

FILE NOTATIONS

Entered in NID File

Entered on SR Sheet

Location Map Pinned

Card Indexed

IWR for State or Fee Land

Checked by Chief

Copy NID to Field Office

Approval Letter

Disapproval Letter

COMPLETION DATA:

Date Well Completed 10-12-58

OW _____ WW _____ TA _____

GW _____ OS _____ PA X

Location Inspected _____

Bond released _____

State of Fee Land _____

LOGS FILED

Driller's Log 11-28-58

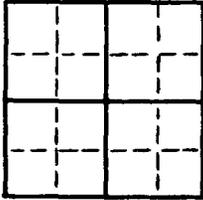
Electric Logs (No.) 3

E _____ I _____ E-I GR _____ GR-N _____ Micro _____

Lat _____ Mi-L Sonic _____ Others Radiation

(SUBMIT IN DUPLICATE)

LAND:



STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

STATE CAPITOL BUILDING
SALT LAKE CITY 14, UTAH

Fee and Patented.....
State.....
Lease No.
Public Domain.....
Lease No.
Indian.....
Lease No. 14-20-603-2056

SUNDRY NOTICES AND REPORTS ON WELLS

Notice of Intention to Drill.....	<input checked="" type="checkbox"/>	Subsequent Report of Water Shut-off.....	
Notice of Intention to Change Plans.....	<input type="checkbox"/>	Subsequent Report of Altering Casing.....	
Notice of Intention to Redrill or Repair.....	<input type="checkbox"/>	Subsequent Report of Redrilling or Repair.....	
Notice of Intention to Pull or Alter Casing.....	<input type="checkbox"/>	Supplementary Well History.....	
Notice of Intention to Abandon Well.....	<input type="checkbox"/>		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

..... September 10,, 19 58..

Aneth
Well No. 33-B4 is located 530 ft. from XY line and 1980 ft. from W line of Sec. 33
SE SW Sec. 33 40-S 24-E Salt Lake
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Aneth San Juan Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is feet. - will be furnished later.

A drilling and plugging bond has been filed with U. S. Government.....

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important work, surface formation, and date anticipate spudding-in.)

The proposed Casing program is as follows:

- 50' - 13-3/8" OD Casing cemented to surface.
- 1500' - 9-5/8" OD Casing cemented to surface.
- 5900' - 5-1/2" OD Casing (Oil String).

Estimated total depth 6,000'.

The principle objective is the Paradox Dolomite.

I understand that this plan of work must receive approval in writing by the Commission before operations may be commenced.

Company The Pure Oil Company
Address 1700 Broadway
Denver 2, Colorado
By T. L. Warburton
Title Division Chief Production Clerk

INSTRUCTIONS: A plat or map must be attached to this form showing the location of all leases, property lines, drilling and producing wells, within an area of sufficient size so that the Commission may determine whether the location of the well conforms to applicable rules, regulations and orders.

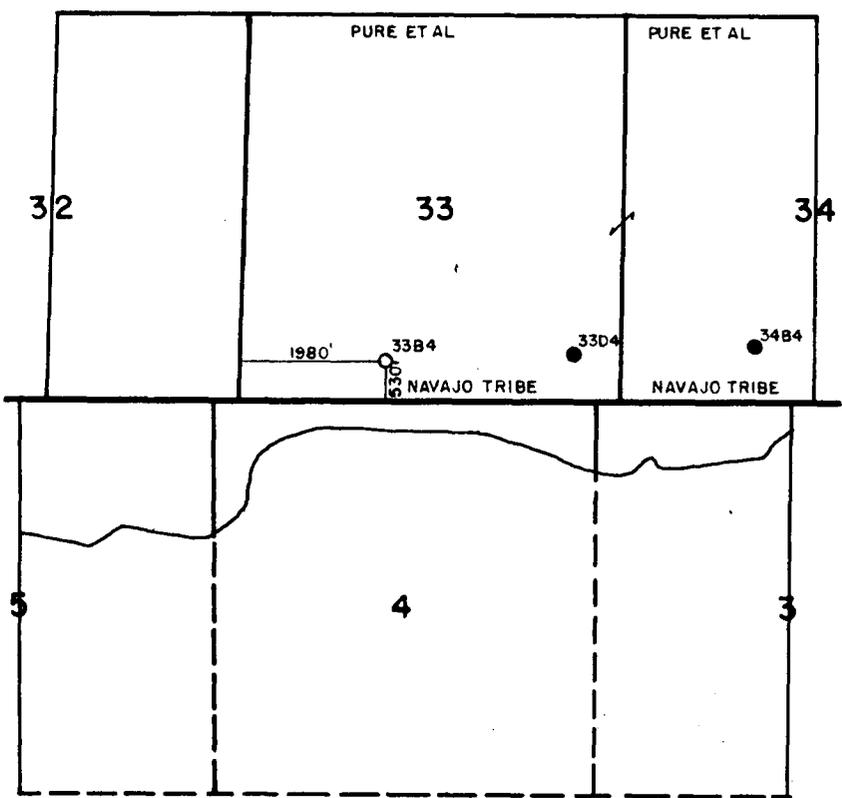
THE PURE OIL COMPANY LOCATION REPORT

Date September 9, 1958 A.F.E. No. 212
 Division Rocky Mountain Producing District Aneth Lease Aneth "B"
Navajo Tribe 11-20-103-1956
 Acres 2560 Lease No. 7064 Elevation 4668 Gr. Ungraded Well No. 33-PL (Serial No. _____)
 Quadrange S8 3W Sec. 33 Twp. 40-S Rge. 24-E Bk. _____ Dist. _____ Twp. _____
 Survey Salt Lake Meridian County San Juan State Utah
 Operator The Pure Oil Company Map _____

____ Feet from North Line of Lease
 " " East " " "
 " " South " " "
 " " West " " "
 _____ Feet from North Line of Section
 " " East " " "
530 " " South " " "
1980 " " West " " "

LEGEND

Gas Well	Dry Showing Gas
Oil Well	Abandoned Location
Gas - Distillate Well	or Abandoned Gas Well
or Dry Hole	or Abandoned Oil Well
Dry Showing Oil	or Input Well



Scale 2" = 1 MILE

Remarks: The Pure Oil Company (Operator) 33-1/34
The Ohio Oil Company 33-1/34
Sun Oil Company 33-1/34

Submitted by *R. Ludick* Civil Engineer Approved by *[Signature]* Division Manager
 Approved by _____ Vice-President General Manager

September 12, 1958

**The Pure Oil Company
1700 Broadway
Denver 2, Colorado**

**Attention: T. L. Warburton, Division Chief
Production Clerk**

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Aneth 33- B 4, which is to be located 530 feet from the south line and 1980 feet from the west line of Section 33, Township 40 South, Range 24 East, S1EM, San Juan County, Utah.

Please be advised that insofar as this office is concerned, approval to drill said well is hereby granted.

This approval terminates within 90 days if the above mentioned well is not spudded in within said period.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

**CLEON B. FREIGHT
SECRETARY**

CBF:eo

**cc: Phil McGrath
USGS, Farmington,
New Mexico**

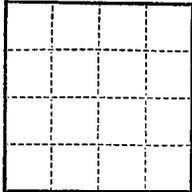
(SUBMIT IN TRIPLICATE)

Indian Agency Namja

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee 14-20-603-2036

Lease No. _____



71-14
10-23

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 17, 1958

Well No. 33-24 is located 530 ft. from 10-S line and 1980 ft. from 24-W line of sec. 33

SE 21 Sec. 33 (1/4 Sec. and Sec. No.) 10-S (Twp.) 24-W (Range) Salt Lake (Meridian)
Utah (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the ~~ground~~ ^{ground} above sea level is 4668 ft.
ED elevation is 4680 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

TD 5740'

Well Plugged and Abandoned as follows: (October 17, 1958.)

1850' to 1550' - 300' - 92 sx regular cement.

2800' to 2600' - 200' - 62 sx regular cement.

1600' to 1500' - 100' - 40 sx regular cement. (Bottom of 9-5/8" OD casing.)

Cap installed on top of 9-5/8" OD casing.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

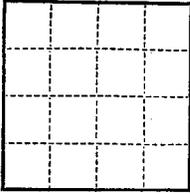
Address 1700 Broadway

Denver 2, Colorado

By T. L. Warburton
T. L. Warburton

Title Division Chief Production Clerk

W



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Namajo

Allottee 14-20-603-2054

Lease No. _____

7-K
10-23

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....	<input checked="" type="checkbox"/>		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 21, 1958

Well No. 11-24 is located 530 ft. from 100 [S] line and 1980 ft. from 100 [W] line of sec. 33

SE SW Sec. 33 (1/4 Sec. and Sec. No.) 40-3 (Twp.) 24-E (Range) Salt Lake (Meridian)
Utah (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the ~~ground surface~~ ^{ground} above sea level is 4448 ft.
~~is~~ ^{is} elevation is 4400 ft.
DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

TD 5740'

Plan to Plug as follows:

- 1850' to 1550' - 300' - 92 sx regular cement.
- 2800' to 2600' - 200' - 62 sx regular cement.
- 1600' to 1500' - 100' - 40 sx regular cement. (Bottom of 9-5/8" OD casing.)

Will install cap on top of casing.

Data from Logs, Core Analysis and Drill Stem Tests indicated well would not be a commercial producer.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway

Denver 2, Colorado

By T. L. Warburton
T. L. Warburton

Title Division Chief Production Clerk

W

THE PURE OIL COMPANY

GENERAL OFFICES, 35 EAST WACKER DRIVE, CHICAGO.

ROCKY MOUNTAIN PRODUCING DIVISION
1700 BROADWAY
DENVER 2, COLORADO

November 26, 1958

Mr. Cleon B. Feight
Secretary
Utah Oil & Gas Conservation Commission
Room 310 - Newhouse Building
Salt Lake City, Utah

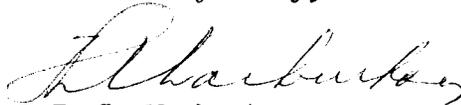
Dear Mr. Feight:

We are enclosing the following records pertaining to Aneth Well No. 33-B4, located Section 33, 40-S, 24-E, San Juan County, Utah:

1. One copy Form 9-330 - Log of Oil or Gas Well.
2. One copy Schlumberger Microlaterolog.
3. One copy Schlumberger Electric Log.
4. One copy McCullough Radiation Log.
5. One copy Geological Sample Log.

Also enclosed for your file is Geological Sample Log covering Aneth Well No. 34-C1.

Yours very truly,

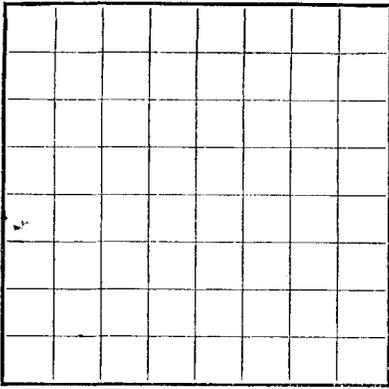


T. L. Warburton
Division Chief Production Clerk

TLW:dek

Enclosures

Navajo
U. S. LAND OFFICE **Indian Agency**
SERIAL NUMBER **14-27-673-2056**
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company **The Pure Oil Company** Address **1707 Broadway - Denver 2, Colorado**
Lessor or Tract **Tract 164** Field **Aneth** State **Utah**
Aneth Well No. **33-84** Sec. **33** T. **40S** R. **24E** Meridian **Salt Lake** County **San Juan**
Location **530** ft. ^{N.} of **S** Line and **1980** ft. ^{E.} of **W** Line of **SE SW, Sec. 33** Elevation **4680**' **KB**
XXI **XXI** (Derrick floor relative to sea level) **4658**' **Gr.**

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed

Date **November 26, 1958** Title **Division Chief Production Clerk**

The summary on this page is for the condition of the well at above date.

Commenced drilling **September 21**, 19**58** Finished drilling **October 17**, 19**58**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **None** to No. 4, from to
No. 2, from to No. 5, from to
No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from **None** to No. 3, from to
No. 2, from to No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From	To	
13-3/8"	48#	B-R	SS	35'	Coupling				Cemented to surface
9-5/8"	36#	B-R	SS	1567'	Float				Surface

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8"	35'	150 sx.	Halliburton		
9-5/8"	1567'	950 sx.	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
Adapters—Material Size

SHOOTING RECORD

FOLD MARK

FOLD MARK

13-3/8"	35'	150 sx.	Halliburton
9-5/8"	1567'	950 sx.	Halliburton

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
 Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from Zero feet to 5740 feet, and from _____ feet to _____ feet
 Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

_____, 19____ Put to producing _____; 19____
Dry Hole
 The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____% emulsion; _____% water; and _____% sediment. Gravity, °Bé. _____
 If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____
 Rock pressure, lbs. per sq. in. _____

EMPLOYEES

_____, Driller _____, Driller
 _____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
-0-	245'	245'	Surface.
245'	933'	688'	Sand.
933'	1200'	267'	Sand and shale.
1200'	1568'	368'	Sand.
1568'	2600'	1032'	Shale.
2600'	2907'	307'	Sand and shale.
2907'	3236'	329'	Shale.
3236'	3450'	214'	Sand and shale.
3450'	3563'	113'	Shale and anhydrite.
3563'	3665'	102'	Shale.
3665'	3773'	108'	Sand and shale.
3773'	3872'	99'	Shale.
3872'	4322'	450'	Lime and shale.
4322'	5050'	728'	Lime.
5050'	5078'	28'	Lime and chert.
5078'	5600'	522'	Lime.
5600'	5639'	39'	Core No. 1 - See reverse side.
5639'	5664'	25'	Core No. 2 - See reverse side.
5664'	5685'	21'	Core No. 3 - See reverse side.
5685'	5740'	55'	Core No. 4 - See reverse side.
		5740'	TOTAL DEPTH

W/

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
<u>Core No. 1</u>	5677' to 5639'	Cut 39' Rec. 39'	
6'			- Limestone, crystalline, dense.
13'			- Black "Poker Chip" shale.
4'			- Limestone, crystalline, dense.
4'			- Limestone, oolitic, good porous porosity, bleeding oil and gas.
5'			- Limestone, crystalline, dense.
6.5'			- Limestone, crystalline, with poor to fair inter-crystalline porosity, slightly bleeding oil and gas.
.5'			- Limestone, crystalline, dense.
<u>Core No. 2</u>	5639' to 5644'	Cut 25' Rec. 21'	
6'			- Limestone, gray crystalline, dense.
2'			- Limestone, gray crystalline, poor oolitic porosity, bleeding oil, gas and water.
3'			- Limestone, gray, crystalline, dense.
10'			- Dolomitic limestone, gray-brown, slight stain, with odor on fresh break, no visible porosity, no bleeding.
<u>Core No. 3</u>	5664' to 5685'	Cut 21' Rec. 21'	
8.5'			- Limestone, medium-dark gray, fine crystalline, no porosity, no show.
11.5'			- Limestone, medium gray dolomitic, slight sucrose, fair odor, soot stain, very fine inter-crystalline porosity.
1'			- Limestone, medium-gray, fine crystalline, no porosity, no show.
<u>Core No. 4</u>	5685' to 5740'	Cut 55' Rec. 55'	
14'			- Limestone, crystalline, dense.
8'			- Dolomitic lime, stain, odor, little visible porosity, slight bleeding oil and gas.
33'			- Limestone, crystalline, poor-fair vugular porosity, slight bleeding oil and gas.

Johnston DST No. 1 from 5620' to 5639'. Fair blow throughout test. No gas to surface. Tool open 4 hours, then shut in one hour. Recovered 4500' of gas in pipe, 98' of heavily oil cut mud, 30 per cent oil. Pressures: IHP 2985, IFP zero, FFP zero, FSIP 1130, FHP 2980

Johnston DST No. 2 from 5639' to 5685'. Very weak blow throughout test. Tool open 4 hours, then shut in two hours. Recovered 110' of fluid, oil and gas cut mud. Pressures: IHP 3010, IFP 50, FFP 100, FSIP 1410, FHP 3010.

Johnston DST No. 3 from 5690' to 5740'. Tool open one hour and 30 minutes, then shut in 30 minutes. Good blow throughout test, no gas to surface. Recovered approximately 3000' of gas in pipe, 645' of fluid, 124' of heavily gas cut, slightly oil cut mud and 521' of salt water. Pressures: IHP 2960, IFP 115, FFP 310, SIP 1650, FHP 2960.

IMPORTANT MARKERS

Navajo	773' (/3906')
Wingate	1200' (/3479')
Chinle	1565' (/3114')
Hermosa	4639' (/ 40')
Paradox	5446' (- 767')

NOV 28 1958

ANITA PROJECT

APTR 33-34

Section 33, T. 40N., R. 24E.

850' ECL & 1950 FCL

SAN JUAN COUNTY, UTAH

SPUNED SEPTEMBER 21, 1958

COMPLETED OCTOBER 17, 1958

SAMPLE ANALYSIS BY W. C. RAGANSON

W/

FORMATION LOG

<u>Formation</u>	<u>Sample Top</u>	<u>Log Top</u>	<u>Depth</u>
Navajo	778	778	1890
Wingate	1207	1200	1479
Chinle	1504	1505	1114
DeChelly	2712	2711	1988
Canyon Rock	2912	2912	1980
Hermosa	4337	4339	40
Paradox "A"	5442	5442	- 787
Paradox "B"	5502	5502	- 527
Paradox "C"	5512	5512	- 340
Total Depth	5740	-	-1081

- 1100-1120 Sandstone, gray-white, medium grained, sub-rounded, friable, calcareous.
- 1120-1150 As above. Very Poor Sample.
- 1150-1180 As above w/shale, red-brown, silty, calcareous.
- 1180-1220 Sandstone, gray-tuff, medium grained, sub-rounded, calcareous; shale, as above.
- 1220-1450 Sandstone, red-brown, fine-medium grained, sub-rounded, calcareous.
- 1450-1490 As above w/shale, chocolate, brown, slightly silty, calcareous.
- 1490-1550 Sandstone, orange-brown, fine-medium grained, calcareous, sub-rounded.
- 1550-1610 Siltstone, medium grained, brown, calcareous, w/shale, light brown, fine texture.
- 1610-1670 As above, increase in siltstone, brown.
- 1670-1730 Siltstone, orange-brown, calcareous.
- 1730-1820 Siltstone, medium-dark brown, calcareous.
- 1820-2000 As above w/shale, light brown, fine texture.
- 2000-2120 Siltstone, medium-dark brown, calcareous, w/shale, light brown, fine texture.
- 2120-2210 As above, trace of cement (10%).
- 2210-2270 Siltstone, red-brown, calcareous.
- 2270-2300 As above w/shale, red-brown, calcareous; a trace of shale, light green, fine texture, interbedded, w/above.
- 2300-2350 As above, w/trace of limestone, gray, very fine crystalline.
- 2350-2420 As above, much limestone.
- 2420-2450 Shale and siltstone, red-brown, calcareous; w/trace of sandstone, white, medium grained, sub-angular, calcareous.
- 2450-2510 Shale and siltstone, red-brown, calcareous; w/shale, gray and green; some sandstone, medium grained, gray-green.
- 2510-2540 As above w/much sandstone, gray-green, coarse, calcareous.
- 2540-2570 Siltstone, orange-brown, w/shale, lavender, slightly silty, calcareous.
- 2570-2600 As above, trace of sandstone.
- 2600-2650 As above w/coarse grains of sandstone and large rounded quartzite grains, conglomerate matter.
- 2650-2660 Shale and siltstone as above, w/much conglomerate matter.
- 2660-2810 As above, sub-rounded and angular large quartzite grains.
- 2810-2870 Sandstone, orange-brown, fine grained, sub-rounded, arkosic, calcareous.

2870-2900 Shale, red-brown and shale, light green, slightly silty, calcareous.
 2900-2950 No sample.
 2950-2980 Shale and siltstone, orange-brown, calcareous, w/shale, light gray-green, fine texture, calcareous.
 2980-3010 As above w/trace of sandstone, gray-green, medium-coarse grained, arkosic.
 3010-3070 As above, less sandstone.
 3070-3130 Siltstone, orange-brown, calcareous, w/shale, lavender, fine texture.
 3130-3160 As above, trace of shale, light green, slightly silty.
 3160-3500 As above, w/sandstone, gray, sub-angular, medium grained, calcareous.
 3500-3530 Siltstone, orange-brown, calcareous, w/shale, gray-green, slightly silty, a trace of sandstone.
 3530-3450 As above, trace of limestone, buff, sub-lithographic.
 3450-3490 As above w/sandstone, gray-green, fine-medium grained, sub-rounded, arkosic.
 3490-3570 Siltstone, red-brown, calcareous, w/much anhydrite, in inclusions.
 3570-3630 As above w/trace of limestone, gray, sub-lithographic.
 3630-3690 As above w/trace of sandstone, white, fine-medium grained, sub-rounded, micaceous.
 3690-3750 As above, trace of coarse grained sandstone, white, micaceous.
 3750-3810 Siltstone, red-brown, calcareous, w/dissminated anhydrite.
 3810-3840 As above, w/trace of shale, brown, fine texture; a trace of sandstone, light green, medium grained, calcareous.
 3840-3900 As above increase in sandstone.
 3900-3930 As above, less sandstone.
 3930-3980 Siltstone, red-brown, calcareous; w/shale, light green, fine texture.
 3980-3990 As above, w/trace of sandstone, light green, medium grained.
 3990-4020 As above w/slight trace of limestone, buff, lithographic.
 4020-4080 Shale, lavender, fine texture, slightly calcareous.
 4080-4140 As above, w/siltstone, red-brown and sandstone, gray, medium grained, arkosic.
 4140-4200 Siltstone, red-brown, calcareous; w/shale, lavender, fine textured.

- 4200-4250 Siltstone, brown, calcareous, w/trace of sandstone, gray, medium grained, sub-rounded.
- 4250-4300 As above, w/trace of limestone, red-brown, sub-lithographic.
- 4300-4350 Shale, gray, silty, calcareous, w/limestone, gray, sub-lithographic; w/siltstone, as above.
- 4350-4400 As above, disseminated anhydrite in gray shale.
- 4400-4410 As above, w/shale, brown, silty.
- 4410-4440 Limestone, gray-buff, fine crystalline, slightly cherty; shale, as above.
- 4440-4470 Siltstone, red-brown, calcareous; w/shale, brown, silty.
- 4470-4500 As above, w/limestone, gray-buff, sub-lithographic.
- 4500-4550 As above, w/shale, gray, silty, calcareous.
- 4550-4600 Shale, gray, silty, calcareous, w/limestone, gray, fine crystalline.
- 4600-4650 As above, w/much limestone, fine crystalline to sub-lithographic, gray.
- 4650-4670 Shale, medium-dark gray, silty, calcareous; w/disseminated anhydrite; w/limestone, gray, fine crystalline. No porosity, no shows.
- 4670-4700 As above, w/much limestone, gray-buff, sub-lithographic.
- 4700-4750 Limestone, as above; w/shale, dark gray, silty, calcareous.
- 4750-4790 Shale, brown, gray and red-brown, silty, calcareous.
- 4790-4850 Shale, gray, silty, calcareous; w/shale, as above; limestone, medium grained, gray, fine crystalline. No porosity, no shows.
- 4850-4880 Limestone, gray and gray-buff, sub-lithographic to fine crystalline.
- 4880-4970 No samples.
- 4970-5000 Limestone, medium grained, gray, sandy; w/shale, dark gray, silty; a trace of chert, buff.
- 5000-5050 As above, very much chert, buff.
- 5050-5090 Limestone, light-medium gray, fine crystalline; shale, dark gray, silty, calcareous; a trace of chert.
- 5090-5210 Shale, dark gray-black, silty, calcareous, w/disseminated anhydrite, w/limestone, gray-buff, fine-medium crystalline. No porosity, no shows.
- 5210-5280 Limestone, medium gray, fine crystalline, sandy; w/shale, dark gray, silty.
- 5280-5390 Limestone, gray-brown, fine crystalline; w/shale, dark gray, silty, calcareous.
- 5390-5400 Limestone, medium gray, fine crystalline, some sandy.

- 5400-5405 Limestone, medium gray, fine crystalline; w/shale, dark gray, silty, calcareous.
- 5405-5420 As above, increase in shale.
- 5420-5425 Limestone, medium gray, sub-lithographic; w/shale, as above.
- 5425-5435 As above, a trace of chert.
- 5435-5445 Shale, dark gray-black; w/limestone, medium gray, fine crystalline, some sandy.
- 5445-5455 Shale, as above, w/disseminated anhydrite.
- 5455-5460 Limestone, buff, sub-lithographic. No porosity, no shows.
- 5460-5475 As above, w/limestone, medium-dark gray, fine crystalline.
- 5475-5485 Limestone, light gray, fine crystalline, slightly chalky. No porosity, no shows.
- 5485-5495 Limestone, medium gray, fine crystalline. No porosity, no shows.
- 5495-5500 As above, trace of chert, buff.
- 5500-5510 Limestone, medium gray-brown, fine crystalline. No porosity, no shows.
- 5510-5520 As above, trace of chert.
- 5520-5530 Limestone, light gray, fine crystalline. No porosity, no shows.
- 5530-5535 Limestone, medium-dark gray, slightly argillaceous, fine crystalline.
- 5535-5540 Limestone, medium gray-brown, fine-medium crystalline. No porosity, no shows.
- 5540-5550 As above, becoming fine crystalline.
- 5550-5555 Limestone, dark gray-brown, fine-medium crystalline. No porosity, no shows.
- 5555-5560 As above, trace of chert, milky.
- 5560-5565 Limestone, medium gray, fine crystalline. No porosity, no shows.
- 5565-5570 Limestone, light gray, fine crystalline, chalky, dolomitic.
- 5570-5575 As above, no visible porosity, no show.
- 5575-5580 As above, slightly sacrosic, very little stain.
- 5580-5595 Dolomite and limestone, light gray-buff. No visible porosity.
- 5595-5600 Dolomite, light gray-brown, earthy to slight sacrosic; w/dolomitic limestone, as above.
- Core #1 #1-5600-5659 Full Recovery.
- 5600-5605 Limestone, medium gray, fine crystalline. No porosity, no show.
- 5605-5615 Limestone, medium-dark gray, fine crystalline. No porosity, no show.

5000-5004 Limestone, dark gray, medium crystalline.
 5004-5006 As above, becoming argillaceous.
 5006-5008 Limestone, dark gray, very argillaceous.
 5008-5010 Shale, black, slightly calcareous.
 5010-5023 Limestone, dark gray, fine-coarse crystalline, fossiliferous, argillaceous.
 5023-5024 Limestone, brown, fine crystalline, frosted, calcareous porosity, good stain and odor.
 5024-5026 As above, good odor fluorescence and cut.
 5026-5027 Limestone, medium gray, fine crystalline, slight trace of porosity as above.
 5027-5028 Limestone, medium-dark gray, sub-lithographic. No porosity, no show.
 5028-5029 Limestone, medium gray, sub-lithographic. No porosity, no show.
 5029-5031 As above, very fossiliferous.
 5031-5032 As above, fossiliferous fusulinids.
 5032-5034 Limestone, medium gray-buff, medium crystalline, poor-fair intercrystalline porosity, slight bleeding of oil and gas.
 5034-5037 As above, dead oil in pores.
 5037-5039 Limestone, medium gray-brown, very fine crystalline. No porosity, no show.
Core #1 5039-5044. Recovered 21'.
 5039-5045 Limestone, medium gray, fine crystalline, fossiliferous. No porosity, no show.
 5045-5047 Limestone, gray-brown, dolitic, w/poor calcareous porosity, good fluorescent stain and odor.
 5047-5050 Limestone, medium-dark gray, fine crystalline. No porosity, no show.
 5050-5051 Limestone, gray-brown, fine crystalline, poor bugular porosity, slight dolomitic, slight stain.
 5051-5053 As above, anhydrite, filled bugulars.
 5053-5055 Dolomitic limestone, light buff, very fossiliferous. No porosity, no show.
 5055-5056 Dolomitic limestone, buff, fine crystalline, sucrosic, slight stain, odor on break.
 5056-5059 As above, no visible porosity.
 5059-5064 Not Recovered.
Core #1 5064-5065 Full Recovery.
 5064-5065 Dolomite, brown, sucrosic, good odor, stain and fluorescent.

- 5665-5668 As above, no visible porosity.
- 5669-5670 Limestone, medium gray, fine crystalline, no porosity, no show.
- 5670-5671 As above. Stylolite.
- 5671-5673 Limestone, buff, very fine crystalline, a trace of small vugular porosity, slight odor, a little bleeding.
- 5673-5676 Limestone, buff, slightly dolomitic, poor small vugular porosity, free odor, spot stain.
- 5676-5677 Limestone, gray-brown, fine crystalline, odor on break, little visible porosity stain.
- 5677-5680 Limestone as above, w/fine intercrystalline porosity, low order, good stain.
- 5680-5684 Dolomitic limestone, saccharic, buff, free stain and odor, no visible porosity.
- 5684-5686 Limestone, gray-buff, medium crystalline. No porosity, no show.
- 5686-5688 Limestone, medium gray, fine crystalline. No porosity, no show.
- 5688-5692 As above, fossiliferous.
- 5692-5695 As above, becoming dolomitic.
- 5695-5698 Limestone, medium-dark gray, fine crystalline. No porosity, no show.
- 5698-5699 As above, stylolite.
- 5699-5700 Limestone, light gray-brown, earthy, fossiliferous fusulinid, slight bleeding, oil and gas.
- 5700-5701 Limestone, as above, w/poor-fair vugular porosity, fair stain and odor.
- 5701-5707 As above, many fossiliferous fusulinid, poor-fair small vugular porosity.
- 5707-5711 Limestone, medium gray-brown, fine crystalline, fair small vugular porosity odor and stain.
- 5711-5714 Fusulinid oolite w/fine crystalline matrix, poor vugular porosity stain and odor.
- 5714-5715 As above w/good vugular porosity, good stain and odor.
- 5715-5717 Limestone, gray-buff, fine crystalline, fossiliferous fusulinid, poor-fair vugular porosity.
- 5717-5721 As above, poor porosity, spot fluorescent and stain.
- 5721-5723 Dolomite, brown, saccharic, stain and odor. No visible porosity.
- 5723-5724 Limestone, light gray, fine crystalline, chalky, poor vugular porosity, slight stain.
- 5724-5725 Limestone, light gray, fine crystalline, poor vugular porosity spot stain, fair odor.

- 5725-5726 Limestone, light gray, fine crystalline, poor vugular porosity spot stain, fair odor.
- 5726-5727 As above, bleeding, mostly salt water.
- 5727-5728 As above w/vertical fracture.
- 5728-5731 As above, becoming medium gray.
- 5731-5732 Limestone, light gray-buff, very fine crystalline. No porosity, no show.
- 5732-5733 Limestone, medium gray, very fine crystalline, slight vugular porosity, slight odor.
- 5733-5734 As above w/fair vugular porosity, good odor, bleeding oil and gas and salt water.
- 5734-5737 Limestone, as above w/fair-vugular porosity, vugulars lined w/dead oil.
- 5737-5738 Limestone, medium gray, fine crystalline. No porosity, no show.
- 5738-5740 As above w/trace of small vugular porosity, dead oil in vugulars.

T.N. 5740

San Jose Ray-Mutron, Microlaterlog, and Induction-Electric Log.