

Elevation: 2373 ft. K.B.

Depth of reef top: 6607 ft.

Depth in feet		Available Core %	Description
From	To		
7316.5	7317.5	33	Calcilutite, bioclastic; stylolites; fusulinids.
7317.5	7319.0	00	
7319.0	7328.2	92	Calcarenite, very fine-grained, calcilutite lenses; stylolites; fusulinids.
7328.2	7329.4	100	Calcilutite, stylolites; fusulinids.
7329.4	7334.0	100	Calcarenite, very fine-grained, occasional calcilutite lenses, claystone stringers; stylolites; fusulinids, crinoids, brachiopods.
7334.0	7335.3	00	
7335.3	7340.1	83	
7340.1	7347.8	84	Calcilutite, chert nodules containing fusulinids; stylolites; fusulinids.
7347.8	7360.0	100	Calcarenite, very fine-grained, calcilutite lenses, bioclastic, leached; stylolites, vertical joints, some joints are open; vugular, pin point and open joint porosity; fusulinids, crinoids and bryozoans.

CORE DESCRIPTION

Well: Lion Oil Company, Ohlenbusch No. 6

Location: 660 ft. from east line, 2000 ft. from north line, sec. 181, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C56

Elevation: 2351 ft. K.B.

Depth of reef top: 6812 ft.

Depths in feet		Available Core %	Description
From	To		
6812.0	6815.0	90	Calcarenite; incipient stylolites, incipient oblique joints; fusulinids and brachiopods common.
6815.0	6816.0	75	Calcarenite; incipient stylolites, incipient joints, very small open fissures; fusulinids common.
6816.0	6818.0	50	Calcarenite; incipient stylolites, thin claystone stringers; fusulinids common.
6818.0	6820.0	100	Calcarenite; alternating highly leached and unleached zones; fusulinids common, brachiopods rare.
6820.0	6820.5	50	Calcilutite; leached fissures, pin point porosity.
6820.5	6822.0	63	Calcilutite; small calcite-filled fissures, small claystone stringers.
6822.0	6831.0	90	Calcarenite; incipient vertical joints, incipient stylolites; slightly leached, vugs, pin point porosity; fusulinids common (tests often hollow).

Lion Oil Company, Ohlenbusch No. 6 - Continued

Depths in feet		Available Core %	Description
From	To		
6831.0	6835.0	78	Calcarenite, bioclastic ; pin point porosity; fusulinids abundant.
6835.0	6841.0	60	Calcarenite, slightly leached; vertical joints; pin point porosity; fusulinids common.
6841.0	6844.0	83	Calcilutite; stylolites, oblique joints slightly leached; fusulinids common.
6844.0	6846.5	56	Calcarenite; leaching concentrated in zones, vertical joints; vugs, pin point porosity; fusulinids common.
6846.5	6849.0	50	Calcarenite, bioclastic ; incipient stylolites, oblique and vertical joints; fusulinids common to abundant.
6849.0	6851.0	00	
6851.0	6859.0	70	
6859.0	6865.0	00	
6865.0	6872.0	76	Calcilutite; claystone stringers with fusulinid concentrations along them; fusulinids common.
6872.0	6876.0	100	Calcilutite, claystone stringers with fusulinid concentrations; calcite-filled fissures; fusulinids and crinoids common.

Lion Oil Company, Ohlenbusch No. 6 - Continued

Depths in feet		Available Core %	Description
From	To		
6876.0	6883.0	100	Calcilutite, slightly argillaceous; claystone stringers and calcite-filled fissures; fusulinids and crinoids common.
6883.0	6884.5	74	Calcilutite, claystone stringers, fissures as above; fusulinids rare.
6884.5	6890.0	60	Calcilutite; small masses of crystalline calcite, small calcite-filled fissures, claystone stringers, stylolites; crinoids rare.
6890.0	7313.0	00	
7313.0	7318.5	70	Calcilutite; small crystalline calcite masses, calcite-filled fissures, stylolites; brachiopods and crinoids common, fusulinids and corals rare.
7318.5	7327.5	86	Calcilutite; crystalline calcite masses; calcite-filled fissures; stylolites rare; fusulinids common.

CORE DESCRIPTION

Well: Lion Oil Company, Strom No. .2

Location: 2002.9 ft. from north line, 1962.24 ft. from east line
of sec. 198, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C61

Elevation: 2384 ft. K.B.

Depth of reef top: 6685 ft.

Depths in feet		Available Core %	Description
From	To		
6832.0	6839.0	100	Calcilutite, discolored in irregular dark patches; small crystalline cal- cite masses; calcite- filled fissures, thin claystone stringers; cri- noids and brachiopods common, fusulinids rare.
6839.0	6846.0	56	Calcilutite, very fine-grained and homogeneous; calcite masses and veins, claystone stringers; brachiopods common, crinoids, fusulinids and corals rare.
6846.0	6849.0	73	Calcilutite, mottled with dark patches; stylolites, cal- cite masses and veins; crinoids, brachiopods and fusulinids rare.
6849.0	6852.0	77	Calcilutite; stylolites, oblique joints; crinoids common, fusulinids and brachiopods rare.
6852.0	6866.0	00	
6866.0	6873.5	81	Calcarenite, leached; incipient vertical joints; fusulinids abundant.

Lion Oil Company, Stron No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6873.5	6877.5	65	Calcarenite, leached; stylo- lites; pin point porosity, vugs; fusulinids common to abundant.
6877.5	6878.5	00	
6878.5	6885.0	60	
6885.0	6886.0	100	Calcarenite, leached; vugs, pin point porosity; fusulinids, crinoids, brachiopods common, gastropods and foram- inifera rare.
6886.0	6891.0	00	
6891.0	6895.5	80	
6895.5	6900.0	100	Calcarenite, leached; vugs, pin point porosity; fusulinids abundant, crinoids common.
6900.0	6908.0	98	Calcarenite, leached; stylo- lites, claystone stringers; pin point porosity; fusulinids abundant, crinoids rare.

CORE DESCRIPTION

Well: Lion Oil Company, Strom No. 18

Location: 662 ft. from south line, 1815 ft. from east line, sec.
199 ~~19~~³⁶, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C63

Elevation: 24~~95~~³⁶ ft. K.B.

Depth of reef top: 6756 ft.

Depths in feet		Available Core %	Description
From	To		
6884.0	6906.5	70	Calcarenite; horizontal and inclined thin claystone bands; slightly leached; pin point porosity; fusulinids and crinoids common, brachiopods (<u>Marginifera?</u> <u>Dictyoclostus?</u>) and bryozoans rare.
6906.5	6908.0	80	Calcarenite and calcirudite; oblique joints, stylolites; unidentified shell fragments abundant, crinoids common, corals rare.
6908.0	6911.0	57	Calcarenite; claystone stringers, stylolites, vertical joints; drusy vugs; unidentified shell fragments, fusulinids.
6911.0	6917.0	93	Calcilutite, argillaceous; claystone stringers; leached; crinoids abundant, unidentified shell fragments and brachiopods (<u>Linoproductus?</u>) common, fusulinids and foraminifera rare.

Lion Oil Company, Strom No. 18 - Continued

Depths in feet		Available Core %	Description
From	To		
6917.0	6923.0	69	Calcirudite, composed of round to angular calcilutite fragments as much as 2 cm. in diameter and shell fragments in claystone and calcilutite matrix; contains one claystone bed 8 in. thick at 6920. Crinoids and unidentified shell fragments abundant, brachiopods rare.
6923.0	6929.0	00	
6929.0	6939.0	96	Calcilutite; oblique joints; slightly leached at top becomes more leached downward, vugs, pin point porosity; fusulinids, foraminifera and brachiopods rare.
6939.0	6950.0	85	Calcarenite, leached; oblique and vertical joints, stylolites; pin point porosity; fusulinids common, crinoids and brachiopods rare.
6950.0	6964.0	78	Calcarenite, leached; joints, stylolites; pin point porosity.
6964.0	6970.0	82	Calcilutite with claystone stringers; joints, stylolites, fusulinids common, crinoids, brachiopods and bryozoans rare.

Lion Oil Company, Strom No. 18 - Continued

Depths in feet		Available Core %	Description
From	To		
6970.0	6982.0	90	Calcilutite, containing occasional chert fragments; stylolites, claystone bands; fusulinids and crinoids rare.
6982.0	6989.0	84	Calcilutite; small masses of crystalline calcite, calcite veins, claystone stringers with fossils concentrated along them; fusulinids abundant, crinoids, brachiopods and foraminifera rare.
6984.0	6994.0	76	Calcilutite; claystone stringers, stylolites; fusulinids common to abundant, crinoids common.
6994.0	7003.0	81	Calcilutite; incipient joints, incipient stylolites, claystone stringers; fusulinids and crinoids rare.
7003.0	7005.0	94	Calcilutite with oblique and horizontal claystone bands as much as 2 cm. thick; incipient stylolites, incipient vertical joints; fusulinids common in claystone bands, crinoids.
7005.0	7006.0	42	Calcilutite, argillaceous; fusulinids and crinoids common, corals rare.

CORE DESCRIPTION

Well: Lion Oil Company, Strom No. 25

Location: 616 ft. from west line, 2217.16 ft. from south line,
sec. 199, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C60

Elevation: ³⁸~~24~~ ft. K.B.

Depth of reef top: 6824 ft.

Depths in feet		Available Core %	Description
From	To		
6852.0	6855.0	90	
6855.0	6857.0	100	Calcilutite; vertical joints, incipient stylolites; drusy vugs rare; bryo- zoans, crinoids, corals.
6857.0	6858.5	80	Calcilutite, containing claystone fragments and, in top part, calcilutite fragments; stylolites, calcite-filled fissures; drusy vugs rare; crinoids common, corals rare.
6858.5	6859.0	67	Calcilutite; open drusy vertical fissures, drusy vugs; fusulinids and the brachiopod <u>Echinochonus</u> <u>semipunctatus</u> (Shepard) rare.
6859.0	6860.0	50	Calcilutite; calcite-filled fissures, incipient stylolites; drusy vugs.
6860.0	6863.5	64	Calcilutite; open drusy fissures, incipient stylo- lites; drusy vugs; fusulinids and brachiopods rare.

Lion Oil Company, Strom No. 25 - Continued

Depths in feet		Available Core	Description
From	To	%	
6863.5	6864.0	83	Calcilutite, containing dark grey masses and claystone stringers; many calcite-filled fissures, masses of crystalline calcite; drusy vugs; bryozoans and brachiopods rare.
6864.0	6865.0	00	
6865.0	6866.0	25	Calcilutite; stylolites, calcite-filled and re-crystallized fossil fragments, crystalline calcite masses; vugs and pin point porosity.
6866.0	6868.0	88	Calcilutite; oblique jointing, claystone stringers; unidentified shell fragments.

CORE DESCRIPTION

Well: Lion Oil Company, Zelma No. 1

Location: 660 ft. from south and east line of sec. 147, Blk. 25,
Houston and Texas Central Survey.

U.S.G.S. Series number: C58

Elevation: 2383 ft. K.B.

Depth of reef top: 6732 ft.

Depths in feet		Available Core %	Description
From	To		
6841.0	6842.0	42	Calcarenite; stylolites, crystalline calcite masses; fusulinids rare.
6842.0	6849.0	90	Calcarenite, leached; pin point porosity; vugs at 6844- 6848; fusulinids and brachio- pods rare.
6849.0	6854.0	67	Calcarenite, leached; pin point porosity; vugs and open fissures at 6851 to 6851.5; fusulinids common, crinoids rare.
6854.0	6859.0	100	Calcarenite; incipient stylo- lites; fusulinids, crinoids, and brachiopods rare.
6859.0	6869.0	67	Calclutite; crystalline calcite masses; claystone stringers rare.
6869.0	6869.5	75	Calcarenite, very fine- grained, argillaceous, incipient stylolites; crinoids, fusulinids, unidentified shell fragments.

Lion Oil Company, Zelma No. 1 - Continued

Depths in feet		Available Core	Description
From	To	%	
6869.5	6872.0	90	Calcilutite; crystalline calcite masses, in- cipient stylolites, claystone stringers; fusulinids, unidenti- fied shell fragments.
6872.0	6873.0	00	
6873.0	6881.0	60	
6881.0	6882.0	100	Calcarenite; incipient stylolites; fusulinids and unidentified shell fragments.
6882.0	6885.0	75	Calcarenite, leached; in- cipient stylolites, fossils hollow due either to leaching or to original cavities; pin point porosity; fusulinids and unidentified shell frag- ments.
6885.0	6889.0	00	
6889.0	6890.0	100	
6890.0	6896.0	62	Calcilutite; incipient stylolites, claystone stringers; fusulinids.

CORE DESCRIPTION

Well: Lion Oil Company, Zelma No. 4

Location: 2133 ft. from north line, 1853 ft. from east line of
sec. 147, Blk. 25, Houston and Texas Central Survey.

U.S.G.S. Series number: C55

Elevation: 2398 ft. K.B.

Depth at reef top: 68~~15~~²⁴ ft.

Depths in feet		Available Core %	Description
From	To		
6847.0	6848.5	30	Calcarenite, very fine-grained; pin point porosity, vugs rare.
6848.5	6849.0	100	Calcirudite, composed of calcarenite fragments in very fine-grained calcarenite matrix; bryozoans.
6849.0	6854.5	46	Calcarenite, very fine-grained; incipient stylolites; fusulinids and unidentified shell fragments, brachiopods rare.
6854.5	6857.5	82	Calcilutite; vertical fissures, incipient stylolites; pin point porosity, vugs; unidentified shell fragments, crinoid stems, brachiopods.

CORE DESCRIPTION

Well: Lone Star Producing Company, Bynum No. 4

Location: 467 ft. from north line, 3050 ft. from east line of
sec. 253, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C70

Elevation: 2508 ft. K.B.

Depth of reef top: 6751 ft.

Depths in feet		Available Core %	Description
From	To		
6748.0	6748.5	100	Calcilutite; incipient stylolites; crinoids.
6748.5	6749.5	100	Calcarenite, oolitic; in- cipient stylolites; fusulinids.
6749.5	6752.0	100	Calcarenite, very fine- grained; incipient stylo- lites, fissures; fusul- inids, crinoids.
6752.0	6759.0	00	
6759.0	6762.5	100	Claystone, limey; occasional calcarenite streaks con- tain crinoid concentrations.
6762.5	6765.0	100	Calcarenite; claystone stringers and lenses, calcite and dolomite veinlets; vugs containing drusy dolomite rare; bryozoans.
6765.0	6774.0	100	Calcilutite, bioclastic ; claystone stringers, calcite masses and vein- lets; crinoids, brachio- pods, bryozoans.
6774.0	6777.0	00	

Lone Star Producing Company, Bynum No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6777.0	6782.0	94	Calcarenite; claystone stringers, crystalline calcite veinlets; crinoids, bryozoans.
6782.0	6784.0	100	Claystone; calcarenite stringers; crinoids.
6784.0	6784.5	100	Calcarenite dense; crinoids.
6784.5	6787.5	100	Claystone; occasional calcarenite stringers.
6787.5	6789.5	100	Calcarenite; crystalline calcite masses, claystone stringers; crinoids, bryozoans.
6789.5	6791.0	00	
6791.0	6802.0	100	Calcarenite; claystone stringers; vugs, pin point porosity; crinoids, bryozoans, brachiopods.
6802.0	6803.0	100	Calcarenite, coarse-grained, contains claystone fragments; crinoids, bryozoans, brachiopods.
6803.0	6804.0	100	Calcarenite, contains a claystone bed 3 in. thick at top; crinoids, bryozoans.
6804.0	6804.5	100	Claystone.

Lone Star Producing Company, Bynum No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6804.5	6807.0	100	Calcarenite, coarse-grained; crinoids abundant, bryo- zoans.
6807.0	6809.0	100	Claystone interbedded with coarse-grained calcarenite; crinoids abundant in calcarenite, bryozoans.
6809.0	6811.0	100	Calcarenite, coarse-grained; vugs and pin point porosity in upper 1.5 ft.; crinoids abundant, bryozoans and brachiopods rare.
6811.0	6823.0	100	interbedded Claystone/with coarse-grained calcarenite; crinoids abundant in calcarenite, bryozoans rare.
6823.0	6827.5	100	Calcilutite; incipient stylo- lites, incipient vertical joints.
6827.5	6831.0	100	Calcirudite, composed of angular calcilutite frag- ments in calcarenite matrix; incipient stylo- lites; crinoids.
6831.0	6838.0	100	Calcilutite, highly leached; vugs, pin point porosity.

Lone Star Producing Company, Bynum No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6838.0	6840.5	100	Calcirudite, composed of angular calcilutite fragments in calcarenite matrix; incipient stylolites; crinoids.
6840.5	6848.0	100	Calcarenite, leached; vugs; fusulinids abundant.
6848.0	6872.0	100	Calcilutite, leached; leached stylolites, vugs; fusulinids common, crinoids.
6872.0	6876.0	00	
6876.0	6879.0	100	Calcarenite, slightly leached; incipient stylolites, fissures; vugs, fusulinids.
6879.0	6958.5	100	Calcarenite; incipient stylolites, claystone partings; fusulinids.

CORE DESCRIPTION

Well: Lone Star Producing Company, McLaughlin No. 1

Location: 2327 ft. from south line, 330 ft. from west line of sec. 184, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C73

Elevation: 2341 ft. K.B.

Depth of reef top: 6722 ft.

Depths in feet		Available Core %	Description
From	To		
6733.0	6744.5	84	Calcilutite; vugs lined with drusy calcite abundant; crinoids rare.
6644.5	6647.0	63	Calcirudite, composed of cal- cilutite fragments in argillaceous calcilutite matrix; calcite-filled fissures, claystone stringers; crinoids rare.
6747.0	6748.0	71	Calcilutite, has conchoidal fracture; crystalline calcite masses rare; cri- noids rare.
6748.0	6755.5	89	Calcirudite, composed of cal- cilutite fragments in bi- tuminous claystone matrix; contains a few very small chert nodules; crinoids and fusulinids rare to common in the calcilutite fragments.
6755.5	6758.0	63	Claystone, containing fossil fragments and calcilu- tite fragment which together form about 25% of the total; crinoids common, brachiopods rare.
6758.0	6763.0	100	Claystone, micaceous; fissile; containing pyrite nodules and one brachiopod re- placed by pyrite.

CORE DESCRIPTION

Well: Lone Star Producing Company, McLaughlin No. 2

Location: 330 ft. from west line, 992 ft. from south line, sec. 184,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C72

Elevation: 2328 ft. K.B.

Depth of reef top: 6723 ft.

Depths in feet		Available Core %	Description
From	To		
6730.0	6735.0	100	Calcirudite, composed of angular calcilutite and calcarenite fragments in bituminous claystone matrix; some calcilutite fragments contain chert; fusulinids and crinoids are common in calcarenite fragments, fusulinids rare in calcilutite.
6735.0	6736.0	90	Claystone, containing occasional limestone fragments as much as 1 cm. in diameter; fusulinids common.
6736.0	6738.5	?	Calcarenite, coarse-grained; crinoids and unidentified shell fragments are common.
6738.5	6743.0	?	Claystone, bituminous, somewhat fissile; contains finely disseminated pyrite and one piece of pyritized wood; brachiopods common in lower two feet.
6743.0	6745.0	?	Calcarenite, bioclastic, contains scattered fragments of calcarenite and calcilutite; crinoids abundant, bryozoans and brachiopods rare.

Lone Star Producing Company, McLaughlin No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6745.0	6746.5	?	Calcirudite, composed of calcilutite fragments in very fine-grained calcarenite matrix.
6746.5	6748.0	?	Calcilutite; small calcite veins, unidentified shell fragments common.
6748.0	6766.0	00	
6766.0	6768.5	96	Calcirudite, composed of calcilutite fragments in calcilutite matrix; incipient stylolites; unidentified shell fragments common, crinoids rare.
6768.5	6771.0	?	Calcilutite; drusy vugs rare; bryozoans rare.
6771.0	6774.5	?	Calcarenite, very fine-grained, contains a few calcilutite fragments; incipient stylolites; unidentified shell fragments common, bryozoans rare.
6774.5	6777.5	?	Calcilutite, incipient stylolites; unidentified shell fragments common, bryozoans rare.
6777.5	6778.0	?	Calcilutite, has conchoidal fracture.

CORE DESCRIPTION

Well: Lone Star Producing Company, McLaughlin No. 3

Location: 330 ft. from the south and west lines of sec. 184,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C71

Elevation: 2327 ft. K.B.

Depth of reef top: 6728 ft.

Depths in feet		Available Core	Description
From	To	%	
6725.0	6727.5	100	Claystone, crinoids.
6727.5	6732.5	100	Calcirudite, composed of calcilutite phenoclasts in calcarenite matrix; small amount of pin point porosity; fusulinids, crinoids.
6732.5	6734.0	100	Calcilutite, containing cal- carenite lenses; incipient stylolites; small amount of pin point porosity; fusulinids, crinoids.
6734.0	6735.0	100	Calcarenite; calcite-filled fissures; pin point porosity; fusulinids, crinoids.
6735.0	6736.0	100	Calcirudite, composed of cal- cilutite phenoclasts in calcarenite matrix; fus- ulinids, crinoids.
6736.0	6747.0	92	Calcarenite, containing a few scattered calcilutite phenoclasts; incipient stylolites, fissures; pin point porosity and scattered vugs; fusulinids, crinoids, bryozoans, brachio- pods, corals.

Lone Star Producing Company, McLaughlin No. 3 - Continued

Depths in feet		Available Core %	Description
From	To		
6747.0	6749.0	100	Calcarenite, containing clay- stone fragments and cal- cilutite lenses; incipient stylolites; fusulinids, crinoids.
6749.0	6752.5	100	Calcirudite, composed of cal- cilutite phenoclasts in calcarenite matrix; in- cipient stylolites; pin point porosity, fusulinids.
6752.5	6753.0	100	Calcilutite; incipient stylolites; fusulinids.
6753.0	6756.0	100	Calcarenite; stylolites; pin point porosity; fusulinids, crinoids.
6756.0	6762.5	100	Calcarenite, very fine-grained; contains small amounts of - white secondary chert; in- cipient stylolites; pin point porosity, vugs; fusulinids and crinoids.

CORE DESCRIPTION

Well: Montex Drilling Company, Country Club No. 3

Location: 3151 ft. from west line and 2946 ft. from south line of sec. 178, Blk. 3, Houston and Great Northern Survey.

U.S.G.S. Series number: C65

Elevation: 2377 ft. K.B.

Depth of reef top: 6675 ft.

Depths in feet		Available Core %	Description
From	To		
6685.0	6689.5	78	Calcarenite, with calcilutite, calcarenite and claystone fragments and claystone stringers; stylolites, vertical and oblique joints; fusulinids and crinoids common.
6689.5	6690.1	83	Calcirudite with calcarenite phenoclasts as much as 4 cm. in diameter and claystone fragments; vertical joints; fusulinids and crinoids common.
6690.1	6693.9	89	Calcarenite, coarse-grained, with phenoclasts of very fine-grained calcarenite and calcilutite as much as 15 mm. in diameter, claystone fragments as much as 25 mm. in diameter, claystone stringers; stylolites and vertical joints; fusulinids and crinoids common.
6693.9	6702.2	81	Calcirudite, with calcilutite and calcarenite phenoclasts as much as 65 mm. in diameter; stylolites; vugular porosity, drusy calcite in vugs; fusulinids and crinoids common, corals rare.
6702.2	6703.8	69	Calcarenite, very fine-grained; stylolites; pin point and vugular porosity, calcite-filled vugs; fusulinids common.

Montex Drilling Company, Country Club No. 3 - Continued

Depths in feet		Available Core %	Description
From	To		
6703.8	6718.8	90	Calcirudite, claystone fragments, calcilutite and very fine-grained calcarenite phenoclasts and large crinoid fragments in a very fine-grained ground mass, phenoclasts as much as 11 cm. in diameter; claystone-coated stylolites; crinoids and fusulinids common.
6718.8	6726.4	00	
6726.4	6729.2	36	Calcarenite, very fine-grained, with calcilutite lenses as much as 12.5 cm., leached, vugular porosity, some vugs contain drusy calcite, others are calcite-filled; fusulinids, bryozoans and crinoids common.
6729.2	6732.8	44	Calcirudite, phenoclasts of calcilutite and very fine-grained calcarenite as much as 10 cm. in diameter; oolite and pisolite fragments which are leached and filled with calcite.
6732.8	6750.9	88	Calcarenite, oolites and pisolites dispersed in calcilutite ground mass, oolites and pisolites are leached but occasionally only ground mass is leached; claystone-coated stylolites, vertical fractures, vugular porosity, fusulinids and crinoids common.

Montex Drilling Company, Country Club No. 3- Continued

Depths in feet		Available Core	Description
From	To	%	
6750.9	6754.7	100	Calcirudite, phenoclasts of calcarenite as much as 26 mm. in diameter, random leaching; stylolites, vertical fractures; vugular porosity; fusulinids and crinoids common.
6754.7	6785.0	80	Calcarenite, fine-grained, leached; occasional oolites, stylolites, vertical fractures; vugular porosity, vugs as much as 12 mm. in diameter, vugs contain drusy dolomite; crinoids and fusulinids common.

CORE DESCRIPTION

Well: Montex Drilling Company, Harrell No. 2

Location: 467 ft. from north and east lines of sec. 15, Blk. 1,
J. P. Smith Survey.

U. S. G. S. Series number: C15

Elevation: 2395 ft. K.B.

Depth of reef top: 6727 ft.

Depths in feet		Available Core %	Description
From	To		
6802.0	6804.7	60	Calcarenite, coarse-grained; stylolites, incipient vertical joints; crinoids and fusulinids common.
6804.7	6805.7	100	Calcirudite; composed of cal- cilutite phenoclasts as much as 4 cm. in diameter in calcarenite matrix; stylolites are common especially around pheno- clast boundaries and have bituminous claystone con- centrated along them; claystone stringers are nearly horizontal; cal- cite-filled fractures in phenoclasts end abruptly at contact of phenoclast and matrix; crinoids abundant, fusulinids common, brachiopods rare.
6805.7	6807.0	00	
6807.0	6808.6	22	
6808.6	6809.6	00	
6809.6	6814.0	57	
6814.0	6817.0	00	
6817.0	6822.8	60	
6822.8	6824.5	00	
6824.5	6828.0	86	

CORE DESCRIPTION

Well: Montex Drilling Company, Harrell No. 4

Location: 467 ft. from south and west lines of sec. 15, Blk. 1,
J. P. Smith Survey.

U.S.G.S. Series number: C7

Elevation: 2401 ft. K.B.

Depth of reef top: 6722 ft.

Depths in feet		Available Core %	Description
From	To		
6738.0	6750.5	100	Calcirudite, composed of calcilutite phenoclasts as much as 5 cm. in diameter in calcilutite matrix; stylolites, thin claystone stringers and lenses, crinoids and fusulinids common, bryozoans and pelecypods rare.
6750.5	6752.5	100	Calcirudite, composed of calcilutite, calcarenite, and scattered claystone phenoclasts as much as 4 cm. in diameter in calcilutite matrix; stylolites, thin claystone stringers, pin point porosity; fusulinids and crinoids common.
6752.5	6758.5	100	Calcirudite, composed of calcilutite and calcarenite phenoclasts in calcarenite matrix; stylolites; pin point porosity; fusulinids and crinoids common, bryozoans, brachiopods, corals and gastropods rare.

Montex Drilling Company, Harrell No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6758.5	6761.0	100	Calcarenite, containing a very few calcilutite phenoclasts as much as 1.5 cm. in diameter; stylolites; fusulinids and crinoids common, corals rare.
6761.0	6767.0	100	Calcarenite, containing calcarenite phenoclasts as much as 2 cm. in diameter and occasional claystone and calcilutite phenoclasts. In a few places phenoclasts are abundant enough to make the rock calcirudite. Claystone stringers, incipient stylolites, vertical joints; pin point porosity; fusulinids and brachiopods common, crinoids, bryozoans and gastropods rare.
6767.0	6770.5	83	Calcirudite, composed of calcarenite and calcilutite phenoclasts as much as 3 cm. in diameter in calcarenite matrix; stylolites, claystone stringers; crinoids and fusulinids common, brachiopods rare.
6770.5	6772.0	100	Calcarenite, containing occasional calcilutite and calcarenite phenoclasts as much as 4 cm. in diameter; stylolites, claystone stringers; pin point porosity; crinoids and fusulinids common to abundant.

Montex Drilling Company, Harrell No. 4 - Continued

Depths in feet		Available Core	Description
From	To	%	
6772.0	6785.2	96	Calcirudite, composed of calcarenite matrix, calcite-filled fractures in phenoclasts only; claystone stringers, stylolites; pin point porosity; crinoids and fusulinids are common, brachiopods, bryozoans and foraminifera rare.
6785.2	6786.6	100	Calcarenite, fine-grained; fossils leached; unidentified shell fragments are abundant, fusulinids common, brachiopods rare.
6786.6	6797.5	91	Calcirudite, composed of calcilutite and calcarenite phenoclasts in calcarenite matrix; maximum size of phenoclasts varies from 2.5 cm. at the top to 46 cm. at the base; stylolites, claystone stringers; crinoids and fusulinids common.
6797.5	6788.6	00	
6788.6	6821.1	87	
6821.1	6825.0	85	Calcarenite, fine- to medium-grained, oolitic; stylolites; considerably leached; fusulinids abundant, unidentified shell fragments and foraminifera common, crinoids and bryozoans rare.

CORE DESCRIPTION

Well: Montex Drilling Company, Joyce No. 4

Location: 467 ft. from north line, 702 ft. from east line of sec. 15,
Blk. 1, J. P. Smith Survey.

U.S.G.S. Series number: C5

Elevation: 2352 ft. K.B.

Depth of reef top: 6730 ft.

Depths in feet		Available Core %	Description
From	To		
6731.0	6733.0	?	Calcarenite; incipient vertical joints; small drusy vugs; crinoids and gastropods rare.
6733.0	6748.0	?	Calcirudite, composed of calcilutite and calcarenite in fine-grained calcarenite matrix; phenoclasts are as large as 6 cm. in diameter; stylolites, claystone stringers, vugs; fusulinids, crinoids and unidentified shell fragments common, bryozoans and brachiopods rare.
6748.0	6759.0	00	
6759.0	6766.5	?	Calcirudite, composed of calcilutite and calcarenite phenoclasts as large as 4 cm. in diameter in calcarenite matrix; stylolites, claystone stringers; vugs in basal 1 ft. only; crinoids and fusulinids common.

CORE DESCRIPTION

Well: Montex Drilling Company, Joyce No. 5

Location: 467 ft. from south and west lines of sec. 15, Blk. 1,
J. P. Smith Survey.

U.S.G.S. Series number: C68

Elevation: 2384 ft. K.B.

Depth of reef top: 6734 ft.

Depths in feet		Available Core %	Description
From	To		
6743.0	6746.2	66	Calcarenite, coarse-grained, sand-sized fragments of calcilu- tite and fine-grained calcarenite, claystone stringers; stylolites; fusulinids common, crinoids and bryozoans rare.
6746.2	6771.7	89	Calcirudite, calcilutite and cal- carenite phenoclasts as much as 75 mm. in diameter, claystone stringers; stylolites; fusul- inids and crinoids common, brachiopods, bryozoans, ostra- cods and corals rare.
6771.7	6781.0	93	Calcarenite, fine-grained, with scattered calcilutite lenses and claystone stringers; stylo- lites; fusulinids and crinoids common, bryozoans, brachiopods, ostracods noted.
6781.0	6785.0	100	Calcirudite, with phenoclasts of calcilutite and calcarenite as large as 35 mm. in diameter; some calcarenite phenolcasts are oolitic; stylolites, vertical fractures, some are open; open fissure porosity; fusulinids, crinoids, brachiopods, bryozoans, corals and ostracods rare.

Montex Drilling Company, Joyce No. 5, - Continued

Depths in feet		Available Core	Description
From	To	%	
6785.0	6792.5	40	Calcarenite; vertical fractures; fusulinids and bryozoans rare, crinoids common.
6792.5	6793.5	60	Calcirudite, with phenoclasts of calcilutite and calcarenite as much as 9 cm. in diameter; stylolites with claystone coating; vertical fractures; fusulinids rare, crinoids and bryozoans occasional.
6793.5	6802.0	00	
6802.0	6803.0	?	Calcilutite, leached; oblique fractures; vugular porosity, some vugs as much as 12 mm. in diameter, some vugs contain drusy calcite; bryozoans rare.
6803.0	6812.6	84	Calcarenite, fine-to medium-grained, claystone stringers, leached; stylolites; vugular porosity, some vugs have drusy lining; crinoids and bryozoans are rare.
6812.6	6819.0	63	Calcilutite, fine-grained calcarenite lenses, leached; stylolites; vugular porosity; crinoids and bryozoans rare.

CORE DESCRIPTION

Well: Montex Drilling Company, Joyce. No. 6

Location: 467 ft. from the south and east lines of the NE $\frac{1}{4}$ sec.
15, Blk. 1, J.P. Smith Survey.

U.S.G.S. Series number: C3

Elevation: 2355 ft. K.B.

Depth of reef top: 6732 ft.

Depths in feet		Available Core %	Description
From	To		
6739.0	6752.0	?	Calcarenite; stylolites, vertical joints; vugs, pin point porosity; fusulinids abundant to rare, crinoids, bryozoans, brachiopods, unidentified shell fragments.
6752.0	6753.0	?	Calcilutite; stylolites, vertical joints; drusy vugs; fusulinids, crinoids, brachiopods, bryozoans, gastropods.
6753.0	6755.0	?	Calcarenite; stylolites; pin point porosity; crinoids, brachiopods, fusulinids.
6755.0	6761.0	?	Calcarenite, with subordinate thin calcilutite layers; stylolites, crystalline calcite masses; vugs rare, pin point porosity; crinoids common, fusulinids rare, productid brachiopods.
6761.0	6767.0	?	Calcarenite, very fine-grained, extensively leached; stylolites, calcite-filled fissures; vugs, occasionally drusy, increasing in abundance downward; crinoids, bryozoans, brachiopods (<u>Composita</u> sp.) and unidentified shell fragments rare.

CORE DESCRIPTION

Well: Montex Drilling Company, Payne No. 1

Location: 467 ft. from west line, 2026.2 ft. from south line of
sec. 179, Blk. 3, Houston and Great Northern Survey.

U.S.G.S. Series number: C6

Elevation: 2352 ft. K.B.

Depth of reef top: 6746 ft.

Depths in feet		Available Core	Description
From	To	%	
6755.0	6762.0	?	Calcirudite, composed of calcilutite and calcarenite phenoclasts as large as 2 cm. in diameter in calcarenite matrix; leached fossils and vugs.
6762.0	6762.5	00	
6762.5	6766.5	?	Calcirudite, composed of calcarenite and calcilutite fragments as large as 2.5 cm. in diameter in calcarenite matrix; stylolites, thin claystone stringers, claystone concentrations around phenoclast boundaries; fusulinids and crinoids, unidentified shell fragments, bryozoans, brachiopods, corals and foraminifera rare.

CORE DESCRIPTION

Well: Montex Drilling Company, Payne No. 2

Location: 2651 ft. from south line, 467 ft. from west line of sec.
179, Blk. 3, Houston and Great Northern Survey.

U.S.G.S. Series number: C4

Elevation: 2350 ft. D. F.

Depth of reef top: 6744 ft.

Depths in feet		Available Core	Description
From	To	%	
6744.0	6746.0	?	Claystone, containing irregular subordinate lenses of calcarenite; amount of calcarenite increases downward, crinoids common, fusulinids and fish scales rare.
6746.0	6747.0	?	Calcarenate, containing irregular subordinate claystone lenses; oblique bedding; fusulinids and crinoids common.
6747.0	6748.5	?	Calcarenate, containing scattered phenoclasts of calcilutite as large as 5 mm. in diameter and of claystone as large as 3 cm; vertical joints; fusulinids and crinoids common.
6748.5	6762.2	?	Calcirudite, composed of phenoclasts of calcilutite and calcarenite, as large as 5 cm. in diameter but averaging 5 mm. in calcarenite matrix; horizontal claystone stringers; vugs in lower portion; fusulinids and crinoids common.
6762.2	6762.4	?	Claystone, non-fissile.

Montex Drilling Company, Payne No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6762.4	6762.7	100	Calcirudite, composed of calcarenite and calcilutite fragments in dark grey, argillaceous, very fine-grained calcarenite matrix.
6762.7	6773.3	86	Calcirudite, composed of calcarenite and calcilutite phenoclasts as large as 5 cm. in diameter in calcarenite matrix. In a few thin zones phenoclasts are much less abundant than elsewhere and the rock becomes a calcarenite with only scattered phenoclasts. Stylolites; occasional claystone stringers; crinoids and fusulinids common, brachiopods and foraminifera rare.

CORE DESCRIPTION

Well: The Ohio Oil Company, Hays No. 2

Location: 467 ft. from north and east lines of the NW $\frac{1}{4}$ sec. 249, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C66

Elevation: 2458 ft. K.B.

Depth of reef top: 6595 ft.

Depths in feet		Available Core %	Description
From.	To		
6631.0	6631.6	100	Calcirudite containing calcilutite phenoclasts as much as 4 cm. in diameter in calcarenite matrix; stylolites with black claystone coating, small vertical fractures; vugular porosity; fusulinids and crinoids rare.
6631.6	6633.6	100	Calcilutite with calcarenite lenses; stylolites with black claystone coating, vertical fractures filled or partially filled with crystalline calcite; vugular porosity; fusulinids, crinoids, brachiopods and corals rare.
6633.6	6634.0	55	Calcirudite, calcilutite phenoclasts as much as 15 mm. long in a matrix of calcarenite; stylolites with black claystone coating; corals common, crinoids rare.
6634.0	6635.0	100	Calcarenite, vertical fractures partially filled with black claystone or bituminous material and crystalline calcite; foraminifera common, crinoids, corals and brachiopods rare.

The Ohio Oil Company; Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6635.0	6635.6	100	Calcirudite, calcilutite phenoclasts as much as 4 cm. long, largest fragment is oolitic; stylolites, vertical, horizontal and oblique fractures, some black claystone or bituminous material in fractures; vugular porosity; crinoids, foraminifera (other than fusulinids), fusulinids, bryozoans, brachiopods and corals rare.
6635.6	6642.5	58	Calcilutite, with megascopic shell fragments which are embedded in translucent calcite from 6637.5-6642.5; stylolites, vertical and oblique fractures, some partially and others completely filled with crystalline calcite; vugular and open fissure porosity; crinoids common, corals, fusulinids, bryozoans and brachiopods rare.
6642.5	6644.5	100	Calcirudite, phenoclasts of calcilutite, oolites and calcarenite as much as 8 cm. in diameter; stylolites, vertical and oblique fractures, some are calcite-filled, others are open; vugular and open fracture porosity; crinoids rare to common, fusulinids, corals, brachiopods, gastropods and foraminifera (other than fusulinids) rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6644.5	6645.0	100	Calcarenite, contains patches of crystalline calcite; irregular calcite; irregular fractures; vugular porosity; foraminifera, crinoids and corals rare.
6645.0	6645.5	100	Calcilutite, small patch of calcarenite; stylolites, vertical fractures, open fracture porosity; crinoids corals, gastropods and fusulinids rare.
6645.5	6646.0	100	Calceirudite with calcilutite phenoclasts; stylolites between phenoclasts, vertical fractures, some contain black claystone; fusulinids common, foraminifera (other than fusulinids) crinoids and corals rare.
6646.0	6647.7	58	Calcarenite, stylolites, vertical fractures; vugular and open fracture porosity; corals, crinoids, ostracods and foraminifera rare.
6647.7	6648.2	100	Calcilutite, stylolites, vertical fractures, some contain brown clayey material, vugular and open fracture porosity; corals, foraminifera, crinoids rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6648.2	6649.5	77	Calcirudite with calcilutite phenoclasts as much as 8 cm. long; stylolites, vertical fractures; vugular and open fracture porosity; crinoids, corals, ostracods, fusulinids, foraminifera (other than fusulinids) rare.
6649.5	6950.3	100	Calcilutite, patches of clear crystalline calcite; open oblique fractures, vertical fractures filled with calcite; foraminifera, corals and crinoids rare.
6950.3	6950.8	100	Calcirudite, calcilutite phenoclasts as much as 8 cm. long; stylolites containing pyrite fractures with no general orientation; crinoids, bryozoans and foraminifera rare.
6950.8	6653.4	100	Calcilutite, cement from 6652.6-6653.4 is crystalline calcite; stylolites contain pyrite, vertical, oblique and horizontal fractures, some are open others are calcite-filled; crinoids, foraminifera (other than fusulinids) common, brachiopods, fusulinids, bryozoans and corals rare.
6653.4	6657.4	100	Calcarenite, medium-to coarse-grained with occasional phenoclasts of calcilutite as much as 3 cm. long; stylolites, horizontal, oblique and vertical fractures some vertical fractures are filled with crystalline calcite; crinoids common, ostracods and bryozoans rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6657.4	6659.1	?	<u>Encrinite.</u>
6659.1	6659.8	100	Calcirudite, phenoclasts of calcilutite, top half is calcarenite as above; stylolites, horizontal and vertical fractures, vertical fractures are calcite-filled; crinoids common, fusulinids and other foraminifera rare.
6659.8	6661.5	100	Calcarenite, coarse-grained with scattered calcilutite phenoclasts, 40% of the phenoclasts are 72 mm.; large crinoid fragments common; stylolites, horizontal, oblique and vertical fractures, oblique fractures filled with calcite, crinoids common, bryozoans, brachiopods and corals rare.
6661.5	6661.8	100	Calcirudite; calcilutite phenoclasts as much as 4 cm. long; stylolites, horizontal and vertical fractures, some of which are filled with calcite; crinoids common, brachiopods rare.
6661.8	6662.0	100	Calcilutite, stylolites, horizontal and vertical fractures; crinoids common, brachiopods rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6662.0	6667.1	?	Calcarenite, coarse-grained with lime mud matrix, 10 to 30% consists of phenoclasts coarser than 2 mm. some of which are as much as 6 cm. long; stylolites, horizontal, oblique and vertical fractures, vugular porosity, some vugs have drusy calcite lining; crinoids are common, brachiopods, corals, bryozoans and fusulinids rare.
6667.1	6670.0	93	Calcirudite; calcarenite and calcilutite phenoclasts as much as 8 cm. long in a lime mud matrix; stylolites, oblique and vertical fractures, some are open; vugular and open fracture porosity; crinoids common, brachiopods, fusulinids, corals and bryozoans rare.
6670.0	6670.5	100	Calcarenite, coarse-grained, occasional phenoclasts; horizontal fractures; crinoids common, fusulinids and corals rare.
6670.5	6671.5	73	Calcirudite with calcarenite and calcilutite phenoclasts as much as 5 cm. long in a calcilutite matrix; stylolites, vertical, oblique and horizontal fractures; vugular porosity; crinoids common, ostracods, corals, fusulinids and foraminifera (other than fusulinids) rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6671.5	6675.4	100	Calcarenite, coarse-to fine-grained and calcirudite with phenoclasts of fine-grained calcarenite as much as 5 cm. long; stylolites, horizontal and vertical fractures; vugular porosity, some vugs contain drusy calcite; crinoids common, foraminifera (other than fusulinids) rare.
6675.4	6675.8	100	Calcirudite with calcilutite and calcarenite phenoclasts as much as 6 mm. long in a fine-grained calcarenite matrix; stylolites; vugular porosity; brachiopods common, crinoids, fusulinids, foraminifera (other than fusulinids) and corals rare.
6675.8	6676.2	100	Calcarenite, coarse-grained to fine grained; stylolites; crinoids common, fusulinids and brachiopods rare.
6676.2	6678.5	100	Calcirudite with calcarenite and calcilutite phenoclasts as much as 6 cm. long; stylolites with black claystone coating, stylolites along fragment boundaries, vertical fractures; vugular porosity; crinoids, corals, ostracods, fusulinids and foraminifera (other than fusulinids) rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6678.5	6679.1	100	Calcarenite, coarse-grained, and calcirudite composed of phenoclasts as much as 6 mm. in diameter; vertical fractures; vugular porosity; crinoids, fusulinids, corals and foraminifera (other than fusulinids) rare.
6679.1	6681.7	100	Calcilutite with calcarenite lenses which constitute about 45% of core; stylolites, vertical fractures, some are open; vugular and open fracture porosity; corals, fusulinids and crinoids rare.
6681.7	6684.0	00	
6684.0	6684.8	100	Calcirudite with phenoclasts of calcilutite and fine-grained calcarenite as much as 5 cm. long; stylolites; vugular porosity; crinoids, brachiopods, foraminifera rare.
6684.8	6685.2	100	Calcarenite, very fine-grained; stylolites, vertical fractures; vugular porosity; crinoids, fusulinids, corals and bryozoans rare.
6685.2	6688.0	71	Calcirudite with phenoclasts of calcilutite and calcarenite (some with crystalline calcite cement) as much as 8 cm. long; stylolites, vugs, vertical and horizontal fractures, vertical fractures open; fusulinids and crinoids rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6688.0	6688.5	100	Calcarenite, very fine-to fine-grained, 35% of grains coarser than 2 mm., phenoclasts of calcilutite as much as 12 mm in diameter; stylolites, fissures, horizontal fractures; vugular porosity.
6688.5	6688.9	100	Calcirudite, phenoclasts as much as 3 cm. long in matrix of fine-grained calcarenite; stylolites, vertical fractures; vugular porosity; fusulinids and crinoids rare.
6688.9	6718.0	82	Calcarenite, fine-to coarse-grained, occasional phenoclasts as much as 5 cm. in diameter; stylolites, vertical, oblique and horizontal fractures, some open, some calcite-filled; vugular and open fracture porosity, some vugs are calcite-filled; crinoids occasional to common, fusulinids, foraminifera (other than fusulinids), corals, ostracods, bryozoans and brachiopods rare to occasional.
6718.0	6718.5	100	Calcirudite, calcarenite phenoclasts as much as 8 cm. long; stylolites; crinoids very common, fusulinids rare.
6718.5	6718.8	100	Calcarenite, fine-grained; stylolites; calcite-filled vugs, crinoids, fusulinids, and brachiopods rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6718.8	6727.0	?	Calcilutite with phenoclasts at 6719.4 to 6719.7; phenoclasts of calcilutite as much as 6 cm. in diameter at 6719.3 to 6719.7; stylolites coated with reddish brown claystone, vertical, horizontal and oblique joints and irregular fractures, some fractures are open, some are calcite-filled; crinoids, ostracods, bryozoans, corals, foraminifera and brachiopods rare.
6727.4	6734.0	100	Calcilutite, approaching very fine-grained calcarenite, with thin calcarenite lenses; stylolites with coating of black claystone, irregular fractures; some calcite-filled; fractures and vugs; crinoids, foraminifera, corals, brachiopods, ostracods and fusulinids rare.
6734.0	6753.0	66	Calcarenite generally very fine- to fine-grained but with occasional coarse material and oolites; stylolites coated with black claystone, irregular fractures and vertical joints, some open, some filled with calcite; others have drusy lining; open fissure and vugular porosity; crinoids, fusulinids, corals, brachiopods rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6753.0	6754.8	100	Calcilutite, approaches a very fine-grained calcarenite texture; stylolites coated with black claystone; vertical, horizontal and irregular fractures, fissures; calcite-filled fractures and fissures; fusulinids and brachiopods common, crinoids, ostracods and corals rare.
6754.8	6756.9	100	Calcarenite, very fine-to fine-grained, grayish white chert layer at 6756.5, bluish white bands of chert containing small pyrite particles at 6756.7; stylolites with black claystone coating, chert bounded by stylolite, vertical and horizontal fractures; crinoids, fusulinids and brachiopods rare.
6756.9	6757.3	100	Chert with calcilutite as a minor constituent; numerous fractures and fissures; fusulinids and crinoids rare.
6757.3	6758.0	100	Calcarenite, very fine-grained, bluish white chert layer 12 mm. thick at base of core; stylolite with black claystone coating, small amount of bluish white chert around stylolite; brachiopods and fusulinids common, crinoids rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6758.0	6759.0	100	Calcilutite, chert band 25 mm. wide near top of zone, stylolites with claystone coating; fusulinids common, crinoids rare.
6759.0	6759.6	100	Calcirudite with calcilutite matrix, partly silicified; stylolites; fusulinids rare.
6759.6	6760.0	100	Calcirudite, band of chert 12 mm. thick; stylolites; fusulinids and crinoids rare.
6760.0	6764.0	100	Calcarenite, very fine-grained; stylolites, conchoidal fracture, fusulinids and crinoids common, bryozoans rare.
6764.0	6766.0	00	
6766.0	6769.4	88	Calcarenite, coarse-grained, crinoidal; stylolites, vertical fractures.
6769.4	6773.0	83	Calcarenite, medium- to coarse-grained; stylolites; fusulinids common, crinoids rare.
6773.0	6782.7	00	
6782.7	6785.7	100	Calcarenite, fine- to medium-grained; stylolites; pin point and vugular porosity; crinoids, fusulinids and corals rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6785.7	6786.1	100	Calcirudite, fossil fragments in a ground mass of fine-to medium-grained calcarenite; stylolites; pin point porosity; fusulinids common, crinoids and bryozoans rare.
6786.1	6788.5	100	Calcarenite, coarse-grained; stylolites; pin point porosity; fusulinids and crinoids common, bryozoans and brachiopods rare.
6788.5	6789.3	74	Calcirudite to medium-grained calcarenite; branching stylolites; crinoids abundant.
6789.3	6796.0	33	Calcarenite, fine-to coarse-grained; stylolites, vugs filled with crystalline calcite; crinoids common.
6796.0	6812.9	91	Calcarenite, medium-grained, a band of chert 18 mm. thick is at 6798.5; stylolites, some have claystone coating which rarely contains pyrite, chert along stylolite at 6803.0 ft., incipient vertical fractures; crinoids and fusulinids common, ostracods, bryozoans rare.
6812.9	6821.2	80	Calcarenite, fine-grained; patches of chert as much as 1.2 cm. in diameter at 6815.5, 6817.0, 6821.2; stylolites; fusulinids and foraminifera (other than fusulinids) rare.

The Ohio Oil Company, Hays No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6821.2	6831.2	97	Calcarenite, medium-grained, large patches of chert as much as 5 cm. long at 6821.2; stylolites, incipient vertical fractures; crinoids and fusul- inids rare.
6831.2	6832.9	100	Calcirudite, large crinoid fragments are phenoclasts in a medium-grained calcarenite ground mass; stylolites; crinoids, fusulinids and foraminifera (other than fusulinids) common.

CORE DESCRIPTION

Well: Pan American Producing Company, Biggs No. A-1

Location: 470 ft. from south line, 330 ft. from west line of NE $\frac{1}{4}$ sec. 205, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C10

Elevation: 2499 ft. K.B.

Depth of reef top: 6808 ft.

Depths in feet		Available Core %	Description
From	To		
6819.0	6819.5	63	Calcarenite; crinoids and fusulinids rare.
6819.5	6821.1	75	Calcirudite, composed of calcilutite and calcarenite phenoclasts as large as 5 cm. in diameter in calcarenite matrix, contains disseminated claystone, calcite-filled joints in phenoclasts, do not extend into matrix; stylolites; crinoids common, fusulinids rare.
6821.1	6823.0	64	Calcarenite, fine-grained, contains calcarenite phenoclasts as large as 10 cm. in diameter; vertical joints, argillaceous zone at base; crinoids and fusulinids rare.
6823.0	6824.1	36	Calcirudite, composed of calcarenite fragments as large as 10 cm. in diameter in calcarenite matrix; oblique joints; crinoids common, fusulinids rare.

Pan American Producing Company, Biggs No. A-1 - Continued

Depths in feet		Available Core %	Description
From	To		
6824.1	6824.8	94	Calcilutite; oblique joints.
6824.8	6825.5	94	Calcirudite, composed of calcarenite and calcilutite phenoclasts as large as 10 cm. in diameter in calcarenite matrix; incipient stylolites, argillaceous zones; crinoids common, fusulinids rare.
6825.5	6827.0	40	Calcarenite, fine-grained; stylolites.
6827.0	6828.0	82	Calcirudite, phenoclasts of calcarenite, contain calcite-filled fractures; stylolites; crinoids common.
6828.0	6837.1	83	Calcarenite, fine-grained; stylolites, vertical joints; vugs and leached fossils at 6831-6834; crinoids and fusulinids common, brachiopods, unidentified shell fragments, bryozoans (fenestellid) and corals rare.
6837.1	6838.5	100	Calcirudite, contains calcilutite phenoclasts in calcarenite matrix; stylolites, argillaceous zones, crinoids are common.
6838.5	6838.8	?	Calcilutite; vertical joints; crinoids and brachiopods.

Pan American Producing Company, Biggs No. A-1 - Continued

Depths in feet		Available Core %	Description
From	To		
6838.8	6841.4	61	Calcarenite, fine-grained; slickensided stylolites, crystalline calcite-replaced fossils and calcite-filled fractures; one large drusy vug; brachiopods and fusulinids rare.
6841.4	6845.1	85	Calcirudite, composed of calcilutite and calcarenite phenoclasts as large as 8 cm. in diameter in calcarenite matrix; stylolites, argillaceous zones; crinoids common, fusulinids rare.
6845.1	6846.3	83	Calcarenite, fine-grained; elongate crystalline calcite masses; hollow fusulinids and foraminifera.
6846.3	6849.0	52	Calcirudite, contains calcarenite phenoclasts as large as 8 cm. in diameter in calcarenite matrix, calcite-filled fractures in both matrix and phenoclasts; occasional claystone fragments; stylolites; crinoids common, fusulinids rare.
6849.0	6864.1	76	Calcarenite; vertical joints; numerous vugs except for dense zone at 6859.2-6860.5, dense zone contains stylolites; crinoids common, fusulinids, brachiopods, bryozoans.

Pan American Producing Company, Biggs No. A-1 - Continued

Depths in feet		Available Core %	Description
From	To		
6864.1	6867.6	63	Calclutite; vugs, stylo- lites.
6867.6	6879.0	97	Calcarenite; vertical joints, vugs, argillaceous zones; crinoids and fusulinids rare.

CORE DESCRIPTION

Well: Pan American Producing Company, Carrell No. 5

Location: 2173 ft. from west line, 2474 ft. from north line of sec. 248, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C11

Elevation: 2449 ft. K.B.

Depth of reef top: 6662 ft.

Depths in feet		Available Core %	Description
From	To		
6698.4	6706.0	47	Calcarenite, occasional calcilutite phenoclasts as much as 3 cm. in diameter, black claystone disseminated in calcarenite matrix; stylolites, vertical joints, some open and some calcite-filled; pin point, vugular and open joint porosity, some vugs contain drusy calcite and bituminous claystone; crinoids common to very common, fusulinids rare to common, brachiopods and bryozoans rare.
6706.0	6719.5	84	Calcilutite with occasional sub-angular to subrounded phenoclasts of calcarenite and calcilutite as much as 3 cm. in diameter and calcarenite lenses as much as .9 ft. thick, claystone bands as much as 1 mm. thick; stylolites, vertical and oblique joints, some joints open and some calcite-filled; vugular and open joint porosity, some vugs contain drusy calcite and bituminous claystone, 1 vug contains drusy sphalerite crystals, some vugs have diameter as much as 1.5 cm.; crinoids rare to very common, fusulinids, coral, brachiopods and bryozoans rare.

Pan American Producing Company, Carrell No. 5 - Continued

Depths in feet		Available Core %	Description
From	To		
6719.5	6722.3	82	Calcirudite, subangular to sub- rounded calcilutite pheno- clasts as much as 6 cm. in diameter in a matrix of cal- cilutite, claystone stringers as much as $\frac{1}{4}$ in. thick; verti- cal joints, some enlarged by leaching, some contain drusy calcite; vugular and open joint porosity, vugs as much as 5 mm. and some contain drusy calcite; crinoids common, fusulinids rare.
6722.3	6727.5	71	Calcilutite, occasional sub- angular to subrounded pheno- clasts of calcilutite and calcarenite as much as 3 cm. in diameter, claystone bands as much as 2 mm. thick; 2 sets vertical joints, some joints are open, others con- tain drusy calcite, vugular and open joint porosity, crinoids common, fusulinids occasional to rare.

Pan American Producing Company, Carrell No. 5 - Continued

Depths in feet		Available Core %	Description
From	To		
6727.5	6738.0	55	Calcirudite, calcilutite and calcarenite subangular to subround phenoclasts as much as 4 cm. in diameter in a matrix of calcarenite and calcilutite; claystone stringers less than 1 mm. thick; vertical and oblique joints cut both phenoclasts and matrix, some joints are open, others contain drusy calcite and others are calcite filled; vugular and open joint porosity; vugs are lined with drusy calcite and some vugs are calcite filled, vugs as much as 1.5 cm. in diameter; crinoids common, fusulinids occasional, bryozoans and gastropods rare, shell fragments very common.
6738.0	6764.6	65	Calcilutite, contains several calcirudite lenses as much as .7 ft. thick and occasional subrounded to rounded phenoclasts of calcilutite as much as 4 cm. in diameter, occasional claystone stringers as much as $\frac{1}{4}$ in. thick, disseminated pyrite cubes as much as 2 mm. wide; stylolites, vertical joints, some joints are open, others have drusy calcite and dolomite coating, others are filled with calcite or bituminous material; vugular, pin point and open joint porosity, vugs as much as 3 cm. in diameter, some vugs contain drusy dolomite and calcite crystals; crinoids common, fusulinids, brachiopods, gastropods and shell fragments rare.

Pan American Producing Company, Carrell No. 5 - Continued

Depths in feet		Available Core	Description
From	To	§	
6761.6	6773.5	27	Calcarenite, claystone stringers as much as 1 mm. thick, distorted bedding indicates preconsolidation slumping; vertical and horizontal joints, contain drusy calcite; crinoids common, fusulinids occasional, brachiopods rare.
6773.5	6775.5	00	
6775.5	6788.6	69	Calcirudite, subangular to subrounded calcilutite phenoclasts and coarse fossil debris as much as 7 cm. in diameter in a calcilutite matrix, calcilutite lens as much as .3 ft. thick, claystone fragments as much as 2.5 cm. in diameter; stylolites, some between adjacent phenoclasts; vertical joints, some calcite lined, some cut phenoclasts only, others cut both phenoclasts and matrix; crinoids common to very common, fusulinids common, brachiopods and corals rare.
6788.6	6792.0	00	

Pan American Producing Company, Carrell No. 5 - Continued

Depths in feet		Available Core %	Description
From	To		
6792.0	6794.0	65	Calcilutite with occasional calcilutite phenoclasts as much as 2.5 cm. in diameter, claystone bands as much as 2mm. thick; stylolites, vertical and oblique joints, some joints are calcite filled, some contain drusy calcite, others have been enlarged by leaching; vugular and open joint porosity, vugs as much as 2 cm. in diameter; crinoids and fululinids common.
6794.0	6811.0	00	
6811.0	6820.0	68	

CORE DESCRIPTION

Well: Pan American Producing Company, Casstevens No. 1

Location: 467 ft. from south and east lines of the NW $\frac{1}{4}$ sec.
247, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C9

Elevation: 2475 ft. K.B.

Depth of reef top: 6812 ft.

Depths in feet		Available Core %	Description
From	To		
6822.0	6834.3	97	Calcarenite; fine-to medium-grained, leached, earthy; stylolites, vertical calcite-filled joints; vugular porosity, drusy calcite in vugs; fusulinids very common.
6834.3	6835.4	27	Calcilutite, stylolites, vugular porosity, some vugs are calcite-filled; fusulinids rare.
6835.4	6839.0	67	Calcarenite, fine-grained; claystone coated stylolites, vertical joints; fusulinids abundant.
6839.0	6741.4	42	Calcilutite, stylolites, vertical joints; fusulinids common, brachiopods rare.
6741.4	6843.2	50	Calcarenite, fine-grained, leached, earthy patches; calcite-filled fissures; vugular porosity; crinoids occasional, fusulinids and brachiopods rare.
6843.2	6844.5	31	Calcilutite, leached, earthy; calcite-filled fissures; vugular and pin point porosity, some vugs are calcite-filled; crinoids and fusulinids rare.

Pan American Producing Company, Casstevens No. 1-Continued

Depths in feet		Available Core	Description
From	To	%	
6844.5	6852.0	100	Calcarenite, fine-grained with occasional coarse fragments; stylolites, vertical joints, vugular porosity, some calcite-filled vugs; fusulinids common.

CORE DESCRIPTION

Well: Pan American Producing Company, Davis No. 2

Location: 467 ft. from the north and east lines of sec. 249,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C12

Elevation: 2446 ft. K.B.

Depth of reef top: 6562 ft.

Depths in feet		Available Core %	Description
From	To		
6584.0	6585.4	57	Calcirudite, composed of calcilutite phenoclasts as much as 2 cm. in diameter in a matrix of calcarenite, claystone stringers, leached; vertical joints with claystone fill; vugular porosity, vugs as much as 5 mm. in diameter.
6585.4	6614.0	58	Calcilutite, calcarenite zones, leached, occasional calcarenite angular phenoclasts as much as 3 cm. in diameter, claystone bands 5 mm. thick; stylolites, vertical joints, some joints are open; vugular and open joint porosity, many vugs contain drusy calcite and bituminous claystone filling, vugs as much as 6 cm. in diameter; crinoids and brachiopods rare to abundant, corals, gastropods and bryozoans rare.
6614.0	6615.6	95	Calcarenite, leached; bryozoans common.

Pan American Producing Company, Davis No. 2 - Continued

Depths in feet		Available Core	Description
From	To	%	
6615.6	6616.0	100	Calcilutite, calcarenite clay- stone zones as much as 3 mm. thick, leached; stylolites, calcite-filled, oblique and vertical joints; drusy calcite in vugs, vugs as much as 4 mm. in diameter.
6616.0	6621.0	00	
6621.0	6624.6	70	
6624.6	6627.0	00	
6627.0	6630.7	57	
6630.7	6632.0	85	Calcarenite, leached, contains calcilutite lenses; stylolites, vertical joints filled with calcite and bituminous material; vugular porosity, drusy calcite in vugs; crinoids common, brachiopods rare.
6632.0	6634.0	60	Calcilutite with calcarenite lenses; stylolites, vertical joints; crinoids very common, brachiopods common.
6634.0	6671.0	00	
6671.0	6676.5	85	Calcarenite, very fine-grained with calcilutite lenses, leached; stylolites, oblique joints; vugs with drusy cal- cite; crinoids common, fusuli- nids and brachiopods rare.
6676.5	6680.0	91	Calcilutite, leached; vertical joints, some are calcite- filled; vugular porosity, drusy calcite in vugs.

Pan American Producing Company, Davis No. 2 - Continued

Depths in feet		Available Core	Description
From	To	%	
6680.0	6683.6	81	Calcarenite, containing calcilutite lenses as much as 1 ft. thick, leached, clay-coated stylolites, oblique and vertical joints; vugular porosity, some vugs contain drusy calcite; crinoids common to very common.
6683.6	6686.0	00	
6686.0	6694.6	81	
6694.6	6696.0	100	Calcilutite, vertical joints; vugular porosity, some vugs contain drusy calcite; crinoids and brachiopods common, coral and bryozoans rare.
6696.0	6710.0	94	Calcarenite, bioclastic, leached, one greenish-gray claystone phenoclast noted; stylolites, vertical joints; vugs as much as 4 cm. in diameter containing drusy calcite and dolomite; crinoids common to very common, brachiopods and bryozoans rare to common, coral, fusulinids and gastropods rare.
6710.0	6723.0	00	
6723.0	6727.2	74	
6727.2	6728.5	46	Calcirudite, leached, contains phenoclasts as much as 4 cm. in diameter, calcite-filled fissure; drusy vugs; crinoids common, fusulinids and bryozoans rare.
6728.5	6734.9	75	Calcarenite, fine-to medium-grained, bioclastic, with calcilutite lenses as much as 5 in. thick; stylolites, vertical joints; vugs with drusy calcite; crinoids common, bryozoans, brachiopods and fusulinids rare.

Pan American Producing Company, Davis No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6734.9	6740.0	59	Calcirudite with subangular phenoclasts of calcarenite and calcilutite; stylolites, calcite-filled vertical and oblique joints; vugular porosity; crinoids common, brachiopods rare.
6740.0	6743.0	33	Calcilutite; stylolites, calcite-filled oblique fissures; vugs as much as 1.5 cm. in diameter with drusy calcite, crinoids and bryozoans rare.
6743.0	6750.0	00	
6750.0	6756.1	85	
6756.1	6757.2	64	Calcarenite, leached; stylolites, vertical joints; claystone-filled cavities; crinoids and bryozoans common.
6757.2	6758.4	50	Calcilutite, leached; claystone coated stylolites; crinoids.
6758.4	6759.5	100	Calcirudite, leached; calcilutite phenoclasts as much as 2.5 cm. in diameter; stylolites; vugs as much as 2.5 cm. in diameter, containing drusy dolomite crystals; brachiopods common.
6759.5	6768.1	76	Calcilutite, rounded to sub-rounded calcilutite phenoclasts in lenses, fine-grained calcarenite lenses, leached; stylolites, vertical joints; vugs with drusy calcite; crinoids common to abundant, bryozoans and brachiopods rare.

Pan American Producing Company, Davis No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6768.1	6770.5	75	Calcirudite, subrounded phenoclasts of calcilutite and calcarenite; stylolites, vertical joints with calcite filling; crinoids common to very common, brachiopods rare.
6770.5	6772.0	60	Calcilutite; calcite-filled vertical and oblique joints; fusulinids, crinoids and brachiopods rare.
6772.0	6774.0	00	
6774.0	6777.3	94	Calcarenite, coarse-grained; stylolites, vertical joints, some joints are calcite - filled, others have a drusy calcite veneer; vugs up to 3 mm. in diameter; crinoids very common, brachiopods and corals rare.
6777.3	6779.9	92	Calcilutite, vertical joints, bituminous claystone (?) filling in joints; vugs as much as 5 cm. with drusy calcite and bituminous claystone (?) fillings; crinoids common to very common, fusulinids, brachiopods, bryozoans and coral rare.
6779.9	6780.9	00	
6780.9	6784.8	90	
6784.8	6804.0	92	Calcarenite, fine-to coarse-grained, leached, earthy, occasional calcilutite phenoclasts as much as 4 mm. in diameter and claystone fragments; pin point and vugular porosity; drusy calcite in vugs; crinoids common to very common, fusulinids common, brachiopods rare.

Pan American Producing Company, Davis No. 2 - Continued

Depths in feet		Available Core %	Description
From	To		
6804.0	6805.0	100	Calcirudite, phenoclasts of coarse crinoidal debris in a very fine-grained calcarenite matrix, leached; pin point porosity; fusulinids and crinoids common, bryozoans occasional.
6805.0	6808.0	53	Calcarenite, very fine-grained, occasional angular calcilutite phenoclast, leached, earthy; stylolites; pin point and vugular porosity; crinoids common to very common, fusulinids common, bryozoans rare.

CORE DESCRIPTION

Well: Pan American Producing Company, Woolever No. 1

Location: 660 ft. from south and west lines of sec. 249,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C8

Elevation: 2462 ft. K.B.

Depth of reef top: 6647 ft.

Depths in feet		Available Core %	Description
From	To		
6688.0	6693.4	57	Calcarenite, leadhed; vertical joints; fusulinids occasional, crinoids and brachiopods rare.
6693.4	6694.5	00	
6694.5	6695.8	38	Calcirudite, leached, subangular phenoclasts of calcilutite in a fine-grained calcarenite matrix, leached; calcite filled fissures, stylolites, stylolitic control of leaching; vugular porosity; fusulinids and crinoids occasional.
6695.8	6697.9	00	
6697.9	6705.0	42	
6705.0	6707.0	00	
6707.0	6710.0	60	Calcarenite; stylolites with walls slightly leached; calcite filled cavities; fusulinids and crinoids occasional to abundant.
6710.0	6713.3	79	Calcirudite composed of subangular phenoclasts of calcilutite in a matrix of fine-grained calcarenite lenses, leached; stylolites, vertical joints, some enlarged by leaching; vugular and open fissure porosity; crinoids abundant, fusulinids and bryozoans occasional.

Pan American Producing Company, Woolever No. 1 - Continued

Depths in feet		Available Core	Description
From	To	%	
6713.3	6715.8	88	Calcilutite, bioclastic, leached, earthy; pin point and vugular porosity.
6715.8	6718.0	68	Calcarenite, oolitic, leached, earthy; fusulinids are leached and abundant, crinoids and bryozoans rare.

CORE DESCRIPTION

Well: Phillips Petroleum Company, Mebane No. 4

Location: 467 ft. from north and west lines of sec. 210,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C74

Elevation: 2444 ft. K.B.

Depth of reef top: 6681 ft.

Depths in feet		Available Core %	Description
From	To		
6699.0	6699.4	100	Calcarenite, bioclastic; stylolites, fractures; leached along fractures; crinoid fragments.
6699.4	6719.5	99	Calcirudite, calcilutite phenoclasts in calcilu- tite matrix; leached stylolites, vertical fractures; pin point porosity and leaching along fractures; crinoids and fusulinids rare.
6719.5	6721.0	100	Calcilutite; bioclastic; leached stylolites.
6721.0	6722.5	100	Calcarenite; bioclastic; stylolites; crinoids rare.
6722.5	6725.5	100	Calcirudite, phenoclasts of calcarenite and calcilutite, stylolitic contacts between pheno- clasts.

Phillips Petroleum Company, Mebane No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6725.5	6736.0	100	Calcarenite, bioclastic, leached; stylolites; vugular and pin point porosity; fusulinids abundant in certain zones, crinoids.
6736.0	6738.0	00	
6738.0	6744.0	100	Calcilutite, bioclastic; stylolites; vugular and pin point porosity; fusulinids rare.
6744.0	6753.0	100	Calcarenite, bioclastic, leached; stylolites; pin point and vugular porosity; fusulinids.
6753.0	6754.5	100	Calcirudite, stylolitic contacts between phenoclasts.
6754.5	6756.0	100	Calcilutite, bioclastic, lenses of calcarenite, incipient stylolites.
6756.0	6759.0	100	Calcirudite, slightly leached; stylolites; pin point porosity.
6759.0	6762.0	100	Calcilutite, bioclastic; stylolites; pin point porosity; fusulinids.
6762.0	6763.5	100	Calcirudite, stylolitic contacts between phenoclasts; stylolites.

Phillips Petroleum Company, Mebane No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6763.5	6769.5	100	Calcilutite, bioclastic with interbedded calcarenite; stylolites; fusulinids and crinoids.
6769.5	6771.0	100	Calcirudite, stylolitic contacts between phenoclasts.
6771.0	6784.5	100	Calcilutite, bioclastic; stylolites; pin point porosity; fusulinids and crinoids.
6784.5	6793.5	100	Calcarenite, bioclastic; calcilutite lenses; stylolites; pin point and vugular porosity; crinoids.
6793.5	6799.5	100	Calcirudite, stylolites, some stylolitic control of leaching; crinoids.
6799.5	6804.0	100	Calcilutite, stylolites, stylolitic control of leaching; pin point porosity.
6804.0	6805.5	100	Calcirudite, calcilutite phenoclasts in a cal- cilutite matrix; stylolites, filled fissures; crinoids, coral and shell fragments.
6805.5	6813.0	100	Calcarenite, very fine-grained, bioclastic with calcilutite lenses and occasional cal- cilutite phenoclasts; sty- lolites, fissures enlarged by leaching; pin point porosity; fusulinids, crinoids, bryozoans and coral.

Phillips Petroleum Company, Mebane No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6813.0	6816.0	57	Calcilutite, bioclastic; stylolites, vertical joints; fusulinids and crinoids.
6816.0	6823.5	100	Calcirudite, calcilutite phenoclasts as much as 5 cm. in diameter in a matrix of very fine-grained cal- carenite, stylolitic contacts between phenoclasts, argillaceous zones; stylolites, vertical joints; crinoids, fusulinids and brachiopods.
6823.5	6827.5	100	Calcarenite with very fine- grained argillaceous bands; stylolites, vertical joints; fusulinids, forams, shell fragments.
6827.5	6859.0	100	Calcilutite, bioclastic, cal- carenite lenses as much as 1.5 in. thick and argillaceous bands; claystone stringers 1 in. thick; stylolites, vertical joints, calcite-filled fissures; fusulinids very common, crinoids, brachiopods and shell fragments.
6859.0	6867.5	100	Calcarenite, bioclastic leached; stylolites, vertical joints; pin-point porosity; fusulinids very common, crinoids and shell fragments common.

Phillips Petroleum Company, Mebane No. 4 - Continued

Depths in feet		Available Core %	Description
From	To		
6867.5	6891.0	100	Calcirudite, calcilutite pheno- clasts in a calcilutite matrix; stylolites, vertical joints, calcite-filled fissures, occasional small open fissures, pin point porosity; fusulinids, crinoids and shell fragments common and brachiopods rare.
6891.0	6901.5	?	Calcilutite, leached, with very fine-grained calcarenite lenses; stylolites, vertical joints, some open fissures, calcite-filled fissures; pin point and vugular porosity, vugs as much as 4 mm. in diameter; crinoids and fusulinids are common and shell fragments are occasional.
6901.5	6910.5	100	Calcarenite, leached; stylolites, vertical joints, some open fissures; pin point porosity; fusulinids very common, crinoids and shell fragments common.
6910.5	6918.0	100	Calcilutite, with argillaceous bands, contains a few large calcilutite phenoclasts and claystone stringers; claystone- coated stylolites, vertical joints, open fissures, some enlarged by leaching; fusulinids, shell fragments and crinoids occasional to common, bryozoans scattered.
6918.0	6919.5	00	
6919.5	6928.0	100	

CORE DESCRIPTION

Well: Sun Oil Company, Arledge No. 1

Location: 467 ft. from north and east lines of the NW $\frac{1}{4}$ sec. 192,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C44

Elevation: 2465 ft. K.B.

Depth of reef top: 6805 ft.

Depths in feet		Available Core	Description
From	To	%	
6813.0	6816.0	57	Calcarenite, fine-grained, leached, earthy; stylolites; vugular porosity, vugs as wide as 1 cm.; crinoids common.
6816.0	6824.0	88	Calcilutite, leached, earthy; stylolites, calcite-filled fissures; vugular porosity; crinoids common.
6824.0	6830.0	62	Calcarenite, leached; leached fissure, vugular and pin point porosity, vugs as wide as 1 cm. some contain drusy calcite; fusulinids common.
6830.0	6842.0	72	Calcilutite, leached; vugular porosity, vugs as wide as 2 mm. some of which contain drusy cal- cite.

CORE DESCRIPTION

Well: Sun Oil Company, Arledge No. 2

Location: 660 ft. from west line, 853 ft. from north line sec. 192,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C29

Elevation: 2439 ft. K.B.

Depth of reef top: 6790 ft.

Depths in feet		Available Core %	Description
From	To		
6819.0	6820.0	50	Calcirudite, composed of sub- angular calcilutite pheno- clasts as much as 3 cm. in diameter in a matrix of calcilutite and fine- grained calcarenite.
6820.0	6822.0	50	Calcilutite, with occasional claystone fragments which contain pyrite; fusulinids are common and crinoids rare.
6822.0	6829.0	69	Calcarenite, fine-grained, slightly leached; vertical joints, some open, stylo- lites; vugular porosity, some vugs are as much as 5 mm. in diameter; fusul- inids common, crinoids and bryozoans rare.

CORE DESCRIPTION

Well: Sun Oil Company, Arledge No. A-1

Location: 660 ft. from south line, 1980 ft. from east line of
sec. 192, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C23

Elevation: 2448 ft.

Depth of reef top: 6883 ft.

Depth in feet		Available Core %	Description
From	To		
6817.0	6819.0	100	Claystone, with interbedded calcarenite and pyrite stringers; vertical joints; crinoids common and brachiopods rare.
6819.0	6820.0	80	Calcilutite; vertical joints; fusulinids very common.
6820.0	6823.0	67	Calciirudite, subrounded to rounded calcilutite phenoclasts as large as 7 in. in diameter in calcilutite matrix; stylolites; fusulinids common and crinoids rare.
6823.0	6832.0	68	Calcarenite, stylolites, oblique and vertical joints; fusulinids and crinoids common, bryozoans rare.

CORE DESCRIPTION

Well: Sun Oil Company, G. D. Boyles No. 1

Location: 2229 ft. from north line, 1467 ft. from east line
of sec. 201, Blk. 97, Houston and Texas Central
Survey.

U.S.G.S. Series number: C36

Elevation: 2419 ft. K.B.

Depth of reef top: 6643 ft.

Depths in feet		Available Core %	Description
From	To		
6673.0	6679.0	72	Calcarenite with claystone fragments and chert nodules up to 3 cm.; well developed vertical joints, some open, stylolites; open joint porosity; crinoids rare.
6679.0	6691.0	54	} Calcilutite with claystone fragments, leached, earthy; vertical joints, some open, stylolites; vugular and open joint porosity, drusy calcite in vugs, some as much as 5 mm. in diameter; crinoids, fusulinids and brachiopods rare.
6691.0	6697.0	00	
6697.0	6709.0	67	
6709.0	6712.0	00	
6712.0	6715.0	100	Calcarenite, very fine-grained, bioclastic, leached, earthy; vertical fissures, some open; vugular and open fissure porosity, some vugs as much as 3 mm. in diameter; crinoids rare.
6723.0	6742.0	73	Calcilutite, bioclastic; vertical joints, some enlarged by leach- ing; vugular, pin point and open joint porosity; vugs up to 2 cm. in diameter, some contain drusy calcite.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 1

Location: 467 ft. from north and west line of S $\frac{1}{2}$ of sec. 392,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C47

Elevation: 2439 ft.

Depth of reef top: 6558 ft.

Depths in feet		Available Core %	Description
From	To		
6586.0	6619.0	79	Calcarenite, fine to medium-grained, bioclastic, angular calcilutite, slightly leached phenoclast 4 cm. in diameter; clay-coated stylolites, vertical joints; calcite filled fissures; pin point and vugular porosity, some vugs have drusy calcite, vug diameter as much as 2 cm.; crinoids common, fusulinids, brachiopods and bryozoans; trilobites rare.
6619.0	6649.0	76	Calcilutite, claystone stringers 1 mm. thick, bioclastic, leached, earthy; stylolites, vertical joints, some joints enlarged by leaching; vugular, pin point and open joint porosity, some vugs are 4 cm. in diameter and are lined with drusy calcite; crinoids common and fusulinids and brachiopods rare.

Sun Oil Company, Brice No. 1 - Continued

Depths in feet		Available Core %	Description
From	To		
6648.0	6663.0	49	Calcarenite, very fine-to medium-grained, bioclastic, bioclastic calcilutite zones as much as 1 ft. thick, leached, earthy appearance, shaley lime zone 4 cm. thick; finely vugular; crinoids very common.
6663.0	6675.0	62	Calcilutite, bioclastic, many branching claystone stringers, very fine-grained calcarenite lenses as thick as $\frac{1}{2}$ in., partly leached, earthy; vertical joints, some enlarged by leaching; vugular and open joint porosity, vugs as large as 2 cm. in diameter; crinoids.
6675.0	6687.0	58	Calcarenite, fine-to medium-grained, bioclastic, leached, earthy; incipient vertical joints some enlarged by leaching; vugular and open joint porosity, vugs as above; crinoids are common.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 3

Location: 467'ft. from south and west lines of the NW $\frac{1}{4}$ sec. 385,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C48

Elevation: 2452 ft.

Depth of reef top: 6296 ft.

Depths in feet		Available Core %	Description
From	To		
6356.0	6368.0	68	Calcilutite, bioclastic with calcarenite lenses, earthy appearance due to leaching; stylolites; vugular porosity, drusy calcite in vugs; crinoids and fusulinids.
6368.0	6377.0	58 00 58	Calcarenite, bioclastic, calcilutite as much as 2 ft. thick, leached as above, vugular porosity, drusy calcite in vugs; vugs as much as 2 mm. in diameter; fusulinids and crinoids common.
6377.0	6380.0		
6380.0	6398.0		
6398.0	6439.0	62	Calcilutite, bioclastic, leached, earthy, stylolites, vertical joints; some enlarged by leaching; open joint, pin point and vugular porosity, drusy calcite in open fissures and in vugs; vugs are as much as 5 mm. in diameter; fusulinids very common, bryozoans and brachiopods rare.

Sun Oil Company, Brice No. 3 - Continued

Depths in feet		Available Core	Description
From	To	%	
6439.0	6468.0	52	Calcarenite, very fine-grained, bioclastic, leached, earthy, crinoidal debris not leached; stylolites and vertical joints, some joints are open; vugular, pin point and open fissure porosity; some vugs are 3 cm. in diameter; fusulinids common and crinoids rare.
6468.0	6471.0	00	
6471.0	6587.0	52	
6587.0	6596.0	59	Calcilutite, bioclastic, leached, earthy, claystone band 1 cm. thick; stylolites; fusulinids common, crinoids rare.
6596.0	6667.0	70	Calcarenite, bioclastic, very fine- grained, leached, earthy; stylolites, vertical joints enlarged by leaching and some filled with calcite; vugular, pin point and open porosity; fusulinids common and bryozoans, brachiopods and gastropods rare.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 7

Location: 467 ft. from south line and 2987 ft. from west line of N $\frac{1}{2}$ of sec. 385, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C39

Elevation: 2475 ft. K.B.

Depth of Reef top: 6653 ft.

Depths in feet		Available Core %	Description
From	To		
6711.0	6717.0	73	Calcarenite, slightly dolomitic, extensively leached, claystone fragments as much as 3 cm. in diameter with muscovite flakes; stylolites; vertical joints; vugular and pin point porosity, drusy calcite and dolomite in vugs; crinoids very common and fusulinids rare.
6717.0	6720.0	?	Calcilutite, zones of claystone fragments that are as much as 3 cm. in diameter and contain abundant muscovite flakes; vugular and pin point porosity; drusy dolomite in vugs; crinoids very common.
6720.0	6722.0	100	Calcarenite, claystone bands as much as 3 mm. thick that contain micaceous zones and scattered pyrite crystals; vertical and oblique joints, stylolites coated with claystone that contains disseminated pyrite crystals; pin point, vugular and open joint porosity, vugs are lines with drusy dolomite, open joints are lined with claystone; crinoids very common, fusulinids and brachiopods rare.
6722.0	6725.0	00	
6725.0	6740.0	65	
6740.0	6743.0	00	
6743.0	6762.0	71	

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 10

Location: 2173 ft. from north line, 660 ft. from east line of sec.
385, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C37

Elevation: 2499 ft. K.B.

Depth of reef top: 6930 ft.

Depths in feet		Available Core	Description
From	To	%	
6950.0	6965.0	72	Calcarenite, fine-to medium-grained, calcilu- tite lenses less than 3 ft. thick, leached; in- cipient stylolites with bituminous or claystone coating; vugular porosity, some vugs contain drusy calcite; crinoids, bry- ozoans, brachiopods, fusulinids very common near base.
6965.0	6968.0	00	
6968.0	6974.0	42	Calcilutite, bioclastic ; in- cipient stylolites with claystone or bituminous coating; vugular and pin point porosity, vugs as much as 1 mm. in diameter; fusulinids, crinoids, bryozoans and brachiopods.
6974.0	6976.0	00	

Sun Oil Company, Brice No. 10 - Continued

Depths in feet		Available Core %	Description
From	To		
6976.0	6985.0	73	Calcarenite; fine-to medium-grained, occasional angular phenoclast of calcilutite as much as 2 cm. in diameter, shaley limestone zone .4 ft. thick at 6982, leached, earthy in spots; stylolites; vugular and pin point porosity, vugs as much as 1 mm. in diameter; crinoids, fusulinids and brachiopods.
6985.0	7007.0	00	
7007.0	7025.0	62	Calcarenite, very fine-to medium-grained; stylolites, with claystone or bituminous coating, some leaching along stylolites, vertical joints, open fissures, some fissures have 1-2 mm. opening; pin point, vugular and open fissure porosity, vugs as much as 1 cm. in diameter; crinoids and fusulinids.
7025.0	7377.0	00	
7377.0	7386.0	59	Calcarenite, very fine-grained, leached, earthy; stylolites, vugular porosity, vugs as much as 2 cm. in diameter; crinoids, bryozoans, gastropod echinoid spine.
7386.0	7389.0	00	
7389.0	7395.0	55	Calcarenite, as at 7377 to 7386.

Sun Oil Company, Brice No. 10 - Continued

Depths in feet		Available Core %	Description
From	To		
7395.0	7423.0	00	
7423.0	7432.0	65	fragmental Calcilutite, /material leached, matrix not leached; dark grey chert lenses, clay- stone layers, leached, earthy; stylolites; vugular porosity; vugs as much as 2 mm. in diameter; crinoids, bryozoans and brachiopods.
7432.0	7437.0	80	Calcarenite; vertical joints; vugular porosity, vugs as much as 5 mm. in diameter; crinoids.
7437.0	7438.0	00	
7438.0	7456.0	52	Calcarenite, contains occasional calcilutite and calcarenite phenoclasts, claystone layers .4 ft. thick at 7453; stylolites, vertical joints; vugular porosity, vugs as much as 5 mm. in diameter; crinoids, brachio- pods and fusulinids.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 16

Location: 467 ft. from south line, 1146 ft. from east line of the NE $\frac{1}{4}$ sec. 385, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C32

Elevation: 2494 ft. K.B.

Depth of reef top: 6872 ft.

Depths in feet		Available Core %	Description
From	To		
6888.0	6901.8	?	Calcarenite, fine- to medium-grained, leached; with oolitic zones as much as 1 ft. thick; stylolites, incipient vertical joints; pin point and vugular porosity, drusy calcite in vugs, vugs as much as 1 mm. in diameter; crinoids are very common.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 11

Location: 660 ft. from south line, 1667 ft. from west line of sec. 392, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C22

Elevation: 2486 ft. K.B.

Depth of reef top: 6535 ft.

Depths in feet		Available Core %	Description
From	To		
6553.0	6562.0	67	Calcilutite, slightly leached; stylolites; drusy calcite in vugs as much as 3 mm. in diameter, vugular and pin point porosity; crinoids and fusulinids common, brachiopods and bryozoans rare.
6562.0	6565.0	00	Same as above.
6565.0	6580.0	67	
6580.0	6583.0	00	
6583.0	6595.0	59	Calcarenite with calcilutite beds as much as 3 ft. thick, leached, earthy; stylolites; pin point, open fissure and vugular porosity, drusy calcite in vugs, vugs 5 cm. in diameter; crinoids common, fusulinids, bryozoans and brachiopods rare.
6595.0	6596.0	00	Same as above except for scattered calcite-filled fractures.
6596.0	6614.0	60	
6614.0	6643.0	56	Calcilutite, slightly leached; vertical joints, some open; pin point, vugular and open joint porosity, some open joints are calcite-filled, some vugs contain drusy calcite; crinoids and bryozoans common, fusulinids and brachiopods rare.

Sun Oil Company, Brice No. 11 - Continued

Depths in feet		Available Core %	Description
From	To		
6643.0	6655.0	78	Calcarenite, very fine-grained, leached; stylolites, vertical joints, some open; vugular and open joint porosity, drusy calcite in vugs; crinoids common, bryozoans, brachiopods and corals rare.
6655.0	6679.0	82	Calclutite, as at 6614.0-6643.0.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 17

Location: 835 ft. from north line, 1275 ft. from east line of sec. 385, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C46

Elevation: 2522 ft. h.B.

Depth of reef top: 6860 ft.

Depths in feet		Available Core %	Description
From	To		
6874.0	6883.0	72	Calcarenite, very fine-grained, containing lenses of calcilutite as much as 6 in. thick; stylolites, vertical joints; crinoids common and fusulinids and corals are rare.
6883.0	6892.0	67	Calcirudite, with angular phenoclasts of calcilutite as much as 5 cm. in diameter in a matrix of fine-to medium-grained calcarenite; fractures, mostly calcite-filled, some of which are confined to phenoclasts; stylolites.
6892.0	6895.0	40	Calcarenite, very fine-grained.
6895.0	6897.0	60	Calcirudite, as at 6883.0-6892.0 with layer of calcilutite $\frac{1}{2}$ in. thick and several stringers of bituminous claystone $\frac{1}{2}$ in. thick.
6897.0	6905.0	74	Calcarenite, very fine-grained, with lenses of calcilutite as much as $\frac{3}{4}$ in. thick and scattered calcirudite fragments; stylolites; cavity 6-7 cm. in diameter with drusy calcite; crinoids are very common.

Sun Oil Company, Brice No. 17 - Continued

Depths in feet		Available Core	Description
From	To	%	
6905.0	6908.0	?	Calcilutite, stylolites, one of which is overlaid by dense cal- cilutite; calcite-filled fractures at 6906.0.
6908.0	6919.0	?	Calcarenite, as at 6897.0-6905.0.

CORE DESCRIPTION

Well: Sun Oil Company, Brice No. 18

Location: 1306 ft. from east line, 450 ft. from south line of sec. 392, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C33

Elevation: 2524 ft. K.B.

Depth of reef top: 6910 ft.

Depths in feet		Available Core %	Description
From	To		
6929.0	6932.0	60	Claystone, containing round to subround limestone fragments as much as 1 cm. in diameter is interbedded with calcarenite in lenses as much as 3 mm. thick grades down into calcarenite; crinoids.
6932.0	6934.0	55	Calcarenite, fine-grained; vertical fractures as much as 1 cm. filled with dark calcilutite, walls of fracture have been leached for a distance of 3 mm. from the calcilutite
6934.0	6936.0	00	
6936.0	6942.0	55	
6942.0	6945.0	65	Calcarenite as above but with open fractures.

CORE DESCRIPTION

Well: Sun Oil Company, Bynum No. 1

Location: 1980 ft. from the south and west lines of sec. 204,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C30

Elevation: 2420 ft. K.B.

Depth of reef top: 6797 ft.

Depths in feet		Available Core	Description
From	To	%	
6805.0	6808.0	?	Calcarenite, fine-to medium- grained, calcilutite streaks, slightly leached; incipient joints, vugs as much as 1 mm. in diameter; fusulinids are leached and common.
6808.0	6817.0	?	Calcarenite as above but with open fissures in upper 3 ft.

CORE DESCRIPTION

Well: Sun Oil Company, Byrum No. 2 .

Location: 1980 ft. from south line, 660 ft. from west line of sec. 204, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C38

Elevation: 2419 ft. K.B.

Depth of reef top: 6761 ft.

Depths in feet		Available Core %	Description
From	To		
6775.0	6781.0	60	Calcirudite, encrinite, pheno- clasts are crinoid columnal fragments as much as 4 mm. in diameter; calcarenite or cal- cilutite matrix, matrix leached; stylooliths; vugular and pin point porosity; crinoids common, fusulinids and bryozoans rare.
6781.0	6784.0	100	Calcarenite, vugular porosity; crinoids very common, fusulinids common, brachiopods.

CORE DESCRIPTION

Well: Sun Oil Company, Eiland No. 1

Location: NW corner of the S $\frac{1}{2}$ of sec. 202, Blk. 97, Houston
and Texas Central Survey.

U.S.G.S. Series number: C40

Elevation: 2395 ft. K.B.

Depth of reef top: 6710 ft.

Depths in feet		Available Core %	Description
From	To		
6716.0	6734.0	69	Calcilutite, leached; stylolites, vertical joints; pin point and vugular porosity, drusy calcite in vugs; fusulinids, crinoids and brachiopods rare to common.
6734.0	6741.0	57	Calcarenite; stylolites, vertical joints, pin point and vugular porosity; fusulinids and crinoids common.

CORE DESCRIPTION

Well: Sun Oil Company, Fenton No. 1

Location: 1998 ft. from north line, 660 ft. from west line of
sec. 194, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: G21

Elevation: 2344 ft. K.B.

Depth of reef top: 6593 ft.

Depths in feet		Available Core	Description
From	To	%	
6612.0	6648.0	33	Calcilutite, slightly leached, thin calcarenite layers as much as 1 ft. thick, occasional subangular to subrounded cal- cilutite phenoclasts as much as 2 cm. in diameter; occasional ramifying claystone stringers as much as 1 1/4 in. thick; stylo- lites with claystone coating, well developed oblique and verti- cal joints, some joints are open; vugular, pin point and open joint porosity; fusulinids and crinoids common, brachiopods and bryozoans rare.
6648.0	6666.0	00	
6666.0	6669.0	33	
6669.0	6675.0	00	
6675.0	6687.0	33	
6687.0	6690.0	00	
6690.0	6698.0	33	

CORE DESCRIPTION

Well: Sun Oil Company, Fenton No. A-1

Location: 660 ft. from north line, 663 ft. from east line, sec. 194,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C41

Elevation: 2377 ft. K.B.

Depth of reef top: 6705 ft.

Depths in feet		Available Core %	Description
From	To		
6722.0	6739.0	49	Calcarenite, bioclastic , calcilutite lenses as much as 6 in. thick, leached; stylolites, vertical joints; pin point, open fissure and vugular porosity; crinoids common, fusulinids and brachiopods rare.

CORE DESCRIPTION

Well: Sun Oil Company, Lemons No. 1

Location: 330 ft. from north line, 467 ft. from east line of the
SW $\frac{1}{4}$ sec. 205, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C31

Elevation: 2472 ft. K.B.

Depth of reef top: 6802 ft.

Depths in feet		Available Core	Description
From	To	%	
6767.0	6773.0	50	Calclutite, calcarenite zone as much as 6 in. thick, leached slightly; vertical joints that are enlarged slightly by leaching; vugular and open fissure porosity, vugs as much as 6.5 cm. in diameter, cri- noids rare.
6773.0	6779.0	00	
6779.0	6793.0	59	Calclutite, slightly leached; open fissures, stylolites; vugular porosity, drusy calcite in vugs and open fissures, vugs as much as 2 cm. in diameter.

CORE DESCRIPTION

Well: Sun Oil Company, Lemons No. 4

Location: 2231 ft. from south line, 1006 ft. from west line of
sec. 205, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C34

Elevation: 2451 ft. K.B.

Depth of reef top: 6737 ft.

Depths in feet		Available Core %	Description
From	To		
6749.0	6761.0	68	Calcarenite, very fine-grained, slightly leached, calcarenite phenoclasts at 6757.0; verti- cal joints, some enlarged by leaching; vugular, pin point and open fissure porosity, vugs as much as 2 mm. in diameter; fusulinids very common, cri- noids common.
6761.0	6774.0	72	Calclutite, with scattered claystone lenses, leached; stylolites, vertical joints; vugular and open fissure porosity; crinoids abundant, fusulinids common.

CORE DESCRIPTION

Well: Sun Oil Company, Lemons No. 6

Location: 1971 ft. from south line and 660 ft. from east line of
sec. 204, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: 027

Elevation: 2434 ft. K.B.

Depth of reef top: 6790 ft.

Depths in feet		Available Core %	Description
From	To		
6793.0	6813.0	51	Calcarenite, very fine-grained with lenses of calcilutite as much as 7 in. thick, leached; stylolites, vertical joints, some calcite-filled fissures ; pin point and vugular porosity; fusulinids common , crinoids rare.

CORE DESCRIPTION

Well: Sun Oil Company, Lemons No. 7

Location: 660 ft. from south line, 958 ft. from east line of sec. 204, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C28

Elevation: 2424 ft. K.B.

Depth of reef top: 6824 ft.

Depths in feet		Available Core	Description
From	To	%	
6830.0	6836.0	67	Calcarenite, very fine-grained; stylolites, vertical joints; vugular and pin point porosity, vugs as much as 1 mm. in diameter; fusulinids.
6836.0	6840.0	100	Calcirudite with phenoclasts of angular to subrounded, very fine-grained calcarenite as much as 2 cm. in diameter in a matrix of fine-to medium-grained calcarenite, claystone lenses, leached; stylolites; pin point and vugular porosity; fusulinids in phenoclasts and matrix, crinoids.

CORE DESCRIPTION

Well: Sun Oil Company, Ramsey No. 4

Location: 660 ft. from south line, 567 ft. from east line of
sec. 195, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C24

Elevation: 2337 ft. K.B.

Depth of reef top: 6607 ft.

Depths in feet		Available Core %	Description
From	To		
6619.0	6627.0	53	Calcarenite, leached, earthy; vugular and pin point porosity; drusy calcite in vugs; crinoids abundant, fusulinids common.
6627.0	6637.0	67	Calcilutite, leached, earthy; calcite-filled fissures; vugular and pin point porosity, drusy calcite in vugs; crinoids very common, fusulinids common.
6637.0	6640.0	20	Calcarenite; vertical joints; stylolites; crinoids very common and fusulinids common.

CORE DESCRIPTION

Well: Sun Oil Company, Randals No. A-3

Location: 660 ft. from the south and west lines of the SE $\frac{1}{4}$ sec. 245, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C43

Elevation: 2431 ft.

Depth of reef top: 6670 ft.

Depth in feet		Available Core %	Description
From	To		
6687.0	6690.0	?	Calcilutite, bioclastic, branching claystone stringers, stylolites; crinoids rare.
6690.0	6693.0	00	
6693.0	6696.0	80	Calcarenite, branching claystone stringers; crinoids rare.
6696.0	6702.0	68	Calcilutite, branching claystone stringers; oblique joints, stylolites; crinoids and brachiopods rare.
6702.0	6705.0	83	Calcarenite, branching claystone stringers; stylolites, open vertical joints; crinoids rare.
6705.0	6711.0	88	Calcilutite, stylolites, vertical joints; crinoids rare.
6711.0	6714.0	53	Calcarenite, stylolites; crinoids rare.
6714.0	6735.0	00	
6735.0	6741.0	87	Calcarenite, stylolites, vertical joints; crinoids and bryozoans rare.

Sun Oil Company, Randals No. A-3 - Continued

Depths in feet		Available Core %	Description
From	To		
6741.0	6747.0	85	Calcilutite, claystone layers as much as 1 cm. thick; stylolites, vertical joints; crinoids and brachiopods rare.
6747.0	6753.0	68	Calcarenite, stylolites, oblique joints; large vugs and cavities up to 4 cm. in diameter; brachiopods common, crinoids rare.
6753.0	6768.0	57	Calcilutite, leached, earthy; well developed vertical joints; open fissure and pin point porosity; fusulinids common and crinoids rare.
6768.0	6771.0	47	Calcarenite, slight leaching; claystone coated stylolites; fusulinids and crinoids common.
6771.0	6776.0	00	
6776.0	6779.0	93	Calcilutite, leached; stylolites; drusy vugs as much as 1.5 cm. in diameter; pin point and vugular porosity, drusy calcite in vugs; fusulinids common.
6779.0	6781.0	00	
6781.0	6784.0	57	Calcarenite, well developed joints, some are calcite filled and others are lined with drusy calcite; stylolites; brachiopods and bryozoan.

Sun Oil Company, Randals No. A-3 - Continued

Depths in feet		Available Core %	Description
From	To		
6784.0	6811.0	00	
6811.0	6817.0	77	Calcarenite, bioclastic with calcilutite lenses, stylolites, open vertical joints; some drusy vugs; open joint and vugular porosity; fusulinids and crinoids rare.

CORE DESCRIPTION

Well: Sun Oil Company, Randals No. C-2

Location: NW $\frac{1}{4}$, sec. 246, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C35

Elevation: 2430 ft. K.B.

Depth of reef top: 6758 ft.

Depths in feet		Available Core %	Description
From	To		
6792.0	6807.0	57	Calcilutite, claystone stringers as much as 3 mm. thick; stylolites, vertical joints, some stylolites have a claystone coating; some joints are filled with calcite, others have drusy lining; fusulinids and crinoids common.
6807.0	6815.0	51	Calcarenite; open vertical joints; stylolites; vugular and open joint porosity, drusy lining in vugs and in open joints; fusulinids common.

CORE DESCRIPTION

Well: Sun Oil Company, Randals No. C-4

Location: 1108 ft. from the north line 2191 ft. from the west line
of sec. 246, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C42

Elevation: 2434 ft. K.B.

Depth of reef top: 6763 ft.

Depths in feet		Available Core	Description
From	To	%	
6784.0	6823.0	64	Calcarenite, very fine-to coarse-grained, with calcilutite lenses as much as 3 in. thick, occasional angular phenoclasts of calcarenite or calcilutite as large as 1 cm. in diameter; claystone stringers; leached; stylolites, vertical jointing, some joints enlarged by leaching; vugular and open fissure porosity, vugs as much as 2 cm. in diameter, crinoids and brachiopods.
6823.0	6829.0	65	Calcilutite; stylolites, vertical joints, enlarged by leaching, vugular and open fissure porosity, drusy calcite in vugs.

CORE DESCRIPTION

Well: Sun Oil Company, Rosenberg No. 1

Location: 660 ft. from north line and 330 ft. from west line of the
N $\frac{1}{2}$ sec. 195, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C45

Elevation: 2404 ft. K.B.

Depth of reef top: 6758 ft.

Depths in feet		Available Core %	Description
From	To		
6779.0	6782.0	33	Calcarenite, very fine-grained; slightly leached; stylolites; vugular porosity; fusulinids common.
6782.0	6785.0	60	Calcilutite, debris leached; stylolites, vertical joints; pin point and vugular porosity; fusulinids.
6785.0	6800.0	66	Calcarenite, fine-to medium- grained, stylolites, in- cipient vertical joints, fissures, joints and fissures enlarged by leaching, vug- ular, open joint and open fissure porosity; fusulinids common, bryozoans.
6800.0	6803.0	93	Calcilutite and very fine- grained calcarenite; stylolites; fusulinids common.
6803.0	6809.0	00	
6809.0	6817.0	?	Calcilutite, incipient stylo- lites, incipient vertical joints; fusulinids rare to occasional.

CORE DESCRIPTION

Well: Sun Oil Company, Voss No. 1

Location: 467 ft. from north line, 2226 ft. from east line of
sec. 203, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C25

Elevation: 2406 ft. K.B.

Depth of reef top: 6724 ft.

Depths in feet		Available Core	Description
From	To	%	
6745.0	6751.0	55	Calcilutite, leached; pin point and vugular porosity, drusy vugs; bryozoans and crinoids common, fusulinids rare, productid brachiopod (<u>Dictyoclostus</u>) encrusting bryozoan or crinoid.
6751.0	6752.0	100	Calcilutite, leached; stylo- lites, open joints; vugular and open joint porosity, tar filled vugs; crinoids common, brachiopods.
6752.0	6777.0	63	Calcilutite, bioclastic , leached; stylolites, incipient vertical joints, some joints are open; vugular and open joint porosity, drusy calcite and dolomite in vugs; cri- noids common, bryozoans, brachiopods, coral.

CORE DESCRIPTION

Well: Sun Oil Company, Voss No. 10

Location: 1980 ft. from south and west lines of sec. 203, Blk. 97,
Houston and Texas Central Survey.

U.S.G.S. Series number: C20

Elevation: 2387 ft. K.B.

Depth of reef top: 6676 ft.

Depths in feet		Available Core %	Description
From	To		
6689.0	6704.0	66	Calcarenite, very fine-to medium-grained, leached, earthy; stylolites, some coated with bituminous material; vertical jointing, calcite filled fissures; vugular and pin point porosity, vugs as much as 1 mm. in diameter; fusulinids abundant, crinoids occasional.
6704.0	6707.0	68	Calcilutite; incipient stylolites with bituminous veneer, incipient vertical joints; linear fissures; fusulinids abundant.
6707.0	6710.0	00	
6710.0	6713.0	80	Calcarenite, fine-to medium-grained; incipient stylolites with claystone veneer; fusulinids occasional to common.
6713.0	6715.0	00	
6715.0	6716.5	100	Calcarenite, fine-to medium-grained, claystone bed 4 in. thick at base; stylolites with claystone veneer; fusulinids occasional to common.

Sun Oil Company, Voss No. 10 - Continued

Depths in feet		Available Core %	Description
From	To		
6716.5	6727.0	68	Calcarenite, fine-grained, leached, earthy; stylolites, calcite filled fissures, incipient vertical joints; vugular and pin point porosity, drusy calcite in vugs; fusulinids rare to common.
6727.0	6730.5	?	Calcilutite, claystone layer 1 in. thick at base; stylolites with bituminous and claystone veneer, vertical jointing, cal- cite filled fissures, vugular and pin point porosity; fusulinids, bryo- zoans occasional to common, crinoids rare.
6730.5	6735.0	100	Calcarenite, very fine-grained; claystone coated stylolites; vugular porosity, vugs as much as 1 mm. in diameter, secondary calcite in vugs; fusulinids common, bryo- zoans occasional.

CORE DESCRIPTION

Well: Sun Oil Company, Voss No. 12

Location: 1980 ft. from north and east lines of sec. 203,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C26

Elevation: 2389 ft.

Depth of reef top: 6720 ft.

Depths in feet		Available Core %	Description
From	To		
6739.0	6742.0	83	Calcarenite, bioclastic; fusulinids rare.
6742.0	6748.0	77	Calcilutite, claystone stringers as much as 2 mm. thick; stylo- lites; fusulinids common, crinoids rare.
6748.0	6751.0	00	
6751.0	6755.0	87	
6755.0	6761.0	00	
6761.0	6764.0	57	
6764.0	6767.0	60	Calcirudite, claystone coated stylolites; fusulinids, crinoids and brachiopods rare.
6767.0	6774.0	57	Calcilutite, claystone coated stylolites; vugular porosity; brachiopods and crinoids rare.

CORE DESCRIPTION

Well: Sunray Oil Corporation, Cloud No. 3

Location: 1667 ft. from west line and 467 ft. from south line of section 159, Blk. 3, Houston and Great Northern Survey.

U.S.G.S. Series number: C1

Elevation: 2468 ft. K.B.

Depth of reef top: 6730 ft.

Depths in feet		Available Core %	Description
From	To		
6740.0	6744.5	?	Calcilutite, leached, earthy; vugular porosity; fusulinids and crinoids common, brachiopods and bryozoans rare.
6744.5	6749.0	?	Calcarenite, granule-sized bioclastic debris, leached, earthy; vugular porosity; fusulinids and crinoids common, bryozoans rare.
6749.0	6759.5	?	Calcilutite, bioclastic, leached, limestone dolomitic bands as much as 4 in. thick, chert band 4 cm. thick, stylolites; vugular porosity; fusulinids and crinoids common, fusulinids present in limestone dolo- mitic bands.
6759.5	6764.0	?	Calcarenite, bioclastic; stylolites coated with bituminous clay- stone containing pyrite crystals; pin point porosity; fusulinids common, brachiopods and crinoids rare.
6764.0	6775.0	?	Calcarenite, very fine-grained, chert nodule 6 cm. long, 4 cm. wide, chert band 3 cm. thick, bioclastic, earthy; vugular and pin point porosity, vugs drusy; fusulinids and crinoids common, brachiopods and bry- ozoans rare.

CORE DESCRIPTION

Well: Sunray Oil Corporation, Hardy No. 2-A

Location: 467 ft. from the north and east lines of sec. 296,
Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C13

Elevation: 2423 ft.

Depth of reef top: 6450 ft.

Depths in feet		Available Core %	Description
From	To		
6789.0	6797.0	63	Calclutite, with lenses of sub- rounded to subangular fragments up to 3 cm. in diameter, in part silicified; stylolites; crinoids, fusulinids, brachio- pods and gastropods rare.
6797.0	6807.0	25	Calcarenite, homogeneous; stylo- lites, well developed vertical joints; vugular and pin point porosity; fusulinids very common, crinoids common, shell fragments rare.
6807.0	6839.0	56	Calclutite with calcarenite lenses as much as 6 in. thick and chert bands as much as 4 in. thick, in some places the silicified area ends abruptly at a stylolite; some stylolites are coated with bituminous claystone, vertical joints are common in the chert, less common in the limestone; vugular and pin point porosity; fusulinids common, crinoids and brachiopods rare.

CORE DESCRIPTION

Well: Wilshire Oil Company, Lunsford No. 8

Location: 467 ft. from north and west lines, sec. 253, Blk. 97,
Houston and Texas Central Survey.

U.S.G.S. Series number: C64

Elevation: 2451 ft. K.B.

Depth of reef top: 6789 ft.

Depths in feet		Available Core	Description
From	To	%	
6741.0	6762.0	95	Claystone, slightly limey; tough, breaks down readily, pyrite casts of fossils; conodonts, orbiculoids, <u>Cordaite</u> s straps, echinoid spines, fish scales, brachio- pods, cephalopods, pelecypods.
6762.0	6796.0	6	Calcirudite, angular pheno- clasts, claystone lenses; crinoids, fusulinids and brachiopods common.
6796.0	6808.5	100	Calcarenite, medium-to coarse- grained, coarse crinoid fragments, claystone lenses; fusulinids and corals rare, crinoids and brachiopods common.
6808.5	6811.0	100	Calcirudite, phenoclasts of calcilutite and calcarenite as much as 1½ in. in diameter, claystone stringers ¼ in. thick; fusulinids and crinoids common, corals rare.

Wilshire Oil Company, Lunsford No. 8 - Continued

Depths in feet		Available Core %	Description
From	To		
6811.0	6815.0	100	Calcarenite, fine-to coarse-grained, slightly argillaceous, occasional phenoclasts, claystone lenses and stringers, claystone fragments, crinoids, fusulinids, bryozoans and corals occasional.
6815.0	6816.0	60	Calcirudite, phenoclasts as much as 1 in. in diameter in a calcilutite matrix.
6816.0	6820.4	100	Calcarenite, medium-to coarse-grained; silica in irregular masses, claystone lenses, occasional phenoclasts; crinoids common.
6820.4	6821.0	100	Calcirudite, as at 6815.0 - 6816.0
6821.0	6826.0	94	Claystone with calcarenite lenses; crinoids common, brachiopods and spines occasional.
6826.0	6827.0	100	Calcirudite, phenoclasts as much as 3 in. in diameter; calcarenite lens; fissures filled with calcite, corals, fusulinids and crinoids occasional.
6827.0	6844.0	?	Calcarenite, medium-to coarse-grained calcarenite; stylolites; crinoids common, fusulinids and brachiopods occasional.

Wilshire Oil Company, Lunsford No. 8

Depths in feet		Available Core %	Description
From	To		
6844.0	6875.0	00	
6875.0	6945.5	?	Calcarenite with calcilutite lenses; stylolites, vertical fractures; vugular and pin point porosity; crinoids common, fusulinids, bryozoans, brachiopods and ostracods rare.

CORE DESCRIPTION

Well: Wilshire Oil Company, Rinehart No. 1

Location: 660 ft. from the north and east lines of the east 150 acres of the NW $\frac{1}{4}$ sec. 251, Blk. 97, Houston and Texas Central Survey.

U.S.G.S. Series number: C67

Elevation: 2419 ft. K.B.

Depth of reef top: 6595 ft.

Depths in feet		Available Core %	Description
From	To		
6605.0	6643.5	90	Calcirudite, phenoclasts of calcilutite, calcarenite and oolitic calcarenite as much as 3 in. in diameter, claystone fragments, calcilutite lenses as much as 2 ft. thick; stylolites, vertical fractures, some are calcite-filled; vugular porosity, drusy vugs; fusulinids, crinoids and bryozoans common, gastropods and corals rare.
6643.5	6648.4	100	Calcilutite; stylolites, vertical fractures; vugular porosity; crinoids common, bryozoans, fusulinids and corals occasional.
6648.4	6654.0	95	Calcirudite, phenoclasts of calcilutite and fine-grained calcarenite as much as $1\frac{1}{2}$ in. in diameter, calcilutite lenses as much as 1.5 ft. thick, leached; stylolites, fractures, some of which are open and some calcite-filled; vugular porosity; crinoids and bryozoans common, fusulinids, ostracods, corals rare.

Wilshire Oil Company, Rinehart No. 1-Continued

Depths in feet		Available Core %	Description
From	To		
6654.0	6660.5	78	Calcarenite, fine-grained, scattered calcirudite lenses as much as 6.5 in. thick; stylolites, vertical fractures, some of which are open; vugular and open fracture porosity, vugs as much as 2 mm. in diameter, crinoids very common, fusulinids common.
6660.5	6668.5	66	Calcilutite, calcirudite lens 5 in. thick; stylolites, vertical fractures, some are open, others are calcite-filled; vugular and open fissure porosity, drusy calcite in vugs; crinoids and bryozoans common, fusulinids, ostracods and corals rare.
6668.5	6671.0	80	Calcirudite, phenoclasts of calcilutite and fine-grained calcarenite as much as 5 cm. in diameter; stylolites, vertical and oblique fractures, some fractures are calcite-filled; vugular porosity, vugs as much as 5 mm. in diameter, some vugs have a bituminous claystone fill; coral, crinoids and bryozoans common, foraminifera and ostracods rare.
6671.0	6672.5	00	
6672.5	6676.1	86	Calcilutite, calcirudite zone as much as 10 in. thick; stylolites, vertical fractures; vugular porosity, vugs as much as 7 mm. in diameter, some drusy.

Wilshire Oil Company, Rinehart No. 1 - Continued

Depths in feet		Available Core %	Description
From	To		
6676.1	6677.6	100	Calcirudite, phenoclasts of calcilutite and fine-grained calcarenite as much as 7 cm. in diameter; stylolites, vertical fractures, some of which are open; crinoids, bryozoans and corals rare.
6677.6	6682.2	76	Calcilutite, phenoclasts as much as 5 cm. in diameter, vertical and oblique fractures, stylolites, bituminous and calcite-filling in some open fissures; crinoids, bryozoans, gastropods and corals rare.
6682.2	6684.5	43	Calcirudite, phenoclasts of calcilutite as much as 4 cm. in diameter, vertical fractures; vugular porosity; brachiopods, crinoids, bryozoans and corals rare.
6684.5	6702.5	57	Calcilutite and occasional calcilutite and calcarenite phenoclasts as much as 1 in. in diameter, containing lenses of fine-grained calcarenite; stylolites, vertical fractures, some of which are open, others are calcite-filled; vugular porosity, some calcite-filled vugs; crinoids, bryozoans, corals, ostracods and brachiopods rare.

Wilshire Oil Company, Rinehart No. 1 - Continued

Depths in feet		Available Core %	Description
From	To		
6702.5	6705.5	77	Calcirudite, phenoclasts of calcilutite and calcarenite as much as 10½ in. in diameter; stylolites, vertical fractures, some are open; open fractures and fugular porosity; fusulinids, crinoids and corals rare.
6705.5	6707.0	00	
6707.0	6710.0	83	
6710.0	6711.5	00	
6711.5	6713.0	100	
6713.0	6714.5	00	
6714.5	6719.0	69	Calcarenite, fine-grained; stylolites, vertical fractures, some are open and some have bituminous filling; vugular and open fracture porosity, drusy vugs; crinoids, bryozoans and corals common.
6719.0	6720.5	00	
6720.5	6725.5	56	
6725.5	6746.0	71	Calcirudites, phenoclasts of fine- to coarse-grained calcarenite, and calcilutite as much as 1 mm. in diameter, stylolites, fractures are open, some fractures are drusy, vugular and open fracture porosity; crinoids common, fusulinids rare.
6746.0	6771.0	00	Calcarenite, coarse-grained, composed mainly of crinoidal debris; stylolites, vertical fractures; vugular porosity; crinoids abundant, fusulinids rare.
6771.0	6662.5	33	
6772.5	6774.0	00	
6774.0	6787.5	61	



DEPARTMENT OF THE INTERIOR
INFORMATION SERVICE

GEOLOGICAL SURVEY

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Open File

WELL CORES FROM SCURRY REEF, SCURRY COUNTY, TEXAS, DESCRIBED

Descriptions of cores from seventy-five oil wells in the Scurry Reef, West Texas, have been placed on open file for public inspection, Secretary of the Interior Oscar L. Chapman announced today.

Such features as the composition, texture, fossil content, sedimentary structures, and type of porosity of the rock have been recorded, presenting a detailed picture of the reef limestone that constitutes the reservoir of the great oil field.

The work was done as a part of a reservoir study made by the Geological Survey and the Bureau of Mines, United States Department of the Interior, as an aid to the Petroleum Administration for Defense.

The report, called "Descriptions of cores from seventy-five wells in the Scurry Reef, Scurry County, Texas," by Howard E. Rothrock, is not available for sale or public distribution, but may be consulted at the following Geological Survey offices: at the Off-Campus Research Center, Austin, Texas, and Room 1033 (Library) and Room 4240, General Services Administration Building, Washington, D. C.; at the Midland County Library, Midland, Texas; and at the Bureau of Economic Geology of the University of Texas, Austin, Texas.

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