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DIVISION OF GEOLOGY
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OIL AND GAS ACTIVITIES IN FLORIDA, 1965

By
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OIL AND GAS ACTIVITIES IN FLORIDA, 1965

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PRODUCTION

Sunoco-Felda Field

The second and newer of Florida's two oil fields is the Sunoco-Felda field of Hendry County, south Florida, shown on figure 1, which officially was opened to production by the Sun Oil Company on October 9, 1964.

Table 1 shows that a total footage of 276,558 feet were drilled in this field in 24 wells that were terminated in 1965; data sheets on these wells are included in appendix 1. Of this footage, 218,434 feet were drilled in 19 oil wells yielding a combined initial production of 3,846 BOPD (barrels of oil per day); and 58,124 feet were penetrated in 5 dry holes. These dry holes, which are the only failures drilled to the present time, delineate the field to the west, south and east.

Currently the operator is drilling at 3 new field locations. These wells are not included in table 1 and appendix 1, but will be included in the 1966 compilations.

The Sunoco-Felda field produces on pump from the Roberts zone, which occurs about 65 feet below the top of the Sunniland Limestone (defined by Paul L. Applin, 1960, p. 209) of Early Cretaceous Age. The Roberts zone consists of microfossiliferous (miliolitic) limestone reached at depths ranging from about 11,462 feet to 11,495 feet. It appears that a permeability trap is responsible for oil accumulation in the field. The producing interval in up-dip wells to the north is tight and yields a large percentage of salt water.

Yields from the better wells in the field range from 320 BOPD to 355 BOPD on pump. During the month of December, 1965, the field produced 97,342 barrels of oil with an estimated 53,000

barrels of salt water from 22 pumping wells. Cumulative production from the field since its discovery, October 9, 1964, through December 31, 1965, was 706,218 barrels of oil.

The Sun Oil Company reports that to date in excess of five million dollars have been spent in developing the Sunoco-Felda field.

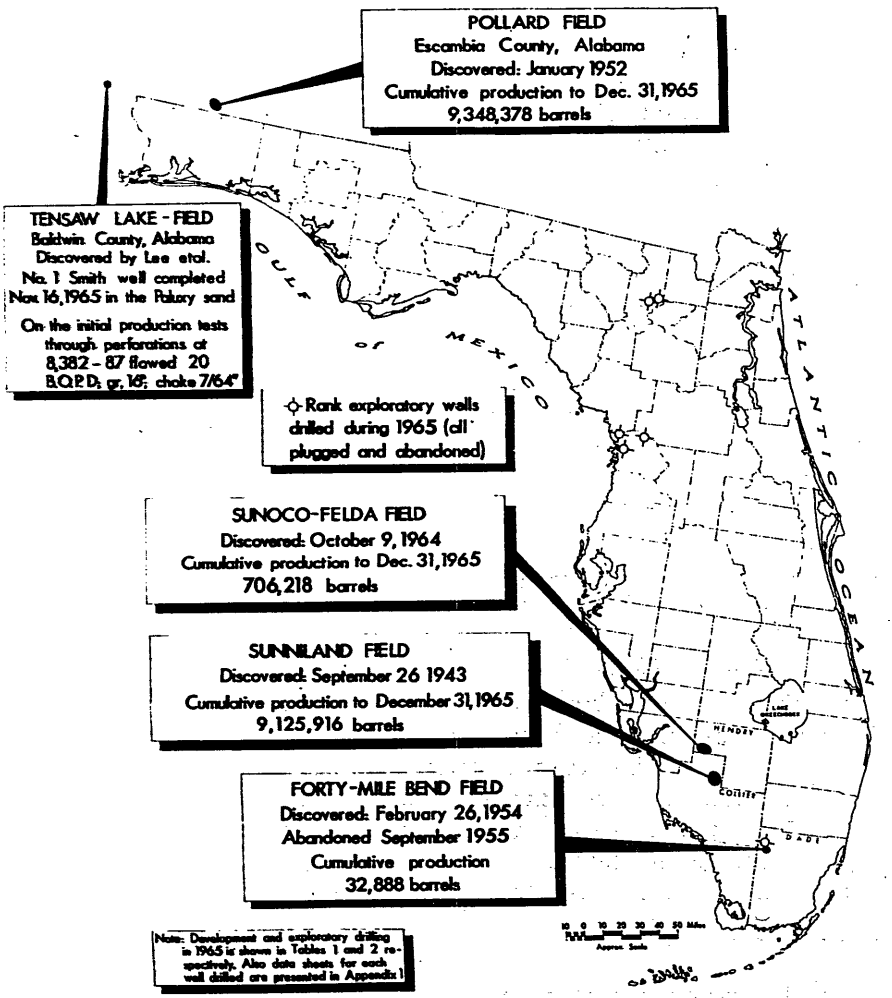

Figure 1. Florida petroleum exploration and production, 1965.

Table 1. Development drilling, 1965 - total development footage: 302,714

County	Company	Well No.	Landowner	Depth in feet	Initial production	Comment
Sunniland field						
A) Successful wells						
Collier	Humble Oil	23-A	Gulf Coast Realties	11,656	562 BOPD	From Sunniland Limestone
Collier	Humble Oil	24	Gulf Coast Realties	14,500	464 BOPD	From Sunniland Limestone
Total footage, and initial production, 1965 Sunniland field wells					26,156	1,026 BOPD
Sunoco-Felda field						
A) Successful wells						
Collier	Sun Oil	4-2	The Collier Company	11,488	336 BOPD	From Sunniland Limestone
Hendry	Sun Oil	24-1	Lee-Tidewater	11,551	53 BOPD	From Sunniland Limestone
Hendry	Sun Oil	29-2	Red Cattle Company	11,478	164 BOPD	From Sunniland Limestone
Hendry	Sun Oil	29-3	Red Cattle Company	11,489	302 BOPD	From Sunniland Limestone
Hendry	Sun Oil	29-4	Red Cattle Company	11,472	333 BOPD	From Sunniland Limestone
Hendry	Sun Oil	30-4	Red Cattle Company	11,484	112 BOPD	From Sunniland Limestone
Hendry	Sun Oil	32-2A	Red Cattle Company	11,493	115 BOPD	From Sunniland Limestone
Hendry	Sun Oil	32-4	Red Cattle Company	11,471	306 BOPD	From Sunniland Limestone
Hendry	Sun Oil	20-4	Sunoco-Felda	11,525	5 BOPD	From Sunniland Limestone
Hendry	Sun Oil	21-3	Sunoco-Felda	11,550	90 BOPD	From Sunniland Limestone
Hendry	Sun Oil	28-1	Sunoco-Felda	11,470	53 BOPD	From Sunniland Limestone
Hendry	Sun Oil	28-2	Sunoco-Felda	11,477	318 BOPD	From Sunniland Limestone
Hendry	Sun Oil	28-3	Sunoco-Felda	11,612	267 BOPD	From Sunniland Limestone
Hendry	Sun Oil	28-4	Sunoco-Felda	11,469	152 BOPD	From Sunniland Limestone
Hendry	Sun Oil	29-1	Sunoco-Felda	11,474	210 BOPD	From Sunniland Limestone

Table 1. Development drilling, 1965 - total development footage: 302,714

County	Company	Well No.	Landowner	Depth in feet		Initial production		Comment
Hendry	Sun Oil	33-1	Sunoco-Felda	11,747		306 BOPD		From Sunniland Limestone
Hendry	Sun Oil	33-2	Sunoco-Felda	11,480		336 BOPD		From Sunniland Limestone
Hendry	Sun Oil	33-3	Sunoco-Felda	11,487		355 BOPD		From Sunniland Limestone
Hendry	Sun Oil	33-4	Sunoco-Felda	11,490		33 BOPD		From Sunniland Limestone
	Total footage, and initial production, 1965 Sunoco-Felda field wells				218,434			3,846 BOPD
B) Unsuccessful wells								
Collier	Sun Oil	3-2	The Collier Company	11,675				P & A Cretaceous test
Collier	Sun Oil	4-3	The Collier Company	11,630				P & A Cretaceous test
Hendry	Sun Oil	30-3	Red Cattle Company	11,625				P & A Cretaceous test converted in 1966 to injection well for pressure maintenance system
Hendry	Sun Oil	32-3	Red Cattle Company	11,619				P & A Cretaceous test
	Continuation, unsuccessful Sunoco-Felda field wells							
Hendry	Sun Oil	27-3	Sunoco-Felda	11,575				P & A Cretaceous test
	Total footage, unsuccessful Sunoco-Felda field wells (offsets)				58,124			
	Total footage, successful and unsuccessful Sunoco-Felda field wells						276,558	
Total development footage, and initial production, 1965 wells							302,714	4,872 BOPD

Sunniland Field

The Sunniland oil field (fig. 1), discovered in 1943 and operated by the Humble Oil and Refining Company, is located 18 miles south of the Sunoco-Felda field.

As shown on table 1, a total of 26,156 feet were drilled in two Sunniland field wells completed in 1965; data sheets on these wells are included in appendix 1. Both of these tests were completed in the latter part of the year as flowing wells with initial productions of 562 BOPD and 464 BOPD, respectively. One of these holes, the Humble No. 24 Gulf Coast Realties Corporation well, was drilled to 14,500 feet of depth, and is the deepest well drilled to date in the field.

Production from the Sunniland field is primarily from a part of the Sunniland Limestone which contains disoriented macrofossils (rudistids), and which is reached at depths ranging from about 11,548 feet to 11,567 feet. Productive zones occur in an interval extending from the top of the Sunniland Limestone to a point about 75 feet deeper in the section. The lowermost of the four main productive zones in the Sunniland field is correlative with the productive Roberts zone in the Sunoco-Felda field.

During the month of December, 1965, this field produced 83,978 barrels of oil from 13 pumping wells and 2 flowing wells. The cumulative production from the field through December 31, 1965, is 9,125,916 barrels of oil. At the present time it is thought that 25 to 35 million barrels of oil probably is a reasonable figure for the initially recoverable reserves of the field.

EXPLORATION

Exploratory Drilling

As recapitulated in table 2, a total of 34,586 feet were drilled in six exploratory wells in 1965 (see figure 1 for locations); all of these wells have been plugged and abandoned. Well data sheets on these tests are included in appendix 1. Five of these wells were located in northern peninsular Florida and tested the Upper

Table 2. Exploratory drilling, 1965 - total exploratory footage: 34,586

County	Company	Well No.	Landowner	Depth in feet		Comment
A) Rank exploratory wells						
Citrus	Mobil Oil	1	Camp Phosphate	4,493		P & A Upper Cretaceous test
Citrus	Mobil Oil	1	Garby	5,556		P & A Upper Cretaceous test
Citrus	Mobil Oil	1	Harbond	4,794		P & A Upper Cretaceous test
Columbia	Michael	1	Ripley	3,078		P & A Upper Cretaceous test
Columbia	Thayer-Davis	1	Ripley	5,050		P & A Upper Cretaceous test and Paleozoic test
	Total footage, rank exploratory wells				22,971	
B) Outpost well to the abandoned Forty Mile Bend field						
Dade	Serio	1	St. of Fla. 1939-1939S	11,615		P & A Cretaceous test
	Total footage, Forty Mile Bend field outpost				11,615	
	Total exploratory drilling, 1965				34,586	

(P & A, plugged and abandoned)

Cretaceous section, with one of them, the Thayer-Davis, No. 1 Ripley test in Columbia County, continuing deeper to penetrate 2,172 feet of Paleozoic rock. This was the third well in the State to drill a considerable thickness of the Paleozoic section.

The sixth exploratory test in 1965 was the Serio No. 1 State Lease 1939-1939S well, which was located in Dade County, south Florida about 3,300 feet north of the discovery well for the abandoned Forty Mile Bend field, and which reached a depth of 11,612 feet. Core recovery from the upper Sunniland zone contained a slightly oil stained interval from 11,347-11,382 feet. A drill stem test recovery in 4 hours consisted of 615 feet of salt water with slight oil staining. Coring at 11,452-11,502 feet in the lower Sunniland zone revealed bleeding oil in very small fractures; the lower Sunniland zone was not drill stem tested.

Exploratory wells still drilling at the end of 1965 are not included in table 2 and appendix 1, but will be embodied in 1966 compilations. The following information on these tests was available at the end of the year:

1. The Sun Oil Company, No. 15-3 Consolidated Financial Corporation well is located as an outpost about 1¾ miles northeast of the Sunoco-Felda field, and has a proposed depth of 11,600 feet. At the end of the year this well was drilling at approximately 11,000 feet.

2. The Southern Triangle Oil Company No. 1 Lawless, et al well, is located in Hendry County about 5½ miles west southwest of the town of La Belle, and 12 miles north northwest of the Sunoco-Felda field. The proposed depth of this well is 13,500 feet, and drilling commenced December 30, 1965.

3. The Jett-Phillips No. 1, The Buckeye Cellulose Corporation, et al well, located in Lafayette County in northern peninsular Florida, with a proposed depth of 6,000 feet, was waiting on orders at a depth of 5,270 feet as of the year's end.

Proposed Exploratory Drilling

The Mobil Oil Corporation is committed to the drilling of two exploratory tests in 1966. One well will be located on state offshore acreage farmed out from Coastal Caribbean Oil and Minerals, Ltd., lessee. A primary objective of this test will be the Lower Cretaceous section; the Sunniland Limestone should be reached at about 11,200 feet. The other well, which also will be a Lower Cretaceous test, will be drilled on private land owned by the Babcock-Florida Corporation and located in Charlotte and Lee counties. Mobil acquired the right to drill on this acreage under the terms of an agreement with the Gulf Oil Corporation, lessee.

Geophysical Activity

During 1965 geophysical operations, though credited with little success in the past, were increased in the hope that new techniques will be successful. Mainland activity has included 37 weeks in South Florida (in Hendry, Collier, Lee, Highlands and DeSoto counties), and 24 weeks in the northwestern part of the State (in Escambia, Santa Rosa, Okaloosa, Gulf and Franklin counties).

Nine permits for offshore geophysical work, consisting primarily of seismographic activity, were granted in 1965. Figure 2 shows the permit numbers; type of geophysics to be performed; operator, contractor and permittee for each permit; in some cases the crew weeks of work completed; and the general localities of the proposed activity.

New Alabama Field Near Northwestern Florida

Fifteen miles west northwest of the northwestern tip of Florida (fig. 1) and in Baldwin County, Alabama, the Lee No. 1 Smith well was completed November 16, 1965 as a producer from the Paluxy Sand. On the initial production test through perforations at 8,382-8,387 feet, this well flowed through a 7/64-inch choke, 20 BOPD with a fluid gravity of 16 degrees. Open tubing pressure was 30 psi; shut-in tubing pressure, 418 psi; gas-oil ratio, 100 to 1. The location of this well is: 808 feet from the west line; 660 feet from the north line; Sec. 3, T 1N, R 2E.

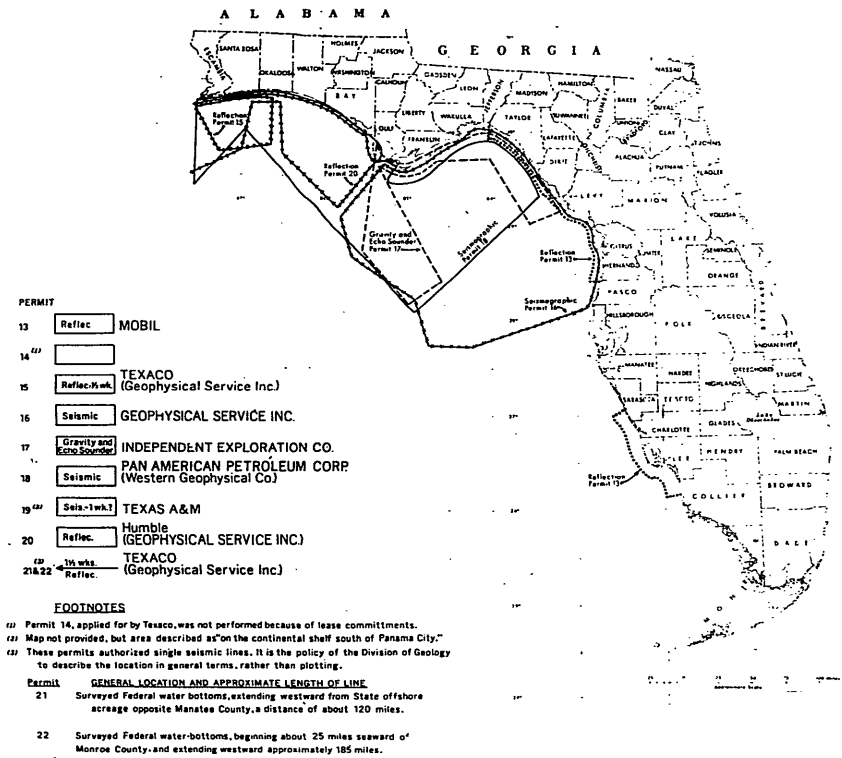

Figure 2. Florida offshore geophysical permits issued in 1965.

RULES AND REGULATIONS

State Board of Conservation Order No. 1 provided, temporarily, for a spacing of 160 acres for oil wells producing from the Roberts zone of the Sunoco-Felda field. This order was to remain in effect one year terminating December 15, 1965, with a provision for an extension, upon request, of an additional six months to enable the Sun Oil Company to acquire more complete geological and engineering information relative to the drainage characteristics of the field. Such a request was made by the company, and consequently Temporary Order No. 1 was extended to May 6, 1966, at which time there will be a final hearing to set permanent spacing rules.

State Board of Conservation Order No. 2, dated July 20, 1965, provided that brines produced by the Sunoco-Felda field shall be injected into a disposal well below a packer set at 2,270-2,290 feet, through 2 7/8-inch tubing into highly permeable rock containing very saline formation waters (16,000 ppm chloride ions). Such injection would not be harmful to surface areas.

On December 9, 1965, the State Board of Conservation heard testimony in connection with the application of the Humble Oil and Refining Company to dispose of waste salt water produced in the Sunniland field by injection to a depth below 2,900 feet. Additional written briefs will be received in connection with this hearing to assist the Board in rendering a decision on this application.

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1960 *Significance of changes in thickness and lithofacies of the Sunniland limestone, Collier County, Fla:* U.S. Geological Survey Professional Paper 400-B, 2 p., 1 fig.

APPENDIX I

CITRUS COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCi-17S-18E-12 c* (W-7534)	09-017-10003	Mobil Oil Corp.	1	Camp Phosphate Co.	Nov. 20, 1965 (Dec. 7, 1965)	4,490	115 DF

Location:
Sec. 12 - T17S - R18E (1,420' FWL[1/], and 955' FSL[1/], of the section)

Subsurface record:

(1) Plugged and abandoned

(2) Casing program:
Drove 13 3/8" at 76'
Set 8 5/8" at 738' with 400 sacks of cement

(3) Plugging details:
1264-1364', set 33 sacks of cement
635-835', set 68 sacks of cement
At surface, set cement from 0-20' in 8 5/8" casing, and welded a steel plate over casing

(4) Logs:
Induction-Electrical, 738-4,303'; Borehole Compensated Sonic-Gamma Ray, 738-4,491'

(5) DST[2/] at 4,375-4,422'. Chokes, 5/8". Open, 1 1/2 hour. Working pressure, 166 pounds. Recovery, 75' of rat hole mud, and 1,812' of salt water. Bottom hole flowing pressure, 830 psi. Bottom hole closed-in pressure 1,963 psi.

1/ FWL, FEL, FSL, and FNL, mean from west, east, south and north lines, respectively.
2/ DST, Drill Stem Test.

*Note: This system of well designation is described in Appendix 2.

CITRUS COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCi-19S-17E-8 ba (W-7543)	09-017-10001	Mobil Oil Corp.	1	Garby	Sept. 25, 1965 (Oct. 23, 1965)	5,556	13 DF

Location:
Sec. 8 - T19S - R17E (660' FNL, and 2,532' FWL of the section)

Subsurface record:

(1) Plugged and abandoned

(2) Casing program:
Drove 13 3/8" to 83'
Set 8 5/8" at 756' with 200 sacks of Portland cement and 200 sacks of common cement

(3) Plugging details:
660-860', set 65 sacks of common cement plus 2% calcium chloride
At surface, set 10 sacks of common cement from 0-3' in 8 5/8" casing
Filled hole with 10.5 pound aguagel and baroid mud between cement plugs

(4) Logs:
Induction-Electrical, 759-5,564'; Borehole Compensated Sonic-Gamma Ray, 759-5,564'

(5) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCi-17S-16E-25 a (W-7538)	09-017-10002	Mobil Oil Corp.	1	Harbond	Oct. 27, 1965 (Nov. 12, 1965)	4,794	21 DF

Location:
Sec. 25 - T17S - R16E (2,310' FWL, and 1,150' FNL of the section)

Subsurface record:

(1) Plugged and abandoned

(2) Casing program:
Drove 13 3/8" to 40'
Set 8 5/8" at 728' with 400 sacks at bottom and 10 sacks at top

(3) Plugging details:
552-828', set cement
At surface, set 10 sacks of cement inside 8 5/8" casing from 0-30'
The hole was filled with 9.7-pound aguagel mud between cement plugs

(4) Logs:
Induction-Electrical, 728-4,790'; Borehole Compensated Sonic-Gamma Ray, 728-4,750'

(5) DST: None

COLUMBIA COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCo-4S-18E-15 bd (W-7108)	09-023-10009	Michaels Co.	1	Ripley	May 9, 1965 (May 22, 1965)	3,078	155 DF

Location:
Sec. 15 - T4S - R18E (1,452' N and 660' E of the SE corner of the section)

Subsurface record:

(1) Plugged and abandoned.

(2) Casing program:
Set 13 3/8" at 146' w/100 sacks
Set 8 5/8" at 1,376' w/355 sacks from bottom up to cavity. Then grouted 26 sacks at top.

(3) Plugging details:
Set 100' cement plug through open-ended drill pipe, and extending upward from about 2,070'
Set 50' in-and-out plug across bottom of the 8 5/8" casing
Set 25' plug at surface of the 8 5/8" casing.

(4) Logs:
Induction-Electrical, 1,376-4,078'; Borehole Compensated Sonic, 1,565-3,065'

(5) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCo-4S-17E-23 bb (W-7163)	09-023-10008	Thayer-Davis	1	Ripley	April 10, 1965 (April 27, 1965)	5,050	165 Ground

Location:
Sec. 23 - T4S - R17E (491' FSL and 575' FEL of the NE/4 of NE/4 of the section)

Subsurface record:

(1) Plugged and abandoned

(2) Casing program:
20" set at 86' w/100 cubic feet of Posmix and 4% calcium chloride, plus 100 cubic feet of strata crete
13 3/8" set at 155' w/100 sacks of cement
8 5/8" set at 1,274' w/200 sacks with 8% gel, plus 175 sacks of cement

(3) Plugging details:
Set 200' cement plug (70 sacks) from 150' below the bottom of the 8 5/8" casing to 50' above the bottom of that casing
Set 25' cement plug in top of 8 5/8" casing
At surface, welded a steel plate on top of the casing
Between cement plugs, the hole was filled with 10-pound mud

(4) Logs:
Induction-Electrical, 1,274-2,917; Borehole Compensated Sonic Log - Gamma Ray Log, 2,700-5,050'

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCr-48S-30E-18 cc (W-7475)	09-021-10042	Humble Oil and Refining Co.	23-A	Gulf Coast Realties Corp.	July 9, 1965 (Sept. 24, 1965)	11,650	35 DF

Location:
Sec. 18 - T48S - R30E (100' N of the center of the SW/4 of the SW/4 of the section)

Subsurface record:

(1) Sunniland field producing well. The initial production was 584 BOPD, with 44 barrels of water through perforations of 4 shots per foot over the interval, 11,576-11,590'.

(2) Casing program:
20" at 180' w/375 sacks
13 3/8" at 1,045' w/890 sacks
9 5/8" at 3,650' w/400 sacks
5 1/2" at 11,654' w/450 sacks of Slo-Set

(3) Logs:
Induction-Electrical, 3,648-11,652'; Acoustilog, 3,648-11,651'; Gamma Ray-Neutron, 3,648-11,653'

(4) Conventional cores:
a) No. 1, at 11,540-11,546'. Recovered 3 1/2'
b) No. 2, at 11,546-11,562'. Recovered 13'
c) No. 3, at 11,563-11,593'. Recovered 30'
d) No. 4, at 11,593-11,623'. Recovered 30'

(5) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCr-48S-29E-24 db (W-7522)	09-021-10043	Humble Oil and Refining Co.	24	Gulf Coast Realties Corp.	Nov. 18, 1965 (Dec. 7, 1965)	14,500	36 DF

Location:
Sec. 24 - T48S - R29E (1,980' S and 660' W of the NE corner of the section)

Subsurface record:

(1) Sunniland field producing well. The initial production was 464 BOPD with 40 barrels of salt water through penetrations of 4 shots per foot at 11,583-11,590' (Induction-Electrical Log), and after acidation with 300 gallons of MCA.

(2) Casing program:
Set 20" at 192' with 350 sacks of cement
Set 13 3/8" at 1,387' with 650 sacks of cement
Set 9 5/8" at 3,695' with 350 sacks of cement
Set 7" at 11,700' with 450 sacks of cement

(3) Logs:
Gamma Ray-Neutron, 3,696-11,704'. Sonic, 11,705-13,490'; Borehole Compensated Density, 8,000-11,704'.

(4) Conventional cores:
Core 1. 11,545-11,575'
Core 2. 11,575-11,605'
Core 3. 11,605-11,635'
Core 4. 12,569-12,599'

(5) Sidewall cores:
Attempted 17 sidewall cores from 8,235-11,667'; recovered 17.

COLLIER COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCr-46S-29E-3 a (W-7107)	09-021-10041	Sun Oil Co.	3-2	The Collier Co.	April 25, 1965 (May 23, 1965)	11,675	53 DF

Location:
Sec. 3 - T46S - R29E (1,328' E and 1,370' S of the NW corner of the section)

Subsurface record:

(1) Plugged and abandoned. This was a southeast offset to the Sunoco-Felda field.

(2) Casing program:
Drove 30" to 30'
Set 13 3/8" at 1,188' w/650 sacks
Set 9 5/8" at 3,540' w/200 sacks
Set 5 1/2"(?) at 11,360(?) w/136 sacks of Slo-Set cement

(3) Plugging details:
11,360-11,675' set 136 sacks of Slo-Set cement
3,340-3,640' set 115 sacks of Portland cement, using 9 5/8" rubber plugs at 3,340' and 3,540'
At surface, used a shopmade 9 5/8" casing swedge, with a 2" valve

(4) Logs:
Induction-Electric, 3,543-9,904'; Sonic (with caliper), 8,403-9,903'

(5) DST's:
a) 9,770-9,895'. Chokes, 5/8" and 3/16". Open, 2 hours. Working pressure, slight blow. Recovery, 120' of salt water. Bottom hole flowing pressures, 969 psi and 973 psi. Bottom hole closed-in pressure, 3,796 psi.
b) 11,505(?)-11,513'. Chokes, 5/8" and 3/4". Open, 2 hours. Working pressure, 2 pounds. Recovery, 250' of slightly oil cut water, and 6,351' of salt water (140,000 ppm cl). Bottom-hole flowing pressures, 1,334 psi and 3,769 psi. Bottom-hole closed-in pressure, 4,960 psi.

COLLIER COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCr-46S-29E-4 a (W-7375)	09-021-10044	Sun Oil Co.	4-2	The Collier Co.	August 28, 1965 (Oct. 5, 1965)	11,488	54 DF

Location:.
Sec. 4 - T46S - R29E (1,115' FNL, and 1,460' FWL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 336 BOPD, with 15 barrels of salt water, from the open hole at 11,474-11,488', after acidation with 1,000 gallons of 15% HCL.

(2) Casing program:
Drove 20" to 64'
Set 13 3/8" at 1,160' with 650 sacks of cement
Set 9 5/8" at 3,397' with 200 sacks of cement
Set 5 1/2" at 11,474' with 200 sacks of cement
Ran 2 1/2" tubing to 5,079'

(3) Logs:
Electrical, 3,400-11,487'

(4) DST: None

COLLIER COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WCr-46S-29E-4 cc (W-7575)	09-021-10046	Sun Oil Co.	4-3	The Collier Co.	Nov. 29, 1965 (Dec. 31, 1965)	11,630	48 DF

Location:
Sec. 4 - T46S - R29E (1,000' FWL and 2,025' FSL of the section)

Subsurface record:

(1) Plugged and abandoned. This was a south offset well to the Sunoco-Felda field.

(2) Casing program:
Set 20" at 51' with 100 sacks of cement
Set 13 3/8" at 966' with 650 sacks of cement
Set 9 5/8" at 3,516' with 200 sacks of cement

(3) Plugging details:
11,300-11,630', set 125 sacks of Slo-Set cement
3,316-3,636', set 115 sacks of Portland cement
At surface, installed a 9 5/8" casing swage with a 2" valve
Note: No pipe was removed from this well when it was abandoned.

(4) Logs:
Induction-Electrical, 8,000-11,630'; Sonic, 3,509-11,631'

(5) DST at 11,495-11,500'. Chokes, 5/8" and 3/4". Oper 2 hours. Working pressure, 18 pounds. Recovery, 2,000' of water cushion, and 6,600' of salt water.

DADE COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WDd-54S-35E-15 c (W-7336)	09-025-10011	Serio	1	St. of Florida 1939 and 1939S	June 30, 1965 (Aug. 6, 1965)	11,615	21 DF

Location:
Sec. 15 - T54S - R35E (342' W of the center of the SW/4 of the section)

Subsurface record:

(1) Plugged and abandoned. This was a north outpost well to the discovery well for the abandoned Forty Mile Bend Field.

(2) Casing program:
Set 20" at 200' w/300 sacks
Set 13 3/8" at 1,117' w/785 sacks
Set 9 5/8" at 4,007' w/650 sacks

(3) Plugging details:
11,270-11,370' set 45 sacks Slo-Set cement
3,925-4,075' set 70 sacks common cement; plug verified by "tagging"
Top of 9 5/8" casing plugged with 5 sacks common cement

(5) DST at 11,347-11,382'. Open, 4 hours. Recovery, 615' salt water (179,000 ppm CL), very slightly cut in the bottom 60' with gas and oil. Final flowing pressure, 983 psi. Final shut-in pressure, 4,636 psi. Final mud pressure, 5,220 psi.

(6) Conventional cores at 9,850-9,869'. Recovered 19' of limestone with slight oil show
11,332-11,383'. Recovered 50' dolomite and limestone. Top 5' and bottom 11' had slight oil show in tight dolomite at the top, and tight limestone at the bottom, respectively. 11,452-11,502', recovered 37', consisting of limestone with numerous very small fractures bleeding oil and water.

(4) Logs:
Induction-Electrical, 4,007-11,615'; Borehole Compensated Sonic Log, with Caliper Log, 4,007-11,615'.

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-15 c (W-7592)	09-051-10035	Sun Oil Co.	15-3	Consolidated Financial Corp.	Dec. 12, 1965 (Jan. 12, 1966)	11,649	48DF

Location:
Sec. 15 - T45S - R29E (1,329' FWL, and 1,308' FSL of the section)

Subsurface record:

(1) Plugged and abandoned. This was a dry outpost well at the northeast end of the Sunoco-Felda field.

(2) Casing program:
Set 20" at 63' with 75 sacks of cement
Set 13 3/8" at 1,158' with 650 sacks of cement
Set 9 5/8" at 3,059' with 200 sacks of cement

(3) Plugging details:
Recovered 2,500' of 9 5/8" casing
850-1,188', set 125 sacks of Portland common cement with 16% gel and 2% calcium chloride
At surface, set 10 sacks of cement

(4) Logs:
Induction-Electrical, 3,054-11,654'; Sonic, 8,000-11,653'

(5) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-28E-24 b (W-7182)	09-051-10028	Sun Oil Co.	24-1	Lee-Tidewater	May 25, 1965 (July 1, 1965)	11,551	52 DF

Location:
Sec. 24 - T45S - R28E (1,037' FEL, and 1,041' FNL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 53 BOPD, with 59 barrels of salt water through perforations at 11,460-11,464', and after acidation through the perforations as follows:
500 gallons of 15% HCL in 1-barrel stages
250 gallons of 15% HCL with CRA-10
250 gallons of 15% HCL followed by 3,750 gallons of 15% HCL with 1% CRA-10

(2) Casing program:
Set 20" at 122' with 250 sacks of cement
Set 13 3/8" at 1,135' with 650 sacks of cement
Set 9 5/8" at 3,542' with 250 sacks of cement
Set 5 1/2" at 11,551' with 325 sacks of cement
Ran 2 1/2" tubing to 5,583'

(3) Logs:
Casing Collar, 11,460-11,466'

Note: Drilling operations on this well, originally designated the No. 1 Lee-Tidewater Cypress well, were initiated by the Humble Oil and Refining Company. On June 23, 1965, the Sun Oil Company became operator of the well, at which time the name was changed to No. 24-1 Lee-Tidewater.

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-29 a (W-7179)	09-051-10021	Sun Oil Co.	29-2	Red Cattle Co.	June 1, 1965 (July 3, 1965)	11,478	54 DF

Location:
Sec. 29 - T45S - R29E (1,400' FWL, and 1,200' FNL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 164 BOPD, with 38 barrels of salt water, from the open hole at 11,469-11,478'. Prior to this test the acidation treatment was:
500 gallons of 15% HCL was washed into the formation in 1-barrel stages
250 gallons of 15% HCL with CRA-10 was displaced into the formation
250 gallons of 15% HCL followed by 3,750 gallons of 15% HCL with 1% CRA-10

(2) Casing program:
Drove 20" to 67'
Set 13 3/8" at 1,134' with 650 sacks
Set 9 5/8" at 3,550' with 200 sacks
Set 5 1/2" at 11,469' with 200 sacks of Slo-Set cement
Ran 2 1/2" tubing to 4,510'

(3) Logs:
Induction-Electrical, 3,550-11,479'

(4) DST: None

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-29 c (W-7106)	09-051-10020	Sun Oil Co.	29-3	Red Cattle Co.	April 20, 1965 (May 25, 1965)	11,489	58 DF

Location:
Sec. 29 - T45S - R29E (1,300' FWL, and 1,400' FSL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 302 BOPD with 22 barrels of salt water from the open hole at 11,480-11,489'. Prior to this test, the acidation treatment was:
500 gallons of 15% HCL washed into the formation in 1-barrel stages
500 gallons of 15% HCL with CRA-10 displaced into the formation

(2) Casing program:
Drove 20" to 70'
Set 13 3/8" at 1,172' with 650 sacks
Set 9 5/8" at 3,542' with 200 sacks
Set 5 1/2" at 11,480' with 200 sacks of Slo-Set cement
Ran 2 1/2" tubing to 5,045'

(3) Logs:
Induction-Electrical, 3,542-11,491'

(4) DST: None

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-29 d (W-7056)	09-051-10012	Sun Oil Co.	29-4	Red Cattle Co.	March 21, 1965 (April 29, 1965)	11,472	55 DF

Location:
Sec. 29 - T45S - R29E (1,350' FSL, and 1,300' FEL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 333 BOPD, with 15 barrels of load water from the open hole at 11,461-11,472'. Prior to this test the acid treatment was:
500 gallons of 15% NE HCL washed-in in 1-barrel stages
500 gallons of 15% NE HCL with CRA-10 displaced into formation at a rate of 1/7 barrel per minute

(2) Casing program:
Drove 30" to 40'
Set 13 3/8" at 1,188' with 650 sacks
Set 9 5/8" at 3,535' with 200 sacks
Set 5 1/2" at 11,461' with 200 sacks of Slo-Set cement
Ran 2 1/2 " tubing to 5,533'

(3) Logs:
Induction-Electrical, 3,533-11,474'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-30 c (Wgi-1862)	09-051-10033	Sun Oil Co.	30-3	Red Cattle Co.	Nov. 9, 1965 (Dec. 4, 1965)	11,620	52 DF

Location:
Sec. 30 - T45S - R29E (1,500' FWL, and 1,320' at right angles FSL of the section)

Subsurface record:

(1) State Board of Conservation Order No. 4, dated May 15, 1966, granted the Sun Oil Company permission to inject salt water through this well into the Roberts Pool of the Sunoco-Felda field to conserve reservoir energy. The entire salt water production of the field, which in December, 1966, was about 54% of the total fluid produced and which at that time amounted to approximately 2,950 BWPD, was returned to the reservoir through perforations from 11,499-11,509' in this down-gradient dry hole.

(2) Casing program:
20" at 68'
Set 13 3/8" at 1,144' with 750 sacks
Set 9 5/8" at 3,525' with 200 sacks

(3) Plugging details:
11,300-11,620' set 120 sacks of Slo-Set cement
3,325-3,625' set 115 sacks of Portland cement, using 9 5/8" rubber plugs at 3,325' and 3,525'
At surface, used a 9 5/8" casing swedge with a 2" valve
Note: No casing was removed from this well when it was abandoned.

(4) Logs:
Induction-Electric, 3,528-11,625'; Sonic, 3,528 -11,624'

(5) DST at 11,490-11,498'. Chokes, 5/8" and 3/4". Open, 3 1/2 hours. Working pressure, 60 pounds, maximum. Recovery, 2,000' of water cushion, and 8,560' of salt water. Bottom hole flowing pressures 3,210 psi and 4,908 psi. Bottom hole closed-in pressure, 4,929 psi.

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-30 d (W-1865)	09-051-10030	Sun Oil Co.	30-4	Red Cattle Co.	Sept. 5, 1965 (Oct. 14, 1965)	11,484	53 DF

Location:
Sec. 30 - T45S - R29E (1,189' FEL, and 1,422' FSL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 112 BOPD with 254 barrels of salt water, from the open hole at 11,477-11,484', after acidation with 1,000 gallons of HCL.

(2) Casing program:
Drove 20" to 64'
Set 13 3/8" at 1,156' with 650 sacks of cement
Set 9 5/8" at 3,433' with 200 sacks of cement
Set 5 1/2" at 11,477' with 200 sacks of cement
Ran 2 1/2" tubing to 5,039'

(3) Logs:
Induction-Electrical, 3,438-11,485'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-32 ba (W-6929)	09-051-10043	Sun Oil Co.	32-2	Red Cattle Co.	Jan. 6, 1965 (Feb. 5, 1965)	3,162*	54 DF

Location:
Sec. 32 - T45S - R29E (700' FNL, and 700' FEL of the NW/4 of the section)

Subsurface record:

(1) State Board of Conservation Order No. 2, dated July 20, 1965, authorized the injection of brines produced by the Sunoco-Felda field into this well below a packer set at 2,270-2,290', through 2 7/8" tubing, into highly permeable rock containing very saline formation waters (16,000 ppm chloride ions). Such injection would not be harmful to surface areas.

(2) Casing program:
Set 20" at 189' with 225 sacks of cement
Set 13 3/8" at 1,368' with 600 sacks of cement

(3) Logs:
Sonic, with caliper, 1,370-2,530'

(4) DST: None

*The operator was unable to recover drill pipe and collars lost in the hole at 3,162' and extending from that point to 2,618'. Consequently, the rig was skidded 500' west to drill the Sun, No. 32-2A Red Cattle Co. well.

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-32 a (W-7193)	09-051-10011	Sun Oil Co.	32-2A	Red Cattle Co.	Feb. 12, 1965 (March 27, 1965)	11,493	53 DF

Location:
Sec. 32 - T45S - R29E (700' FNL, and 1,318' FWL of the section). This was a revised location; the rig originally on the No. 32-2 R. C. Co. well, in which the hole was lost, was skidded over 500', and the same permit number assigned to this location.

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 115 BOPD, with 79 barrels of water from the open hole at 11,486-11,493'. There was no acid treatment of this hole prior to this test.

(2) Casing program:
30" at 40'
Set 20" at 188' with 300 sacks
Set 13 3/8" at 1,320' with 650 sacks
Set 9 5/8" at 3,491' with 200 sacks
Set 5 1/2" at 11,486' with 300 sacks of Slo-Set cement

(3) Logs:
Induction-Electrical, 3,489-11,488'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-32 c (W-7546)	09-051-10031	Sun Oil Co.	32-3	Red Cattle Co.	Nov. 5, 1965 (Dec. 4, 1965)	11,619	36 Ground

Location:
Sec. 32 - T45S - R29E (1,901' FWL, and 1,307' FSL of the section)

Subsurface record:

(1) Plugged and abandoned. This was a southwest offset well to the Sunoco-Felda field.

(2) Casing program:
Set 20" at 63'
Set 13 3/8" at 1,126' with 650 sacks of cement
Set 9 5/8" at 3,548' with 200 sacks of cement

(3) Plugging details:
11,300-11,619', set 120 sacks of Slo-Set cement
3,342-3,642', set 115 sacks of Portland cement, using 9 5/8" rubber plugs at 3,342' and 3,542'
At surface, installed a 9 5/8" casing swage with a 2" valve
Note: No casing was removed from this well at the time it was abandoned.

(4) Logs:
Induction-Electrical, 3,550-11,625'; Sonic, 3,550-11,625'

(5) DST at 11,491-11,496'. Chokes, 5/8" and 3/4". Open 3 hours. Working pressure, 30 pounds maximum. Recovery, 2,000' of water cushion, and 7,870' of salt water. Bottom hole flowing pressures, 2,325 psi and 4,699 psi. Bottom hole closed-in pressure, 4,762 psi.

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-32 bd (Wgi-1863)	09-051-10015	Sun Oil Co.	32-4	Red Cattle Co.	July 28, 1965 (Sept. 5, 1965)	11,471	52 DF

Location:
Sec. 32 - T45S - R29E (1,800' FSL and 700' FEL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 306 BOPD with 21 barrels of salt water from the open hole at 11,459-11,471' after acidation with 1,000 gallons of 15% HCL with CRA-10.

(2) Casing program:
Drove 20" to 82'
Set 13 3/8" at 1,155' with 650 sacks
Set 9 5/8" at 3,405' with 200 sacks
Set 5 1/2" at 11,459' with 200 sacks of Slo-Set cement
Ran 2 1/2" tubing to 4,565'

(3) Logs:
Gamma Ray - Neutron, 3,400-11,473'

(4) DST's:
a) 1,286-1,336'. Chokes, none. Open 30 minutes. Working pressure, 0 pounds. Recovery, 100' of drilling mud, and 466' of filtrate water. Bottom hole flowing pressures, 144 psi and 288 psi. Bottom hole closed-in pressures, 532 psi and 523 psi.

b) 1,434-1,463'. Chokes, none. Open 1 1/2 hours. Working pressure, 0 pounds. Recovery, 60' of drilling mud, and 1,190' of water. Bottom hole flowing pressures, 282 psi and 543 psi. Bottom hole closed-in pressures, 599 psi and 698 psi.

c) 1,760-1,799'. Chokes, none. Open, 1 hour. Working pressure, 0 pounds. Recovery, 1,700' of salt water.

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-20 d (W-7201)	09-051-10027	Sun Oil Co.	20-4	Sunoco-Felda	July 3, 1965 (Oct. 6, 1965)	11,525	53 DF

Location:
Sec. 20 - T45S - R29E (1,320' FSL, and 1,320' FEL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 5 BOPD, with 201 barrels of salt water through perforations at 11,471-11,478', after acidation as follows:
4,000 gallons of 15% HCL with CRA-10
500 gallons of 15% HCL

(2) Casing program:
Drove 20" to 69'
Set 13 3/8" at 1,043' with 650 sacks of cement
Set 9 5/8" at 2,928' with 300 sacks of cement
Set 5 1/2" at 11,525' with 200 sacks of cement
Ran 2 1/2" tubing to 7,039'

(3) Logs:
Induction-Electrical, 82-1,122', and 1,122-2,132'; Gamma Ray - Neutron, 2,700-11,491'; Sonic, 82-1,121', and 1,121-2,130'; Casing Collar, 2,928-11,525', and 11,484-11,505'

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-21 cc (W-7177)	09-051-10025	Sun Oil Co.	21-3	Sunoco-Felda	May 28, 1965 (July 14, 1965)	11,550	53 DF

Location:
Sec. 21 - T45S - R29E (860' FWL, and 700' FSL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 90 BOPD, with 124 barrels of salt water through perforations at 11,462-11,470'. The acidation program was:
1,000 gallons of 15% HCL with CRA-10
4,000 gallons of 15% HCL with CRA-10

(2) Casing program:
Drove 20" to 67'
Set 13 3/8" at 1,115' with 650 sacks of cement
Set 9 5/8" at 3,374' with 300 sacks of cement
Set 5 1/2" at 11,550' with 250 sacks of cement
Ran 2 1/2" tubing to 6,486'

(3) Logs:
Neutron, 9,905-11,505'; Sonic, with caliper, 9,500-11,551'

(4) DST at 11,460-11,487'. Chokes, 5/8" and 1/4". Open, 5 hours and 12 minutes. Working pressure, 3 1/2 pounds. Recovery, 658' of oil, and 970' of oil and gas cut water cushion. Lost 1,030' of water cushion. Bottom hole flowing pressures, 855 psi and 2,708 psi. Bottom hole closed-in pressure, 4,950 psi and 4,594 psi.

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-27 c (W-7178)	09-051-10013	Sun Oil Co.	27-3	Sunoco-Felda	Feb. 10, 1965 (March 19, 1965)	11,575	52 DF

Location:
Sec. 27 - T45S - R29E (1,127' FEL of the SW/4 of the section, and 1,077' FSL of the section)

Subsurface record:

(1) Plugged and abandoned. This was a northeast offset well to the Sunoco-Felda field.

(2) Casing program:
30" at 30'
Set 20" at 180' with 300 sacks
Set 13 3/8" at 1,307' with 650 sacks
Set 9 5/8" at 3,535' with 200 sacks

(3) Plugging details:
11,316-11,516' set 85 sacks of Slo-Set cement
3,435-3,635' set 90 sacks of Portland neat cement with two 9 5/8" rubber wiper plugs, one at 3,435' and one at 3,535'
At surface, capped 9 5/8" casing with a shopmade swedge with a 2" screw end valve

(4) Logs:
Induction-Electrical, 3,535-11,522'; Sonic (with Caliper), 3,535-11,523'

(5) DST at 11,480-11,494'. Chokes, 5/8" and 1/4". Water cushion, 2,000'. Open, 3 hours and 17 minutes. Working pressure, 3/4 pound. Recovery, 1,571' of salt water (189,750 ppm) with a slight oil show. Initial bottom hole closed-in pressure (after a shut-in period of 30 minutes), 5,016 psi. Final bottom hole closed-in pressure (after a shut-in period of 2 hours), 4,908 psi.

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-28 ab (W-7473)	09-051-10029	Sun Oil Co.	28-1	Sunoco-Felda	Sept. 30, 1965 (Nov. 19, 1965)	11,470	46 DF

Location:
Sec. 28 - T45S - R29E (1,658' FEL, and 1,110' FNL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 53 BOPD, with 50 barrels of salt water through perforations at 11,461-11,465', after acidation with 1,000 gallons of 15% HCL.

(2) Casing program:
20" at 68'
Set 13 3/8" at 1,099' with 650 sacks of cement
Set 9 5/8" at 3,500' with 200 sacks of cement
Set 5 1/2" at 11,470' with 200 sacks of cement
Ran 2 1/2" tubing to 7,030'

(3) Logs:
Gamma Ray - Neutron, 8,000-11,468'

(4) DST at 11,458-11,470'. Chokes, 7/8" and 3/4". Open, 2 hours and 10 minutes. Working pressure, 1/2 pound. Recovery, 2,000' of water cushion, 150' of oil, and 890' of slightly oil and gas cut mud.

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-28 a (W-7055)	09-051-10022	Sun Oil Co.	28-2	Sunoco-Felda	March 29, 1965 (May 15, 1965)	11,477	53 DF

Location:
Sec. 28 - T45S - R29E (1,028' FWL of the section, and 959' FSL of the NW/4 of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 318 BOPD with 60 barrels of salt water through perforations created by 40 shots in interval 11,467-11,477'. Prior to this test the perforations were acidized with 1,000 gallons of 15% HCL with CRA-10.

(2) Casing program:
Drove 20" to 72'
Set 13 3/8" at 1,073' with 650 sacks
Set 9 5/8" at 3,505' with 200 sacks
Set 5 1/2" at 11,484' with 200 sacks of Slo-Set cement
Ran 2 1/2" to 6,524'

(3) Logs:
Induction-Electrical, 3,510-11,488'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-28E-28 c (W-7046)	09-051-10014	Sun Oil Co.	28-3	Sunoco-Felda	Feb. 26, 1965 (April 6, 1965)	11,612	52 DF

Location:
Sec. 28 - T45S - R28E (1,460' FWL, and 1,059' FSL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 267 BOPD with 165 barrels of water through perforations of 4 shots (27 grams each) per foot of the interval, 11,472-11,478'. The acid treatment prior to this test was:
500 gallons of 15% HCL washed-in in stages (of 1 barrel?)
500 gallons of 15% HCL with CRA-10 displaced

(2) Casing program:
30" at 39'
Set 20" at 185' with 300 sacks
Set 13 3/8" at 1,116' with 650 sacks
Set 9 5/8" at 3,535' with 200 sacks
Set 5 1/2" at 11,612' with 215 sacks

(3) Logs:
Induction-Electrical, 3,535-11,519'; Casing Collar, 11,477-11,482'.

(4) DST: None

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-28 d (W-7531)	09-051-10024	Sun Oil Co.	28-4	Sunoco-Felda	Nov. 3, 1965 (Dec. 8, 1965)	11,469	46 DF

Location:
Sec. 28 - T45S - R29E (1,764' FEL and 1,088' FSL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. Initial production was 152 BOPD with 40 barrels of salt water from the open hole at 11,462-11,469', after acidation with 750 gallons of 15% HCL.

(2) Casing program:
Drove 20" to 64'
Set 13 3/8" at 1,150' with 650 sacks
Set 9 5/8" at 3,525' with 200 sacks
Set 5 1/2" at 11,462' with 200 sacks of Slo-Set cement

(3) Logs:
Gamma Ray - Neutron, 8,000-11,475'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-29 b (W-7109)	09-051-10019	Sun Oil Co.	29-1	Sunoco-Felda	April 28, 1965 (June 5, 1965)	11,474	56 DF

Location:
Sec. 29 - T45S - R29E (1,301' FEL of the section, and 986' FSL of the NE/4 of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 210 BOPD and 59 barrels of salt water from the open hole at 11,464-11,474'. The acidation treatment was:
500 gallons of 15% NE HCL washed into the formation in 1-barrel stages
500 gallons of 15% NE HCL displaced into the formation in stages

(2) Casing program:
Drove 20" to 70'
Set 13 3/8" at 1,124' with 650 sacks
Set 9 5/8" at 3,519' with 200 sacks
Set 5 1/2" at 11,464' with 200 sacks of Slo-Set cement
Ran 2 1/2" tubing to 5,056'

(3) Logs:
Induction-Electrical, 3,520-11,477'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-33 db (W-7315)	09-051-10023	Sun Oil Co.	33-1	Sunoco-Felda	Aug. 14, 1965 (Sept. 30, 1965)	11,474	47 DF

Location:
Sec. 33 - T45S - R29E (660' FNL and 660' FWL of the NE/4 of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 306 BOPD with 38 barrels of salt water from the open hole at 11,462-11,474', after acid treatment with 1,000 gallons of 15% HCL.

(2) Casing program:
Drove 20" to 65'
Set 13 3/8" at 1,152' with 650 sacks
Set 9 5/8" at 3,410' with 200 sacks
Set 5 1/2" at 11,462' with 200 sacks of Slo-Set cement
Ran 2 1/2" tubing to 5,052'

(3) Logs:
Gamma Ray - Neutron, 3,500-11,472'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-33 a (W-6928)	09-051-10010	Sun Oil Co.	33-2	Sunoco-Felda	Dec. 31, 1964 (Feb. 22, 1965)	11,480	53 DF

Location:
Sec. 33 - T45S - R29E (1,113' FNL of the section, and 1,225' FEL of the NW/4 of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 336 BOPD, with 1.4 barrels of water from the open hole at 11,466-11,480', after acidation with 1,000 gallons of 15% HCL and CRA.

(2) Casing program:
20" at 182' with 225 sacks
Set 13 3/8" at 1,395' with 600 sacks
Set 9 5/8" at 3,700' with 450 sacks
Set 5 1/2" at 11,466' with 600 sacks of Slo-Set cement
Ran 2 7/8" tubing to 5,500'

(3) Logs:
Induction-Electric, 3,700-11,483'; Sonic (with caliper), 9,400-11,480'

HENDRY COUNTY

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-33 bc (Wgi-1864)	09-051-10016	Sun Oil Co.	33-3	Sunoco-Felda	June 28, 1965 (Aug. 7, 1965)	11,487	54 DF

Location:
Sec. 33 - T45S - R29E (1,782' FSL and 1,823' FWL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 355 BOPD with 21 barrels of salt water from the open hole at 11,477-11,487', after acidation with 500 gallons of 15% HCL and CRA-10.

(2) Casing program:
Drove 20" to 67'
Set 13 3/8" at 1,125' with 650 sacks
Set 9 5/8" at 3,270' with 275 sacks
Set 5 1/2" at 11,477' with 200 sacks of Slo-Set cement
Ran 2 1/2" tubing to 4,622'

(3) Logs:
Induction-Electrical, 3,271-11,477'

(4) DST: None

Division of Geology Well Number	American Petroleum Institute No.	Operator	Well No.	Fee Name	Commenced (Completed)	Total Depth (feet)	Elevation (feet)
WHy-45S-29E-33 d (W-7105)	09-051-10018	Sun Oil Co.	33-4	Sunoco-Felda	March 25, 1965 (April 30, 1965)	11,490	53 DF

Location:
Sec. 33 - T45S - R29E (1,400' FEL and 1,250' FSL of the section)

Subsurface record:

(1) Sunoco-Felda field producing well. The initial production was 33 BOPD with 235 barrels of salt water from the open hole at 11,484-11,490'. There was no acid treatment of this well prior to this treatment.
Note: During the month of March, 1967, production from this well was discontinued, probably permanently.

(2) Casing program:
Drove 20" to 142'
Set 13 3/8" at 1,230' with 650 sacks
Set 9 5/8" at 3,531' with 200 sacks
Set 5 1/2" at 11,484'
Ran 2 1/2" tubing to 6,504'

(3) Logs:
Gamma Ray - Neutron, 9,996-11,496'; Casing Collar Log, 3,532-11,491'

(4) DST: None

APPENDIX II

FLORIDA GEOLOGICAL SURVEY WELL AND LOCALITY DESIGNATION SYSTEM

The locality and well numbering system is based on the location of the locality or well, and uses the rectangular system of section, township, and range for identification. The number consists of five parts. These are: 1) a prefix of three letters designating L for locality or W for well and county abbreviation, 2) the quarter/quarter location within the section, 3) the section, 4) the township, and 5) the range.

The basic rectangle is the township which is 6 miles square. It is consecutively measured by tiers both north and south of the Florida base line - an east-west line that passes through Tallahassee. This basic rectangle is also consecutively measured both east and west of the principal meridian - a north-south line that passes through Tallahassee. In recording the township and range numbers, the T is left off the township numbers, and the R is left off the range numbers. Each township is divided equally into 36 square miles called sections, and are numbered 1 through 36 as shown on the attached diagram.

The sections are divided into quarters with the quarters labeled "a" through "d" as shown on diagram. In turn, each of these quarters is divided into quarters with these quarter/quarter squares labeled "a" through "d" in the same manner. The "a" through "d" designation of quarters may be carried to any extent deemed useful.

The location of the well WLn- 2N-2E-21 db shown on the diagram would be in the center of the southeast quarter of the northeast quarter of section 21, township 2 north, range 2 east.

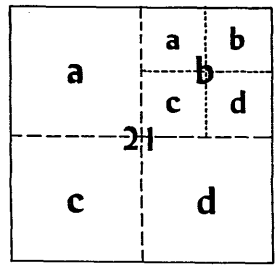
When there is more than one well or locality in a square 40-acre tract (quarter/quarter section) they are identified by either an additional quarter designation or by a sixth arbitrary accession number at the end of the range unit. The abbreviations used for counties are:

Alachua	Aa
Baker	Bk
Bay	By
Bradford	Bf
Brevard	Bv
Broward	Bw
Calhoun	Cn
Charlotte	Ch
Citrus	Ci
Clay	Cy
Collier	Cr
Columbia	Co
Dade	Dd
DeSoto	Ds
Dixie	Dx
Duval	Du
Escambia	Es
Flagler	Fg
Franklin	Fk
Gadsden	Ga
Gilchrist	Gr
Glades	Gl
Gulf	Gf
Hamilton	Hm
Hardee	Hd
Hendry	Hy
Hernando	Hr
Highlands	Hi
Hillsborough	Hl
Holmes	Ho
Indian River	Ir
Jackson	Jk
Jefferson	Jf
Lafayette	Lf
Lake	Lk
Lee	Le
Leon	Ln
Levy	Lv
Liberty	Lb
Madison	Md
Manatee	Mn
Marion	Mr
Martin	Mt
Monroe	Mo
Nassau	Na
Okaloosa	Oa
Okeechobee	Oe
Orange	Or
Osceola	Os
Palm Beach	Pb
Pasco	Ps
Pinellas	Pi
Polk	Po
Putnam	Pu
St. Johns	Sj
St. Lucie	Sl
Santa Rosa	Sr
Sarasota	Sa
Seminole	Se
Sumter	Sm
Suwannee	Sw
Taylor	Ty
Union	Un
Volusia	Vo
Wakulla	Wk
Walton	Wl
Washington	Ws

R 2 E

	6	5	4	3	2	1
T	7	8	9	10	11	12
	18	17	16	15	14	13
2	19	20	21	22	23	24
N	30	29	28	27	26	25
	31	32	33	34	35	36

SECTIONIZED TOWNSHIP



Division of a section into quarters of approx. 160 acres and division of a quarter section into quarters of approx. 40 acres.

NOTE:

A well in Leon County, Township 2 North, Range 2 East, Section 21, located in the center of the southeast quarter of the northeast quarter would be designated thus:

WLn-2N-2E-21db

FLORIDA GEOLOGICAL SURVEY

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