



# SHELL OIL COMPANY

705 West Municipal Drive  
Farmington, New Mexico

April 27, 1959

State of Utah  
Oil and Gas Conservation Commission  
310 Newhouse Building  
Salt Lake City, Utah

Gentlemen:

Attached for your approval are Notices to Drill on three 40-acre spaced wells in the Greater Aneth Area. These wells were provided for and are to be drilled under the terms of the Commission's order for gathering spacing data in five test wells. Your favorable consideration will be appreciated.

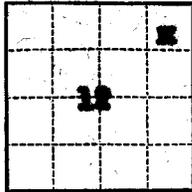
Very truly yours,

R. R. Robison  
Division Production Manager

Attachments

(SUBMIT IN TRIPLICATE)

Indian Agency Hawaia



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee Tribal Land

Lease No. 14-20-603-246

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		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			

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

April 27, 1959

Well No. 41-12 is located 656 ft. from N line and 660 ft. from E line of sec. 12

NE 12 (4 Sec. and Sec. No.)      41S (Twp.)      23E (Range)      T13N (Meridian)  
Hatherford (Field)      San Juan (County or Subdivision)      Utah (State or Territory)

The elevation of the ~~depth of the casing~~ is 4655 ft. (approx. ground)

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)

1. Drill 20" hole to 80'.
2. Cement 16" conductor pipe at 80' with 50 sacks cement.
3. Drill 13-3/4" hole to 1500'+
4. Cement 10-3/4" casing at 1500'+ (depending on water flow) with 300 sacks treated cement (circulated).
5. Drill 9" hole to 5485'+.
6. Cement 7" casing at 5485'+ with 200 sacks cement.
7. Core 6-1/8" hole to 5660' (Paradox).
8. Make wire line tests and conventional tests of open hole interval 5485 to 5660'+.
9. Wash with 250 gallons mud acid, inject 3000 gallons regular acid and 4000 gallons retarded acid.
10. Make production tests.

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

Company Shell Oil Company

Address 705 West Municipal Drive

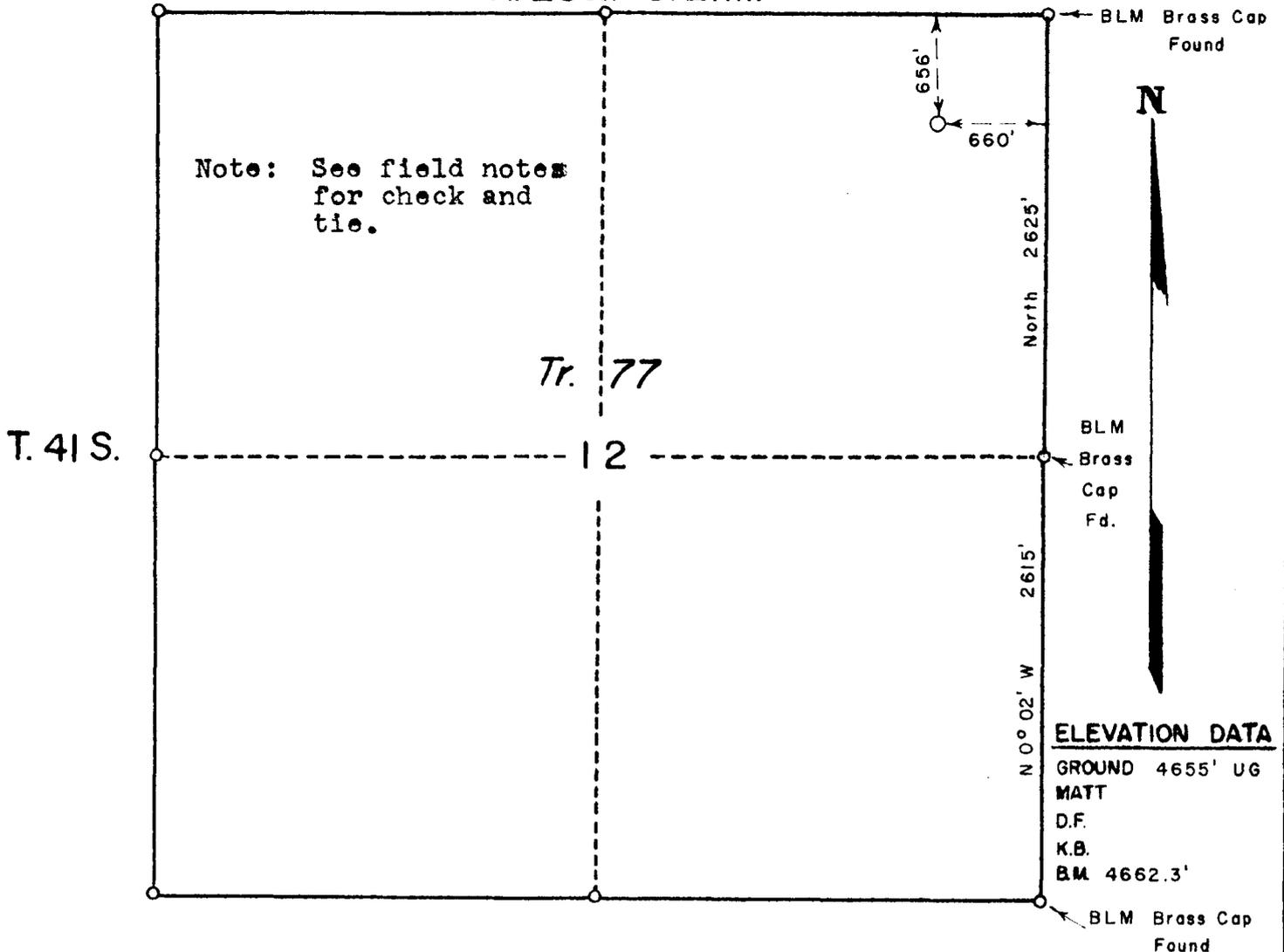
Farrington, New Mexico

Original signed by  
R. S. MacALISTER, JR.

By \_\_\_\_\_

R. S. Mac Alister, Jr.  
Title Division Exploitation Engineer

R. 23 E. S. L. M.



**ELEVATION DATA**

GROUND 4655' UG  
MATT  
D.F.  
K.B.  
BM 4662.3'

**REFERENCE POINT DATUM-**

- 1" x 2" STAKES SET AT 10' N, S, E, & W OF LOC.
- 1" x 2" stake and 3' flag set at 175' E., 200' S., 200' N. 190' W.
- 1" x 2" hub and 10' flag set at Loc. being 656' S. and 660' W. of the NE Cor. of Sec. 12, T. 41 S., R. 23 E., SLM.
- 1" x 2" hub and 3' flag bears East 175' from Loc. for BM.

This is to certify that the above plat was prepared from field notes of actual surveys made under my supervision, and that the same are true and correct to the best of my knowledge and belief.

*John A. Kroeger*  
 John A. Kroeger, Reg. L.S.  
 Utah Reg. No. 1648



Drawn By: Ritter	<b>SHELL OIL COMPANY</b>	Scale 1" = 1000'
Checked By: <i>J.K.</i>		220-522
Date: 6/29/57		

LOCATION OF N. DESERT CREEK 41 - 12

SAN JUAN COUNTY, UTAH, Tr. 77, SEC. 12, T. 41 S., R. 23 E., S.L.M.

April 28, 1959

Shell Oil Company  
705 West Municipal Drive  
Farmington, New Mexico

Attention: R. S. MacAlister, Jr.,  
Division Exploitation Engineer

Gentlemen:

With reference to your notice of intention to drill Well No. North Desert Creek 41-12, which is to be located 656 feet from the north line and 660 feet from the east line of Section 12, Township 41 South, Range 23 East, SLBM, San Juan County, Utah, please be advised that approval to drill said well is hereby granted subject to the Order which was issued in Cause No. 17 (Combined Causes No. 8 and 11), as a result of the hearing held on February 2 and 3, 1959.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FRIGHT  
EXECUTIVE SECRETARY

CBF:cc

cc: J. A. Anderson,  
Regional Oil & Gas Supervisor  
U.S.G.S.  
Roswell, New Mexico

P. T. McGrath, District Engineer  
U.S.G.S.  
Farmington, New Mexico

M  
&

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

			2
12			

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee Tribal  
Lease No. 14-20-403-246

7/1 H  
6/8/59

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	X
NOTICE OF INTENTION TO ABANDON WELL			

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

May 26, 19 59

Well No. North Desert Creek 14-12 is located 656 ft. from N line and 660 ft. from E line of sec. 12

NE 12 (4 Sec. and Sec. No.)      T1 S (Twp.)      23 E (Range)      SLM (Meridian)

Rutherford (Field)      San Juan (County or Subdivision)      Utah (State or Territory)

Kelly Bushing

The elevation of the ~~formation~~ above sea level is 4666 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)

Spudded 5-7-59

5-8-59 Ran and cemented 16" conductor pipe at 90' with 100 sacks cement treated  
To with 2% calcium chloride. Recemented conductor pipe with 250 sacks  
5-13-59 treated with 2% calcium chloride. Killed water flow, drilled to 1490'.  
Ran and cemented (1477') 10-3/4", 32#, J-55 casing at 1488' with 300  
sacks cement treated with 2% calcium chloride. Good returns to surface.  
Flanged up and waited on cement. Pressure tested casing and BOP with  
700 psi, O.K.

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

Company Shell Oil Company

Address 705 West Municipal Drive

Farmington, New Mexico

Original signed by  
B. W. SHEPARD

By \_\_\_\_\_

B. W. Shepard

Title Exploitation Engineer

26

Commission 26  
17- 1

CAUSE 17  
Commission Exhibit Number \_\_\_\_\_

Shell North Desert Creek 41 - 12

Contents:

Results of Pressure Tests Numbered:

- S - 1c
- S - 2a
- S - 3
- S - 4
- S - 5
- S - 6
- S - 7
- S - 8
- S - 9
- S - 10
- S - 12
- S - 13
- S - 14
- H - 15
- H - 16

Daily Operations Report Dated:  
6-15-59 to 6-26-59

Logs:

- Schlumberger Induction Log
- Schlumberger Caliper Log
- Schlumberger Gamma Ray Neutron Log

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-1C  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-21-59  
 Point Tested 5484.5

Time in Hole \_\_\_\_\_ AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 3:20 AM/PM Time Open Period Finished 4:37 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 5:00 AM/PM

Length of Open Period From Above 77 MIN Length of Open Period From Pressure Chart 76

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. (12017N) Range 2900

Clock No. 3674 Range 3 HR

Open Period:

Depth of Recorder 5492.5 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0079	11	50	.4198	606
1	.4347	628	55	.4206	607
5	.4171	602	60	.4214	609
10	.4152	600	65	.4224	610
20	.4160	601	70	.4229	611
30	.4166	602	77	.4240	612
40	.4181	604			
45	.4192	605			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5492.5		1.7499	2543			
5192.5		1.6571	2406			
5292.5		1.6894	2454			

Remarks: 5392.5 1.7197 2498

Bottom Hole Pressure Data Sheet

RATHER FORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-1C  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-21-59  
Point Tested 5484.5

Time in Hole \_\_\_\_\_ AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 3:20 AM/PM Time Open Period Finished 4:37 AM/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 5:00 AM/PM

Length of Open Period From Above 77 MIN Length of Open Period From Pressure Chart 76

Sample (Air) Chamber Volume 250 CC Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. (7769M) Range \_\_\_\_\_

Clock No. 3877 Range 5 HRS

Open Period:

Depth of Recorder 5492.5 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0068	13	55	.3189	612
5	.3285 .3154	631 606	60	.3197	614
10	.3142	603	65	.3207	616
20	.3151	605	70	.3209	616
30	.3159	607	77	.3218	618
40	.3171	609			
45	.3173	609			
50	.3181	611			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5492.5		1.3281	2548			
5192.5		1.2578	2413			
5292.5		1.2825	2461			

Remarks: 5392.5 1.3053 2504

Bottom Hole Pressure Date Sheet

RATHERFORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-2A  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-21-59  
Point Tested 5483

Time in Hole 7:00 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 7:35 AM/PM Time Open Period Finished 8:40 AM/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:00 AM/PM

Length of Open Period From Above \_\_\_\_\_ Length of Open Period From Pressure Chart 64  
65 MIN

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3 HR

Open Period:

Depth of Recorder 5491 (Inside/Outside) ,

Time	Deflect In.	Pressure PSIG			
0	.0074	11	55	1.4926	2165
1	1.1874	1720	60	1.4924	2165
5	1.4886	2160	65	1.4928	2166
10	1.4914	2164			
20	1.4928	2166			
30	1.4924	2165			
40	1.4928	2166			
50	1.4924	2165			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5491		1.7460	2537			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-2A  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-21-59  
 Point Tested 5483

Time in Hole 7:00 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 7:35 AM/PM Time Open Period Finished 8:40 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:00 AM/PM

Length of Open Period From Above 65 Length of Open Period From Pressure Chart 64

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. (7769N) Range 3800

Clock No. 3877 Range 3 HR

Open Period:

Depth of Recorder 5491 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0069	13	55	1.1339	2175
1	.9529	1829	60	1.1338	2175
5	1.1309	2170	65	1.1338	2175
10	1.1331	2174			
20	1.1338	2175			
30	1.1338	2175			
40	1.1342	2176			
50	1.1340	2176			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5491		1.3266	2546			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 91-12

Type Tester SCHLUMBERGER WL Number of Test 5-3  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-21-57  
 Point Tested 5495

Time in Hole 9:40 ~~AM~~/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 10:06 ~~AM~~/PM Time Open Period Finished 12:25 AM/~~PM~~  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 1:00 AM/~~PM~~

Length of Open Period From Above 139 Length of Open Period From Pressure Chart 134

Sample (Air) Chamber Volume 250 Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. (12017N) Range 2900

Clock No. 3674 Range 3HR

Open Period:

Depth of Recorder 5503 (Inside/Outside)

Time	Deflect In.	Pressure PSIG						
			60	.6713	970	120	.9347	1354
0	.0053	8	70	.7193	1040	125	.9528	1380
1	.3878	560	80	.7670	1109	130	.9697	1405
5	.4021	581	90	.8132	1176	135	.9853	1427
10	.4248	613	95	.8354	1209	139	.9978	1446
15	.4492	649	100	.8558	1238			
20	.4741	685	105	.8767	1269			
30	.5238	757	110	.8972	1299			
40	.5718	826	115	.9162	1327			
50	.6220	899						

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5503		1.7337	2519			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-3  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-21-59  
 Point Tested 5495

Time in Hole 9:40 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 10:06 AM/PM Time Open Period Finished 12:25 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 1:00 AM/PM

Length of Open Period From Above 139 Length of Open Period From Pressure Chart 127

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. (7769N) Range 3800

Clock No. 3877 Range 3HR

Open Period:

Depth of Recorder 5503 (Inside/Outside)

Time	Deflect In.	Pressure PSIG	60	.5041	960	125	.7154	1372
0	.0052	10	70	.5391	1033	130	.7280	1396
1	.2950	567	80	.5736	1099	135	.7391	1418
5	.3056	587	90	.6080	1166	139	.7468	1432
10	.3229	620	95	.6250	1198			
15	.3420	656	100	.6410	1229			
20	.3609	693	105	.6569	1259			
30	.3965	760	110	.6731	1290			
40	.4324	829	115	.6877	1319			
50	.4674	896	120	.7024	1347			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5503		1.3158	2525			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test 5-4  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5499

Time in Hole 1:20 AM/~~PM~~ Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 1:44 AM/~~PM~~ Time Open Period Finished 4:04 AM/~~PM~~  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 4:30 AM/~~PM~~

Length of Open Period From Above 140 Length of Open Period From Pressure Chart 137

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3877 Range 3 HR.

Open Period:

Depth of Recorder 5507 (Inside/Outside)

Time	Deflect In.	Pressure PSIG					
0	.0079	15	50	.5904	1132	120	.8431 1618
1	.2966	570	60	.6496	1245	125	.8484 1628
5	.3135	602	70	.7032	1349	130	.8543 1639
10	.3401	653	80	.7457	1430	135	.8583 1648
15	.3694	699	90	.7803	1497	140	.8620 1654
20	.4007	768	100	.8081	1550		
30	.4629	887	110	.8279	1589		
40	.5280	1012	115	.8356	1603		

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5507		1.3254	2543			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test 5-4  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5499

Time in Hole 1:20 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 1:44 AM/PM Time Open Period Finished 4:04 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 4:30 AM/PM

Length of Open Period From Above 140 Length of Open Period From Pressure Chart 138

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3 HR

Open Period:

Depth of Recorder 5507 (Inside/Outside)

Time	Deflect In.	Pressure PSIG						
0	.0111	16	50	.7746	1120	120	1.1113	1610
1	.3920	566	60	.8536	1235	125	1.1201	1623
5	.4131	597	70	.9221	1335	130	1.1277	1634
10	.4474	646	80	.9799	1420	135	1.1338	1642
15	.4859	702	90	1.0257	1486	140	1.1389	1650
20	.5265	761	100	1.0625	1540			
30	.6083	879	110	1.0902	1579			
40	.6926	1001	115	1.1016	1596			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5507		1.7485	2540			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-5  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5511

Time in Hole 4:52 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 5:16 AM/PM Time Open Period Finished 6:57 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 7:31 AM/PM

Length of Open Period From Above 101 Length of Open Period From Pressure Chart 100

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3877 Range 3 HR

Open Period:

Depth of Recorder 5519 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0073	14	50	.8692	1668
1	.2981	572	60	.8724	1674
xx 5	.3532	678	70	.8730	1675
xx 10	.4468	856	80	.8732	1675
15	.5662	1085	85	.8740	1677
20	.6907	1325	90	.8738	1677
30	.8264	1586	95	.8740	1677
40	.8613	1653	101	.8741	1677

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5519		1.3310	2554			

Remarks:

Bottom Hole Pressure Data Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-5  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-57  
 Point Tested 5S11

Time in Hole 4:52 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 5:16 AM/PM Time Open Period Finished 6:57 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 7:31 AM/PM

Length of Open Period From Above \_\_\_\_\_ Length of Open Period From Pressure Chart 100  
 From Above 101

Sample (Air) Chamber Volume 250 Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3HR

Open Period:

Depth of Recorder 5519 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0019	3	50	1.1494	1665
1	.3921	566	60	1.1530	1670
5	.4688	677	70	1.1532	1670
10	.5927	856	80	1.1540	1672
15	.7561	1094	85	1.1545	1672
20	.9237	1337	90	1.1549	1673
30	1.0927	1583	95	1.1550	1673
40	1.1388	1650	101	1.1552	1673

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5519		1.7546	2549			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test 5-6  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
Point Tested 5517

Time in Hole 7:56 AM/~~PM~~ Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 8:22 AM/~~PM~~ Time Open Period Finished 9:30 AM/~~PM~~  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 10:16 AM/~~PM~~

Length of Open Period From Above 68 Length of Open Period From Pressure Chart 68

Sample (Air) Chamber Volume 250 CC Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3877 Range 3HR

Open Period:

Depth of Recorder 5525 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0069	13	60	.8699	1669
1	.8587	1648	68	.8699	1669
5	.8686	1667			
10	.8695	1668			
20	.8699	1669			
30	.8696	1669			
40	.8698	1669			
50	.8698	1669			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5525		1.3319	2556			

Remarks:

Bottom Hole Pressure Data Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-6  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5517

Time in Hole 7:56 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 8:22 AM/PM Time Open Period Finished 9:30 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 10:16 AM/PM

Length of Open Period From Above 68 Length of Open Period From Pressure Chart 68

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 1210714 Range 2900

Clock No. 3674 Range 3HR

Open Period:

Depth of Recorder 5525 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0078	11	60	1.1501	1666
1	1.1200	1622	68	1.1500	1666
5	1.1472	1662			
10	1.1489	1664			
20	1.1496	1665			
30	1.1500	1666			
40	1.1496	1665			
50	1.1500	1666			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5525		1.7549	2550			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field  
Well NOC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-7  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
Point Tested 5553

Time in Hole 10:43 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 10:58 AM/PM Time Open Period Finished 12:00 AM/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 2:35 AM/PM

Length of Open Period From Above 62 Length of Open Period From Pressure Chart 62

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3 HR

Open Period:

Depth of Recorder 5561 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0097	14	62	1.1437	1657
1	NOT READABLE	—			
5	1.1410	1653			
10	1.1433	1656			
20	1.1437	1657			
30	1.1436	1657			
40	1.1435	1656			
50	1.1437	1657			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5561		1.7682	2569			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-7  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
Point Tested 553

Time in Hole 10:43 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 10:58 AM/PM Time Open Period Finished 12:00 AM/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 2:35 AM/PM

Length of Open Period From Above 62 Length of Open Period From Pressure Chart 65

Sample (Air) Chamber Volume 250cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. (7769N) Range 3800

Clock No. 3877 Range 3 HR

Open Period:

Depth of Recorder 5561 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0082	16	62	.8661	1662
1	.7116	1365			
5	.8647	1659			
10	.8659	1661			
20	.8664	1662			
30	.8662	1662			
40	.8661	1662			
50	.8660	1662			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5561		1.3420	2575			

Remarks:

Bottom Hole Pressure Data Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test 5-8  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5580

Time in Hole \_\_\_\_\_ AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 3:27 ~~AM~~/PM Time Open Period Finished 4:30 ~~AM~~/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 5:00 ~~AM~~/PM

Length of Open Period From Above 63 Length of Open Period From Pressure Chart 62

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3HR

Open Period:

Depth of Recorder 5588 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0063	9	63	.9277	1343
1	NOT READABLE	—			
5	.9251	1340			
10	.9260	1341			
20	.9272	1343			
30	.9273	1343			
40	.9272	1343			
50	.9272	1343			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5588		1.7747	2579			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-8  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5580

Time in Hole \_\_\_\_\_ AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 3:27 ~~AM~~/PM Time Open Period Finished 4:30 ~~AM~~/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 5:00 ~~AM~~/PM

Length of Open Period From Above 63 Length of Open Period From Pressure Chart 63

Sample (Air) Chamber Volume 250 Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3877 Range 3HR

Open Period:

Depth of Recorder 5588 (Inside/Outside)

Time	Deflect In.	Pressure PSIG			
0	.0053	10	63	.7003	1343
1	.5169	1000			
5	.6982	1339			
10	.6992	1341			
20	.7002	1343			
30	.7003	1343			
40	.7000	1343			
50	.7004	1343			

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5588		1.3455	2582			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-9  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
Point Tested 5610

Time in Hole 5:15 ~~AM~~/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 5:38 ~~AM~~/PM Time Open Period Finished 7:38 ~~AM~~/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 8:11 ~~AM~~/PM

Length of Open Period From Above 120 Length of Open Period From Pressure Chart \_\_\_\_\_

Sample (Air) Chamber Volume 250 cc Recovery 118

Recorder No. HK 13215 Element No. 776 9N Range 3800

Clock No. 3877 Range 3HR

Open Period:

Depth of Recorder 5618 (Inside/Outside)

Time	Deflect In.	Pressure PSIG				
0	.0043	8	60	.6908	1325	115
1	.2900	557	70	.6976	1338	120
5	.3573	686	80	.7017	1346	
10	.4269	818	90	.7042	1351	
20	.5376	1030	95	.7051	1352	
30	.6121	1173	100	.7056	1353	
40	.6545	1255	105	.7056	1353	
50	.6780	1300	110	.7056	1353	

.7054 1353  
.7054 1353

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5618		1.3519	2595			

Remarks:

Bottom Hole Pressure Date Sheet

RATHERFORD Field

Well NDC 11-12

Type Tester SCHLUMBERGER WL Number of Test S-9  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5610

Time in Hole 5:15 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 5:38 AM/PM Time Open Period Finished 7:38 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 8:11 AM/PM

Length of Open Period From Above 120 Length of Open Period From Pressure Chart 118

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3HR

Open Period:

Depth of Recorder 5618 (Inside/Outside)

Time	Deflect In.	Pressure PSIG				
0	.0068	10	60	.9112	1319	115
1	.3880	560	70	.9201	1332	120
5	.4749	686	80	.9253	1340	
10	.5621	812	90	.9280	1344	
20	.6112	883	95	.9289	1345	
30	.8109	1173	100	.9297	1346	
40	.8650	1251	105	.9295	1345	
50	.8954	1296	110	.9293	1345	

.9295 1345  
.9295 1345

Hydrostatic Gradient Stops:

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5618		1.7796	2586			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-10  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
 Point Tested 5601

Time in Hole 8:38 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 8:45 AM/PM Time Open Period Finished 10:45 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:15 AM/PM

Length of Open Period From Above 120 Length of Open Period From Pressure Chart 118

Sample (Air) Chamber Volume 250CC Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 3674 Range 3HR

**Open Period:**

Depth of Recorder 5609 (Inside/Outside)

Time	Deflect In.	Pressure PSIG				
0	.0098	14	60	.9191	1331	120
1	.3644	526	70	.9241	1338	
5	.5140	743	80	.9273	1343	
10	.6450	925	90	.9289	1345	
20	.8040	1163	100	.9302	1347	
30	.8704	1259	105	.9308	1348	
40	.8982	1300	110	.9314	1349	
50	.9118	1320	115	.9320	1350	

,9322 1350

**Hydrostatic Gradient Steps:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5609		1.7799	2587			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-10  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-22-59  
Point Tested 5601

Time in Hole 8:38 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 8:45 AM/PM Time Open Period Finished 10:45 AM/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:15 AM/PM

Length of Open Period From Above 120 Length of Open Period From Pressure Chart 118

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769A1 Range 3800

Clock No. 3877 Range 3HR

**Open Period:**

Depth of Recorder 5609 (Inside/Outside)

Time	Deflect In.	Pressure PSIG				
0	.0079	15	80	.6959	1335	120
1	.2734	525	70	.6988	1340	
X 5	.3857	740	80	.7019	1346	
10	.4859	931	90	.7031	1348	
20	.6034	1157	100	.7043	1351	
30	.6564	1258	105	.7046	1351	
40	.6789	1302	110	.7049	1353	
50	.6898	1323	115	.7056	1353	

.7060 1354

**Hydrostatic Gradient Steps:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSIG	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5609		1.3501	2591			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-12  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-23-59  
 Point Tested 5636

Time in Hole 3:00 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 3:22 AM/PM Time Open Period Finished 5:35 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 6:08 AM/PM

Length of Open Period From Above 133 Length of Open Period From Pressure Chart 130

Sample (Air) Chamber Volume 250CC Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 2145 Range 12HR

**Open Period:**

Depth of Recorder 5644 (Inside/Outside)

Time	Deflect In.	Pressure PSI			
			70	1.4572	2114
0	.0130	19	80	1.4647	2125
5	.5062	731	90	1.4697	2132
10	.5943	858	100	1.4728	2137
20	.8666	1254	110	1.4751	2140
X 30	1.1083	1606	120	1.4769	2143
X 40	1.3125	1903	125	1.4771	2143
50	1.4113	2047	130	1.4771	2143
60	1.4410	2091	133	1.4773	2143

**Hydrostatic Gradient Steps:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSI	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5644		1.8900	2601			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-12  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-23-59  
 Point Tested 5636

Time in Hole 3:00 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 3:22 AM/PM Time Open Period Finished 5:35 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 6:08 AM/PM

Length of Open Period From Above 133 Length of Open Period From Pressure Chart 130

Sample (Air) Chamber Volume 250 Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3074 Range 12HR

**Open Period:**

Depth of Recorder 5644 (Inside/Outside)

Time	Deflect In.	Pressure PSI	x 70	11071	2124
0	.0097	19	80	1.1128	2135
x 5	.3910	750	90	1.1167	2142
x 10	.4569	876	100	1.1193	2147
x 20	.5953	1141	110	1.1206	2150
x 30	.8184	1570	120	1.1219	2152
x 40	.9804	1882	125	1.1222	2153
x 50	1.0689	2051	130	1.1223	2154
x 60	1.0953	2102	133	1.1227	2154

**Hydrostatic Gradient Steps:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSI	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5644		1.3578	2606			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field  
Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-13  
Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-23-59  
Point Tested 5495.5

Time in Hole 6:41 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
Time Open Period Began 6:56 AM/PM Time Open Period Finished 8:45 AM/PM  
Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:15 AM/PM

Length of Open Period From Above 109 Length of Open Period From Pressure Chart 105

Sample (Air) Chamber Volume 250cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 2145 Range 12 HR

**Open Period:**

Depth of Recorder 5503.5 (Inside/Outside)

Time	Deflect In.	Pressure PSI			
0	.0091	13	70	1.1630	1685
5	NOT READABLE	—	80	1.1630	1685
10	.8602	1244	90	1.1632	1685
20	1.1329	1641	100	1.1632	1685
30	1.1563	1675	105	1.1632	1685
40	1.1602	1681	109	1.1631	1685
50	1.1614	1682			
60	1.1627	1684			

**Hydrostatic Gradient Steps:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSI	ΔP PSI	ΔD Feet	ΔP/ΔD PSI/Feet
5503.5		1.7453	2536			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-13  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-23-59  
 Point Tested 5495.5

Time in Hole 6:41 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 6:56 AM/PM Time Open Period Finished 8:45 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:15 AM/PM

Length of Open Period From Above 109 Length of Open Period From Pressure Chart 105

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3074 Range 12 HR

**Open Period:**

Depth of Recorder 5503.5 (Inside/Outside)

Time	Deflect In.	Pressure PSI			
0	.0090	17	70	.8793	1687
x 5	.5450	1044	80	.8798	1688
x 10	.7092	1360	90	.8799	1688
20	.8632	1656	100	.8795	1688
30	.8751	1679	105	.8796	1688
40	.8776	1684	109	.8797	1688
50	.8788	1686			
60	.8791	1687			

**Hydrostatic Gradient Steps:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSI	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5503.5		1.3244	2541			

Remarks:

**Bottom Hole Pressure Data Sheet**

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-14  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-23-59  
 Point Tested 5649

Time in Hole 7:15 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 7:33 AM/PM Time Open Period Finished 8:45 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:15 AM/PM

Length of Open Period From Above 72 Length of Open Period From Pressure Chart 71

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 1020 Element No. 12017N Range 2900

Clock No. 2145 Range 12HR

**Open Period:**

Depth of Recorder 5657 (Inside/Outside)

Time	Deflect In.	Pressure PSI			
0	.0042	6	60	1.4720	2135
5	1.0686	1548	65	1.4719	2136
10	1.4460	2098	70	1.4724	2136
20	1.4679	2130	72	1.4723	2136
30	1.4703	2133			
40	1.4708	2134			
50	1.4711	2134			
55	1.4714	2135			

**Hydrostatic Gradient Stop:**

Recorder Depth Feet	Time	Defl. In.	Pressure PSI	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
5657		1.7248	2506			

Remarks:

Bottom Hole Pressure Data Sheet

RATHERFORD Field

Well NDC 41-12

Type Tester SCHLUMBERGER WL Number of Test S-14  
 Interval Tested \_\_\_\_\_ To \_\_\_\_\_ Date of Test 6-23-59  
 Point Tested 5649

Time in Hole 7:15 AM/PM Time on Bottom \_\_\_\_\_ AM/PM  
 Time Open Period Began 7:33 AM/PM Time Open Period Finished 8:45 AM/PM  
 Time Off Bottom \_\_\_\_\_ AM/PM Time Out of Hole 9:15 AM/PM

Length of Open Period From Above 72 Length of Open Period From Pressure Chart 68

Sample (Air) Chamber Volume 250 cc Recovery \_\_\_\_\_

Recorder No. HK 13215 Element No. 7769N Range 3800

Clock No. 3074 Range 12 HR

Open Period:

Depth of Recorder 5657 (Inside/Outside)

Time	Deflect In.	Pressure PSI			
0	.0041	8	60	1.1146	2138
x 5	1.0673	2049	65	1.1148	2139
10	1.1037	2118	70	1.1149	2139
20	1.1122	2135	72	1.1149	2139
30	1.1136	2137			
40	1.1142	2138			
50	1.1143	2138			
55	1.1143	2138			

Hydrostatic Gradient Steps:

Recorder Depth Feet	Time	Defl. In.	Pressure PSI	$\Delta P$ PSI	$\Delta D$ Feet	$\Delta P/\Delta D$ PSI/Feet
xy 5657		1.3087	2511			

Remarks:

**Bottom Hole Pressure Data Sheet**

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-15  
 Interval Tested 5472 To 5490.5 Date of Test 6-24-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After 30 seconds  
 Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM  
 Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes  
 Blow IMMEDIATE WEAK BLOW INCR TO MOD. @ 1 MIN TO END OF OPEN PERIOD  
 Recovery 190' (1.0 BRL) OIL AND GAS CUT BASE OIL.

	From Above	From Pressure Chart
Length of Initial Shut-in	240	291
Length of Flow Period	60	58
Length of Final Shut-in	240	248

Recorder No. HK 13215 Element No. 7769N Range 3800  
 Clock No. 5412 Range 24HR  
 Depth of Recorder 5498.5 Inside/Outside

**Initial Shut-In Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	—	—	120	1.1339	2175
5	1.0974	2106	140	1.1340	2176
10	1.1201	2149	160	1.1340	2176
20	1.1271	2162	180	1.1341	2176
30	1.1298	2167	200	1.1341	2176
40	1.1307	2169	220	1.1342	2176
50	1.1321	2172	230	1.1342	2176
60	1.1324	2172	235	1.1343	2176
80	1.1331	2174	240	1.1346	2177
100	1.1338	2175			

**Flow Period Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	.0267	51	50	.0533	103
5	.0282	54	60	.0550	106
10	.0323	62			
20	.0373	72			
30	.0452	87			
40	.0490	95			

Field RATHERFORDWell NDC 41-12Test No. H-15 Recorder No. HK-13215Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG				
0	.0550	106	235	1.1109	2131	
5	.0853	165	240	1.1109	2131	
10	.1848	356				
20	.4068	779				
30	.7684	1466				
40	1.0066	1932				
50	1.0508	2017				
60	1.0761	2065				
80	1.0913	2094				
100	1.0974	2106				
120	1.1018	2114				
140	1.1044	2119				
160	1.1061	2122				
180	1.1080	2126				
200	1.1089	2128				
210	1.1095	2129				
220	1.1101	2130				
230	1.1109	2131				

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG		
Initial		5498.5	1.3668	2624		
Final		5498.5	NOT READABLE			

Remarks:

Bottom Hole Pressure Data Sheet

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-15  
 Interval Tested S972 To S990.5 Date of Test 6-24-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After 30 seconds  
 Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM  
 Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes  
 Blow IMMEDIATE WEAK BLOW INCR. TO MOD. @ T=1 MIN TO END OF OPEN PERIOD  
 Recovery 190' (1.0 BBL) OIL AND GAS CUT BASE OIL

	From Above	From Pressure Chart
Length of Initial Shut-in	240	236
Length of Flow Period	60	55
Length of Final Shut-in	240	239

Recorder No. HK 1020 Element No. 12017N Range 2900  
 Clock No. 5445 Range 24 HR  
 Depth of Recorder 5505.5 Inside/Outside

Initial Shut-In Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	—	—	120	1.4962	2171
5	1.1602	1681	140	1.4966	2171
x 10	1.4538	2109	160	1.4969	2172
20	1.4767	2142	180	1.4970	2172
30	1.4880	2159	200	1.4970	2172
40	1.4914	2164	220	1.4971	2172
50	1.4932	2166	230	1.4974	2172
60	1.4941	2167	235	1.4973	2172
80	1.4951	2169	240	1.4974	2172
100	1.4958	2170			

Flow Period Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	.0364	52	50	.0713	103
5	.0398	57	60	.0731	105
10	.0444	64			
20	.0516	74			
30	.0600	86			
40	.0668	96			

Field PATHERFORDWell NOC 41-12Test No. H-15 Recorder No. HK-1020Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG				
0	.0731	165	240	1.4681	2130	
5	.1633	235				
10	.2484	358				
20	.4994	649				
30	.9203	1337				
40	1.2597	1826				
50	1.3687	1985				
60	1.4097	2045				
80	1.4367	2084				
100	1.4476	2100				
120	1.4544	2110				
140	1.4586	2116				
160	1.4609	2119				
180	1.4628	2122				
200	1.4648	2125				
220	1.4660	2127				
230	1.4670	2128				
235	1.4674	2129				

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG		
Initial		5505.5	1.8026	2620		
Final		5505.5	NOT READABLE			

Remarks:

Bottom Hole Pressure Data Sheet

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test 4-15  
 Interval Tested 5472 To 5490.5 Date of Test 6-23-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After \_\_\_\_\_ seconds  
 Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM  
 Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes  
 Blow IMMEDIATE WEAK FLOW, INCREASING TO MODERATE @ 1 MIN CONT. MODERATE TO END OF PERIOD.  
 Recovery 190' (1.0 BBL) OK & GAS OUT OF BHP MUD

	From Above	From Pressure Chart
Length of Initial Shut-in	<u>240 MIN</u>	<u>240</u>
Length of Flow Period	<u>60</u>	<u>60</u>
Length of Final Shut-in	<u>241</u>	<u>240</u>

Recorder No. AK-1 643 Element No. 2459 N Range \_\_\_\_\_  
 Clock No. 2295 Range \_\_\_\_\_  
 Depth of Recorder 5449.5 Inside/Outside \_\_\_\_\_

Initial Shut-In Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	—	—	140	2.5173	2141
5	1.8771	1586	160	2.5173	2141
10	2.2595	1916	170	2.5175	2141
20	2.4862	2114	180	2.5176	2141
30	2.5060	2131	190	2.5179	2142
40	2.5120	2136	200	2.5179	2142
60	2.5148	2139	210	2.5179	2142
80	2.5167	2140	220	2.5179	2142
100	2.5171	2141	230	2.5179	2142
120	2.5173	2141	240	2.5179	2142

Flow Period Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	0.0439	37	50	0.1076	90
5	0.0441	37	60	0.1125	94
10	0.0490	41			
20	0.0630	44			
30	0.0800	67			
40	0.0928	78			

Field RATHERFORDWell NDC 41-12Test No. H-15 Recorder No. AK-1 6A3Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG			
0	0.1125	94	230	2.4693	2098
5	0.2745	205	241	2.4703	2100
10	0.4000	335			
20	—	—			
30	1.8192	1536			
40	2.2468	1705			
50	2.3910	2030			
80	2.9252	2060			
100	2.9919	2075			
150	2.9505	2082			
160	2.9565	2088			
160	2.9605	2091			
170	2.9616	2092			
180	2.9628	2093			
190	2.9650	2095			
200	2.9662	2096			
210	2.9677	2098			
220	2.9688	2098			

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG	
Initial			3.0418	2591	
Final	NOT	READABLE			

Remarks:

**Bottom Hole Pressure Data Sheet**

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-15  
 Interval Tested 5472 To 5490.5 Date of Test 6-23-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After \_\_\_\_\_ seconds

Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM  
 Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes

Blow IMMEDIATE WEAK BLOW, INCREASING TO MODERATE @ 1=1 MIN. CONT. MODERATE TO END OF  
 Recovery 190' (1.0 FBL) OIL & GAS CUT OIL BRG MUD. OPEN PERIOD

	From Above	From Pressure Chart
Length of Initial Shut-in	240 MIN	240
Length of Flow Period	60	60
Length of Final Shut-in	241	240

Recorder No. AK-115 Element No. 2456 N Range \_\_\_\_\_  
 Clock No. 1070 Range \_\_\_\_\_  
 Depth of Recorder 5445.5 Inside/Outside \_\_\_\_\_

**Initial Shut-In Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	—	—	140	2.5750	2152
5	—	—	160	2.5753	2152
10	—	—	170	2.5753	2152
20	1.7804	1476	180	2.5758	2152
30	2.5459	2139	190	2.5758	2152
40	2.5620	2141	200	2.5758	2152
60	2.5714	2148	210	2.5760	2153
80	2.5743	2151	220	2.5761	2152
100	2.5748	2152	230	2.5762	2153
120	2.5748	2152	240	2.5762	2153

**Flow Period Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	0.0390	32	50	0.1095	90
5	0.0459	38	60	0.1140	92
10	0.0538	44			
20	0.0686	56			
30	0.0850	70			
40	0.0994	82			

Field RATHERFORD

Well NDC 41-12

Test No. H-15 Recorder No. AK-1 115

Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG			
0	0.1140	92	230	2.5306	2112
5	0.1944	158	241	2.5313	2113
10	0.2796	229			
20	0.4199	344			
30	—	—			
40	1.8710	1552			
60	2.4296	2026			
80	2.4790	2068			
100	2.4990	2085			
120	2.5087	2094			
140	2.5150	2099			
160	2.5200	2103			
170	2.5223	2105			
180	2.5239	2107			
190	2.5252	2108			
200	2.5270	2109			
210	2.5280	2110			
220	2.5290	2111			

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG	
Initial			3.0980	2603	
Final	NOT	READABLE			

Remarks:

Bottom Hole Pressure Data Sheet

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-16  
 Interval Tested 5622 To 5665.5 Date of Test 6-25-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After \_\_\_\_\_ seconds

Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM

Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes

Flow IMMEDIATE VERY FAINT BLOW, DEAD @ t=24MIN., RESUMED VERY FAINT BLOW @ t=37MIN. CONT. TO END.

Recovery 15' OIL BASE MUD

	From Above	From Pressure Chart
Length of Initial Shut-in	241 MIN	225
Length of Flow Period	60	60
Length of Final Shut-in	241	225

Recorder No. AK-1 115 Element No. 2456 N Range \_\_\_\_\_

Clock No. 1070 Range \_\_\_\_\_

Depth of Recorder 5606 Inside/~~Outside~~

Initial Shut-In Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	—	—	140	2.4860	2074
5	—	—	160	2.4926	2080
10	—	—	170	2.4954	2082
20	—	—	180	2.4975	2085
30	2.2587	1882	190	2.5006	2086
40	2.3530	1962	200	2.5033	2089
60	2.4337	2030	210	2.5066	2092
80	2.4580	2051	220	2.5085	2093
100	2.4710	2062	230	2.5100	2095
120	2.4795	2069	240	2.5118	2096

Flow Period Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	0.0190	16	50	0.0297	24
5	0.0190	16	60	0.0315	26
10	0.0197	16			
20	0.0224	18			
30	0.0254	21			
40	0.0280	23			

Field RATHERFORDWell NDC 41-12Test No. H-16 Recorder No. AR-1 115Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG			
0	—	—	230	2.3167	1929
5	—	—	240	2.3209	1933
10	—	—			
20	0.0758	62			
30	0.2759	227			
40	1.3834	1142			
60	1.9032	1580			
80	2.0733	1723			
100	2.1597	1789			
120	2.2040	1835			
140	2.2378	1864			
160	2.2610	1875			
170	2.2715	1893			
180	2.2798	1900			
190	2.2900	1908			
200	2.2971	1914			
210	2.3030	1919			
220	2.3104	1925			

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG		
Initial			3.1086	2612		
Final			3.1000	2605		

Remarks:

**Bottom Hole Pressure Data Sheet**

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-16  
 Interval Tested 5622 To 5665.5 Date of Test 6-24-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After 30 seconds

Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM

Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes

Blow IMMEDIATE VERY FAINT BLOW DEAD @ t=24 MIN. RESUMED VERY FAINT @ t=37 MIN TO END.

Recovery 15' OIL BASE MUD

	<u>From Above</u>	<u>From Pressure Chart</u>
Length of Initial Shut-in	241	239
Length of Flow Period	60	58
Length of Final Shut-in	241	245

Recorder No. HK 13215 Element No. 7769N Range 3800  
 Clock No. 5412 Range 24 kw  
 Depth of Recorder 5651.5 Inside/Outside

**Initial Shut-In Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	—	—	140	1.0961	2103
5	.9076	1741	160	1.0989	2108
10	.9794	1880	180	1.1010	2112
20	1.0320	1981	200	1.1040	2118
30	1.0503	2016	210	1.1047	2120
40	1.0652	2044	220	1.1052	2120
60	1.0783	2069	230	1.1062	2122
80	1.0857	2083	235	1.1063	2123
100	1.0901	2092	240	1.1066	2123
120	1.0930	2097	241	1.1070	2124

**Flow Period Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	.0226	44	50	.0261	50
5	.0221	43	60	.0271	52
10	.0229	44			
20	.0235	45			
30	.0250	48			
40	.0253	49			

Field RATHERFORDWell NDC 4/-12Test No. H-16 Recorder No. HK13215Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG			
0	.0271	52	235	1.0209	1959
5	.0507	98	240	1.0220	1962
10	.0788	152	241	1.0223	1964
20	.2344	451			
30	.5539	1062			
40	.6983	1339			
50	.7900	1515			
60	.8412	1614			
80	.9160	1758			
100	.9497	1823			
120	.9719	1865			
140	.9856	1892			
160	.9974	1914			
180	1.0058	1930			
200	1.0126	1944			
210	1.0147	1948			
220	1.0168	1953			
230	1.0193	1956			

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG		
Initial		5651.5	1.3734	2636		
Final		5651.5	1.3682	2626		

Remarks:

### Bottom Hole Pressure Data Sheet

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-16  
 Interval Tested 5622 To 5665.5 Date of Test 6-25-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After \_\_\_\_\_ seconds

Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM

Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes

Blow IMMEDIATE VERY FAINT BLOW, DEAD @ t = 24 MIN., RESUMED VERY FAINT BLOW @ t = 37 MIN CONT.

Recovery 15' OIL BASE MUD TO END.

	From Above	From Pressure Chart
Length of Initial Shut-in	241 MIN	~ 235
Length of Flow Period	60	60
Length of Final Shut-in	241	240

Recorder No. AK-1 643 Element No. 2454 N Range \_\_\_\_\_

Clock No. 2295 Range \_\_\_\_\_

Depth of Recorder 5610 Inside/Outside \_\_\_\_\_

**Initial Shut-In Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	—	—	140	2.4303	2065
5	—	—	160	2.4362	2070
10	—	—	170	2.4387	2072
20	2.0635	1745	180	2.4411	2074
30	2.2727	1927	190	2.4444	2077
40	2.3403	1986	200	2.4471	2079
60	2.3846	2025	210	2.4505	2082
80	2.4047	2042	220	2.4527	2085
100	2.4162	2052	230	2.4537	2086
120	2.4245	2059	241	2.4550	2087

**Flow Period Pressure Readings:**

Time	Deflect In.	Pressure PSIG			
0	0.0233	19	50	0.0308	26
5	0.0221	18	60	0.0328	27
10	0.0220	18			
20	0.0233	19			
30	0.0259	22			
40	0.0289	24			

Field RATHERFORDWell NDC 41-12Test No. H-16 Recorder No. AK-1 643Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG				
0	0.0328	27	230	2,2645	1920	
5	0.0515	43	241	2,2686	1924	
10	0.0872	72				
20	0.2775	232				
30	1.1030	927				
40	1.5950	1344				
60	1.9322	1631				
80	2.0556	1738				
100	2.1135	1788				
120	2.1580	1827				
140	2.1894	1855				
160	2.2123	1875				
170	2.2230	1884				
180	2.2310	1891				
190	2.2390	1898				
200	2.2454	1904				
210	2.2525	1910				
220	2.2577	1914				

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG		
Initial			3.0560	2612		
Final			3.0323	2591		

Remarks:

Bottom Hole Pressure Data Sheet

Field RATHERFORD

Well NDC 41-12

Type Tester HALLIBURTON Number of Test H-16  
 Interval Tested 5622 To 5665.5 Date of Test 6-24-59

Main (Hydraulic) Valve opened \_\_\_\_\_ AM/PM Shut-in Pressure Valve Closed  
 After \_\_\_\_\_ seconds

Trip (Top) Valve opened \_\_\_\_\_ AM/PM Tool Shut in \_\_\_\_\_ AM/PM

Packers Pulled \_\_\_\_\_ AM/PM GTS \_\_\_\_\_ Minutes

Blow IMMEDIATE VERY FAINT BLOW DEAD @  $t = 24$  MIN. RESUMED VERY FAINT @  $t = 37$  MIN TO END,

Recovery 15' OIL BASE MUD

	From Above	From Pressure Chart
Length of Initial Shut-in	241	236
Length of Flow Period	60	55
Length of Final Shut-in	241	239

Recorder No. HK 1020 Element No. 12017N Range 2900  
 Clock No. 5245 Range 24HR  
 Depth of Recorder 5658.5 Inside/Outside

Initial Shut-In Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	—	—	140	1.4488	2102
5	1.0670	1546	160	1.4518	2106
10	1.1971	1734	180	1.4552	2111
20	1.3176	1910	200	1.4582	2115
30	1.3739	1993	210	1.4587	2116
40	1.3989	2029	220	1.4610	2120
60	1.4232	2061	230	1.4620	2121
80	1.4350	2082	235	1.4621	2121
100	1.4412	2091	240	1.4625	2122
120	1.4447	2096	241	1.4628	2122

Flow Period Pressure Readings:

Time	Deflect In.	Pressure PSIG			
0	.0302	43	50	.0335	48
5	.0283	41	60	.0340	49
10	.0292	42			
20	.0300	43			
30	.0314	45			
40	.0329	47			

Field RATHERFORDWell NDC 41-12Test No. H-16 Recorder No. HR 1020Final Shut-In Pressure Readings:

Time	Deflect In	Pressure PSIG				
0	.0340	49	230	1.3446	1950	
5	.0534	77	235	1.3473	1954	
10	.0910	131	240	1.3500	1958	
20	.2453	354	241	1.3508	1959	
30	.6391	923				
40	.9223	1335				
50	1.0399	1507				
60	1.1118	1611				
X 70	1.1680	1692				
80	1.1933	1729				
100	1.2446	1804				
120	1.2780	1853				
140	1.2978	1881				
160	1.3131	1904				
180	1.3247	1921				
200	1.3345	1935				
210	1.3376	1940				
220	1.3410	1945				

Hydrostatic Pressures

	Time	Depth Ft.	Deflection In.	Pressure PSIG		
Initial						
Final		5658.5	1.8066	2626		
		5658.5	1.8111	2632		

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-15-59  
and  
6-16-59

Depth: 5475

Drilled: 0

Cored: 0

Other Operations:

Rigged up. Cleaned out plug. Ran magnet. Preparing to core.

Location: 656' E. and 660' W. of NE Cor. Sec. 12, T. 41 S.,  
R. 23 E., SLBM, San Juan County, Utah

Elevations: DF 4664.8', GR 4655.3', RB 4666.3'.

Preliminary Data Determinations:

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-17-59

Depth: 5469

Drilled: 0

Cored: 50'

Other operations:

Cut core #1

Preliminary Data Determinations:

Core #1 5478-5528 Recovered 50'  
35' Limestone, I-IIA and C-D in part  
15 Dolomite, I-II-III V5%

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-18-59

Depth: 5578

Drilled: 0

Cored: 50'

Other Operations:

Cut core #2

Preliminary Data Determinations:

Core #2 5528-5578 Rec. 50'

15' Limestone, IV<sub>1</sub>A + B<sub>2</sub> + Q + DTR

20' Limestone, I-III VF-LB<sub>1-4</sub> + C<sub>1-2</sub>

15' Limestone, I VF-LB<sub>2-5</sub> + C<sub>1-5</sub> + DTR-5

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-19-59

Depth: 5638

Drilled: 0

Cored: 60'

Other Operations:

Cut Core #3

Preliminary Data Determinations:

Core #3 5578-5628 Rec. 50'  
42' Limestone, IVF-LB<sub>1-2</sub> + C<sub>2-9</sub> + D<sub>1-8</sub>  
8' Dolomite, I-III VFA.

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-20-59

Depth: 5654

Drilled: 0

Cored: 16

Other Operations:

Out core #4 5638-5654. Ran Induction - Electrical Survey,  
Gamma Ray - Neutron, Micro caliper Logs.

Preliminary Data Determinations:

Core #4 5628-5655 Rec. 27'.  
10' Limestone, dolomitic I-III VFB<sub>1-2</sub>  
8' Limestone IVFA  
9' Dolomite I-III VFB<sub>2-5</sub> + C<sub>TR-1</sub>

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-21-59

Depth: 5654'

Drilled: 0

Cored: 0

Other Operations:

Ran Schlumberger wire line tests S-1, S-1A, S-1B, S-1C, S-2, S-2A, S-3, and S-4.

Preliminary Data Determinations:

WLT S-1 5484.5'    Misrun, "0" wing failed  
WLT S-1A 5484.5'    Misrun, **shot** misfired  
WLT S-1B 5484.5'    Misrun, gun block failed

WLT S-1C @ 5484.5', 250 cc, open 1 hour, 17 minutes

Recorder HK 1020 (12017N)

SIP 618 psi @ 5492.5' (dry)

HP 2546 psi @ 5492.5'

Recorder HK 13215 (7769N)

SIP 618 psi @ 5492.5'

HP 2552 psi @ 5492.5'

WLT S-2 5483'    Misrun, block failed at approximately 4000'.

WLT S-2A @ 5483', 250 cc, open 1 hour, 5 minutes

Recorder HK 13215 (7769N)

SIP 2178 psi @ 5491' (stab)

HP 2548 psi @ 5491'

Recorder HK 1020 (12017N)

SIP 2169 psi @ 5491'

HP 2540 psi @ 5491'

WLT S-3 @ 5495', 250 cc, open 2 hours, 19 minutes

Recorder HK 1020 (12017N)

SIP 1447 psi @ 5503' (using steeply)

HP 2521 psi @ 5503'

Recorder HK 13215 (7769N)

SIP 1434 psi @ 5503'

HP 2527 psi @ 5503'

WLT S-4 250 cc, open 2 hours, 20 minutes

Recorder HK 1020 (12017N)

SIP 1652 psi @ 5507' (using)

HP 2543 psi @ 5507'

Recorder HK 1321.5 (7769N)

SIP 1656 psi @ 5507'

HP 2546 psi @ 5507'

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek #1-12

Date: 6-22-59

Depth: 5654'

Drilled: 0

Cored: 0

Other Operations:

Ran Schlumberger wire line tests S-5, S-6, S-7, S-8, S-9, S-10, and S-11

Preliminary Data Determinations:

WLT S-5 @ 5511', 250 cc, open 1 hour, 41 minutes Recorder HK 1020 (12017N) SIP 1675 psi @ 5519' (stab) HP 2551 psi @ 5519'	Recorder 13215 (7769N) SIP 1677 psi @ 5319' HP 2533 psi @ 5319'
WLT S-6 @ 5517', 250 cc, open 1 hour 8 minutes Recorder HK 1020 (12017N) SIP 1669 psi @ 5525' (stab) HP 2553 psi @ 5525'	Recorder HK 13215 (7769N) SIP 1675 psi @ 5319' HP 2553 psi @ 5525'
WLT S-7 @ 5553', 250 cc, open 1 hour, 2 minutes Recorder HK 1020 (12017N) SIP 1659 psi @ 5561' (stab) HP 2573 psi @ 5561'	Recorder HK 13215 (7769N) SIP 1660 psi @ 5561' HP 2577 psi @ 5561'
WLT S-8 @ 5580', 250cc, open 1 hour, 3 minutes Recorder HK 1020 (12017N) SIP 1341 psi @ 5588' (stab) HP 2581 psi @ 5588'	Recorder 13215 (7769N) SIP 1345 psi @ 5588' HP 2584 psi @ 5588'
WLT S-9 @ 5610', 250 cc, open 2 hours Recorder HK 1020 (12017N) SIP 1347 psi @ 5618' (stab) HP 2590 psi @ 5618'	Recorder HK 13215 (7769N) SIP 1343 psi @ 5618' HP 2597 psi @ 5603'
WLT S-10 @ 5601', 250 cc, open 2 hours Recorder HK 1020 (12017N) SIP 1350 psi @ 5609' (stab) HP 2589 psi @ 5609'	Recorder HK 13215 (7769N) SIP 1354 psi @ 5609' HP 2592 psi @ 5609'
WLT S-11 @ 5625', 250 cc, open 2 hours, 3 minutes Recorder HK 1020 (12017N) SIP 543 psi @ 5633' (stab) HP 2600 psi @ 5633'	Recorder HK 13215 (7769N) SIP 543 psi @ 5633' HP 2604 psi @ 5633'

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-23-59

Depth: 5666' (Corrected)

Drilled: 6

Cored: 0

Other Operations:

Ran Schlumberger wire line test S-12, S-13, Drilled 6'  
Ran S-14

Preliminary Data Determinations:

WLT S-12 @ 5636', 250 cc, open 2 hrs. 13 min.,

Recorder HK 1020 (12017N)

SIP 2147 psi @ 5644' (Stab)

HP 2604 psi @ 5644'

Recorder HK 13215 (7769N)

SIP 2156 psi @ 5644'

HP 2609 psi @ 5644'

WLT S-13 @ 5495.5', 250 cc, open 1 hr. 49 min.

Recorder HK 1020 (12017N)

SIP 1682 psi @ 5503.5' (Stab)

HP 2534 psi @ 5503.5'

Recorder HK 13215 (7769N)

SIP 1687 psi @ 5503.5'

HP 2541 psi @ 5503.5'

WLT S-14 @ 5649', 250 cc, open 1 hr. 12 min.

Recorder HK 1020 (12017N)

SIP 2138 psi @ 5657' (Stab)

HP 2506 psi @ 5657'

Recorder 13215 (7769N)

SIP 2139 psi @ 5657'

HP 2511 psi @ 5657'

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-24-59

Depth: 5654'

Drilled: -0-

Cored: -0-

Other Operations:

Ran conventional DST H-15. Ran Gamma Ray Log and tool joint locator for depth control.

Preliminary Data Determinations:

DST H-15 5472 - 5490.5'. Open for initial shut in 30 sec. Initial shut in 4 hrs., open 1 hr., Final shut in 4 hrs. 1 min., weak blow immediately, increasing to moderate @ t = 1 minute, moderate to end of open period. Recovered approx. 190' oil and gas cut oil base mud.

			(115)	
Recorder	HK 1020	HK 13215	AK -1 1105	AK-1 643
Element #	12017 N	7769 N	2456 N	2454 N
Clock	5445	5412	1070	2295
Recorder Depth	5505.5	5498.5	5445.5	5449.5
IHP	2619 psi	2620 psi	2597 psi	2597 psi
ISIP (stab)	2173	2172	2148	2139
IFP	53	48	31	35
FFP	108	104	91	93
FSIP	2131	2126	2108	2099
FHP	Not readable	-	-	-

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-25-59

Depth: 5666

Drilled: -0-

Cored: -0-

Other Operations:

Ran conventional DST H-16. Ran Gamma Ray log for depth control. Laid down drill pipe.

reliminary Data Determinations:

DST H-16 5622-5665.5, open for initial shut in 30 seconds. Initial shut in 4 hours, 1 minute, open 1 hour. Final shut in 4 hours, 1 minute. Very faint blow immediately, dead in 21 minutes. Very faint blow again in 37 minutes to end of open period. Recovered approximately 15' oil base mud.

			(115)	
Recorder	HK 1020	HK 13215	AK-1 1105	AK-1 643
Element #	12017 N	7769 N	2456 N	2454 N
Clock	5445	5412	1070	2295
Recorder Depth	5660.5	5653.5	5606	5610
IHP	2630 psi	2633 psi	2606 psi	2612 psi
ISIP (rising)	2120	2121	2095	2087
IFP	40	41	15	19
FFP	49	50	25	28
FSIP	1957	1961	1931	1923
FHP (rising)	2624	2625	2601	2592

Remarks:

SHELL OIL COMPANY  
DAILY OPERATIONS REPORT

Well: North Desert Creek 41-12

Date: 6-26-59

Depth: 5666'

Drilled: 0-

Cored: 0-

Other Operations:

Ran Guiberson packer on 2-3/8" tubing. Set packer at 5451', Displaced oil base mud with water above packer. Released rig 5:00 P.M. 6-26-59.

Preliminary Data Determinations:

Remarks:

U. S. LAND OFFICE **Navajo**  
SERIAL NUMBER **14-20-603-246**  
LEASE OR PERMIT TO PROSPECT \_\_\_\_\_

PRELIMINARY REPORT


12

LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Shell Oil Company Address P. O. Box 158, Farmington, New Mexico  
Lessor or Tract Tribal North Desert Creek Field Ratherford State Utah  
Well No. 41-12 Sec. 12 T. 41S R. 23E Meridian SEEM County San Juan  
Location 656 ft. N of S. Line and 660 ft. W. of E. Line of Section 12 Elevation KB 4666'  
(Derrick floor relative to sea level)

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.  
Original signed by R. S. Mac ALISTER, JR.  
Signed \_\_\_\_\_

Date November 27, 1959 Title Exploitation Engineer

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

Commenced drilling May 7, 1959 Finished drilling June 20, 1959

OIL OR GAS SANDS OR ZONES  
(Denote gas by G)

No. 1, from 5472 Open Hole to 5666 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 690 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	
16"	42	-	-	79	-	-	-	-	Conductor surface
10-3/4"	32	-	-	1477	Baker	-	-	-	production
7"	23	-	-	5461	Baker	-	5472	5666	open hole

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
16"	90	250	Displacement	-	-
10-3/4"	1488	300	"	-	-
7"	5472	200	"	-	-

PLUGS AND ADAPTERS

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_

SHOOTING RECORD

FOLD MARK

FOLD MARK

16"	90	250	Displacement	-	-
10-3/4"	1488	300	"	-	-
7"	5472	200	"	-	-

**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 ..... feet to 5666 feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

**DATES**

~~Suspended 40-acre test well~~  
~~June 27~~, 19 ~~59~~ Put to producing ....., 19.....

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 Rutledge Drilling Co. ....., Driller

....., Driller ....., Driller

**FORMATION RECORD**

FROM—	TO—	TOTAL FEET	FORMATION
			<u>ELECTRIC LOG TOPS</u>
2317	2363	46	Shinarump
2363	2501	138	Moenkopi
2501	4502	2001	Cutler
4502	5465	963	Hermosa
5465	-	-	Paradox

[OVER]

13-43094-4

DEC 2 1959

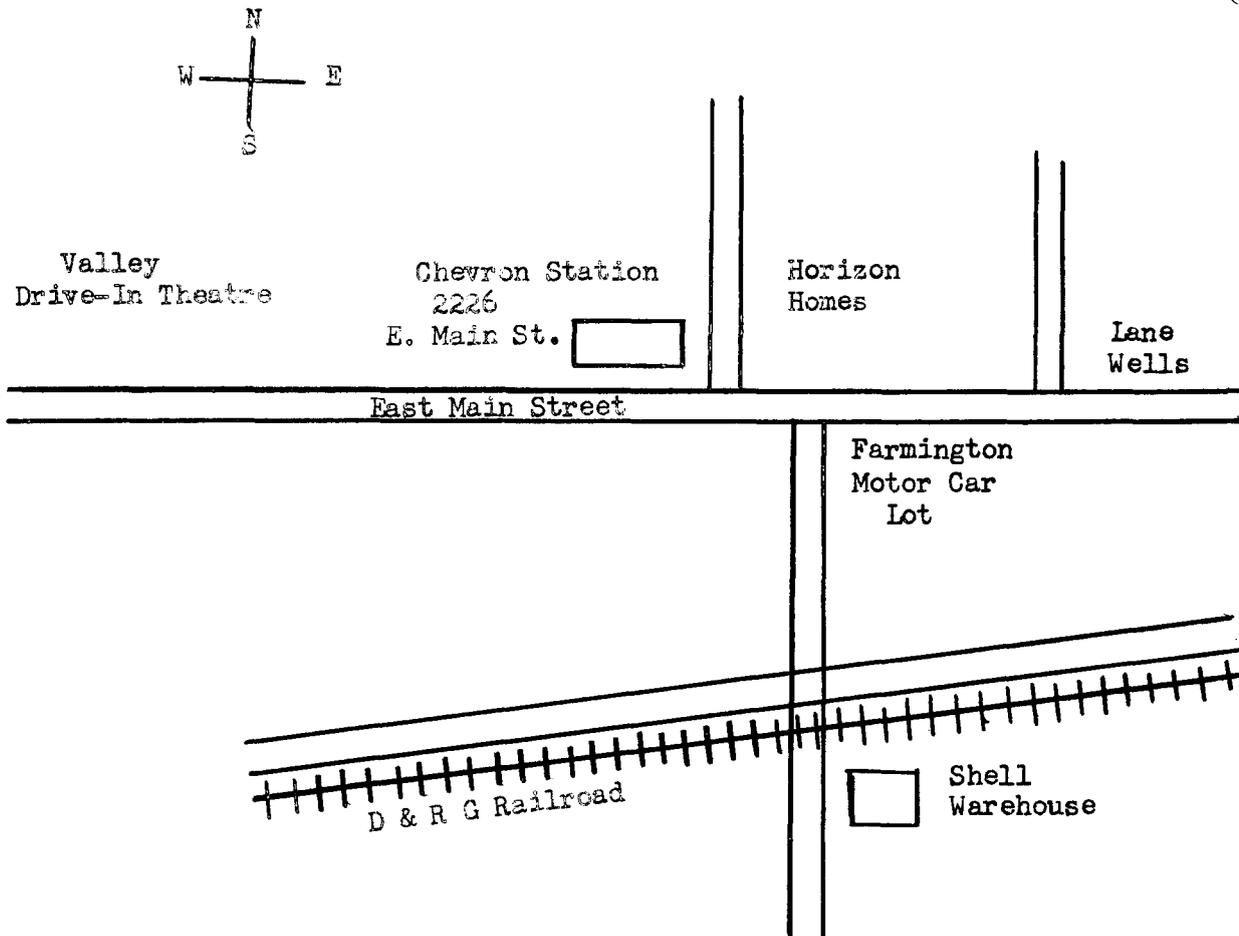
CORE PARTY NOTICE

SHELL OIL COMPANY

- (1) North Desert Creek #41-12 located in Section 12, T. 41 S., R. 23 E.,  
San Juan County, Utah
- (2) North Desert Creek #32-13 located in Section 13, T. 41 S., R. 23 E.,  
San Juan County, Utah
- (3) State Three #32-16 located in Section 16, T. 40 S., R. 24 E.,  
San Juan County, Utah

Cores will be available for description and sampling at 8:00 A.M.  
on Friday, August 14, 1959 at the Shell warehouse in Farmington, New Mexico. The  
warehouse is located as follows:

*M/K  
8-11*



*25  
N*

**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation PARADOX File RP-3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH EPA 4664 DF Location SEC12 41S 23E

**Lithological Abbreviations**

SAND SH SHALE SH LIME LM COLOMITE OL CLAY CLM CLAY CLM ANHYDRITE ANHY CONGLOMERATE CONG FOSSILIFEROUS FOSS SANDY-SHY SHALY-SHY LIMY-LMY FINE LN MEDIUM LN GRASSY-LM CRYSTALLINE XLN GRAIN GRN GRANULAR GRNL BROWN-BRN GRAY GY VUGGY VGY FRACTURED FRAC LAMINATION-LAM STYLOLITIC STY SLIGHTLY-SL/ VERY-V/ WITH W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Max.	900		OIL	TOTAL WATER	
1	5478-80.5	0.1	0.1	5.1	12.2	40.1	Vertical Fracture
		0.9	0.5				
		0.1	<0.1				
2	80.5-82.5	1.8	0.9	11.4	24.8	22.8	
		0.5	0.2				
3	82.5-85.0	<0.1	<0.1	1.7	17.5	60.5	Vertical Fracture
		0.1	<0.1				
4	85.0-87.0	0.1	<0.1	1.2	19.0	49.6	
		0.1	<0.1				
5	87.0-90.0	0.1	<0.1	1.2	17.7	53.7	
		<0.1	<0.1				
6	90.0-92.0	0.6	0.2	12.6	11.1	64.8	
		0.1	<0.1				
7	92.0-95.0	<0.1	<0.1	11.2	13.4	15.2	
		45	2.1				
		0.1	<0.1				
8	95.0-97.0	0.7	0.5	13.3	11.4	20.5	
		1.2	0.7				
9	97.0-99.0	3.4	1.6	13.0	10.6	18.2	
		1.8	1.6				
10	99.0-5501	0.7	0.4	8.5	10.3	25.2	
		1.2	0.6				
11	5501-03.0	12	4.7	2.2	7.3	61.0	
		0.1	<0.1				
12	03.0-05.5	<0.1	<0.1	2.5	8.8	53.9	
		0.3	0.1				
13	05.5-07.5	1.4	0.9	5.8	27.4	29.9	
		0.1	<0.1				
14	07.5-10.0	0.4	0.3	8.7	51.5	13.8	
		0.8	0.7				
		1.2	0.9				
15	10.0-12.0	1.8	1.1	6.6	41.6	25.4	
		1.7	1.6				
16	12.0-14.5	0.1	<0.1	14.7	56.7	14.4	
		0.3	0.1				
17	14.5-17.5	19	7.5	21.9	63.5	7.0	
		4.1	4.1				
		11	10				
18	17.5-19.3	4.3	3.9	5.1	35.4	32.4	
		0.3	<0.1				

These data and interpretations are based on observations and materials furnished by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representation, as to the productivity, proper operation, or profitability of any oil, gas, or other mineral well or service connection with which this report is used or relied upon.

### CORE ANALYSIS RESULTS

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH Elev. 4664 DF Location SEC12 41S 23E

#### Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SAND-SY SHALY-SHY LIM-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Max.	90°		OIL	TOTAL WATER	
19	5519.3-21.0	0.8	0.3	1.0	17.5	41.3	
		1.0	0.3				
20	21.0-23.5	0.6	0.3	4.6	5.1	69.5	Vertical Fracture
		<0.01 *					
		<0.01 *					
21	23.5-26.0	<0.01 *		4.0	0.0	71.0	Vertical Fracture
		<0.01 *					
22	26.0-28.0	<0.01 *		1.8	0.0	75.0	
		<0.01 *					
23	28.0-29.7	0.1	<0.1	1.2	23.0	66.5	Vertical Fracture
		0.1	<0.1				
		0.1	<0.1				
24	30.0-31.2	4.2	2.7	0.8	11.4	33.0	
		0.3	<0.1				
25	31.5-33.4	0.1	<0.1	1.2	19.1	53.8	
		0.8	<0.1				
26	33.7-35.3	1.7	0.5	2.2	8.7	53.2	
27	35.6-37.5	<0.1	<0.1	2.9	13.7	43.2	
		<0.1	<0.1				
28	37.8-39.4	<0.1	<0.1	2.4	14.6	42.7	
		<0.1	<0.1				
		0.1	<0.1				
29	39.7-41.4	0.1	<0.1	3.3	13.9	39.0	
		0.1	<0.1				
30	41.7-43.3	0.1	<0.1	2.0	32.2	24.8	
		0.1	<0.1				
31	43.6-45.3	0.7	0.5	8.2	27.8	15.8	
		0.8	0.6				
32	45.6-47.3	0.5	0.4	9.2	39.0	10.2	
		0.6	0.5				
33	47.6-49.2	0.4	0.4	13.5	52.0	6.4	
		4.7	2.6				
34	49.5-51.3	4.6	4.2	20.0	72.5	2.5	
		7.0	6.5				
35	51.6-53.3	4.9	4.9	16.9	62.5	4.7	
		1.9	1.8				
36	53.6-54.6	2.8	2.7	18.4	48.0	10.4	
37	54.9-56.3	0.2	0.2	2.9	24.8	34.8	
		0.1	<0.1				
38	56.6-58.4	0.1	<0.1	1.4	32.9	37.8	
		0.1	0.1				

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH Elev 4664 DF Location Sec12 41S 23E

**Lithological Abbreviations**

SAND - SD      DOLOMITE - DOL      ANHYDRITE - ANHY      SANDY - SDY      FINE - FN      CRYSTALLINE - XLN      BROWN - BRN      FRACTURED - FRAC      SLIGHTLY - SL/  
 SHALE - SH      CHERT - CH      CONGLOMERATE - CONG      SHALY - SHY      MEDIUM - MED      GRAIN - GRN      GRAY - GY      LAMINATION - LAM      VERY - V/  
 LIME - LM      GYPSUM - GYP      FOSSILIFEROUS - FOSS      LIMY - LMY      COARSE - CSE      GRANULAR - GRNL      VUGGY - VGY      STYLOLITIC - STY      WITH - W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS Max.	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
39	5558.7-60.5	0.1	<0.1	1.1	39.6	20.2
		1.1	0.1			
40	60.8-62.3	0.1	<0.1	0.9	31.8	22.7
		<0.1	<0.1			
41	62.6-64.3	0.1	0.1	2.9	14.5	32.0
		0.9	0.7			
42	64.6-66.4	1.8	1.2	8.6	18.7	22.9
		3.0	1.7			
43	66.7-69.3	2.0	1.8	7.4	14.7	31.9
		3.8	2.7			
		104	66			
44	69.6-71.0	29	15.	8.6	21.9	21.5
		150	133			
45	71.3-73.5	527	427	12.7	39.8	18.1
		643	458			
46	73.8-76.2	111	72	11.8	32.5	11.9
		31	19			
		127	72			
47	76.2-77.7	104	13	14.4	32.9	9.3
		81	47			
48	77.7-79.4	18	2.6	14.0	43.1	24.4
		4.3	4.3			
49	79.4-81.5	57	43	9.8	39.8	30.2
		50	43			
50	81.5-83.5	12	7.3	14.2	43.8	25.6
		9.7	5.9			
51	83.5-85.3	11	10	13.6	43.7	18.8
		3.5	0.7			
52	85.3-87.2	3.9	3.7	10.6	31.9	24.4
		1.8	0.6			
53	87.2-89.3	12	7.1	13.5	44.3	18.9
		8.1	7.3			
54	89.3-91.3	9.2	6.5	13.9	44.4	22.5
		16	10			
55	91.3-93.6	17	17	9.3	33.8	21.0
		9.4	8.7			
56	93.6-95.1	5.0	3.7	8.8	38.6	22.7
		13	6.7			
57	95.1-97.4	0.5	0.4	3.9	14.0	47.0
		0.7	0.6			

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP#3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH Elev. 4664 DF Location Sec12 41S 23E

**Lithological Abbreviations**

SAND-SD SHALE-SM LIME-LM DOLOMITE-DO1  
 CHERT-CH GYPSUM-GYP ANHYDRITE-ANHY  
 CONGLOMERATE-CONG FOSSILIFEROUS-FOSS SANDY-SOY  
 SHALY-SHY LIMY-LMY FINE-FN  
 MEDIUM-MED COARSE-CSE CRYSTALLINE-XLN  
 GRAIN-GRN GRANULAR-GRNL BROWN-BRN  
 GRAY-GY VUGGY-VGY FRACTURED-FRAC  
 LAMINATION-LAM STYLOLITIC-STY SLIGHTLY-SL/  
 VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Max.	90°		OIL	TOTAL WATER	
58	5597.4-98.6	5.3	0.5	5.6	31.4	36.4	
59	98.6-5601.4	1.2	1.0	5.6	32.4	28.6	
		17	7.1				
		5.7	2.9				
60	5601.4-03.8	1.1	1.0	6.7	31.0	32.0	
		103	87				
61	03.8-05.8	7.5	6.7	7.2	29.0	33.0	
		15	5.0				
62	05.8-07.6	146	92	6.8	30.2	23.7	
		3.1	2.5				
63	07.6-09.6	1.6	1.5	7.2	30.0	29.4	
		5.4	3.3				
64	09.6-11.3	132	123	5.7	30.2	33.9	
		12	7.6				
65	11.3-13.5	1.0	0.5	4.4	22.1	31.5	
		4.3	3.9				
66	13.5-15.2	0.5	0.4	5.3	28.4	37.0	
		46	34				
67	15.2-17.6	36	1.5	1.1	15.8	72.8	
		0.2	0.1				
68	17.6-19.5	7.8	0.4	0.8	17.3	61.7	
		0.1	0.1				
69	19.5-21.6	0.1	<0.1	6.5	3.8	94.2	
		<0.1	<0.1				
70	21.6-23.3	0.1	0.1	5.3	8.3	89.8	
		0.1	0.1				
71	22.3-25.2	<0.1	<0.1	7.9	18.4	44.2	
		2.0	1.4				
72	25.2-27.0	2.8	2.5	8.8	20.1	41.7	
		1.6	1.6				
73	27.0-29.2	0.4	0.4	1.9	1.6	87.7	
		3.0	0.7				
74	29.2-31.3	<0.1	<0.1	5.4	8.3	54.1	
		0.1	0.1				
75	31.3-33.6	0.1	<0.1	11.7	5.9	63.3	
		0.1	0.1				
76	33.6-35.5	0.1	<0.1	14.0	11.5	43.1	
		0.1	0.1				
77	35.5-37.4	0.5	0.5	12.5	7.9	71.1	
		0.1	0.1				

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
County SAN JUAN State UTAH Elev 4664 DF Location SEC12 41S 23E

**Lithological Abbreviations**

SAND - SD      DOLOMITE - DOL      ANHYDRITE - ANHY      SANDY - SDY      FINE - FN      CRYSTALLINE - XLN      BROWN - BRN      FRACTURED - FRAC      SLIGHTLY - SL/  
SHALE - SH      CHERT - CH      CONGLOMERATE - CONG      SHALY - SHY      MEDIUM - MED      GRAIN - GRN      GRAY - GY      LAMINATION - LAM      VERY V/  
LIME - LM      GYPSUM - GYP      FOSSILIFEROUS - FOSS      LIMY - LMY      COARSE - CSE      GRANULAR - GRNL      VUGGY - VGY      STYLOLITIC - STY      WITH - W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS Max.	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
78	5637.4-39.4	1.7	1.1	1.5	11.7	64.1
		0.1	0.1			
79	39.4-41.5	0.2	0.2	1.7	34.5	58.8
		<0.1	<0.1			
80	41.5-43.5	<0.1	<0.1	1.9	32.5	61.5
		<0.1	<0.1			
81	43.5-45.6	<0.1	<0.1	7.6	24.8	43.4
		4.6	3.8			
82	45.6-47.4	<0.1	<0.1	12.7	16.0	41.4
		5.1	4.9			
83	47.4-49.7	5.5	4.9	11.7	18.5	44.1
		0.5	0.3			
84	49.7-52.1	0.2	0.2	10.6	16.8	39.5
		0.4	0.3			
85	52.1-54.8	0.5	0.4			
		0.4	0.2	6.6	7.0	71.3
		0.1	0.1			

\* Matrix Permeability

SERVICE # 8 NO INTERPRETATION OF RESULTS

**CORE ANALYSIS RESULTS**

Company	SHELL OIL COMPANY	Formation	PARADOX	File	RP-3-1013
Well	41-12 NORTH DESERT CREEK	Core Type	DIAMOND CONV.	Date Report	6/22/59
Field	RATHERFORD	Drilling Fluid	BLACK MAGIC	Analysts	ENGLISH
County	SAN JUAN	State	UTAH	Elev.	4664 DF
				Location	SEC12 41S 23E

**Lithological Abbreviations**

SANDY SH SHALE SH LIME LM	COLOMITE CHERT CH SILICUM GY	ANHYRITE ANHY LONG. OMEPATE LONG FOSSILIFEROUS FOSS	SANDY SHY SHALY SHY LIMY LMY	FINE FN MEDIUM MED COARSE COSE	CRYSTA LINE XEN GRAIN GRN GRANULAR GRNL	BROWN BRN GRAY GY VUGGY VGY	FRACTURED FRAC LAMINATION LAM STYLOLITIC STY	SLIGHTLY SL/ VERY V/ WITH W/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Max.	900		OIL	TOTAL WATER	
1	5478-80.5	0.1	0.1	5.1	12.2	40.1	Vertical Fracture
		0.9	0.5				
		0.1	<0.1				
2	80.5-82.5	1.8	0.9	11.4	24.8	22.8	
		0.5	0.2				
3	82.5-85.0	<0.1	<0.1	1.7	17.5	60.5	Vertical Fracture
		0.1	<0.1				
4	85.0-87.0	0.1	<0.1	1.2	19.0	49.6	
		0.1	<0.1				
5	87.0-90.0	0.1	<0.1	1.2	17.7	53.7	
		<0.1	<0.1				
6	90.0-92.0	0.6	0.2	2.6	11.1	64.8	
		0.1	<0.1				
7	92.0-95.0	<0.1	<0.1	11.2	13.4	15.2	
		45	2.1				
		0.1	<0.1				
8	95.0-97.0	0.7	0.5	13.3	11.4	20.5	
		1.2	0.7				
9	97.0-99.0	3.4	1.6	13.0	10.6	18.2	
		1.8	1.6				
10	99.0-5501	0.7	0.4	8.5	10.3	25.2	
		1.2	0.6				
11	5501-03.0	12	4.7	2.2	7.3	61.0	
		0.1	<0.1				
12	03.0-05.5	<0.1	<0.1	2.5	8.8	53.9	
		0.3	0.1				
13	05.5-07.5	1.4	0.9	5.8	27.4	29.9	
		0.1	<0.1				
14	07.5-10.0	0.4	0.3	8.7	51.5	13.8	
		0.8	0.7				
		1.2	0.9				
15	10.0-12.0	1.8	1.1	6.6	41.6	25.4	
		1.7	1.6				
16	12.0-14.5	0.1	<0.1	14.7	56.7	14.4	
		0.3	0.1				
17	14.5-17.5	19	7.5	21.9	63.5	7.0	
		4.1	4.1				
		11	10				
18	17.5-19.3	4.3	3.9	5.1	35.4	32.4	
		0.3	<0.1				

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH Elev. 4664 DF Location SEC12 41S 23E

**Lithological Abbreviations**

SAND - SD SHALE - SH LIME - LM	DOLOMITE - DOL CHERT - CH GYPSUM - GYP	ANHYDRITE - ANHY CONGLOMERATE - CONG FOSSILIFEROUS - FOSS	SANDY - SDY SHALY - SHY LIMY - LMY	FINE FN MEDIUM - MED COARSE - CSE	CRYSTALLINE - XLN GRAIN - GRN GRANULAR - GRNL	BROWN - BRN GRAY - GY VUGGY - VGY	FRACTURED - FRAC LAMINATION - LAM STYLOLITIC - STY	SLIGHTLY - SL/ VERY - V/ WITH - W/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS Max.	POROSITY PER CENT 90°	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS	
				OIL	TOTAL WATER		
19	5519.3-21.0	0.8	0.3	1.0	17.5	41.3	
20	21.0-23.5	0.6	0.3	4.6	5.1	69.5	Vertical Fracture
21	23.5-26.0	0.01 *		4.0	0.0	71.0	Vertical Fracture
22	26.0-28.0	0.01 *		1.8	0.0	75.0	
23	28.0-29.7	0.1	0.1	1.2	23.0	66.5	Vertical Fracture
24	30.0-31.2	4.2	2.7	0.8	11.4	33.0	
25	31.5-33.4	0.1	0.1	1.2	19.1	53.8	
26	33.7-35.3	1.7	0.5	2.2	8.7	53.2	
27	35.6-37.5	0.1	0.1	2.9	13.7	43.2	
28	37.8-39.4	0.1	0.1	2.4	14.6	42.7	
29	39.7-41.4	0.1	0.1	3.3	13.9	39.0	
30	41.7-43.3	0.1	0.1	2.0	32.2	24.8	
31	43.6-45.3	0.7	0.5	8.2	27.8	15.8	
32	45.6-47.3	0.5	0.4	9.2	39.0	10.2	
33	47.6-49.2	0.4	0.4	13.5	52.0	6.4	
34	49.5-51.3	4.6	4.2	20.0	72.5	2.5	
35	51.6-53.3	4.9	4.9	16.9	62.5	4.7	
36	53.6-54.6	2.8	2.7	18.4	48.0	10.4	
37	54.9-56.3	0.2	0.2	2.9	24.8	34.8	
38	56.6-58.4	0.1	0.1	1.4	32.9	37.8	

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH Elev 4664 DF Location Sec12 41S 23E

**Lithological Abbreviations**

SAND - SD SHALE - SH DOLOMITE - DOL ANHYDRITE - ANHY SANDY - SDY FINE - FN CRYSTALLINE - XLN BROWN - BRN FRACTURED - FRAC SLIGHTLY - SL/  
 LIMESTONE - LM CHERT - CH GYPSUM - GYP CONGLOMERATE - CONG SHALY - SHY MEDIUM - MED GRAY - GRN LAMINATION - LAM VERY - V/  
 FOSSILIFEROUS - FOSS LIMY - LMY COARSE - CSE GRANULAR - GRNL VUGGY - VGY STYLOLITIC - STY WITH - W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY'S Max.	POROSITY PER CENT 90°	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
39	5558.7-60.5	0.1	<0.1	1.1	39.6	20.2
		1.1	0.1			
40	60.8-62.3	0.1	<0.1	0.9	31.8	22.7
		<0.1	<0.1			
41	62.6-64.3	0.1	0.1	2.9	14.5	32.0
		0.9	0.7			
42	64.6-66.4	1.8	1.2	8.6	18.7	22.9
		3.0	1.7			
43	66.7-69.3	2.0	1.8	7.4	14.7	31.9
		3.8	2.7			
		104	66			
44	69.6-71.0	29	15.	8.6	21.9	21.5
		150	133			
45	71.3-73.5	527	427	12.7	39.8	18.1
		643	458			
46	73.8-76.2	111	72	11.8	32.5	11.9
		31	19			
		127	72			
47	76.2-77.7	104	13	14.4	32.9	9.3
		81	47			
48	77.7-79.4	18	2.6	14.0	43.1	24.4
		4.3	4.3			
49	79.4-81.5	57	43	9.8	39.8	30.2
		50	43			
50	81.5-83.5	12	7.3	14.2	43.8	25.6
		9.7	5.9			
51	83.5-85.3	11	10	13.6	43.7	18.8
		3.5	0.7			
52	85.3-87.2	3.9	3.7	10.6	31.9	24.4
		1.8	0.6			
53	87.2-89.3	12	7.1	13.5	44.3	18.9
		8.1	7.3			
54	89.3-91.3	9.2	6.5	13.9	44.4	22.5
		16	10			
55	91.3-93.6	17	17	9.3	33.8	21.0
		9.4	8.7			
56	93.6-95.1	5.0	3.7	8.8	38.6	22.7
		13	6.7			
57	95.1-97.4	0.5	0.4	3.9	14.0	47.0
		0.7	0.6			

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP#3-1013  
 Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
 Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
 County SAN JUAN State UTAH Elev. 4664 DF Location Sec12 41S 23E

**Lithological Abbreviations**

SAND - SD SHALE - SH LIME - LM    DOLOMITE - DOL    ANHYDRITE - ANHY    SANDY - SDY    FINE - FN    CRYSTALLINE - XLN    BROWN - BRN    FRACTURED - FRAC    SLIGHTLY - SL/  
 CHERT - CH    CONGLOMERATE - CONG    SHALY - SHY    MEDIUM - MED    GRAIN - GRN    GRAY - GY    LAMINATION - LAM    VERY - V/  
 GYPSUM - GYP    FOSSILIFEROUS - FOSS    LIMY - LMY    COARSE - CSE    GRANULAR - GRNL    VUGGY - VGY    STYLOLITIC - STY    WITH - W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
58	5597.4-98.6	5.3	0.5	5.6	31.4	36.4
59	98.6-5601.4	1.2	1.0	5.6	32.4	28.6
		17	7.1			
		5.7	2.9			
60	5601.4-03.8	1.1	1.0	6.7	31.0	32.0
		103	87			
61	03.8-05.8	7.5	6.7	7.2	29.0	33.0
		15	5.0			
62	05.8-07.6	146	92	6.8	30.2	23.7
		3.1	2.5			
63	07.6-09.6	1.6	1.5	7.2	30.0	29.4
		5.4	3.3			
64	09.6-11.3	132	123	5.7	30.2	33.9
		12	7.6			
65	11.3-13.5	1.0	0.5	4.4	22.1	31.5
		4.3	3.9			
66	13.5-15.2	0.5	0.4	5.3	28.4	37.0
		46	34			
67	15.2-17.6	36	1.5	1.1	15.8	72.8
		0.2	0.1			
68	17.6-19.5	7.8	0.4	0.8	17.3	61.7
		0.1	0.1			
69	19.5-21.6	0.1	0.1	6.5	3.8	94.2
		0.1	0.1			
70	21.6-23.3	0.1	0.1	5.3	8.3	89.8
		0.1	0.1			
71	22.3-25.2	0.1	0.1	7.9	18.4	44.2
		2.0	1.4			
72	25.2-27.0	2.8	2.5	8.8	20.1	41.7
		1.6	1.6			
73	27.0-29.2	0.4	0.4	1.9	1.6	87.7
		3.0	0.7			
74	29.2-31.3	0.1	0.1	5.4	8.3	54.1
		0.1	0.1			
75	31.3-33.6	0.1	0.1	11.7	5.9	63.3
		0.1	0.1			
76	33.6-35.5	0.1	0.1	14.0	11.5	43.1
		0.1	0.1			
77	35.5-37.4	0.5	0.5	12.5	7.9	71.1
		0.1	0.1			

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**CORE ANALYSIS RESULTS**

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
County SAN JUAN State UTAH Elev 4664 DF Location SEC12 41S 23E

**Lithological Abbreviations**

SAND - SD SHALE - SH LIME - LM DOLOMITE - DOL  
CHERT - CH GYPSUM - GYP ANHYDRITE - ANHY  
CONGLOMERATE - CONG FOSSILIFEROUS - FOSS SANDY - SDY  
SHALY - SHY LIMY - LMY FINE - FN  
MEDIUM - MED COARSE - CSE CRYSTALLINE - XLN  
GRAIN - GRN GRANULAR - GRNL BROWN - BRN  
GRAY - GY VUGGY - VGY FRACTURED - FRAC  
LAMINATION - LAM STYLOLITIC - STY SLIGHTLY - SL/  
VERY - V/  
WITH - W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY'S Max.	POROSITY PER CENT 90 <sup>d</sup>	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
78	5637.4-39.4	1.7	1.1	1.5	11.7	64.1
		0.1	0.1			
79	39.4-41.5	0.2	0.2	1.7	34.5	58.8
		<0.1	<0.1			
80	41.5-43.5	<0.1	<0.1	1.9	32.5	61.5
		<0.1	<0.1			
81	43.5-45.6	<0.1	<0.1	7.6	24.8	43.4
		4.6	3.8			
82	45.6-47.4	<0.1	<0.1	12.7	16.0	41.4
		5.1	4.9			
83	47.4-49.7	5.5	4.9	11.7	18.5	44.1
		0.5	0.3			
84	49.7-52.1	0.2	0.2	10.6	16.8	39.5
		0.4	0.3			
		0.5	0.4			
85	52.1-54.8	0.4	0.2	6.6	7.0	71.3
		0.1	0.1			

\* Matrix Permeability

SERVICE # 8 NO INTERPRETATION OF RESULTS .

### CORE ANALYSIS RESULTS

Company	SHELL OIL COMPANY	Formation	PARADOX	File No.	RP-3-1013
Well	41-12 NORTH DESERT CREEK	Core Type	DIAMOND CONV.	Date Report	6/22/59
Field	RATHERFORD	D-H-1	BLACK MAGIC	Analyst	ENGLISH
County	SAN JUAN STATE UTAH	4664 1F	SEC12 41S 23E		

Lithological Abbreviations

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY (Darcy)		PERCENT PORE VOLUME	GROSS CORE VOLUME (CC)	TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
		Max.	90°				
1	5478-80.5	0.1	0.1	5.1	12.2	40.1	Vertical Fracture
		0.9	0.5				
		0.1	<0.1				
2	80.5-82.5	1.8	0.9	11.4	24.8	22.8	
		0.5	0.2				
3	82.5-85.0	<0.1	<0.1	1.7	17.5	60.5	Vertical Fracture
		0.1	<0.1				
4	85.0-87.0	0.1	<0.1	1.2	19.0	49.6	
		0.1	<0.1				
5	87.0-90.0	0.1	<0.1	1.2	17.7	53.7	
		<0.1	<0.1				
6	90.0-92.0	0.6	0.2	2.6	11.1	64.8	
		0.1	<0.1				
7	92.0-95.0	<0.1	<0.1	11.2	13.4	15.2	
		45	2.1				
		0.1	<0.1				
8	95.0-97.0	0.7	0.5	13.3	11.4	20.5	
		1.2	0.7				
9	97.0-99.0	2.4	1.6	13.0	10.6	18.2	
		1.8	1.6				
10	99.0-5501	0.7	0.4	8.5	10.3	25.2	
		1.2	0.6				
11	5501-03.0	12	4.7	2.2	7.3	61.0	
		0.1	<0.1				
12	03.0-05.5	<0.1	<0.1	2.5	8.8	53.9	
		0.3	0.1				
13	05.5-07.5	1.4	0.9	5.8	27.4	29.9	
		0.1	<0.1				
14	07.5-10.0	0.4	0.3	8.7	51.5	13.8	
		0.8	0.7				
		1.2	0.9				
15	10.0-12.0	1.8	1.1	6.6	41.6	25.4	
		1.7	1.6				
16	12.0-14.5	0.1	<0.1	14.7	56.7	14.4	
		0.3	0.1				
17	14.5-17.5	19	7.5	21.9	63.5	7.0	
		4.1	4.1				
		11	10				
18	17.5-19.3	4.3	3.9	5.1	35.4	32.4	
		0.3	<0.1				

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**CORE ANALYSIS RESULTS**

Company **SHELL OIL COMPANY** Formation **DESERT CREEK** File **RP-3-1013**  
 Well **41-12 NORTH DESERT CREEK** Core Type **DIAMOND CONV.** Date Report **6/22/59**  
 Field **RATHERFORD** Drilling Fluid **BLACK MAGIC** Analysts **ENGLISH**  
 County **SAN JUAN** State **UTAH** Elev **4664 DF** Location **SEC12 41S 23E**

**Lithological Abbreviations**

SAND SD SHALE SH LIME LM DOLOMITE DOL CHERT CH GYPSUM GYP ANHYDRITE ANHY CONGLOMERATE CONG FOSSILIFEROUS FOSS SANDY SDY SHALY SHY LIMY LMY FINE FN MEDIUM MED COARSE CNE CRYSTALLINE XLN GRAIN GRN GRANULAR GRNL BROWN BRN GRAY G VUGGY VUGGY FRACTURED FRAC LAMINATION LAM STYLOLITIC STY SLIGHTLY SL/ VERY V WITH W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Max.	90°		OIL	TOTAL WATER	
19	5519.3-21.0	0.8	0.3	1.0	17.5	41.3	
		1.0	0.3				
20	21.0-23.5	0.6	0.3	4.6	5.1	69.5	Vertical Fracture
		0.01 *					
		0.01 *					
21	23.5-26.0	0.01 *		4.0	0.0	71.0	Vertical Fracture
		0.01 *					
22	26.0-28.0	0.01 *		1.8	0.0	75.0	
		0.01 *					
23	28.0-29.7	0.1	0.1	1.2	23.0	60.5	Vertical Fracture
		0.1	0.1				
		0.1	0.1				
24	30.0-31.2	4.2	2.7	0.8	11.4	33.0	
		0.3	0.1				
25	31.5-33.4	0.1	0.1	1.2	19.1	53.8	
		0.8	0.1				
26	33.7-35.3	1.7	0.5	2.2	8.7	53.2	
27	35.6-37.5	0.1	0.1	2.9	13.7	43.2	
		0.1	0.1				
28	37.8-39.4	0.1	0.1	2.4	14.6	42.7	
		0.1	0.1				
		0.1	0.1				
29	39.7-41.4	0.1	0.1	3.3	13.9	39.0	
		0.1	0.1				
30	41.7-43.3	0.1	0.1	2.0	32.2	24.8	
		0.1	0.1				
31	43.6-45.3	0.7	0.5	8.2	27.8	15.8	
		0.8	0.6				
32	45.6-47.3	0.5	0.4	9.2	39.0	10.2	
		0.6	0.5				
33	47.6-49.2	0.4	0.4	13.5	52.0	6.4	
		4.7	2.6				
34	49.5-51.3	4.6	4.2	20.0	72.5	2.5	
		7.0	6.5				
35	51.6-53.3	4.9	4.9	16.9	62.5	4.7	
		1.9	1.8				
36	53.6-54.6	2.8	2.7	18.4	48.0	10.4	
37	54.9-56.3	0.2	0.2	2.9	24.8	34.8	
		0.1	0.1				
38	56.6-58.4	0.1	0.1	1.4	32.9	37.8	
		0.1	0.1				

These analyses, opinions or interpretations are based on observation and material supplied by the client to whom, and to whom exclusive and confidential use of this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (All errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility for a failure to make no warranty or representation as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or to be used.

**CORE ANALYSIS RESULTS**

Company: SHELL OIL COMPANY Formation: DESERT CREEK File: RP-3-1013  
 Well: 41-12 NORTH DESERT CREEK Core Type: DIAMOND CONV. Date Report: 6/22/59  
 Field: RATHERKORD Drilling Fluid: BLACK MAGIC Analysts: ENGLISH  
 County: SAN JUAN State: UTAH Elev: 4664 DF Location: Sec12 41S 23E

**Lithological Abbreviations**

SAND: SD SHALE: SH LIME: LM DOLOMITE: DOL CHERT: CH GYPSUM: GYP ANHYDRITE: ANHY CONGLOMERATE: CONG FOSSILIFEROUS: FOSS SANDY: SDY SHALY: SHY LIMY: LMY FINE: FN MEDIUM: MED COARSE: COE CRYSTALLINE: XLN GRAIN: GRN GRANULAR: GRNL BROWN: BRN GRAY: GY VUGGY: VGY FRACTURED: FRAC LAMINATION: LAM STYLOLITIC: STY SLIGHTLY: SL/ VERY: V/ WITH: W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Max.	90°		OIL	TOTAL WATER	
39	5558.7-60.5	0.1	<0.1	1.1	39.6	20.2	
		1.1	0.1				
40	60.8-62.3	0.1	<0.1	0.9	31.8	22.7	
		<0.1	<0.1				
41	62.6-64.3	0.1	0.1	2.9	14.5	32.0	
		0.9	0.7				
42	64.6-66.4	1.8	1.2	8.6	18.7	22.9	
		3.0	1.7				
43	66.7-69.3	2.0	1.8	7.4	14.7	31.9	
		3.8	2.7				
		104	66				
44	69.6-71.0	29	15.	8.6	21.9	21.5	
		150	133				
45	71.3-73.5	527	427	12.7	39.8	18.1	
		643	458				
46	73.8-76.2	111	72	11.8	32.5	11.9	
		31	19				
		127	72				
47	76.2-77.7	104	13	14.4	32.9	9.3	
		81	47				
48	77.7-79.4	18	2.6	14.0	43.1	24.4	
		4.3	4.3				
49	79.4-81.5	57	43	9.8	39.8	30.2	
		50	43				
50	81.5-83.5	12	7.3	14.2	43.8	25.6	
		9.7	5.9				
51	83.5-85.3	11	10	13.6	43.7	18.8	
		3.5	0.7				
52	85.3-87.2	3.9	3.7	10.6	31.9	24.4	
		1.8	0.6				
53	87.2-89.3	12	7.1	13.5	44.3	18.9	
		8.1	7.3				
54	89.3-91.3	9.2	6.5	13.9	44.4	22.5	
		16	10				
55	91.3-93.6	17	17	9.3	33.8	21.0	
		9.4	8.7				
56	93.6-95.1	5.0	3.7	8.8	38.6	22.7	
		13	6.7				
57	95.1-97.4	0.5	0.4	3.9	14.0	47.0	
		0.7	0.6				

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc., all errors and omissions excepted; but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representation, as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or in connection with which such report is used or relied upon.

**CORE ANALYSIS RESULTS**

Company: SHELL OIL COMPANY Formation: DESERT CREEK File: RP\*3-1013  
 Well: 41-12 NORTH DESERT CREEK Core Type: DIAMOND CONV. Date Report: 6/22/59  
 Field: RATHERFORD Drilling Fluid: BLACK MAGIC Analysts: ENGLISH  
 County: SAN JUAN State: UTAH Elev: 4664 DF Location: Sec12 41S 23E

**Lithological Abbreviations**

SAND-SH SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SOY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BHN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS	POROSITY PERCENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
58	5597.4-98.6	5.3	0.5	5.6	31.4	36.4
59	98.6-5601.4	1.2	1.0	5.6	32.4	28.6
		17	7.1			
		5.7	2.9			
60	5601.4-03.8	1.1	1.0	6.7	31.0	32.0
		103	87			
61	03.8-05.8	7.5	6.7	7.2	29.0	33.0
		15	5.0			
62	05.8-07.6	146	92	6.8	30.2	23.7
		3.1	2.5			
63	07.6-09.6	1.6	1.5	7.2	30.0	29.4
		5.4	3.3			
64	09.6-11.3	132	123	5.7	30.2	33.9
		12	7.6			
65	11.3-13.5	1.0	0.5	4.4	22.1	31.5
		4.3	3.9			
66	13.5-15.2	0.5	0.4	5.3	28.4	37.0
		46	34			
67	15.2-17.6	36	1.5	1.1	15.8	72.8
		0.2	0.1			
68	17.6-19.5	7.8	0.4	0.8	17.3	61.7
		0.1	0.1			
69	19.5-21.6	0.1	<0.1	6.5	3.8	94.2
		<0.1	<0.1			
70	21.6-23.3	0.1	0.1	5.3	8.3	89.8
		0.1	0.1			
71	22.3-25.2	<0.1	<0.1	7.9	18.4	44.2
		2.0	1.4			
72	25.2-27.0	2.8	2.5	8.8	20.1	41.7
		1.6	1.6			
73	27.0-29.2	0.4	0.4	1.9	1.6	87.7
		3.0	0.7			
74	29.2-31.3	<0.1	<0.1	5.4	8.3	54.1
		0.1	0.1			
75	31.3-33.6	0.1	<0.1	11.7	5.9	63.3
		0.1	0.1			
76	33.6-35.5	0.1	<0.1	14.0	11.5	43.1
		0.1	0.1			
77	35.5-37.4	0.5	0.5	12.5	7.9	71.1
		0.1	0.1			

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representation, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

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CA 34

CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company SHELL OIL COMPANY Formation DESERT CREEK File RP-3-1013  
Well 41-12 NORTH DESERT CREEK Core Type DIAMOND CONV. Date Report 6/22/59  
Field RATHERFORD Drilling Fluid BLACK MAGIC Analysts ENGLISH  
County SAN JUAN State UTAH Elev 4664 DF Location SEC12 41S 23E

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM  
DOLomite DOL  
CHERT CH  
GYPSUM GYP  
ANHYDRITE ANHY  
CONGLOMERATE CONG  
FOSSILIFEROUS FOSS  
SANDY SDY  
SHALY SHY  
LIMY LMY  
FINE FN  
MEDIUM MED  
COARSE CSE  
CRYSTALLINE XLN  
GRAIN GRN  
GRANULAR GRNL  
BROWN BRN  
GRAY GY  
VUGGY VGY  
FRACTURED-FRAC  
LAMINATION-LAM  
STYLOLITIC-STY  
SLIGHTLY-SL/  
VERY V/  
WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
78	5637.4-39.4	1.7	1.1	1.5	11.7	64.1
		0.1	0.1			
79	39.4-41.5	0.2	0.2	1.7	34.5	58.8
		0.1	0.1			
80	41.5-43.5	0.1	0.1	1.9	32.5	61.5
		0.1	0.1			
81	43.5-45.6	0.1	0.1	7.6	24.8	43.4
		4.6	3.8			
82	45.6-47.4	0.1	0.1	12.7	16.0	41.4
		5.1	4.9			
83	47.4-49.7	5.5	4.9	11.7	18.5	44.1
		0.5	0.3			
84	49.7-52.1	0.2	0.2	10.6	16.8	39.5
		0.4	0.3			
85	52.1-54.8	0.5	0.4	6.6	7.0	71.3
		0.4	0.1			

\* Matrix Permeability

SERVICE # 8 NO INTERPRETATION OF RESULTS

M  
W

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representation, as to the productivity, proper operation or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

248  
250

*Coff H. Y. E.*

Budget Bureau No. 42-R359.4  
Approval expires 12-31-60.

*PM*

Form 9-381 b  
(April 1952)

(SUBMIT IN TRIPLICATE)

Indian Agency NOVAJO


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee Tribal Land  
Lease No. 14-00-60-246

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 <del>ACIDIZE</del> ACIDIZE	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF ABANDONMENT	
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)

*Shell* Cortez, Colo. March 14, 1963  
**Rutherford Unit (Formerly Shell Oil Co. North Desert Creek #1-12)**  
 Well No. 12-41 is located 656 ft. from N line and 660 ft. from E line of sec. 12  
NE/4 Sec. 12 41S 23E 11M  
 (1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Greater Aneth San Juan Utah  
 (Field) (County or Subdivision) (State or Territory)

The elevation of the ~~minerals~~ Kelly bushing above sea level is 4666 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)

Move in Well Service Unit, pull tubing, rerun 2" tubing with 7" Baker Retrievalmatic Packer to 5450' with 7 jts. tubing stinger on bottom. Attempt to circulate Black Magic mud from hole and acidize Desert Creek open hole from 5472-5666' with 5000 gallons of regular 15% acid. Rerun tubing and rods and place on pump. This well has been shut down since Unitization.

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

Company PHILLIPS PETROLEUM COMPANY

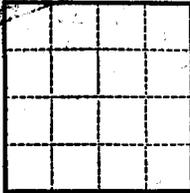
Address P. O. Drawer 1150  
Cortez, Colorado

By *C. H. Moles*  
C. H. Moles  
Title District Superintendent

*A*

Copy H. R. C.  
(SUBMIT IN TRIPLICATE)

Indian Agency None



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee Tribal Land  
Lease No. 14-00-603-216

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 <del>WATER</del> ACIDIZING	<input checked="" type="checkbox"/>
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		

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

Cortez, Colorado March 14, 1963

Rutherford Unit (Formerly Shell Oil Co. North Desert Creek #41-12)

Well No. 12-41 is located 656 ft. from N line and 640 ft. from E line of sec. 12

NE/4 Sec. 12                      41S                      23E                      11W  
 (1/4 Sec. and Sec. No.)              (Twp.)                      (Range)                      (Meridian)  
Greater Aneth                      San Juan                      Utah  
 (Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the ~~minimum~~ above sea level is 4446 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)

Moved in Well Service Unit, pulled tubing and reran 2" tubing with 7" Baker Retrievalmatic Packer, reversed out Black Magic mud, set packer at 5420'. Acidized Desert Creek open hole from 5472 to 5466' with 5000 gallons of 15% regular acid. Maximum pressure - 0. Job completed 3/5/63. Production Before: Shut down. Production After: Pumped 222 BW, 147 BO, in 24 hrs 3/10/63

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

Company Phillips Petroleum Company

Address P. O. Drawer 1190

Cortez, Colorado

By G. M. Boles  
G. M. Boles  
Title District Superintendent

*Agua  
Water*

Form 9-331 b  
(April 1952)


*Wm H. L. E.*

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R350.4  
Approval expires 12-31-60.

Indian Agency \_\_\_\_\_

**NAVAJO**

Allottee \_\_\_\_\_

**TRIBAL**

Lease No. **14-20-603-246**

*9/11/63*

### 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	

**Notice of Intention to Plug Back Well  
from 5666 to 5610'**

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

**Cortez, Colorado October 31, 19 63**

**Rutherford Unit**

Well No. **12-41** is located **656** ft. from **[N]** line and **660** ft. from **[E]** line of sec. **12**

**NE/4 Sec. 12**  
(1/4 Sec. and Sec. No.)

**41S**  
(Twp.)

**23E**  
(Range)

**11E**  
(Meridian)

**Greater Aneth**  
(Field)

**San Juan**  
(County or Subdivision)

**Utah**  
(State or Territory)

**Kelly Bushing**

The elevation of the ~~bottom~~ above sea level is **4666'** 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)

**Recomplete well by plugging back from 5666' to 5610' with Cal-Seal to shut off water production.**

**Present Production: 7 1/2 BOPD, 2 9/16 BWPD.**

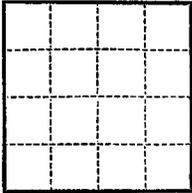
I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **Phillips Petroleum Co.**

Address **Box 1150  
Cortez, Colorado**

By **C. M. Boles**  
**C. M. Boles**  
District Superintendent

Title \_\_\_\_\_



*Copy H-L E*

*PW 2*

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Indian Agency NAVAJO  
Allottee TRIBAL  
Lease No. 14-20-603-246

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	<u>Subsequent Report to Plug Back Well</u>	
	<u>From 5666 to 5607'</u>	<u>X</u>

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

Rutherford Unit

Cortez, Colorado December 9, 1963

Well No. 12-41 is located 6 1/2 ft. from N line and 660 ft. from E line of sec. 12

NE/4 Sec. 12  
(1/4 Sec. and Sec. No.)

418  
(Twp.)

23E  
(Range)

SLM  
(Meridian)

Greater Aneth  
(Field)

San Juan  
(County or Subdivision)

Utah  
(State or Territory)

Kelly Basking

The elevation of the derrick floor above sea level is 4666' 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)

11-25-63 through 12-2-63

Pulled 2" tubing and rods. Plugged back from 5666' to 5607' with Hydramite to shut off water production. Ran 2-1/2" tubing and rods, started producing from Greater Aneth, Paradox formation, Desert Creek Zone open hole 5472-5607'.

Previous Prods: 77 BOPD, 91 MCFPD, 305 B-WPD.

Present Prods: 23 BOPD, 46 MCFPD, 437 B-WPD.

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

Company PHILLIPS PETROLEUM COMPANY

Address P. O. Drawer 1150

Cortez, Colorado

By *C. M. Soles*  
C. M. Soles  
District Superintendent

Title

6/10  
2/11

Form 9-881b  
(April 1962)


*C. M. Boles*

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 49-R350.4.  
Approval expires 12-31-60.

Indian Agency NAVAJO  
Allottee TRIBAL  
Lease No. 11-20-60-246

*PMW*  
*Z*

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			
<b>Notice of Intention to fill up</b>	<b>X</b>		

ad'1 25' of hole w/  
hydromite to reduce water production  
(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado January 2, 19 64

**Rutherford Unit**

Well No. 12-41 is located 656 ft. from N line and 660 ft. from E line of sec. 12

NE/4 Sec 12

(1/4 Sec. and Sec. No.)

41S

(Twp.)

23E

(Range)

S1EM

(Meridian)

Greater Aneth

(Field)

San Juan

(County or Subdivision)

Utah

(State or Territory)

Kelly bushing

The elevation of the derrick-floor above sea level is 4666 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)

**Pull rods and pump. Fill up additional 25' of hole from 5607' to 5582' with Hydromite. Run back tubing to approximately 5575' with same rod design and pump.**

**Present Production: 23 BOPD, 46 MCFOPD, 437 BHPD**

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

Company PHILLIPS PETROLEUM COMPANY

Address P. O. Drawer 1150

Cortez, Colorado

By *C. M. Boles*  
**C. M. Boles**

Title **District Superintendent**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TR  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-20-693-246

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo Tribal

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1.

OIL WELL  GAS WELL  OTHER

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR

Phillips Petroleum Company

8. FARM OR LEASE NAME

Rutherford Unit

3. ADDRESS OF OPERATOR

P. O. Drawer 1150, Cortez, Colorado

9. WELL NO.

12-41

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface

NE/4 Section 12; 656' from NL and 660' from EL of Sec. 12

10. FIELD AND POOL, OR WILDCAT

Greater Aneth Field

11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA

Sec. 12-41S-238

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4666' Kelly Bushing

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON\*

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANS

(Other)

Fill up add'l 25' of hole with Hydromite to reduce water production.

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details and give pertinent data, including dates, for starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

On 1-11-64 pulled tubing, plugged back with 275# Hydromite from 5607' to 5583' to reduce water production. Ran tubing, Placed back on pump producing from Greater Aneth - Paradox Formation Desert Creek Zone 5472-5583'.

Present Production from Desert Creek Zone, Paradox Formation, Greater Aneth:  
67 BOPD, 44 MGFGPD, 377 ENPD

18. I hereby certify that the foregoing is true and correct

SIGNED

*C. H. Boles*  
C. H. Boles

TITLE

Area Superintendent.

DATE

1-24-64

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN REVERSE SIDE  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-246

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo Tribal

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1.

OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

Phillips Petroleum Company

3. ADDRESS OF OPERATOR

Box 1150, Cortez, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)

At surface  
NE/4 Sec. 12; 656' from North Line and 660' from East Line of Section 12

7. UNIT AGREEMENT NAME

SW-3-4192

8. FARM OR LEASE NAME

Rutherford Unit

9. WELL NO.

12-41

10. FIELD AND POOL, OR WILDCAT

Greater North Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 12-419-235

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4666' Kelly bushing

12. COUNTY OR PARISH

13. STATE

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

Plug back, perforate & acidize

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Move in Well Service unit, squeeze open hole section 5472-5583' with cement, drill out to 5573', perforate top subzone II from 5567-72', swab test, acidize if necessary, if test positive perforate subzone I porosity 5482-85', 5494-5504', 5510-20' and 5545-56', acidize and return well to producing status.

Contingency No. 1: If swab test of subzone II perforations 5567-72 is negative, re-squeeze open hole section, drill out to 5555', perforate subzone I porosity 5482-85', 5494-5504', 5510-20' and 5545-54', acidize and return well to producing status.

Present Production: 24 hrs - Pumped 7 BO, 270 BW, 31 MCF Gas.

18. I hereby certify that the foregoing is true and correct

SIGNED

C. M. Bales

TITLE

Area Superintendent

DATE

7-8-64

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN REVERSE SIDE  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.  
**14-20-603-246**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
**Navajo Tribal**

7. UNIT AGREEMENT NAME  
**SH-I-4192**

8. FARM OR LEASE NAME  
**Rutherford Unit**

9. WELL NO.  
**12-41**

10. FIELD AND POOL, OR WILDCAT  
**Greater Anoth Field**

11. SEC., T., R., M., OR BLK. AND SURVEY OR ARRA  
**Sec. 12-418-33E**

12. COUNTY OR PARISH  
**San Juan County**

18. STATE  
**Utah**

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
**Phillips Petroleum Company *Shell***

3. ADDRESS OF OPERATOR  
**Drawer 1150, Cortez, Colorado**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
**NE/4 Sec. 12; 656' FNL and 660' FEL**

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
**4666' KB**

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input checked="" type="checkbox"/> <b>Plug back, perforate and setline - X</b>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

**5-12-65 through 7-13-65:** Moved in well service unit. Pulled rods and tubing, reran tubing with retrievable packer set at 5457'. Mixed 150 ex. cement with .6% HALAD-9, squeezed open hole 5457-5583' to 5000#. Well still taking fluid at rate of 1 1/2 BFM at 5000#. Re-squeezed open hole 5457-5583' with 50 ex. cement mixed with .6% HALAD-9 to 5000#, reversed out 35 ex. cement. Holding pressure 5000#. Ran 6-1/8" bit on tubing, hit cement at 5460', drilled 6-1/8" hole to 5579' FBTD. Perforated open hole 5567-72' E.L. Measurement with 2 jet shots per foot. Ran tubing with packer, swab tested well. Halliburton acidized with 1000 gallons 15% regular acid. Placed well on pump to test Subzone II. Perforated Subzone I open hole 5482-85, 5494-5504, 5510-20, 5545-54 E.L. Measurement with 2 jet shots per foot. Ran rods and tubing, placed well on pump.

Previous Production (Paradox Formation, Desert Creek Zone): 37 BOPD, 55 MCFD, 390 BFPD.  
Present Production (Paradox Formation, Desert Creek Zone): 51 BOPD, 34 MCFD, 288 BFPD.

18. I hereby certify that the foregoing is true and correct

SIGNED *C. M. Boice* TITLE District Superintendent DATE 9-8-65

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

<p>1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>2. NAME OF OPERATOR <b>Phillips Petroleum Company</b></p> <p>3. ADDRESS OF OPERATOR <b>P. O. Box 2920, Casper, Wyoming 82602</b></p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <b>656' FNL &amp; 660' FEL</b></p> <p>14. PERMIT NO.</p>	<p>5. LEASE DESIGNATION AND SERIAL NO. <b>14-20-603-246</b></p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>Navajo - Tribal</b></p> <p>7. UNIT AGREEMENT NAME <b>P</b></p> <p>8. FARM OR LEASE NAME <b>Rutherford Unit</b></p> <p>9. WELL NO. <b>12-41</b></p> <p>10. FIELD AND POOL, OR WILDCAT <b>Greater Aneth</b></p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 12-T41S-R23E</b></p> <p>12. COUNTY OR PARISH <b>San Juan</b></p> <p>13. STATE <b>Utah</b></p>
<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>4666' RKB</b></p>	

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other <b>Temp Block Zone II, Acidize Zone I, Return to Page</b> )	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

**SEE ATTACHED FOR COMPLETE DETAILS**

18. I hereby certify that the foregoing is true and correct

SIGNED A. T. Crump TITLE Area Superintendent DATE April 26, 1977

A. T. Crump  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

- 3-USGS, Farmington, New Mexico
- 2-Utah O&G CC, Salt Lake City, Utah
- 1-Superior Oil Co., Conroe, TX
- 1-File

\*See Instructions on Reverse Side

1-P'Ville 1-Nuss  
 1-Denver 1-File  
 1-Hughes

FINAL REPORT INDIVIDUAL WELL STATUS

Lease Ratherford Unit Well No. 12-41 Authorization No. Exper

Summary of Work Performed:

April 1, 1977 through April 14, 1977 - Temporarily blocked off Zone II, Acidized Zone I w/3000 gal 28% HCL and Returned Well to Pumping.

AVERAGE DAILY PRODUCTION				
	Field and Formation	Oil	Gas	Water
Before Work	Greater Aneth - Paradox, Desert Creek Zone I & II	57	NA	20.4
After Work	Greater Aneth - Paradox, Desert Creek Zone I & II	62	NA	21.0

DATE NATURE OF WORK TOTAL DEPTH PERFORMED

1977  
 April

2-4

RATHERFORD UNIT NO. 12-41 PTD 5579. /INITIAL REPORT/ 4/2/77 - RU R AND R WS UNIT 4/1/77. COOH W/REDA PUMP AND MOTOR. MOTOR WAS BURNED OUT. WIH W/TBG OPEN ENDED TO SPOT SAND. 4/3/77 - INSTLD BOP. TAGGED BTM W/TBG AT 5576 FT. RAISED TBG TO 5470 FT. ATTEMPTED TO LOAD HOLE. WOULD NOT LOAD. MIXED AND SPOTTED 1050 LB SD THRU TBG. COOH W/TBG. 4/4/77 - SD SUNDAY. PREP TO ACIDIZE. EXPENSE JOB TO TEMPORARILY BLOCK OFF ZONE II AND ACIDIZE ZONE I. LOCATION - 656 FT FNL AND 660 FT FEL, SEC. 12-T41S-R23E, GREATER ANETH FIELD, SAN JUAN CO., UTAH. ELEV. 4666 FT RKB. SUB AREA CODE 626..

5

RATHERFORD UNIT NO. 12-41 PTD 5579. PREP TO CO SAND. WIH W/PKR, TBG TESTER, 4 JTS TAILPIPE. TAGGED SAND AT 5542 FT. RAISED TAILPIPE TO 5530 FT. RU HOWCO. UNABLE TO PUMP IN FORMATION AT 2000 PSI. SPOTTED 1000 GAL 28 PERCENT HCL AND DISPLD INTO FORMATION. RATE SLOWLY INCR TO 4 BPM AT 2000 PSI. RAISED PKR TO 5351 FT AND TAILPIPE TO 5470 FT. PMPD 500 LB TBA IN GELLED WTR AT 6 BPM W/1200 PSI. PMPD 1000 GAL 28 PERCENT HCL AT 6 BPM W/1200 PSI. PMPD 2500 GAL WTR. PRESS INCR TO 2000 PSI. PMPD 700 LB TBA. NO ACTION. PMPD 1000 GAL 28 PERCENT AT 6 BPM W/1000 PSI. PMPD 400 GAL WTR AT 6 BPM AT 1000 PSI. ISIP 0 PSI. TOTAL LOAD - 551 BA AND LV. LOWERED TAILPIPE AND TAGGED SD AT 5573 FT. START COH W/TBG AND PKR..

6

RATHERFORD UNIT NO. 12-41 PTD 5579. PREP TO RUN REDA. FIN COOH W/TBG AND PKR. WIH W/BAKER HYDROSTATIC TOOL. CO SD FROM 5573-79 FT. COOH..

7

RATHERFORD UNIT NO. 12-41 PTD 5579. PREP TO START REDA. PU REDA AND WIH. SDON..

8-11

RATHERFORD UNIT NO. 12-41 PTD 5579. 4/8/77 - FIN CONNECTING UP REDA AND WELLHEAD. RELEASED R AND R WS UNIT AND STARTED WELL PUMPING 4/7/77. 4/9/77 THRU 4/11/77 - PMPG ON TEST, NO GAUGE..

12

RATHERFORD UNIT NO. 12-41 PTD 5579. PMPG ON TEST. 55 BOPD, 2145 BWPD. FL 3400 FT. ALL LOAD AND ACID WATER REC..

13

RATHERFORD UNIT NO. 12-41 PTD 5579. PMPG ON TEST. PMPD 24 HRS, REC 60 BO, 2100 BW. 3503 FT FTF..

14

RATHERFORD UNIT NO. 12-41 PTD 5579. PMPD 24 HRS, REC 62 BO, 2140 BW. /FINAL REPORT SUMMAR/ TEMPORARILY BLOCKED OFF ZONE II, ACIDIZED ZONE I AND RETURNED TO A PRODUCING OIL WELL FROM COMMINGLED ZONE I AND ZONE II, OPEN HOLE, 5472-5579 FT, IN THE PARADOX FORMATION, GREATER ANETH FIELD, SAN JUAN CO., UTAH. /FINAL REPORT/..

April 26, 1977

Date Prepared

District Approval

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Phillips Petroleum Company

3. ADDRESS OF OPERATOR  
P. O. Box 2920, Casper, WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 656' FNL & 660' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input checked="" type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) Squeeze Zone I & II			

5. LEASE  
14-20-603-246

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
Navajo-Tribal

7. UNIT AGREEMENT NAME  
SW-I-4192

8. FARM OR LEASE NAME  
Ratherford Unit

9. WELL NO.  
12-41

10. FIELD OR WILDCAT NAME  
Greater Aneth

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 12-T41S-R23E

12. COUNTY OR PARISH  
San Juan

13. STATE  
Utah

14. API NO.  
43-037-15849

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
4666 RKB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*  
Squeeze open hole Zone I & II (perfs 5482-5572 O.A.), re-perforate and acidize Zone I (perfs 5482-5556 O.A.) w/5000 gal 28% HCL. Return to production.

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 7/30/81  
BY: [Signature]

[Faint stamps and markings]

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED [Signature] TITLE Operations Supt. DATE May 27, 1981  
J. J. Fisher

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

- 3-USGS, Farmington, NM
- Utah O&GCC, Salt Lake City, UT
- 1- Superior Oil, The Woodlands, TX
- 1-File

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Phillips Petroleum Company

3. ADDRESS OF OPERATOR  
P.O. Box 2920, Casper, WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 656' FNL & 660' FEL, NE  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) Plug Back, Perf, & Acidize	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

5. LEASE  
14-20-603-246

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
Navajo Tribal

7. UNIT AGREEMENT NAME  
SW-I-4192

8. FARM OR LEASE NAME  
Ratherford Unit

9. WELL NO.  
12-41

10. FIELD OR WILDCAT NAME  
Greater Aneth

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 12-T41S-R23E

12. COUNTY OR PARISH  
San Juan

13. STATE  
Utah

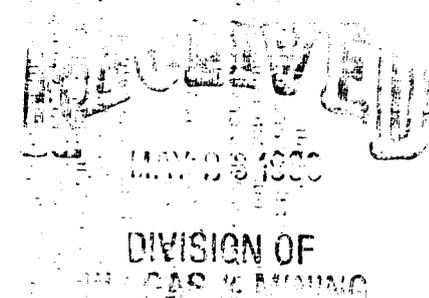
14. API NO.  
43-037-15849

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
RKB 4666'

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

FOR COMPLETE DETAILS, SEE ATTACHED.



Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED A. E. Stuart TITLE Area Manager DATE 5/20/83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

- 4 - BLM, Farmington, NM
- 2 - UT O&G CC, SLC, Utah
- 1 - Superior Oil Co., The Woodlands, TX
- 1 - File

\*See Instructions on Reverse Side

Lease RATHERFORD UNIT Well No. 12-41 Authorization No. P-U414

Summary of Work Performed:

Sqzd open hole perfs 5482-5572' OA w/200 sx Class H cmt. Drld out cmt to new PBD 5516'. Perf'd 5482-84', 5494-5504' & 5509-12', 30 shots. Acidized w/900 gal 15% HCL & returned to a pmpg oil well.

AVERAGE DAILY PRODUCTION

	Field and Formation	Oil	Gas	Water
		SI 6/12/79 - test prior to SD.		
Before Work	Greater Aneth - Desert Crk Zone I	28	20	2872
After Work	Greater Aneth - Desert Crk Zone I	2	1	4
Before Work				
After Work				
DATE	P.T.D.			

1983 DAILY REPORT OF WORK PERFORMED

#12-41 03/03/83 AFE: U414

*March*  
*3*

FBTD 5579. INITIAL REPORT. 3/2/83 - CONDUCTED SAFETY MEETING. RU NL WS UNIT 3/1/83. COOH W/REDA EQUIP. PREP TO FIN COOH. 3/3/83 - FIN COOH W/TBG & REDA EQUIP. WITH W/6-1/8" BIT, 7" CSG SCRAPER ON 2-7/8" TBG. 97 JTS IN HOLE. DROPPED DRIFT IN TBG. COOH TO REC DRIFT. BSH W/BIT & SCRAPER, 2-7/8" TBG, 97 JTS IN HOLE. SDON. AFE P-U414 ISSUED TO CEMENT SQZ OPEN HOLE, RE-PERFORATE, ACIDIZE ZONE I AND RETURN TO PRODUCTION. LOCATION - 658' FNL & 660' FEL, SEC. 12-1415-R23E, GREATER ANETH FIELD, SAN JUAN CO., UTAH. API #43-037-15849. RKB ELEV 4866'. SUB AREA CODE 26. DATE LAST PRODUCED - SHUT-IN 6/12/79. TEST PRIOR TO SHUT DOWN - 28 BOPD, 20 MCFOPD, 2872 BOPD..

#12-41 03/04/83 AFE: U414

*4*

FBTD 5579. PREP TO DRILL CMT TO 5525', TEST SQZ TO 2000 PSI FIN STRAP IH, 6-1/8" BIT, 7" CSG SCRAPER ON 2-7/8" TBG. TAG TOP OF FILL AT 5516' RKB. RU REVERSE CIRC EQUIP & POWER SWIVEL. WELL ON VAC, COULD NOT ESTABLISH RETURNS ON REVERSE CIRC AT 4 BPM. DRILL & WASH MED SOFT FILL MATERIAL FROM 5516 TO 5572', 56' W/NO RETURNS. BIT HIT SOLID AT 5572'. LOST 200 BBLS SALT WTR TO FORMATION. COOH W/BIT & SCRAPER. WITH W/ 7" BAKER MODEL C FULL BORE RETR PKR & MODEL N TBG TESTER ON 2-7/8" TBG. SET PKR AT 5313' RKB. RU HOWCO, TSTD TBG & SURF LINES TO 3500 PSI FOR 10 MIN OK. RELEASE PRESS, TEST ANNULUS 1000 PSI, WELLHEAD LEAKED. COULD NOT STOP LEAK. ESTABLISH PUMP IN RATE OF 9 BPM AT 750 PSI W/12 BBLS SALT WTR. HOWCO MIXED & PUMPED 200 SX CLASS H CMT, 15.6 PFG, 5.2 GAL FRESH WTR/SX W/0.5% CFR-2, 2% KCL, 0.6% HALAD-9, 3 BPM AT 200 PSI TO SQUEEZE OPEN HOLE 5472 TO 5572', 100'. DISPLD W/24-1/4 BBLS SALT WTR, 2 BPM AT MAX 1100 PSI. SQZ TO 400 PSI. SD PUMPS. 115 SX CMT IN FORMATION. RELEASE PRESS, UNSEAT PKR, REVERSE OUT 38 SX CMT. EST TOC 5313'. PU 6 JTS, RESET PKR 5138' RKB, RE-PRESS TBG, 1200 PSI HOLD. PRESS ANNULUS 1000 PSI HOLD. WELLHEAD LEAKS. RELEASE HOWCO. SDON. WDC 14 HRS..

5/20/83

Date Prepared

District Approval

DAILY REPORT DETAILED

LEASE RATHERFORD UNIT

WELL NO. 12-41

SHEET NO. 2

1983 DATE TOTAL DEPTH NATURE OF WORK PERFORMED

March  
5-7

#12-41 03/07/83 AFE: U414

PBTD 5524. 3/5/83 - PREPARING TO CIRC & COND HOLE. LOWER FL. PERF ZONE I. RELEASED PRESS. UNSEAT PKR. COOH W/7" BAKER MODEL C PKR & 2-7/8" TBG. REPAIRED WELL - HAD LEAK. WIH W/6-1/8" BIT, 7" CSG SCRAPER & 2-7/8" TBG. TAG TOP AT 5313' RKB. RU POWER SWIVEL AND REVERSE CIRC EQUIPMENT. DRLD SOFT TO MED HARD CMT FROM 5313' TO 7" CSG SHOE AT 5472' RKB. 159' W/ 20,000# ON BIT. REDUCE WEIGHT TO BIT TO 6000#, DRLD HARD CMT FROM 5472' TO NEW PBTD 5524' RKB. CIRC & COND HOLE. FU 2 JTS, PRESS TEST SQUEEZE TO 1200 PSI. PRESS DROPPED FROM 1200 PSI TO 300 PSI IN 2 MIN. SDON. 3/6/83 & 3/7/83 - SD SATURDAY & SUNDAY..

#12-41 03/08/83 AFE: U414

PBTD 5524. WIH, TAG TOP OF SOFT FILL AT 5521' RKB. WASH TO BTM 5524' RKB. CIRC & COND HOLE. FU 1 JT TBG, BIT AT 5485' RKB. SWAB FLUID LEVEL DOWN TO PERF ZONE I. RECOVERED 93 BBLs, FL AT 2078' RKB. CONT SWBG, REC 125 BBLs. SDON. 100 BBLs TO REC. PREPARING TO FIN SWBG. PERF ZONE I..

#12-41 03/09/83 AFE: U414

PBTD 5524. FL 2582' RKB. CONT SWBG TO LOWER FL TO PERF. REC 66-1/2 BBLs. FL 4078' RKB. COOH W/BIT & SCRAPER NU BOP. FUNCTION TEST BLIND RAMS. RU BLUE JET PERFORATORS. RUN GR LOG 5510-5300', 210'. FL 4200' RKB. LOGGERS TO 5313' RKB. COOH W/LOGGING TOOL. BLUE JET NU LUBRICATOR. WIH W/4" HOLLOW STEEL CARRIER PERFB GUN, TWO 1/2" JSFF, 120 DEG PHASING TO PERF ZONE I OPEN HOLE. RAN #1, 5509-5512, 3'. RUN #2, 5482-5484, 2' AND 5494-5504, 10'. TOTAL 30 SHOTS, ALL FIRED. NO PRESS CHANGE. COOH. RD & RELEASE BLUE JET. CLOSE BLIND RAMS. SDON. PREPARING TO ACIDIZE ZONE I..

#12-41 03/10/83 AFE: U414

PBTD 5524. GIH W/6 JTS 2-7/8" TBG FOR TAILPIPE. SEATING NIPPLE, 7" BAKER MODEL C FULLBORE RETRIEVABLE PKR ON 181 JTS 2-7/8" TBG. SET PKR AT 5276' RKB, TAIL-PIPE AT 5456'. RU HOWCO. PREP TO ACIDIZE ZONE I OPEN HOLE. ATTEMPT TO RESET PKR, UNSUCCESSFUL. RELEASE PKR. GIH, TAG TOP OF FILL AT 5512' RKB. COOH W/TBG & PRK. SDON. PREP TO GIH W/NEW PKR, TEST FOR POSSIBLE CSG LEAK..

#12-41 03/11/83 AFE: U414

PBTD 5516 CORRECTED. WIH W/7" BAKER R-3 PKR ON 2-7/8" TBG. TESTED FOR CSG LEAK, FOUND LEAK BETWEEN 3555-3584' RKB. PUMP IN .6 BFM AT 1350 PSI. COOH W/2-7/8" TBG & PKR. SDON. PREP TO REPAIR CSG LEAK..

#12-41 03/04/83 AFE: U414

PBTD 5516. PREP TO RE-SET CSG LEAK. 3/12/83 - WIH W/BP, SET AT 3695' RKB. TSTD BP TO 2400 PSI, OK. SET PKR AT 3452'. SPOT 2 SX SAND ON BP. RU HALLIB, PRESS ANNULUS TO 1000 PSI, HOLD. HALLIB MIX & PUMP 50 SX CLASS H CMT W/2.5% HALAD 3, 15.6 BFM AT 1 BFM, MAX 2000 PSI TO SOZ CSG LEAK 3555-3584'. DISPLD W/22 BBLs SALT WTR AT 0.9 BFM, MAX 2400 PSI. SD PUMP, WAIT 4 MIN. PUMP 2 BBLs SALT WTR, 3 STAGES AT MAX

DAILY REPORT DETAILED

LEASE RATHERFORD UNIT

WELL NO. 12-41

SHEET NO. 3

DATE  
NATURE OF WORK PERFORMED

TOTAL  
DEPTH

1983  
March  
12-14  
cont.

(CONT.) 03/04/83 AFE: U414

725 PSI. SD PUMPS. WAIT 30 MIN. REL PKR. REVERSE  
OUT TBG. RESET PKR. PRESS TBG TO 2100 PSI. NO HOLD.  
SD PUMPS. REL HALLIB. SDON. WOC. PREP TO DRILL OUT  
CMT & TEST SQZ. 3/13/83 - TSTD CSG SQZ. 1250 PSI,  
LOST 100 PSI IN 20 MIN. WIH W/BIT & SCRAPER ON  
2-7/8" TBG. TAG TOP CMT 3592'. RU POWER SWIVEL, REV  
CIRC EQUIP. DRILL OUT SOFT CMT 3592-3617' 25'.  
TSTD SQZ TO 1500 PSI. NO HOLD. COOH W/BIT & SCRAPER  
GIH W/BAKER MODEL C PKR ON 2-7/8" TBG. SET PKR AT  
3593'. TEST BP (AT 3595') TO 1500 PSI. OK. RESET  
PKR AT 3562'. PUMP IN 2.47 BBL SALT WTR AT 0.5  
BPM AT MAX 1300 PSI. SDON. 3/14/83 - SD SUNDAY..

#12-41 03/15/83 AFE: U414

PBTD 5518. COOH W/BAKER MODEL C PKR. WIH W/BAKER MODEL C  
PKR W/9 JTS 2-7/8" TBG FOR TAILPIPE. WIH W/TAILPIPE  
TO 3595'. RU HALLIB. SPOT 35 SX CLASS H CMT W/O.6%  
HALAB-5, 10.6 PPD AT 3595' TO 3598' TO SQZ CSG LEAK  
PU AND SET PKR AT 3535' RKB. TAILPIPE AT 3298'.  
PRESS ANNULUS TO 950 PSI. HOLD. PUMP 5.5 BBL SALT  
WTR IN 3 STAGES. MP 2400 PSI. SD PUMPD. REL HALLIB.  
SDON. WOC. PREPARE TO TEST SQZ ON CSG LEAK AND  
DRILL OUT..

#12-41 03/16/83 AFE: U414

PBTD 5518. WOC 24 HRS. PREPARING TO DRILL OUT..

#12-41 03/17/83 AFE: U414

PBTD 5516. COOH W/BAKER PKR ON 2-7/8" TBG. WIH W/6-1/8" BIT  
& 7" CSG SCRAPER. TAG TOP AT 3534' RKB. DRILL SOFT  
CMT FROM 3534-3604'. 70'. TEST SQZ ON CSG TO 1500  
PSI. OK. COOH W/BIT & SCRAPER. WIH. RELEASE BP.  
COOH W/BP. SDON. PREP TO ACIDIZE..

#12-41 03/18/83 AFE: U414

PBTD 5516. PREP TO GIH W/NEW PKR & ACIDIZE. WIH W/7" BAKER  
MODEL C FULLBORE RETRIEVABLE PKR, 10 JTS 2-7/8"  
TBG. TAG TOP OF FILL AT 5512'. RU HOWCO TO ACIDIZE,  
COULD NOT GET PKR TO SET. RD & RELEASE HOWCO. COOH  
W/TBG & PKR. SDON..

#12-41 03/21/83 AFE: U414

PBTD 5516. REF TO RUN PRODUCTION TBG. 3/19/83 - WIH W/  
BAKER 7" RETRIEVAMATIC PKR ON 2-7/8" TBG W/10 JTS  
TAILPIPE. SET PKR 5176'. TAILPIPE 5476'. RU & SWAB  
FL TO 5000'. NO FLUID ENTRY. RU HOWCO. PRESS CSG TO  
1000 PSI. HOLD. PUMP 1 BBL SALT WTR, 300 GALS 15%  
HCL W/2 GAL/1000 LO-SURF 259, 25#/1000 FE-2, 4 GAL/  
1000 HAI-55, IN 3 STAGES USING 10#/100 GAL SALT WTR  
US-6 GEL AND 1/2#/GAL TLO-90 & 5482-5512' 20' CA.  
TOTAL ACID & DIVERTANT 32 BBL. DISPLD W/33 BBL  
SALT WTR & 10 BLS SALT WTR OVERFLUSH. INITIAL 1 GAL  
/MIN, 4000 PSI. MAX 2.8 BPM, 4000 PSI. FINAL 2.8  
BPM, 3000 PSI. FIRST DIVERT SUCCESSFUL. SECOND  
DIVERT - SLIGHT SHOW. SD PUMPS. ISIP 2750 PSI, 5  
MIN 550, 10 MIN 0 PSI. RELEASE PRESS ON CSG. RD &  
RELEASE HOWCO. 43 BBL TOTAL LOAD. RU & SWAB, 5  
PUMPS, 25 BLS LOAD WTR, 11 BBL LOAD TO REG.  
SDON. 3/20/83 & 3/21/83 - SD SATURDAY & SUNDAY..

DAILY REPORT DETAILED

LEASE RATHERFORD UNIT

WELL NO. 12-41

SHEET NO. 5

1983	DATE	TOTAL DEPTH	NATURE OF WORK PERFORMED
March			
	03/22/83	AFE: U414	
22			PBTD 5516. WELL PRESS 0 PSI. COOH W/PKR. WIH W/SEATING NIPPLE, 2 JTS 2-7/8" TBG, 7" ANCHOR CATCHER & 185 JTS 2-7/8" TBG. NO BOP. NO NEW TBGHEAD. START IH W/ PUMP & ROPE. SDON. PREP TO FIN RING RODS & RU PUMPING UNIT..
23	03/23/83	AFE: U414	#12-41 PBTD 5516. FIN RUNNING RODS. PUMP INTAKE 5457', ANCHOR CATCHER 5397'. SD. BEGAN CLEARING LOCATION. PREP TO CLEAR LOC & BEGIN ASSEMBLY PUMPING UNIT..
24	03/24/83	AFE: U414	#12-41 PBTD 5516. SHUT DOWN. WO WEATHER..
	03/25/83	AFE: U414	#12-41 PBTD 5516. SHUT DOWN - WO WEATHER..
25			
	03/28/83	AFE: U414	#12-41 PBTD 5516. 3/28/83 THRU 3/28/83 - SHUT DOWN, WO WEATHER...
26-28			
	03/29/83	AFE: U414	#12-41 PBTD 5516. SHUT DOWN. WO WEATHER..
29			
	03/30/83	AFE: U414	#12-41 PBTD 5516. SHUT DOWN, WO WEATHER..
30			
	03/31/83	AFE: U414	#12-41 PBTD 5516. START ASSEMBLING PUMPING UNIT - 20% COMPLETE..
31			
April			
1-4	04/01/83	AFE: U414	PBTD 5516, 4/1/83 & 4/2/83 - PUMPING UNIT ASSEMBLY 40% COMPLETE. 4/3/83 & 4/4/83 - SD SATURDAY & SUNDAY..
	04/05/83	AFE: U414	#12-41 PBTD 5516. ASSEMBLING PUMPING UNIT - 50% COMPLETE..
5			
	04/06/83	AFE: U414	#12-41 PBTD 5516. PUMPING UNIT ASSEMBLY - 50% COMPLETE. WO PARTS..
6			
	04/07/83	AFE: U414	#12-41 PBTD 5516. SHUT DOWN - WO PARTS..
7			
	04/08/83	AFE: U414	#12-41 PBTD 5516. SHUT DOWN - WO PARTS..
8			
	04/11/83	AFE: U414	#12-41 PBTD 5516. 4/9/83 THRU 4/11/83 - WAITING ON PARTS 20 HRS. STARTED UP, DOWN 10 HRS, VANDALISM. RESTARTED. FMPD 24 HRS, PREPARING TO TEST..
9-11			

DAILY REPORT DETAILED

LEASE Ratherford Unit 12-41 WELL NO. 12-41 SHEET NO. 6

1983	DATE	TOTAL DEPTH	NATURE OF WORK PERFORMED
April			
12	#12-41	04/12/83	AFE: U414 PBTB 5516. PMPD ON TEST 24 HRS..
13	#12-41	04/13/83	AFE: U414 PBTB 5516. PMPD 24 HRS, REC 4 BO & 8 BW. FL 5358 ..
14	#12-41	04/14/83	AFE: U414 PBTB 5516. PMPG ON TEST - NO REPORT..
15	#12-41	04/15/83	AFE: U414 PBTB 5516. PMPG ON TEST. PMPD 24 HRS, REC 1 BO & 6 BW. FL AT 5358' ..
16-18	#12-41	04/18/83	AFE: U414 PBTB 5516. PMPD ON TEST. 4/16/83 - PMPD 24 HRS, REC 1 BO & 5 BW. FL 5358'. 4/17/83 - PMPD 24 HRS, REC 1 BO & 5 BW. 4/18/83 - PMPD 24 HRS, REC 1 BO & 6 BW..
19	#12-41	04/19/83	AFE: U414 PBTB 5516. PMPD 24 HRS, REC 2 BO & 4 BW. TP 55 PSI, CP 50 PSI, SP 44 PSI. FL 5387'. FINAL REPORT SUMMARY WILL BE REPORTED TOMORROW..
20	#12-41	04/20/83	AFE: U414 PBTB 5516. FINAL REPORT SUMMARY. SQZD OPEN HOLE PERFS 5482-5572' OA W/200 SX CLASS H CMT, 115 SX IN FORMATION & REVERSED OUT 22 SX. TOC 5313', DRLD OUT CMT TO NEW PBTB 5516'. PERFORATED 5482-5484', 5494-5504' & 5509-5512', 30 SHOTS. ACIDIZED W/900 GAL 15% HCL & RETURNED TO A PUMPING OIL WELL FROM DESERT CREEK ZONE 1 PERFS 5482-5512' OA, GREATER ANETH FIELD, SAND JUAN CO., UTAH, WITH A FINAL TEST OF 2 BOPD, 4 BWPD, 1 MCFGPD EST., TP 55 PSI, CP 50 PSI, SP 44 PSI. AFE P-U414. LOC - SEC. 12-T41S-R23E. API #43-037-15849. SUB AREA CODE 26. FINAL REPORT..

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

<p>1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>2. NAME OF OPERATOR <b>Phillips Oil Company</b></p> <p>3. ADDRESS OF OPERATOR <b>P. O. Box 2920, Casper, WY 82602</b></p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <b>See Attached</b></p>	<p>5. LEASE DESIGNATION AND SERIAL NO. <b>96-004192</b> ✓</p> <p>6. IF INDIAN, ALLOTTED OR TRIBE NAME <b>Navajo</b></p> <p>7. UNIT AGREEMENT NAME <b>Ratherford Unit</b> ✓</p> <p>8. FARM OR LEASE NAME</p> <p>9. WELL NO.</p> <p>10. FIELD AND POOL, OR WILDCAT <b>N/A</b></p> <p>11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA <b>See Attached</b></p> <p>12. COUNTY OR PARISH   13. STATE <b>San Juan   Utah</b></p>
<p>14. PERMIT NO. <b>See Attached</b></p>	<p>15. ELEVATIONS (Show whether OF, AT, OR, etc.)</p>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

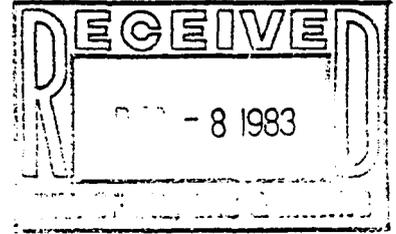
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	(Other) _____

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

To show change of Operator only. Phillips Oil Company assumed operations effective December 1, 1983 from Phillips Petroleum Company. See attached for list of wells.

*12-41  
100 wells*



- |   |   |  |
|---|---|--|
| <p>Org. &amp; 3-BLM</p> <ul style="list-style-type: none"> <li>1-The Navajo Nation</li> <li>1-Mary Wiley Black</li> <li>1-Lawrence E. Brock</li> <li>1-Cheveron USA</li> <li>1-Ralph Faxel</li> <li>1-Royal Hogan</li> <li>1-W. O. Keller</li> <li>1-Dee Kelly Corp.</li> </ul> | <ul style="list-style-type: none"> <li>1-Robert Klabzuba</li> <li>1-Micheal J. Moncrief</li> <li>1-Richard B. Moncrief</li> <li>1-Lee W. Moncrief</li> <li>1-Mary H. Morgan</li> <li>1-W. A. Moncrief</li> <li>1-W. A. Moncrief, Jr.</li> <li>1-L. F. Peterson</li> </ul> | <ul style="list-style-type: none"> <li>1-Shell Oil Co.</li> <li>1-Southland Royalty Co.</li> <li>1-Superior Oil Co.</li> <li>1-Leroy Shave</li> <li>1-Texaco, Inc.</li> <li>1-Wade Wiley, Jr.</li> <li>1-Edwin W. Word, Jr.</li> <li>1-File</li> </ul> |
|---|---|--|

18. I hereby certify that the foregoing is true and correct

SIGNED *A. E. Stuart* TITLE Area Manager DATE 12/6/83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

<u>WELL NO.</u>	<u>WELL LOCATION</u>	<u>API NO.</u>	<u>STATUS</u>
29-34	SW SE Sec. 29-T41S-R24E	43-037-15340	Act.
30-23	NE SW Sec. 30-T41S-R24E	43-037-15341	SI
30-32	SW NE Sec. 30-T41S-R24E	43-037-15342	SI
32-41	NE NE Sec. 32-T41S-R24E	43-037-15344	SI
-1-13	NW SW Sec. 1-T41S-R24E	43-037-15838	Act.
1-24	SE SW Sec. 1-T41S-R24E	43-037-15839	Act.
1-44	SE SE Sec. 1-T41S-R24E	43-037-15840	Act.
6-14	SW SW Sec. 6-T41S-R24E	43-037-15894	Act.
7-12	SW NW Sec. 7-T41S-R24E	43-037-15985	SI
7-14	SW SW Sec. 7-T41S-R24E	43-037-15986	SI
7-23	NE SW Sec. 7-T41S-R24E	43-037-15987	SI
7-32	SW NE Sec. 7-T41S-R24E	43-037-15988	SI
7-34	SW SE Sec. 7-T41S-R24E	43-037-15989	Act.
11-42	SE NE Sec. 11-T41S-R23E	43-037-15841	Act.
11-44	SE SE Sec. 11-T41S-R23E	43-037-15842	Act.
12-11	NW NW Sec. 12-T41S-R23E	43-037-15843	Act.
12-14	SW SW Sec. 12-T41S-R23E	43-037-15844	Act.
12-22	SE NW Sec. 12-T41S-R23E	43-037-15845	Act.
12-23	NE SW Sec. 12-T41S-R23E	43-037-15846	Act.
12-31	NW NE Sec. 12-T41S-R23E	43-037-15847	Act.
12-33	NW SE Sec. 12-T41S-R23E	43-037-15848	Act.
12-41	NE NE Sec. 12-T41S-R23E	43-037-15849	Act.
12-42	SE NE Sec. 12-T41S-R23E	43-037-15850	Act.
13-13	NW SW Sec. 13-T41S-R23E	43-037-15851	Act.
13-22	SE NW Sec. 13-T41S-R23E	43-037-15852	Act.
13-24	SE SW Sec. 13-T41S-R23E	43-037-15853	Act.
13-31	NW NE Sec. 13-T41S-R23E	43-037-15854	Act.
13-33	NW SE Sec. 13-T41S-R23E	43-037-15855	Act.
13-42	SE NE Sec. 13-T41S-R23E	43-037-15857	Act.
14-32	SW NE Sec. 14-T41S-R23E	43-037-15858	Act.
14-33	NW SE Sec. 14-T41S-R23E	43-037-15859	SI
14-42	SE NE Sec. 14-T41S-R23E	43-037-15860	Act.
24-11	NW NW Sec. 24-T41S-R23E	43-037-15861	SI
24-31	NW NE Sec. 24-T41S-R23E	43-037-15862	Act.
E11-14	SW SW Sec. 11-T41S-R24E	43-037-16167	Act.
3-12	SW NW Sec. 3-T41S-R24E	43-037-15620	Act.
3-14	SW SW Sec. 3-T41S-R24E	43-037-15124	Act.
3-23	NE SW Sec. 3-T41S-R24E	43-037-15125	SI
3-32	SW NE Sec. 3-T41S-R24E	43-037-15621	SI
3-44	SE SE Sec. 3-T41S-R24E	43-037-15031	Act.
4-14	SW SW Sec. 4-T41S-R24E	43-037-16163	Act.
4-22	SE NW Sec. 4-T41S-R24E	43-037-15622	SI
4-32	SW NE Sec. 4-T41S-R24E	43-037-15623	SI
4-34	SW SE Sec. 4-T41S-R24E	43-037-16164	Act.
4-42	SE NE Sec. 4-T41S-R24E	43-037-15624	SI
5-34	SW SE Sec. 5-T41S-R24E	43-037-15983	SI
8-12	SW NW Sec. 8-T41S-R24E	43-037-15991	Act.
8-14	SW SW Sec. 8-T41S-R24E	43-037-15992	Act.
8-21	NE NW Sec. 8-T41S-R24E	43-037-15993	Act.
8-23	NE SW Sec. 8-T41S-R24E	43-037-15994	Act.
8-32	SW NE Sec. 8-T41S-R24E	43-037-15995	SI

6. UNIT OPERATOR (Well operator)

Phillips Petroleum Company is hereby designated as Unit Operator and by signature hereto as Unit Operator agrees and consents to accept the duties of Unit Operator for the development and production of Unitized Substances as herein provided.

Taken from: the Rutherford Unit Agreement.  
Operator Name Change.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED

Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

14-20-603-246

6. If Indian, Allottee or Tribe Name

Navajo Tribal

7. If Unit or CA, Agreement Designation

SW-I-4192

Ratherford Unit

8. Well Name and No.

12-41

9. API Well No.

43-037-15849 POW

10. Field and Pool, or Exploratory Area

Greater Aneth

11. County or Parish, State

San Juan, Utah

**SUBMIT IN TRIPLICATE**

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

Phillips Petroleum Company

3. Address and Telephone No.

P. O. Box 1150, Cortez, CO 81321 (303) 565-3426

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

656' EWL, 660' FWL, Sec. 12, T41S, R23E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Deepen</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The current plug back depth for this well is 5516'. Zone I Subzone E is from 5544' to 5556'. It is recommended to deepen this well to + 5560' so that Subzone E can be produced. This interval will be perforated and the entire Zone I will be stimulated with approximately 4500 gallons of 15% HCl acid.

**RECEIVED**  
MAR 04 1991

cc: 5-BLM  
2-Utah O & G CC  
1-S. H. Oden  
1-P. J. Konkel  
1-Chieftain

1-Mobil  
1-Texaco  
1-P.P.Co. - Houston  
1-P.P.Co. - Cortez

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 3-11-91  
BY: [Signature]

14. I hereby certify that the foregoing is true and correct

Signed

[Signature]  
M. C. Menchley

Title District Superintendent

Date 2/10/91

Approved by

Conditions of approval, if any:

Title

Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such purposes.

RECEIVED

SUBMIT IN TRIPLICATE

OCT 10 1991

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator  
 Phillips Petroleum Company

3. Address and Telephone No.  
 5525 Hwy 64 NBU 3004, Farmington, NM 87401 (505) 599-3412

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 Sec. 12, T41S, R23E  
 656' FSL & 660' FWL

5. Lease Designation and Serial No.  
 14-20-603-246

6. If Indian, Allottee or Tribe Name  
 Navajo Tribal

7. If Unit or CA, Agreement Designation  
 Rutherford Unit  
 SW-I-4192

8. Well Name and No.  
 Rutherford Unit #12-41

9. API Well No.  
 43-037-15849

10. Field and Pool, or Exploratory Area  
 Greater Aneth

11. County or Parish, State  
 San Juan, Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input checked="" type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

9-10-91 thru 9-24-91  
 MIRU equipment. COOH w/production equipment. Circulated 188 bbls wtr. Drilled to 5560'. Circulated clean. WIH w/RBP and pkr and set @ 5450'. Tested to 1000 psi. COOH w/RBP & pkr. Perf'd csg @ 1540'. WIH w/RBP & pkr & isolated csg leak @ 2015'. Tested RBP to 1000 psi. RU Dowell and cmt'd w/500 sx Class G w/additives, 90 bbls slurry. Displaced w/13.5 bbls wtr. Had 1/4 bbl good cmt return out bradenhead. RD Dowell. Drilled cmt to 1555'. Circ. hole clean. COOH w/equipment and tested csg to 500 psi. RU Blue Jet and ran GRL. RD Blue Jet. Cleaned out hole to 5533'. RU Blue Jet and ran pulse frac charge 5501'-5520'. Ran 5-3/4 gauge ring to 5453'. COOH and RD Blue Jet. Cleaned out well to 5508'. RU Blue and ran 5-3/4" gauge ring to 5508'. Set off pulse frac charges 5478'-5482' & 5494'-5504'. RD Blue Jet. Attempted to fish wireline, could not get out of hole. Csg was tight @ 4500', jarred to 4252'. Backed off top of jars @ 3875'. Ran back for production w/SN set @ 3854'. Waiting on partner approval to continue fishing operations.

NOTE: Louis Robinson w/PPCo received verbal approval from Steve Mason w/BLM on 9-12-91 to circ. cmt around the surface csg.

14. I hereby certify that the foregoing is true and correct

Signed Louis Robinson Title Sr. Drlg. & Prod. Engr. Date 10-7-91

(This space for Federal or State official use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within jurisdiction.

\*See instruction on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

14-20-603-246-A

6. If Indian, Allottee or Tribe Name

Navajo Tribal

7. If Unit or CA, Agreement Designation

Ratherford Unit  
SW-I-4192

8. Well Name and No.

Ratherford Unit #12-41

9. API Well No.

42-037-15849

10. Field and Pool, or Exploratory Area

Greater Aneth

11. County or Parish, State

San Juan, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well  Gas Well  Other ~~Water Injection~~

2. Name of Operator

Phillips Petroleum Company

3. Address and Telephone No.

5525 Hwy 64 NBU 3004, Farmington, NM 87401 (505) 599-3412

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec. 12, T41S, R23E  
656' FSL & 660' FWL

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- Notice of Intent
- Subsequent Report
- Final Abandonment Notice

TYPE OF ACTION

- Abandonment
- Recompletion
- Plugging Back
- Casing Repair
- Altering Casing
- Other \_\_\_\_\_
- Change of Plans
- New Construction
- Non-Routine Fracturing
- Water Shut-Off
- Conversion to Injection
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

3-12-92 thru 3-29-92

MI & RU equipment. Entered well and retrieved fish consisting of wireline spear, stop sub and electric wireline. Acidized well w/5250 gallons of 15% HCL SWIC acid. Returned well to production.

RECEIVED

APR 02 1992

DIVISION OF  
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed J. P. Robinson

Title Sr. Drlg. & Prod. Engr.

Date 3-31-92

(This space for Federal or State office use)

Approved by \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

RECEIVED

ACCOUNT NUMBER: N0772

P J KONKEL  
PHILLIPS PETROLEUM COMPANY  
5525 HWY 64 NBU 3004  
FARMINGTON NM 87401

AUG 16 1993

REPORT PERIOD (MONTH/YEAR):

6 / 93

DIVISION OF  
OIL, GAS & MINING

AMENDED REPORT  (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
#21-23								
4303713754	06280	41S 24E 21	DSCR	POW	29	1374	883	58
#3-44								
4303715031	06280	41S 24E 3	DSCR	POW	30	111	94	2905
#3-14								
4303715124	06280	41S 24E 3	DSCR	POW	30	67	23	302
#9-12								
4303715126	06280	41S 24E 9	DSCR	POW	30	112	654	17363
#9-14								
4303715127	06280	41S 24E 9	DSCR	POW	30	201	315	423
#28-12								
4303715336	06280	41S 24E 28	PRDX	POW	29	112	47	2428
#29-12								
4303715337	06280	41S 24E 29	PRDX	POW	29	56	0	672
#29-32								
4303715339	06280	41S 24E 29	DSCR	POW	29	1402	287	2224
#29-34								
4303715340	06280	41S 24E 29	DSCR	POW	29	757	48	0
#30-32								
4303715342	06280	41S 24E 30	DSCR	POW	29	588	1049	3744
#3-12								
4303715620	06280	41S 24E 3	DSCR	POW	30	268	11	363
#9-34								
4303715711	06280	41S 24E 9	DSCR	POW	30	45	46	9800
#10-12								
4303715712	06280	41S 24E 10	DSCR	POW	30	45	23	1088
TOTALS						5138	3480	41370

COMMENTS: Effective July 1, 1993, Phillips Petroleum Company has sold its interest in the Rutherford Unit to Mobil Exploration and Producing U.S., Incorporated, P. O. Box 633, Midland, Texas 79702. Mobil assumed operations on July 1, 1993.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 8/11/93

Name and Signature: PAT KONKEL

*Pat Konkell*

Telephone Number: 505 599-3452

# MONTHLY OIL AND GAS DISPOSITION REPORT

OPERATOR NAME AND ADDRESS:

*L.S. Sheffield*  
 BRIAN BERRY  
~~MEMPHIS MOBIL~~  
 POB 249031 1807A RENTWY *P.O. DRAWER G*  
 DALLAS TX 75221-9031 *CORTEZ, Co. 81321*

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 7 / 93

AMENDED REPORT  (Highlight Changes)

*\*931000 updated. jrc*

ENTITY NUMBER	PRODUCT	GRAVITY	BEGINNING INVENTORY	VOLUME PRODUCED	DISPOSITIONS				ENDING INVENTORY
		BTU			TRANSPORTED	USED ON SITE	FLARED/VENTED	OTHER	
05980	OIL			177609	177609	0			
	GAS			72101	66216	5885			
11174	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
TOTALS					249710	243825	5885		

**RECEIVED**

SEP 13 1993

DIVISION OF OIL, GAS & MINING

COMMENTS: *PLEASE NOTE ADDRESS change. Robin ~~ASB~~ PRODUCTION REPORTS will be compiled and sent from the Cortez, Co. office IN THE FUTURE.*

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 9/5/93

Name and Signature: L. B. Sheffield

Telephone Number: 303.565.2212  
244.658.2528

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

<p><b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)</p>		<p>3. LEASE DESIGNATION &amp; SERIAL NO.</p>
<p>1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p>		<p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME NAVAJO TRIBAL</p>
<p>2. NAME OF OPERATOR MOBIL OIL CORPORATION</p>		<p>7. UNIT AGREEMENT NAME RATHERFORD UNIT</p>
<p>3. ADDRESS OF OPERATOR P. O. BOX 633 MIDLAND, TX 79702</p>		<p>8. FARM OR LEASE NAME</p>
<p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface  At proposed prod. zone</p>		<p>9. WELL NO.</p>
<p>14. API NO.</p>		<p>10. FIELD AND POOL, OR WILDCAT GREATER ANETH</p>
<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.)</p>		<p>11. SEC., T., R., N., OR BLK. AND SURVEY OR AREA</p>
<p>12. COUNTY SAN JUAN</p>		<p>13. STATE UTAH</p>

REGISTERED

SEP 15 1993

DIVISION OF  
OIL, GAS & MINING

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <u>CHANGE OF OPERATOR</u> <input type="checkbox"/>	

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

APPROX. DATE WORK WILL START \_\_\_\_\_

DATE OF COMPLETION \_\_\_\_\_

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

\* Must be accompanied by a cement verification report.

AS OF JULY1, 1993, MOBIL OIL CORPORATION IS THE OPERATOR OF THE RATHERFORD UNIT. ATTACHED ARE THE INDIVIDUAL WELLS.

18. I hereby certify that the foregoing is true and correct  
 SIGNED Shirley Todd TITLE ENV. & REG TECHNICIAN DATE 9-8-93

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

WELL #	API#	LEASE #	SEC., T, R	LOCATION OF WELL
01W-13	43-037-15838	14-20-603-246A	SEC. 1, T41S, R23E	NW/SW 1980 FSL; 660 FWL
01-14	43-037-31162	14-20-603-246A	SEC. 1, T41S, R23E	SW/SW 660 FSL; 660 FWL
01W-24	43-037-15939	14-20-603-246	SEC. 1, T41S, R23E	SE/SW 651 FSL; 3300 FEL
01-34	43-037-16385	14-20-603-246A	SEC. 1, T41S, R23E	SW/SE 4147 FNL; 1980 FEL
01W-44	43-037-15840	14-20-603-246A	SEC. 1, T41S, R23E	660 FSL; 661 FEL
02W-44	43-037-16386	14-20-603-246A	SEC. 2, T41S, R23E	SE/SE 810 FNL; 5110' FWL
03-14	43-037-15124	14-20-603-5445	SEC. 3, T41S, R24E	660 FSL; 660 FEL
03-12	43-037-15620	14-20-603-6506	SEC. 3, T41S, R24E	SW/NW 2140 FNL; 660 FWL
03W-42	43-037-16388	14-20-603-6505	SEC. 3, T41S, R24E	SW/NE 1980 FNL; 660 FEL
03-44	43-037-15031	14-20-603-6504	SEC. 3, T41S, R24E	520 FSL; 820 FEL
04-14	43-037-16163	14-20-603-5446	SEC. 4, T41S, R24E	500 FSL; 600 FEL
04-34	43-037-16164	14-20-603-4035	SEC. 4, T41S, R24E	660 FSL; 1980 FEL
05-34	43-037-15983	14-20-603-368	SEC. 5, T41S, R24E	SW/SE 612 FSL; 1990 FEL
05W-43	43-037-16392	14-20-603-368	SEC. 5, T41S, R24E	1400 FSL; 990 FEL
06W-14	43-037-15984	14-20-603-368	SEC. 6, T41S, R24E	SW/SW 660; FSL; 660 FWL
06W-23	43-037-16393	14-20-603-368	SEC. 6, T41S, R24E	1830 FSL; 1895 FWL
07-11	43-037-31163	14-20-603-368	SEC. 7, T41S, R24E	NW/NW 660 FNL; 710 FWL
07W-12	43-037-15985	14-20-603-368	SEC. 7, T41S, R24E	SW/NW 2140 FNL; 585 FWL
07-13	43-037-31164	14-20-603-368	SEC. 7, T41S, R24E	NW/SW 2110 FSL; 740 FWL
07W-14	43-037-15986	14-20-603-368	SEC. 7, T41S, R24E	SW/SW 1065 FSL; 660 FWL
07W-21	43-037-16394	14-20-603-368	SEC. 7, T41S, R24E	710 FNL; 1820 FWL
07-22	43-037-31165	14-20-603-368	SEC. 7, T41S, R24E	SE/NW 1980 FNL; 1980 FWL
07W-23	43-037-15987	14-20-603-368	SEC. 7, T41S, R24E	NE/SW 1980 FSL 1980 FWL
07-24	43-037-31166	14-20-603-368	SEC. 7, T41S, R24E	SE/SW 880 FSL; 2414 FWL
07W-32	43-037-15988	14-20-603-368	SEC. 7, T41S, R23E	SW/NE 1980 FNL; 1980 FEL
07-33	43-037-31167	14-20-603-368	SEC. 7, T41S, R24E	NW/SE 2105 FSL; 1876 FEL
07W-34	43-037-15989	14-20-603-368	SEC. 7, T41S, R24E	710 FSL; 2003 FEL
07W-41	43-037-15990	14-20-603-368	SEC. 7, T41S, R24E	NE/NE 585 FNL; 770 FEL
07W-43	43-037-16395	14-20-603-368	SEC. 7, T41S, R24E	2110 FSL; 660 FEL
07-44	43-037-31189	14-20-603-368	SEC. 7, T41S, R24E	SE/SE 737 FSL; 555 FEL
08-12	43-037-15991	14-20-603-368	SEC. 8, T41S, R24E	SW/NW 1909 FNL; 520 FWL
08W-14	43-037-15992	14-20-603-368	SEC. 8, T41S, R24E	745 FSL; 575 FWL
08-21	43-037-15993	14-20-603-368	SEC. 8, T41S, R24E	616 FNL; 1911 FWL
08-23	43-037-15994	14-20-603-368	SEC. 8, T41S, R24E	NE/NW 1920 FSL; 2055 FWL
08-32	43-037-15995	14-20-603-368	SEC. 8, T41S, R24E	SW/NE 1980 FNL; 1980 FEL
08-34	43-037-15996	14-20-603-368	SEC. 8, T41S, R24E	SW/SE 660 FSL; 1980 FEL
08-41	43-037-15997	14-20-603-368	SEC. 8, T41S, R24E	NE/NE 660 FNL; 660 FEL
08W-43	43-037-16396	14-20-603-368	SEC. 8, T41S, R24E	1980 FSL; 660 FEL
09W-23	43-037-16398	14-20-603-5046	SEC. 9, T41S, R24E	NW/SE 1980 FSL; 1980 FWL
09-12	43-037-15126	14-20-603-5045	SEC. 9, T41S, R24E	1865 FNL; 780 FWL
09W-21	43-037-16397	14-20-603-5045	SEC. 9, T41S, R24E	660 FNL; 2080 FWL
09-14A	43-037-15127	14-20-603-5046	SEC. 9, T41S, R24E	710 FSL; 660 FWL
09-32	43-037-16165	14-20-603-4035	SEC. 9, T41S, R24E	1980 FNL; 1980 FEL
09W-41	43-037-16399	14-20-603-4035	SEC. 9, T41S, R24E	660 FNL; 660 FEL
09W-43	43-037-16400	14-20-603-4043	SEC. 9, T41S, R24E	1980 FSL; 660 FEL
10W-23	43-037-16402	14-20-603-4043	SEC. 10, T41S, R24E	1980 FSL; 1980 FWL
10-14	43-037-15713	14-20-603-4043	SEC. 10, T41S, R24E	510 FSL; 710 FWL
10-12	43-037-15712	14-20-603-4043	SEC. 10, T41S, R24E	660 FWL; 1980 FNL
10W-21	43-037-16401	14-20-603-4043	SEC. 10, T41S, R24E	810 FNL; 1980 FWL
10-34	43-037-16166	14-20-603-4037	SEC. 10, T41S, R24E	620 FSL; 1860 FEL
10W-43	43-037-16403	14-20-603-4037	SEC. 10, T41S, R24E	1980 FSL; 550 FEL
11-41	43-037-31544	14-20-603-246A	SEC. 11, T41S, R23E	NE/NE 860 FNL; 350 FEL
11-42W	43-037-15841	14-20-603-246	SEC. 11, T41S, R23E	3290 FNL; 4617 FEL
11-43	43-037-31622	14-20-603-246A	SEC. 11, T41S, R23E	1980 FSL; 660 FEL
11W-44	43-037-15842	14-20-603-246A	SEC. 11, T41S, R23E	SE/SE 660 FSL; 558 FEL
12W-11	43-037-15843	14-20-603-246A	SEC. 12, T41S, R23E	NW/NW 678 FNL; 4620 FEL
12-12	43-037-31190	14-20-603-246A	SEC. 12, T41S, R23E	SW/NW 1850 FNL; 660 FWL
12W-13	43-037-16404	14-20-603-246A	SEC. 12, T41S, R23E	1980 FSL; 4620 FWL
12-14	43-037-15844	NA	SEC. 12, T41S, R23E	660 FNL; 4622 FWL
12-21	43-037-31201	14-20-603-246A	SEC. 12, T41S, R23E	NE/NW 660 FNL; 1980 FWL
12W-22	43-037-15845	14-20-603-246	SEC. 12, T41S, R23E	NA
12-23	43-037-15846	14-20-603-246A	SEC. 12, T41S, R23E	1958 FNL; 3300 FWL
12W-24	43-037-31151	14-20-603-246A	SEC. 12, T41S, R23E	775 FSL; 1980
12-32	43-037-31203	14-20-603-246A	SEC. 12, T41S, R23E	SW/NE 1820 FNL; 1820 FEL
12W-33	43-037-15848	14-20-603-246A	SEC. 12, T41S, R23E	NW/SE 1957 FSL; 1981 FEL
12-34	43-037-31126	14-20-603-246A	SEC. 12, T41S, R23E	SW/SE 675 FSL; 1905 FEL
12-41	43-037-15849	14-20-603-246A	SEC. 12, T41S, R23E	656 FNL; 660 FEL
12W-42	43-037-15850	14-20-603-246A	SEC. 12, T41S, R23E	3275 FSL; 662 FEL

PAID RECEIVED

SEP 15 1993

DIVISION OF OIL, GAS & MINING

PAID

PAID

PAID

14-20-603-246

SE NW 1920 FNL 2080 FWL

Sept 29, 1993

TO: Lisha Cordova - Utah Mining  
Oil & Gas

FROM: Janice Easley  
BLM Farmington, NM  
505 599-6355

Here is copy of Rutherford Unit  
Successor Operator,

4 pages including this one.

*Ratherford Unit (GC)*

RECEIVED  
BLM

JUL 27 11:44

070 FARMINGTON, NM

Navajo Area Office  
P. O. Box 1060  
Gallup, New Mexico 87305-1060

ARES/543

JUL 26 1993

SEARCHED	INDEXED
SERIALIZED	FILED
JUL 26 1993	
FBI - FARMINGTON	
M	
22	
ALL SUPP.	
FBI	

Mr. G. D. Cox  
Mobil Exploration and  
Producing North America, Inc.  
P. O. Box 633  
Midland, Texas 79702

Dear Mr. Cox:

Enclosed for your information and use is the approved Designation of Operator between the Phillips Petroleum Company and Mobil Exploration and Producing North America, Inc. for the Ratherford Unit.

Please note that all other concerned parties will be furnished their copy of the approved document.

Sincerely,

ACTING Area Director

Enclosure

cc: Bureau of Land Management, Farmington District Office w/enc.  
TNN, Director, Minerals Department w/enc.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS

DESIGNATION OF OPERATOR

RECEIVED  
BLM

Phillips Petroleum Company is, on the records of the Bureau of Indian Affairs, operator of the Ratherford Unit,

AREA OFFICE: Window Rock, Arizona  
LEASE NO: Attached hereto as Exhibit "A"

JUN 27 11:44  
070 FARMINGTON, NM

and, pursuant to the terms of the Ratherford Unit Agreement, is resigning as Unit Operator effective July 1, 1993, and hereby designates

NAME: Mobil Exploration and Producing North America Inc., duly elected pursuant to the terms of the Ratherford Unit Agreement,

ADDRESS: P. O. Box 633, Midland, Texas 79702  
Attn: G. D. Cox

as Operator and local agent, with full authority to act on behalf of the Ratherford Unit lessees in complying with the terms of all leases and regulations applicable thereto and on whom the authorized officer may serve written or oral instructions in securing compliance with the Operating Regulations (43 CFR 3160 and 25 CFR 211 and 212) with respect to (described acreage to which this designation is applicable):

Attached hereto as Exhibit "A"

Bond coverage under 25 CFR 211, 212 or 225 for lease activities conducted by the above named designated operator is under Bond Number 05202782 (attach copy). Evidence of bonding is required prior to the commencement of operations.

It is understood that this designation of operator does not relieve any lessee of responsibility for compliance with the terms of the leases and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the leases.

In case of default on the part of the designated operator, the lessees will make full and prompt compliance with all regulations, lease terms, stipulations, or orders of the Secretary of the Interior or his representative.

Attached is the appropriate documentation relevant to this document.

The designated operator agrees to promptly notify the authorized officer of any change in the operatorship of said Ratherford Unit.

Phillips Petroleum Company

June 17, 1993

By: M. B. [Signature]  
Attorney-in-Fact

Mobil Exploration and Producing  
North America Inc.

June 11, 1993

By: B. D. [Signature]  
Attorney-in-Fact B.D. MARTINY

[Signature] ACTING AREA DIRECTOR  
APPROVED BY TITLE DATE  
7/9/93

APPROVED PURSUANT, TO SECRETARIAL REDELEGATION ORDER 209 DM 8 AND 230 DM 3.

This form does not constitute an information collection as defined by 44 U.S.C. 3502 and therefore does not require OMB approval.

## EXHIBIT "A"

ATTACHED TO AND MADE A PART OF DESIGNATION OF SUCCESSOR OPERATOR, RATHERFORD UNIT

## EXHIBIT "C"

Revised as of September 29, 1992  
SCHEDULE OF TRACT PERCENTAGE PARTICIPATION

<u>Tract Number</u>	<u>Description of Land</u>	<u>Serial Number and Effective Date of Lease</u>	<u>Tract Percentage Participation</u>
1	S/2 Sec. 1, E/2 SE/4 Sec. 2, E/4 Sec. 11, and all of Sec. 12, T-41-S, R-23-E, S.L.M. San Juan County, Utah	14-20-603-246-A Oct. 5, 1953	11.0652565
2	SE/4 and W/2 SW/4 Sec. 5, the irregular SW/4 Sec. 6, and all of Sec. 7 and 8, T-41-S, R-24-E, San Juan County, Utah	14-20-603-368 Oct. 26, 1953	14.4159942
3	SW/4 of Sec. 4, T-41-S, R-24-E, San Juan County, Utah	14-20-603-5446 Sept. 1, 1959	.5763826
4	SE/4 Sec. 4, and NE/4 Sec. 9, T-41-S, R-24-E, San Juan County, Utah	14-20-603-4035 March 3, 1958	1.2587779
5	SW/4 of Sec. 3, T-41-S, R-24-E, S.L.M., San Juan County, Utah	14-20-603-5445 Sept. 3, 1959	.4667669
6	NW/4 of Sec. 9, T-41-S, R-24-E, S.L.M., San Juan County, Utah	14-20-603-5045 Feb. 4, 1959	1.0187043
7	NW/4, W/2 NE/4, and SW/4 Sec. 10, SE/4 Sec. 9, T-41-S, R-24-E, San Juan County, Utah	14-20-603-4043 Feb. 18, 1958	3.5097575
8	SW/4 Sec. 9, T-41-S, R-24-E, S.L.M. San Juan County, Utah	14-20-603-5046 Feb. 4, 1959	1.1141679
9	SE/4 Sec. 10 and S/2 SW/4 Sec. 11 T-41-S, R-24-E, San Juan County, Utah	14-20-603-4037 Feb. 14, 1958	2.6186804
10	All of Sec. 13, E/2 Sec. 14, and E/2 SE/4 and N/2 Sec. 24, T-41-S, R-23-E, S.L.M., San Juan County, Utah	14-20-603-247-A Oct. 5, 1953	10.3108861
11	Sections 17, 18, 19 and 20, T-41-S, R-24-E, San Juan County Utah	14-20-603-353 Oct. 27, 1953	27.3389265
12	Sections 15, 16, 21, and NW/4, and W/2 SW/4 Sec. 22, T-41-S, R-24-E, San Juan County, Utah	14-20-603-355 Oct. 27, 1953	14.2819339
13	W/2 Section 14, T-41-S, R-24-E, San Juan County, Utah	14-20-603-370 Oct. 26, 1953	1.8500847
14	N/2 and SE/4, and E/2 SW/4 Sec. 29, NE/4 and E/2 SE/4 and E/2 W/2 Irregular Sec. 30, and E/2 NE/4 Sec. 32, T-41-S, R-24-E, San Juan County, Utah	14-20-603-407 Dec. 10, 1953	6.9924969
15	NW/4 Sec. 28, T-41-S, R24-E San Juan County, Utah	14-20-603-409 Dec. 10, 1953	.9416393
16	SE/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6504 July 11, 1961	.5750254
17	NE/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6505 July 11, 1961	.5449292
18	NW/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6506 July 11, 1961	.5482788
19	NE/4 Sec. 4, T-41-S, R24-E San Juan County, Utah	14-20-0603-7171 June 11, 1962	.4720628
20	E/2 NW/4 Sec. 4, T-41-S, R-24-E San Juan County, Utah	14-20-0603-7172 June 11, 1962	.0992482

Division of Oil, Gas and Mining  
**PHONE CONVERSATION DOCUMENTATION FORM**

Route original/copy to:

Well File \_\_\_\_\_  Suspense \_\_\_\_\_  Other \_\_\_\_\_  
(Location) Sec \_\_\_ Twp \_\_\_ Rng \_\_\_ (Return Date) \_\_\_\_\_ OPERATOR CHANGE  
(API No.) \_\_\_\_\_ (To - Initials) \_\_\_\_\_

1. Date of Phone Call: 10-6-93 : Time: 9:30

2. DOGM Employee (name) L. CORDOVA (Initiated Call   
Talked to:

Name GLEN COX (Initiated Call  - Phone No. (915) 688-2114  
of (Company/Organization) MOBIL

3. Topic of Conversation: OPERATOR CHANGE FROM PHILLIPS TO MOBIL "RATHERFORD UNIT".  
(NEED TO CONFIRM HOW OPERATOR WANTS THE WELLS SET UP - MEPNA AS PER BIA APPROVAL  
OR MOBIL OIL CORPORATION AS PER SUNDRY DATED 9-8-93?)

4. Highlights of Conversation: \_\_\_\_\_

MR. COX CONFIRMED THAT THE WELLS SHOULD BE SET UNDER ACCOUNT N7370/MEPNA AS  
PER BIA APPROVAL, ALSO CONFIRMED THAT PRODUCTION & DISPOSITION REPORTS WILL NOW  
BE HANDLED OUT OF THEIR CORTEZ OFFICE RATHER THAN DALLAS.

MEPNA-

PO DRAWER G

CORTEZ, CO 81321

(303)565-2212

\*ADDRESS CHANGE AFFECTS ALL WELLS CURRENTLY OPERATED BY MEPNA, CURRENTLY  
REPORTED OUT OF DALLAS (MCELMO CREEK).

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

Routing:	
1	<del>VLC/17-93</del>
2	<del>DEB/58-93</del>
3	VLC ✓
4	RJF ✓
5	<del>DEB</del>
6	<del>RL</del>

Attach all documentation received by the division regarding this change.  
 Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold)       Designation of Agent  
 Designation of Operator       Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 7-1-93)

TO (new operator)	<u>M E P N A</u>	FROM (former operator)	<u>PHILLIPS PETROLEUM COMPANY</u>
(address)	<u>PO DRAWER G</u>	(address)	<u>5525 HWY 64 NBU 3004</u>
	<u>CORTEZ, CO 81321</u>		<u>FARMINGTON, NM 87401</u>
	<u>GLEN COX (915)688-2114</u>		<u>PAT KONKEL</u>
	phone <u>(303) 565-2212</u>		phone <u>(505) 599-3452</u>
	account no. <u>N7370</u>		account no. <u>N0772(A)</u>

Well(s) (attach additional page if needed):      **\*RATHERFORD UNIT (NAVAJO)**

Name: <b>**SEE ATTACHED**</b>	API: <u>43-037 15849</u>	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec. _____	Twp _____	Rng _____	Lease Type: _____

**OPERATOR CHANGE DOCUMENTATION**

- Sec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Reg. 8-20-93) (6/93 Prod. Rpt. 8-16-93)
- Sec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Reg. 8-31-93) (Rec'd 9-14-93)
- N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) \_\_\_\_\_ If yes, show company file number: \_\_\_\_\_.
- Sec 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
- Sec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (O&G wells 10-6-93) (Wiw's 10-26-93)
- Sec 6. Cardex file has been updated for each well listed above. (O&G wells 10-6-93) (Wiw's 10-26-93)
- Sec 7. Well file labels have been updated for each well listed above. (O&G wells 10-6-93) (Wiw's 10-26-93)
- Sec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (10-6-93)
- Sec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

- 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- 2. A copy of this form has been placed in the new and former operators' bond files.
- 3. The former operator has requested a release of liability from their bond (yes/no) no. Today's date 11-17 1993. If yes, division response was made by letter dated 11-17 1993.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

- 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated 11-17 1993, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
- 2. Copies of documents have been sent to State Lands for changes involving State leases.

FILMING

- 1. All attachments to this form have been microfilmed. Date: 11-17 1993.

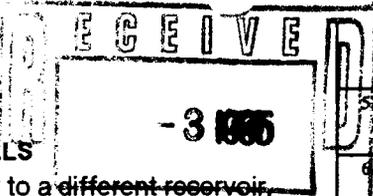
FILING

- 1. Copies of all attachments to this form have been filed in each well file.
- 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

931006 BIA/Btm Approved 7-9-93.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals.

5. Lease Designation and Serial No.

14-20-603-246A

6. If Indian, Allottee or Tribe Name

NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation

RATHERFORD UNIT

8. Well Name and No.

RATHERFORD 12-41

9. API Well No.

43-037-11060 15849

10. Field and Pool, or exploratory Area

GREATER ANETH

11. County or Parish, State

SAN JUAN UT

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator Mobil Exploration & Producing U.S. Inc.  
as Agent for Mobil Producing TX & NM Inc.

3. Address and Telephone No.  
P.O. Box 633, Midland, TX 79702 (915) 688-2585

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
656 FNL, 660 FEL  
SEC. 12, T41S, R23E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>WORKOVER</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

2-21-95 MIRU CIRC HOLE 30 MIN. ROH W/REDA.  
2-22-95 RIH W/BIT & CSG SCRAPER. SET RBP AT 5280'. PRESS TEST TO 1100 PSI.  
2-23-95 SET RBP AT 5184' TEST CSG FROM 5184' TO SURF. AT 900 PSI/30 MIN. BLED DOWN TO 840 PSI/30 MIN. REL. PKR & RBP.  
3-01-95 RU SPOOLER. PU AND SERVICE ODI PUMP. RIH W/ 72 HP, 1185 VOLTS, 36 AMPS, MODEL KM-300E, MOTOR, 203 STAGE, R-9 TYPE, MODEL RP5-X1 PUMP, 4' SUB, 1 STAND TBG. ND. BOP. RD MO.

14. I hereby certify that the foregoing is true and correct

Signed Shirley Robertson Title ENV. & REG. TECHNICIAN Date 3-29-95

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**STATE OF UTAH**  
**DIVISION OF OIL, GAS AND MINING**  
 355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

**MONTHLY OIL AND GAS PRODUCTION REPORT**

OPERATOR NAME AND ADDRESS:

C/O MOBIL OIL CORP  
 M E P N A  
 PO DRAWER G  
 CORTEZ CO 81321

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 6 / 95

AMENDED REPORT  (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
#12-14								
4303715844	06280	41S 23E 12	PRDX					
#12-23								
4303715846	06280	41S 23E 12	PRDX					
#12-41								
4303715849	06280	41S 23E 12	DSCR					
RATHERFORD 13-41								
4303715856	06280	41S 23E 13	DSCR					
14-32								
4303715858	06280	41S 23E 14	IS-DC					
#5-34								
4303715983	06280	41S 24E 5	IS-DC					
-12								
4303715991	06280	41S 24E 8	DSCR					
#8-21								
4303715993	06280	41S 24E 8	DSCR					
#8-23								
4303715994	06280	41S 24E 8	IS-DC					
#8-32								
4303715995	06280	41S 24E 8	PRDX					
#8-34								
4303715996	06280	41S 24E 8	PRDX					
#8-41								
4303715997	06280	41S 24E 8	PRDX					
#E14-12								
4303715998	06280	41S 24E 14	IS-DC					
<b>TOTALS</b>								

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I hereby certify that this report is true and complete to the best of my knowledge.

Date: \_\_\_\_\_

Name and Signature: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Division of Oil, Gas and Mining  
**PHONE CONVERSATION DOCUMENTATION FORM**

Route original/copy to:

**Well File** \_\_\_\_\_  
\_\_\_\_\_  
(Location) Sec \_\_\_ Twp \_\_\_ Rng \_\_\_  
(API No.) \_\_\_\_\_

**Suspense**  
(Return Date) \_\_\_\_\_  
(To - Initials) \_\_\_\_\_

**Other**  
**OPER NM CHG** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1. Date of Phone Call: 8-3-95 Time: \_\_\_\_\_

2. DOGM Employee (name) L. CORDOVA (Initiated Call )  
Talked to:

Name R. J. FIRTH (Initiated Call ) - Phone No. ( \_\_\_\_\_ )  
of (Company/Organization) \_\_\_\_\_

3. Topic of Conversation: M E P N A / N7370

4. Highlights of Conversation: \_\_\_\_\_

OPERATOR NAME IS BEING CHANGED FROM M E P N A (MOBIL EXPLORATION AND PRODUCING  
NORTH AMERICA INC) TO MOBIL EXPLOR & PROD. THE NAME CHANGE IS BEING DONE AT  
THIS TIME TO ALLEVIATE CONFUSION, BOTH IN HOUSE AND AMONGST THE GENERAL PUBLIC.

\*SUPERIOR OIL COMPANY MERGED INTO M E P N A 4-24-86 (SEE ATTACHED).

# Mobil Oil Corporation

P.O. BOX 5444  
DENVER, COLORADO 80217-5444

May 14, 1986

Utah Board of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

RECEIVED  
MAY 16 1986

DIVISION OF  
OIL, GAS & MINING

Attn: R. J. Firth  
Associate Director

## SUPERIOR OIL COMPANY MERGER

Dear Mr. Firth:

On September 20, 1984, The Superior Oil Company (Superior) became a wholly owned subsidiary of Mobil Corporation. Since January 1, 1985, Mobil Oil Corporation (MOC), another wholly owned subsidiary of Mobil Corporation, has acted as agent for Superior and has operated the Superior-owned properties.

On April 24, 1986, Superior was merged with Mobil Exploration and Producing North America Inc. (MEPNA), which is also a wholly owned subsidiary of Mobil Corporation. MEPNA is the surviving company of the merger.

This letter is to advise you that all properties held in the name of Superior will now be held in the name of MEPNA; and that these properties will continue to be operated by MOC as agent for MEPNA.

Attached is a listing of all wells and a separate listing of injection-disposal wells, Designation of Agent and an organization chart illustrating the relationships of the various companies. If you have any questions or require additional documentation of this merger, please feel free to contact me at the above address or (303) 298-2577.

Very truly yours,



R. D. Baker  
Environmental Regulatory Manager

CNE/rd  
CNE8661

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

Routing	
1-LEC	7-PL
2-LWP	8-SJ
3-DEC	9-FILE
4-VLC	
5-RJF	
6-LWP	

Attach all documentation received by the division regarding this change.  
 Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold)                       Designation of Agent  
 Designation of Operator                               Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 8-2-95)

TO (new operator) <u>MOBIL EXPLOR &amp; PROD</u>	FROM (former operator) <u>M E P N A</u>
(address) <u>C/O MOBIL OIL CORP</u>	(address) <u>C/O MOBIL OIL CORP</u>
<u>PO DRAWER G</u>	<u>PO DRAWER G</u>
<u>CORTEZ CO 81321</u>	<u>CORTEZ CO 81321</u>
phone <u>(303) 564-5212</u>	phone <u>(303) 564-5212</u>
account no. <u>N7370</u>	account no. <u>N7370</u>

Well(s) (attach additional page if needed):

Name: <b>** SEE ATTACHED **</b>	API: <u>037 15849</u>	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____

**OPERATOR CHANGE DOCUMENTATION**

- N/A 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form).
- N/A 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form).
- N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) \_\_\_\_\_ If yes, show company file number: \_\_\_\_\_.
- N/A 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.
- lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (8-3-95)
- LWP 6. Cardex file has been updated for each well listed above. 8-31-95
- wp 7. Well file labels have been updated for each well listed above. 9-28-95
- lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (8-3-95)
- LWP 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

**ENTITY REVIEW**

- Lic* 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) \_\_\_\_ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- N/A* 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

**BOND VERIFICATION (Fee wells only)** *\* No Fee Lease Wells at this time!*

- N/A* 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- Lic* 2. A copy of this form has been placed in the new and former operators' bond files.
3. The former operator has requested a release of liability from their bond (yes/no) \_\_\_\_ . Today's date \_\_\_\_\_ 19\_\_\_\_. If yes, division response was made by letter dated \_\_\_\_\_ 19\_\_\_\_.

**LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY**

- N/A* 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated \_\_\_\_\_ 19\_\_\_\_, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested. *UTS 8/5/95*
- N/A* 2. Copies of documents have been sent to State Lands for changes involving State leases.

**FILMING**

1. All attachments to this form have been microfilmed. Date: October 6 1995.

**FILING**

1. Copies of all attachments to this form have been filed in each well file.
2. The original of this form and the original attachments have been filed in the Operator Change file.

**COMMENTS**

*950803 LIC F5/Not necessary!*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

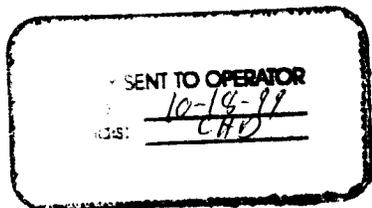
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. <b>14-20-603-246A</b>
2. Name of Operator <b>MOBIL PRODUCING TX &amp; NM INC.* *MOBIL EXPLORATION &amp; PRODUCING US INC. AS AGENT FOR MPTM</b>		6. If Indian, Allottee or Tribe Name <b>NAVAJO TRIBAL</b>
3a. Address <b>P.O. Box 633, Midland TX 79702</b>	3b. Phone No. (include area code) <b>(915) 688-2585</b>	7. If Unit or CA/Agreement, Name and/or No. <b>RATHERFORD UNIT</b>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>SEC. 12, T41S, R23E 656' FNL &amp; 660' FEL</b>		8. Well Name and No. <b>RATHERFORD                      12-41</b>
		9. API Well No. <b>43-037-11060 15849</b>
		10. Field and Pool, or Exploratory Area <b>GREATER ANETH</b>
		11. County or Parish, State <b>SAN JUAN                      UT</b>

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

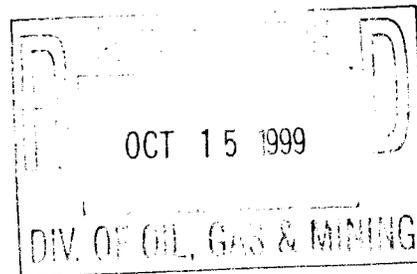
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

TEMPORARY ABANDONMENT SEE ATTACHED (8-05-99 -- 8-17-99)



Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY



14. I hereby certify that the foregoing is true and correct Name (Printed/Typed)	Title <b>SHIRLEY HOUCHINS/ENV &amp; REG TECH</b>
<i>Shirley Houchins</i> for	Date <b>10-11-99</b>

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title <i>Federal Approval of this Action is Necessary</i>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

ATTACHMENT - FORM 3160-5  
RATHERFORD UNIT - WELL #12-41  
14-20-603-246A  
NAVAJO TRIBAL  
SAN JUAN, UTAH

08-05-99 CALLED NAVAJO E. P. A. AT 09:17 ON AUGUST 04, 1999, OF INTENT TO DIG AND LINE GROUND PIT. NO ANSWER AT 505-368-1040. MONTEZUMA WELL SERVICE RIG #15 MOVED IN RIGGED UP PULLING UNIT. 100% RIGGED UP. RU PUMP, PIT AND FLOW LINES. SERVICE RIG AND PUMP MOTORS.

08-06-99 SI CSG. PRESSURE AT 07:30 WAS 75 PSI. SI TBG. PRESSURE AT 07:30 WAS 50 PSI. ND PRODUCTION HEAD. NU BOPE. PULL 100,000# TO PULL TBG. HANGER OUT OF TBG. HEAD. E. S. P. PUMP STUCK. ND BOPE. COULD NOT BACK OFF TBG. HANGER. NU BOPE. SIFN.

08-07-99 SI TBG. PRESSURE AT 07:30 WAS 0 PSI. SI CSG. PRESSURE AT 07:30 WAS 50 PSI. RU WEATHERFORD WIRELINE, RIH AND FREE POINT TBG. RIH WITH JET CUTTER AND CUT OFF TBG. AT 5046'. POH. RU E. S. P. SPOOL, POH WITH TBG. AND CABLE. RECOVERED 5041.21'. RIH WITH OVERSHOT, JARS, DRLG COLLARS TO 4640'. SIFN.

08-08-99 SI ON SUNDAY AUGUST 8, 1999.

08-09-99 SHUT PRESSURE AT 07:30 WAS 50 PSI. RIH WITH 2.875" TBG. TO 5041.90'. LATCH ONTO FISH. JAR ON FISH WITH BUMPER SUB AND JARS. COULD NOT JAR FREE. LAY DOWN OVERSHOT AND GRAPPLE. SI FOR NIGHT.

08-10-99 SI PRESSURE AT 07:30 WAS 50 PSI. RIH WITH WASH PIPE, JARS, DRLG. COLLARS, RUN ON 2.875" TBG. TO 5041.09' TAG TOP OF FISH. WORK DOWN HOLE TO 5226'. RU POWER SWIVEL. COULD NOT CIRC. DOWN BACKSIDE. RU AND CIRC, DOWN TBG.. CIRC. AND WORK PIPE OUT OF HOLE. SIFN.

08-11-99 SI PRESSURE AT 07:30 WAS 50 PSI. RIH WITH WASH PIPE AND BURN SHOE TO 2080'. CIRC. WITH 12.0 PPG MUD. RIH TO 2596'. TAG UP. WORK PIPE OUT OF HOLE. RIH WITH 6.125" BIT AND TBG. TO 2596'. TAG UP AND CIRC. THRU.. RIH TO 3704'. CIRC. WITH 12.0 PPG MUD. POH. SIFN.

08-12-99 SI CSG. PRESSURE AT 07:30 WAS 0 PSI. RIH WITH 6.125" BIT AND 2.875" TBG. TO 5041.90'. NO FILL. RU AND DISPLACE OUT 10# BRINE WITH 12.0 PPG MUD. CIRC. AT 5041.90'. CIRC. OUT CMT. AND FORMATION. POH TO 1000'. WAIT 3 HOURS. RIH TO 5041.90' CIRC. OUT CMT. POH. SIFN

08-13-99 SI CSG. PRESSURE AT 07:30 WAS 0 PSI. MIRU BLUE JET LOGGING UNIT. RAN CSG. INSPECTION LOG FROM 5000' TO SURFACE. POH, RD BLUE JET. SIW SIT/CP 0#, RIH W/ WASH PIPE. LAY DN FISH TOOLS & WS, RIH W/ RBP SET @ 4900, SWISDFN

08-16-99

08-17-99 D/S SPOT CMT PLUG 23.2 SX MIXED @ 15.6# YIELD 1.19 + 4.97 GPS, CAL TOP CMT 3100' PO LAY DN 22-JTS EOT @ 2550, D/S SPOT 18.6# PLUG SAME, CAL TOP 2450, PO LAY DN 10-JTS EOT @ 2241, D/S SPOT 27.9 SX PLUG SAME MIXED, CAL TOP 2291, FINISHED PO LAY DN TBG NIP DN STACK INSTALLED WELL FLANGE W/ 2.875" BALL VALUE. RIG DN PUMP LINES & EQUIP. RIG DN UNIT FINAL REPORT

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

MOBIL PRODUCING TX & NM INC.\*  
\*MOBIL EXPLORATION & PRODUCING US. INC. AS AGENT FOR MPTM

3a. Address

P.O. Box 633, Midland TX 79702

3b. Phone No. (include area code)

(915) 688-2585

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SEC. 12, T41S, R23E  
656' FNL & 660' FEL

5. Lease Serial No.

14-20-603-246A

6. If Indian, Allottee or Tribe Name

NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.

RATHERFORD UNIT

8. Well Name and No.

RATHERFORD 12-41

9. API Well No.

43-037-11060/5849

10. Field and Pool, or Exploratory Area

GREATER ANETH

11. County or Parish, State

SAN JUAN UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

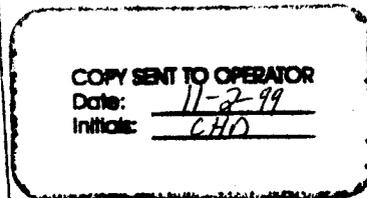
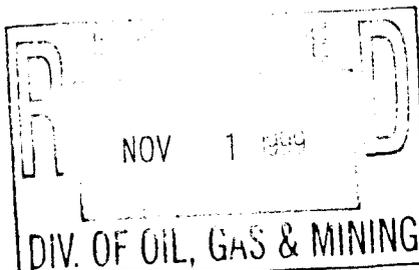
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other <input checked="" type="checkbox"/>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>WELLWORK</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

INTENT (SUBSEQUENT FILED 10-11-99)  
DURING ROUTINE WORKOVER FOUND CASING LEAK, SPOTTED CEMENT ACROSS @ 3231' & 2450', HAD TO TEMPORARILY ABANDON WELLBORE. RIG NEEDED ON REQUIRED ENVIRONMENTAL WELL WORK.

TEMPORARY ABANDONMENT SEE ATTACHED (8-05-99 -- 8-17-99). FILED W/SUBSEQUENT REPORT 10-11-99.

Accepted by the  
Utah Division of  
Oil, Gas and Mining  
**FOR RECORD ONLY**



14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

*Shirley Houchins* for

Title

SHIRLEY HOUCHINS/ENV & REG TECH

Date

10-26-99

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Federal Approval of this  
Action is Necessary

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an Abandoned well. Use Form 3160-3 (APD) for such proposals.*

*SUBMIT IN TRIPLICATE. Other instructions on reverse side.*

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. 14-20-603-246A
2. Name of Operator Mobil Producing TX & NM Inc* *Mobil Exploration & Producing US Inc as agent for MPTM		6. If Indian, Allottee or Tribe Name NAVAJO TRIBAL
3a. Address P.O. Box 4358, Houston, TX 77210-4358	3b. Phone No. (include area code) 713-431-1022	7. If Unit or CA/Agreement, Name and/or No. Ratherford Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 656' FNL & 660' FEL Sec 12-T41S-R23E		8. Well Name and No. Ratherford Unit 12-41
		9. API Well No. 43-037- <del>11000</del> 15849
		10. Field and Pool, or Exploratory Area Greater Aneth
		11. County or Parish, State San Juan, UTAH

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

ExxonMobil Corporation plans to Plug & Abandon this well.  
P&A procedures will be submitted to the BLM by June 1, 2000.

**RECEIVED**

MAY 05 2000

DIVISION OF  
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Mark Del Pico	Title EHS Advisor
Signature 	Date 5/3/2000

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

5. Lease Serial No.  
14-20-603-246A

6. If Indian, Allottee or Tribe Name  
NAVAJO TRIBAL

7. If Unit or CA/Agreement, Name and/or No.  
Ratherford Unit

8. Well Name and No.  
Ratherford Unit 12-41

9. API Well No.  
43-037-11060-15849

10. Field and Pool, or Exploratory Area  
Greater Aneth

11. County or Parish, State  
San Juan, Utah

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Mobil Exploration & Producing  
Mobil Producing TX & NM Inc\* US Inc as agent for MPTM

3a. Address  
PO Box 4358, Houston, TX 77210-4358

3b. Phone No. (include area code)  
713-431-1022

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
656' FNL & 660' FEL Sec 12-T41S-R23E

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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As stated in the Sundry Notice dated 5/3/2000 prepared by Mark Del Pico, attached please find the procedures to Plug & Abandon the above captioned well.

MAY 22 2000  
DIVISION OF  
OIL, GAS AND MINING

4. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)  
Yasmin Medhora

Title  
Regulatory Specialist

Signature *Y. V. Medhora*

Date  
5/22/2000

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Accepted by the  
Utah Division of

Approved by \_\_\_\_\_ Title  
Office \_\_\_\_\_

Oil, Gas and Mining  
**FOR RECORD ONLY**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

COPIES SENT TO OPERATOR  
Date: 5-31-00  
Initials: CHP

Action is Necessary

**Note – Drilling Fluids**

- Keep all particulate materials out of curves and laterals if at all possible.
- Minimize the use of particulate muds (carbonates) if possible.
- If CaCl<sub>2</sub> brine is used, then add 0.1% by volume of safebreak CBF to brine.  
This will break any emulsion that forms.
- If particulate muds (carbonate mud) is used, minimize the use of non-acid soluble materials such as barite. Use barite weighted carbonate mud only when necessary.

*Note – Call ahead (at least 48hrs prior to testing) to the Navajo EPA and BLM so that they have time to find a witness for the MIT test if needed once the injection string is run back in. The backside should be tested to 1000psi with no more than a 10% loss in 30minutes if a successful test is to be obtained. The test should be charted and an original copy sent to Ellen Carroll (713-431-1197) in Houston, Tx.*

- (1) Prior to MIRU blow down well in pit or bobtail until csg pressure reads 0psi. Kill well as needed. 2hrs

*Note – Well has been TA'd since 8/99 and should have no pressure on the csg.*

- (2) Ensure well is dead. ND wellhead and NU BOPE. 2hrs
- (3) MIRU PU. PU 2 7/8" workstring and RIH and tag top plug at 2291'. 3hrs
- (4) Spot 28bbls of 10ppg mud from 2291' to 1580' and POOH SB workstring. 0.5hrs
- (5) MIRU wireline perforating unit. RIH w/4" perforating guns loaded w/ 4spft. Perforate 7" csg from 1565' –1570' (20hole total). POOH and RDMO wireline perforating unit. 2.5hrs
- (6) PU 7" cmt ret and RIH on 2 7/8" workstring to 1465'. 1.5hr
- (7) Close 7" csg. Pressure test backside to 300# and monitor. 0.5hr
- (8) Establish rate into perms @ 1-2bpm. 0.5hr
- (9) Set retainer @1465'. 0.5hr
- (10) Open 7" csg and re-establish rate into the perms @ 1-2bpm. 0.5hr
- (11) MIRU Dowell cmt company. Mix and pump 114bbls of class B at 12.7# and 1.79yield w/ 65/35% poz + 6% gel. 2hrs

Warning! -- Do not exceed 750psi surface pressure.

RECEIVED  
ENGINEER  
OIL, GAS & MINERAL

*Note 1 – Cmt displacement includes 30% excess (26bbls).*

*Note 2 – If getting good uncontaminated cmt returns, close 7" csg and continue to fill csg to desired volume.*

*Note 3 – If cmt fails to circulate between the 7" x 10 ¼" csg, then the BLM requires cmt from 162' to Surface. The preferred method is to fill csg using 1" string as opposed to re-perforating. For more details contact SSEngr at 713-431-1253 or p888-397-7479.*

- (12) **Fill interval (1580' – 1465') below cmt retainer with 5bbl of class B (12.7#, 1.79yield 65/35% poz + 6% gel). Sting out of retainer and spot 2bbls of class B (12.7#, 1.79 yield). 0.5hrs.**
- (13) **POOH SB 2 7/8" ws and LD setting tool. 1hr**
- (14) **RIH w/ 2 7/8" ws to retainer and fill w/ class B neat (15.6#, and 1.16yield) cmt to surface Surface while pulling out of the hole LD 2 7/8" workstring. The capacity is 63bbls. 1.5hrs**
- (15) **ND BOPE. 1hr**
- (16) **If csg string tops are above ground level, then cut off to ground level. 2hrs**
- (17) **Top fill csg strings w/ neat cmt if needed. Use 1" string as needed. 1hr**
- (18) **Weld a steel cap across all strings. The steel cap should read as follows:**
  - (a) **Mobil Prod Company**
  - (b) **Ratherford 12w41**
  - (c) **Navajo Tribal Lease # (fill in)**
  - (d) **GL: 4655'**
  - (e) **656' FNL & 660' FEL**
  - (f) **SEC 12 – T41S – R23E**
  - (g) **San Juan County, Utah**
- (19) **RDMO PU. Follow BLM attachments regarding final surface rehabilitation.**
- (20) **Notify Yazmin Medhora (713-431-1208) when work is done so that a sundry notice (form 3160-5) can be filed w/ the BLM.**

**Total hrs – 22.5hrs + 5hrs misc = 27.5hrs**

DATE: 05/10/10  
TIME: 10:00 AM  
BY: [Signature]  
TITLE: [Signature]

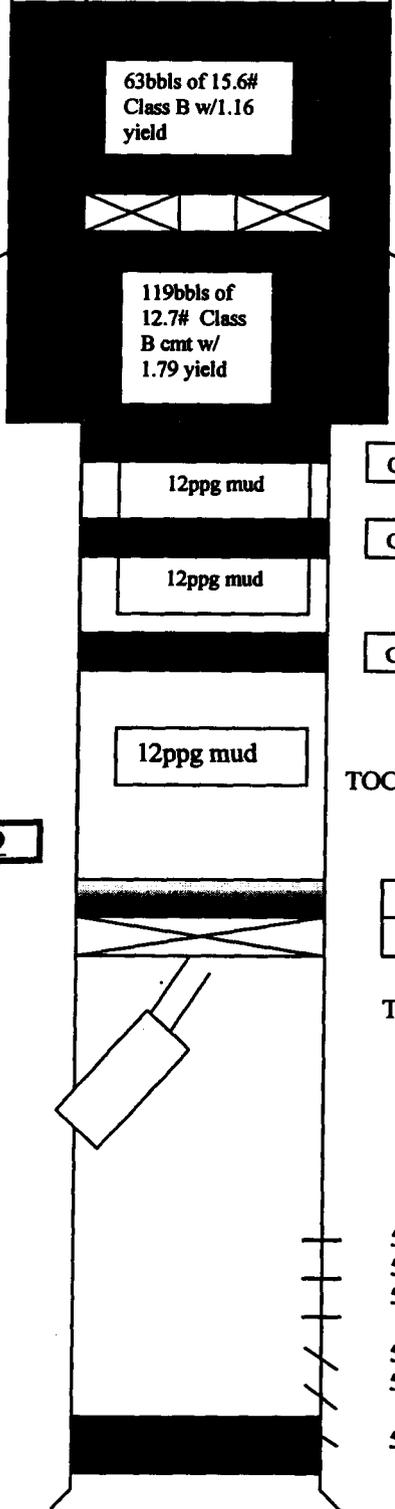
Wetherford 1241  
 WELL ID  
 API # 43-037-15849  
 SEC 12 T41S, R23E  
**Recommended Future Sketch**

- OVERALL OBJECTIVE:**
- (1) Tag plug at 91'.
  - (2) RIH and Perforate prod csg approx 100' below intermediate shoe and circ cmt to surface.
  - (3) Cut csg string off until ground level and weld on 1/4" steel P&A plate.

Production csg - 7", 23#, J55, 5472' w/ 200sx

Surface csg - 16", 90', w/ 75sx

Intermediate csg - 10 3/4", 32#, J55, 1488', w/300sx



Cmt Ret @1465'

Surface Csg Shoe @1488'

1565' rec perfs 4spft  
 1570' rec perfs 4spft

Cmt Plug 2291'-2441'

Cmt Plug 2450'-2575'

Cmt Plug 3100' - 3125'

TOC 4150'

40gal sand @4876'  
 RBP @4900'

TOF - ESP - 5141.9'

5482'-5485'  
 5494'-5504'  
 5510'-5512'

5513'-5520' sqz'd off  
 5545'-5554' sqz'd off

5567'-5572' sqz'd off

MUD WEIGHT:  
 MUD VISCOSITY:

Blank box for mud weight and viscosity data.

**NEW EQUIPMENT INFO**

Drilled out cmt to 5566'

Plugged back to 5583'  
 PBTD 5666'

DATE OF  
 CIL, C&A, D&E

Wetherford 1241  
 WELL ID  
 API # 43-037-15849  
 SEC 12 T41S, R23E  
 Present Wellbore sketch

- OVERALL OBJECTIVE:
- (1) Tag plug at 291'.
  - (3) RIH and Perforate prod csg approx 100' below intermediate shoe and circ cmt to surface.
  - (4) Cut csg string off until ground level and weld on 1/4" steel P&A plate.

Production csg - 7", 23#, J55, 5472' w/ 200sx

Surface csg - 16", 90', w/ 75sx

Intermediate csg - 10 3/4", 32#, J55, 1488', w/300sx

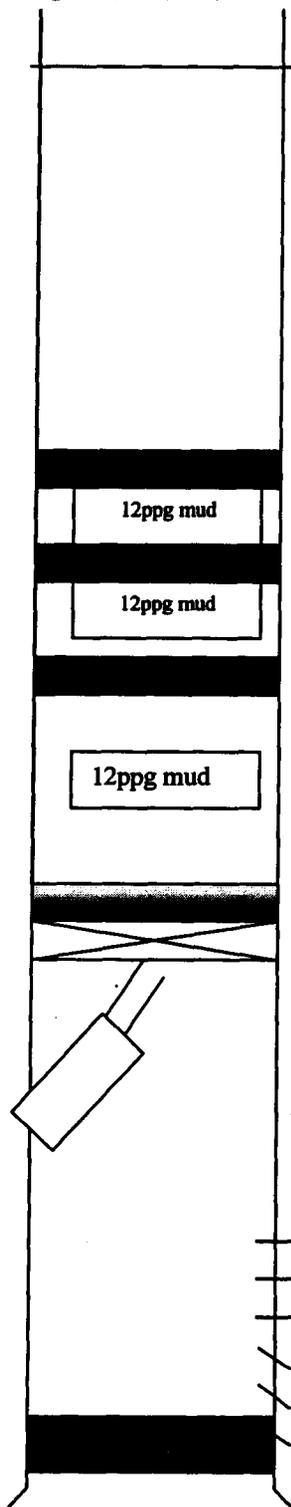
Surface Csg Shoe @1488'

MUD WEIGHT:  
 MUD VISCOSITY:

**EXISTING EQUIPMENT**  
 Cmt plug at 2291'  
 Cmt plug at 2450'  
 Cmt plug at 3100'  
 40gal of sand at 4876'  
 RBP @4900'

COMPLETION DATE: \_\_\_\_\_  
 TOTAL COST: \_\_\_\_\_

**NEW EQUIPMENT INFO**



Cmt Plug 2291'-2441'

Cmt Plug 2450'-2575'

Cmt Plug 3100' - 3125'

TOC 4150'

40gal sand @4876'  
 RBP @4900'

TOF - ESP - 5141.9'

5482'-5485'  
 5494'-5504'  
 5510'-5512'

5513'-5520' sqz'd off  
 5545'-5554' sqz'd off

5567'-5572' sqz'd off

Drilled out cmt to 5566'  
 Plugged back to 5583'  
 PBTD 5666'

DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CIL, G.P. \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an Abandoned well. Use Form 3160-3 (APD) for such proposals.*

SUBMIT IN TRIPLICATE - Other instructions on reverse side.		5. Lease Serial No. 14-20-603-246A
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name NAVAJO TRIBAL
2. Name of Operator MOBIL PRODUCING TX & NM INC.		7. If Unit or CA/Agreement, Name and/or No. RATHERFORD UNIT
3a. Address P.O. Box 4358, Houston, TX 77210-4358	3b. Phone No. (include area code) 713-431-1828	8. Well Name and No. RATHERFORD UNIT 12-41
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 656' FNL & 660', SEC 12 - T41S - R23E <i>FEL</i>		9. API Well No. 43-037-11060 15849
		10. Field and Pool, or Exploratory Area GREATER ANETH
		11. County or Parish, State SAN JUAN, UTAH

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

5/2/01 - MI AND SPOT WSU.

5/3/01 - NOTIFIED NAVAJO EPA OF INTENT TO DIG EARTH PIT. RU WSU. PU AND RIH WITH 1575" OF 2 3/8" WORKSTRING. MIRU SCHLUMBERGER. PUMPED 310 SACKS OF NEAT 'G' CEMENT TO SURFACE. POOH LAYING DOWN WORKSTRING. SDFN.

5/4/01 - RU INSIDE CASING CUTTER. RIH AND CUT CASING. CLEAN UP LOCATION AND RD. WILL CUT OFF WELLHEAD AND TOP OFF CEMENT LATER THIS MONTH.

RECEIVED

DIVISION OF  
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Cathy Higginbotham	Title Staff Administrative Assistant
Signature <i>Cathy Higginbotham</i>	Date 7/19/01

THIS SPACE IS RESERVED FOR THE RESIDENT OPERATOR'S USE		
Approved By	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.