

QUATERNARY	Star Point	Sinbad	Brazer
Recent	Wahweap	PERMIAN	Pilot shale
Alluvium	Masuk	Kaibab	Madison
Lake beds	Colorado	Coconino	Leadville
Pleistocene	Mancos	Cutler	Redwall
Lake beds	Upper	Hoskinnini	DEVONIAN
TERTIARY	Middle	DeChelly	Upper
Pliocene	Lower	White Rim	Middle
Humboldt	Emery	Organ Rock	Lower
Salt Lake	Blue Gate	Cedar Mesa	Ouray
Miocene	Ferron	Halgaita tongue	Elbert
Bishop conglomerate	Frontier	Phosphoris	Guilmette
Oligocene	Dakota	Park City	Simonsoon dolomite
Norwood	Burro Canyon	Rico (Goodridge)	Sevy dolomite
Eocene	Cedar Mountain	Supai	North Point
Duchesne River	Buckhorn	Bird Springs	SILURIAN
Uinta	JURASSIC	CARBONIFEROUS	Laketown dolomite
Bridger	Morrison	Pennsylvanian	ORDOVICIAN
Green River	Salt Wash	Oquirrh	Eureka quartzite
Upper	San Rafael Gr.	Weber	Pogonip limestone
Middle	Summerville	Morgan	CAMBRIAN
Lower	Bluff sandstone	Hermosa	Lynch
Wasatch	Curtis	Upper	Bowman
Colton	Entrade	Lower	Tapeats
Flagstaff	Moab tongue	Molas	Ophir
Almy	Carmel	Paradox	Tintic
Paleocene	Glen Canyon Gr.	A	PRE-CAMBRIAN
Current Creek	Nava jo	B	
North Horn	Kayento	C	
CRETACEOUS	Wingate	Manning Canyon	
Montana	TRIASSIC	Mississippian	
Mesaverde	Chinle	Chainman shale	
Price River	Shinarump	Humbug	
Blackhawk	Moenkapi	Joana limestone	

2305'

4406'

5395'

2111'

2200'

UTAH OIL AND GAS CONSERVATION COMMISSION

WELL LOG 1 ELECTRIC LOGS 4 FILE X NO FILE

REMARKS: *7-12-58, Recompleted. Flowed 312 BOPD-GOR 320
 *3-31-60, NI Recomplete-Recompleted 4-8-60 - IP 370 BOPD, 208 MCFGD
 **Recompleted 12-9-60

*3011 Notice to Proceed
 Approved for WIW 10-9-80*

DATE FILED 9-3-57 Nav 14-20-603-

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. INDIAN 247

DRILLING APPROVED: 9-3-57 (Tr. 2)

SPUDDED IN: 12-4-57 *See above **Began Recompl. 12-4-60

COMPLETED: 3-10-58 * **Re-compl. 12-9-60

INITIAL PRODUCTION: 167 BOPD * **168 BOPD, 3 BWPD, 182 MCFGD

GRAVITY A. P. I. 41°

GOR: 562 * **1060

PRODUCING ZONES: 5415-5568'

050702

TOTAL DEPTH: 5568'

WELL ELEVATION: 4652' KB

DATE ABANDONED:

FIELD OR DISTRICT: Ratherford Aneth

COUNTY: San Juan

WELL NO. RATHERFORD 33-13 (*Ratherford 13-33*) ADD 43-137-15855

LOCATION: 1970 FT. FROM (N) (S) LINE, 1979 FT. FROM (E) (W) LINE. NW SE 1/4-1/4 SEC. 13

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
				<u>41 S</u>	<u>23 E</u>	<u>13</u>	<u>PHILLIPS Oil Co.</u> <u>SHELL OIL COMPANY</u>

✓
58

Scout Report sent out
 Noted in the NID File
 Location map pinned
 Approval or Disapproval Letter
 Date Completed, P. & A. or
 operation recorded 3-10-58
 Pin changed on location map
 Affidavit and Record of A & P
 Water Shut-Off Test
 Gas-Counting Test
 Well

FILE NOTATIONS	
Entered in NID File	<input checked="" type="checkbox"/>
Entered on BOR Sheet	<input checked="" type="checkbox"/>
Location Map Pinned	<input checked="" type="checkbox"/>
Card Indexed	<input checked="" type="checkbox"/>
IWR for State or Fee Land	<input checked="" type="checkbox"/>
Checked by Chief	<input checked="" type="checkbox"/>
Copy NID to Field Office	<input checked="" type="checkbox"/>
Approval Letter	<input checked="" type="checkbox"/>
Disapproval Letter	<input checked="" type="checkbox"/>
COMPLETION DATA	
Date Well Completed	<u>3/10/58</u>
OW <input checked="" type="checkbox"/> WW _____ TA _____	Location Inspected _____
GW _____ OS _____ PA _____	Bond released _____
	State of Fee Land _____
LOGS FILED	
Drill's Log	<u>3/27/58</u>
Electric Logs (No.)	
E <input checked="" type="checkbox"/> I _____ E-I <input checked="" type="checkbox"/> GR _____	GR-N <input checked="" type="checkbox"/> Micro <input checked="" type="checkbox"/>
Lat _____ Mi-L _____	Sonic _____ Others _____

128 MCF }
 BOR 100 } Orig
 Report

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

	13	
		X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee Tribal
Lease No. 14-20-603-247

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)

August 26, 19 57

Well No. 33-13 is located 1970 ft. from S line and 1979 ft. from E line of sec. 13

NW SE 13 41 S 23 E 312M
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

North Desert Creek San Juan Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4640 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 11" hole to 1200'±.
2. Cement 8-5/8" casing at 1200'± with 400 sacks pozex mix and 200 sacks construction cement.
3. Drill 7-7/8" hole to 5475'±.
4. Cement 5-1/2" casing at 5470'± with 200 sacks construction cement.
5. Clean out to 5455'±.
6. Perforate four 1/2" holes/ft. gross interval 5310-45 (depending on logs).
7. Wash perforations with 200 gal. mud acid and inject 2000 gal. XFW acid.
8. Make production test and kill well with water.
9. Perforate four 1/2" holes/ft. gross interval 5255-5410 (depending on logs).
10. Wash perforations with 500 gals. mud acid.
11. Make production test, establish initial rate.

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 101 S. Behrend

Farmington, N. M.

By B. W. Shepard
B. W. Shepard
Title Exploitation Engineer

R.23E. S.L.M.

Tr. 78

T. 41S.

13

N

B.L.M. Brass Cap Found

See Traverse Tie

1979'

1970'

SOUTH 2640' (Record)

ELEVATION DATA

GROUND 4640'
MATT
D.F.
K.B.
B.M. 4628.9'

B.L.M. Brass Cap Found

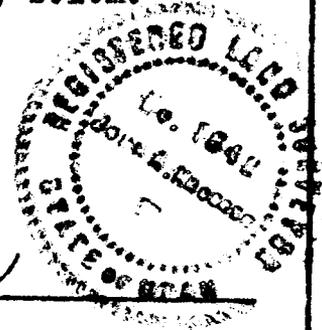
REFERENCE POINT DATUM-

1"X2" STAKES SET AT 10' N,S,E, & W OF LOC
1"x2" stake and 3' flag set at 168'N., 175'S., 548'E. & 205'W., of Loc.
1"x2" hub and 3' flag bears North 168' from Loc. for B.M.
1/2"x4' angle iron stake and 10' flag set at Loc. being 1979'W. & 1970'N. of the SE Cor. of Sec. 13, Tr. 78, T.41S., R.23E., S.L.M.

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

Aug. 28, 1957

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



Drawn By: A.C.T.	SHELL OIL COMPANY	Scale 1" = 1000'
Checked By: Ritter		260-630
Date: Aug. 28, 1957		

LOCATION OF N. DESERT CREEK 33 - 13
SAN JUAN COUNTY, UTAH, Tr. 78, Sec. 13, T. 41S., R. 23E., S.L.M.

September 3, 1957

Shell Oil Company
101 South Bahrend
Farmington, New Mexico

Attention: B. W. Shepard

Gentlemen:

This is to acknowledge receipt of your notices of intention to drill Well No. North Desert Creek 33-13, and Well No. North Desert Creek 43-13.

Please be advised that insofar as this office is concerned, approval to drill Well No. North Desert Creek 33-13, 1970 feet from the south line and 1979 feet from the east line of Section 13, Township 41 South, Range 23 East, SRM, San Juan County, Utah, is hereby granted.

Approval to drill Well No. North Desert Creek 43-13, 1973 feet from the south line and 659 feet from the east line of Section 13, Township 41 South, Range 23 East, SRM, San Juan County, cannot be granted at this time, in view of the fact that it is off of the well location pattern proposed by a pending spacing application filed by the Continental Oil Company on August 30, 1957. (See Rule G-4(a), of our rules and regulations.)

As soon as a date is set for said hearing, you will be notified.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

OLEON B. FERRETT
SECRETARY

OBf:en

cc: Phil McGrath
UGGS, FARMINGTON,
NEW MEXICO

DR-UGGS

12

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

	13	
	X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allotted Tribal Lands

Lease No. 19-20-603-247

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)

December 5, 1957

North Desert Creek

Well No. 33-13 is located 1970 ft. from N line and 1979 ft. from E line of sec. 13

SE 13

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

11S

(Twp.)

23E

(Range)

SLM

(Meridian)

Ratherford

(Field)

San Juan

(County or Subdivision)

Utah

(State or Territory)

Kelly Dushing

The elevation of the ~~surface~~ well floor above sea level is 4651.6 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 12-4-57)

12-7,8-57 Ran and cemented 8-5/8" 32# J-55 casing at 1355' with 700 sacks treated cement. Good returns to surface. Flanged up and waited on cement. Tested BOP and Casing with 700 psi. 15 min. OK.

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 101 South Behrend

Farmington, New Mexico

Original signed by

B. W. SHEPARD

By B. W. Shepard

Title Farmington, Division
Exploitation Engineer

12
W

SHELL OIL COMPANY

North Desert Creek

DRILLING REPORT
FOR PERIOD ENDING

WELL NO. 33-13

January 2, 1958

Ratherford

(FIELD)
San Juan, Utah
(COUNTY)

13

(SECTION OR LEASE)
T41S R23E
(TOWNSHIP OR RANGHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
			<p><u>Location:</u> 1970' N and 1979' W of SE Corner, Section 13, T41S, R23E, SLBM, San Juan County, Utah.</p> <p><u>Elevations:</u> DF 4650.4 GR 4640.3 KB 4651.6</p>
12-4 to 12-8	0	1518	<p>Spudded 8:00 A.M. 12-4-57. Cemented 40' 16" conductor pipe with 40 sacks. Recemented around outside of conductor pipe with 45 sacks. Ran and cemented (1344') 8-5/8" 32#, J-55 casing at 1355' with 500 sacks 1-1 Pozzo mix followed by 200 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 for 15 minutes, OK.</p>
12-9 to 12-27	1518	5417	<p><u>Drilled 3899'</u>. Ran Electrical Survey and Gamma Ray-Neutron Log at 5417'.</p>
12-28	5417		<p>Ran and cemented (5404') 5-1/2" 14#, J-55 casing at 5415' with 200 sacks cement (overdisplaced with 9 bbls. mud).</p>
12-29 to 1-1-58	5417	5568	<p><u>Drilled 151'</u>. (4-3/4" hole) Located top of cement at 5108'. Cleaned out to 5417'. Pressure tested with 1200 psi, OK.</p>
1-2	5568	TD	<p>Ran Induction - Electrical Survey, Microlog and Gamma Ray-Neutron Log. Ran tubing to 5371'. Displaced mud with water. Released rig 11:00 P.M. 1-2-58.</p>

Checked BOP daily
Mud Summary

Wt. 9.8 - 12 #/gal
Vis. 41-50 sec.
WL 8-16 cc
FC 2-3/32"



CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

Contractor: Hewit & Gulick

Drillers: J. R. Mercer
G. C. Kennedy
W. J. Troutman

B. B. ROBINSON

Rotherford
(FIELD)
San Juan, Utah
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING

MARCH 10, 1958

13
(SECTION OR LEASE)
T11S R23E
(TOWNSHIP OR RANCHO)

DAY	DEPTH		REMARKS
	FROM	TO	
2-27	5568	TD	Moved in completion rig. Pulled tubing.
2-28			Ran 2-7/8" tubing to 5568' with Lynes packer at 5451'. Washed entire interval (5415' - 5568') with 500 gallons mud acid. Set packer, injected (lower zone, 5451' - 5568') 1000 gal. XFW acid followed by 1000 gal. Jel X100 acid, overflushed with 24 bbls. of water. Maximum pressure 3600 psi, minimum pressure 3200 psi, average rate 1.5 bbl/min. Changed ports to upper zone (5415' - 5451') injected 2000 gal. XFW acid followed by 2000 gal. Jel X-100, overflushed with 48 bbls. water. Maximum pressure 3200, minimum pressure 3000 psi, average rate 3.1 bbl/min., overflushed with 48 bbls. water.
3-1			Pulled tubing and packer. Reran tubing to 5566'. Swabbed 3 hours recovered 80 bbls. water and 9 bbls. oil.
3-2			Swabbed and flowed 60 bbls. water, 25 bbls. oil in 2 hours. Flowed to test tank 2 hours, 91 bbls. oil, 25 bbls. water (acid water and load) on 1" choke. Released completion rig. Connected well to flow line and opened well to tank battery. Shut in 2 hours to repair flow line, well loaded with water and died.
3-3			Swabbed well in after 1 swab run. Flowed 12-1/4 hours, 224 bbls. gross, 206 bbls. oil, cut 11.4% 48/64" choke, 1150 Mcf/D, TP 100, CP 640. (Well loading up with water).
3-4			Flowed 24 hours (14 hour test) 197 bbls. gross, 186 bbls oil, 5.6% Cut, 48/64", TP 85, CP 400.
3-5			Flowed 24 hours, 201 bbls. gross, 182 bbls. oil, 9.5% Cut, 301 Mcf/D, GOR 1497, TP 80, CP 800.
3-6			Flowed 24 hours, 143 B/D gross, 142 B/D oil, 0.4% Cut, 64/64" bean, 177 Mcf/D gas, TP 80, CP 570.
3-7			Flowed 24 hours, 211 B/D gross, 187 B/D oil, 11.4% Cut, 64/64" bean, 300 Mcf/D gas, TP 300, CP 870.
3-8			Flowed 24 hours, 179 B/D gross, 177 B/D oil, 1% Cut, 167 Mcf/D gas, 64/64" bean, TP 200, CP 970.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

B. B. ROBINSON

Ratherford
 (FIELD)
 San Juan, New
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING

MARCH 10, 1958

13
 (SECTION OR LEASE)
 T41S R23E
 (TOWNSHIP OR RANCHO)

DAY	DEPTH		REMARKS
	FROM	TO	
3-9			Flowed 24 hours, 179.5 B/D gross, 178 B/D oil, Cut 1%, 169 Mcf/D gas, 64/64" bean, TP 200, CP 1000.
3-10			INITIAL PRODUCTION (STABILIZED) Flowing, 167 B/D gross, 165 B/D oil, cut 1.0%, 168 Mcf/D gas, GOR 100, 64/64" bean, TP 200, CP 1000. Completed 3-10-58.

CONDITION AT BEGINNING OF PERIOD

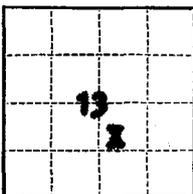
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
2 1/2"	0	1355	8-5/8"	1355'
2-7/8"	1355	5417	5-1/2"	5415'
4-3/4"	5417	5560	-	-
DRILL PIPE SIZES			2 1/2" TUBING	

B. B. ROBINSON

SIGNED

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee Tribal Lands

Lease No. 14-20-603-247

21/4
3-78

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	X
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 of Well Completion</u>	X

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

March 14, 1958

North Desert Creek

Well No. 33-13 is located 1970 ft. from SE line and 1979 ft. from EW line of sec. 13

SE 13
(1/4 Sec. and Sec. No.)

418
(Twp.)

23E
(Range)

SLM
(Meridian)

Rutherford
(Field)

San Juan
(County or Subdivision)

Utah
(State or Territory)

The elevation of the ~~struck floor~~ Kelly Bushing above sea level is 4651.6 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)

- 12-28-57 Cemented 5-1/2" 144 casing at 5415' with 200 sacks regular cement.
- 1-1-58 Finished drilling to 5568'.
- 2-28-58 Acidized with 500 gal. mud acid, 3,000 gal. regular and 3,000 gal. retarded acid. Overflushed with 72 bbls. water.
- 3-2-58 Swabbed well in.
- 3-10-58 Initial Production: Flowing (24 Hr. test) 169 B/D gross, 167 B/D oil, 1.0% cut, 168 MCF/D gas, OGR 1010, 64/64" choke, TP 200, CP 1000.

Completed 3-10-58.

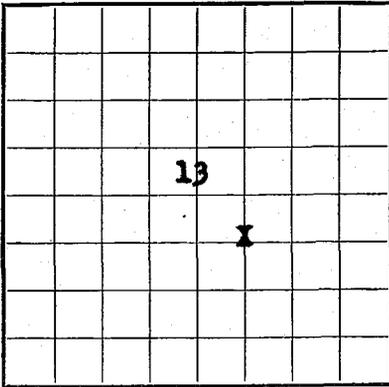
I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Shell Oil Company
Address 101 South Bahrend Avenue
Farmington, New Mexico

Original signed by
B. W. SHEPARD
By B. W. Shepard
Title Exploitation Engineer

14
51

U. S. LAND OFFICE Window Rock, Ariz.
SERIAL NUMBER 14-20-603-247
LEASE OR PERMIT TO PROSPECT _____



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Shell Oil Company Address 101 South Behrend, Farmington, N. M.
Lessor or Tract Tribal - North Desert Creek Field Ratherford State Utah
Well No. 33-13 Sec. 13 T. 41S R. 23E Meridian SLBM County San Juan
Location 1970 ft. $\begin{matrix} N. \\ IX \end{matrix}$ of S Line and 1979 ft. $\begin{matrix} IX \\ W. \end{matrix}$ of E Line of Section 13 Elevation 4652 KB
(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 D. W. SHEPARD
Signed _____

Date March 19, 1958 Title Exploitation Engineer

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

Commenced drilling December 4, 19 57 Finished drilling January 1, 19 58

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5415 (open hole) to 5568 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 _____ 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-	
8-5/8"	32	8	-	1344	Baker	-	-	-	Surface
5-1/2"	14	8	-	5404	Baker		5415	5568	Production (open hole)

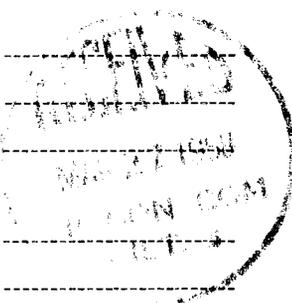
MUDDING AND CEMENTING RECORD

Size	Method used	Mud weight	Amount of mud used

TOOLS USED

Rotary tools were used from 0 feet to 5568 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

APR 2 1958



DATES

March 19, 1958

Put to producing March 10, 1958

The production for the first 24 hours was 167 barrels of fluid of which 99% was oil; % emulsion; 1.0% water; and % sediment.

Gravity, 1.01. Approx 41° API

If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

EMPLOYEES

J. R. Mercer, Driller

Hewit and Gulick
W. J. Troutman, Driller

G. C. Kennedy, Driller

, Driller

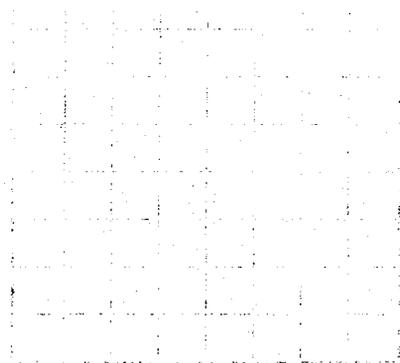
FORMATION RECORD

FROM-	TO-	TOTAL FEET	FORMATION
2111	2200 ?	89	Shinarump
2200 ?	2305	105	Moenkopi
2305	4406	2101	Cutler
4406	5395	989	Upper Hermosa
5395	-	-	Paradox

[OVER]

16-43084-4

J.



FORM NO. 1



(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

	13	
	X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee Tribal Lands

Lease No. 14-20-603-247

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 Recomplete well X		

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

North Desert Creek

May 9

19 58

Well No. 33-13 is located 1970 ft. from [S] line and 1979 ft. from [E] line of sec. 13

24 13
(1/4 Sec. and Sec. No.)

41S
(Twp.)

23E
(Range)

SLRM
(Meridian)

Rutherford
(Field)

San Juan
(County or Subdivision)

Utah
(State or Territory)

The elevation of the Kelly Bushing ~~surface~~ above sea level is 4651.6 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)

Status: **Total Depth 5560'**
4 5/8" Casing @ 1355'
5 1/2" Casing @ 5215'

Proposed Work:

1. Pull tubing, rerun tubing with two peckers set @ 5464'+ and 5454'+.
2. Acidize with 10,000 gal. retarded acid. Over flush with 10,000 gal. oil.
3. Run production tests and establish rate.

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 101 South Barend

Farmington, New Mexico

Original signed by
B. W. SHEPARD

By B. W. Shepard

Title Exploration Engineer

(SUBMIT IN TRIPLICATE)

13		
	X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo
Allottee Tribal Lands
Lease No. 14-20-603-247

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>Recompleted</u>	<u>X</u>

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

October 31, 19 58

North Desert Creek

Well No. 33-13 is located 1970 ft. from S line and 1979 ft. from E line of sec. 13

SE 13
(¼ Sec. and Sec. No.)

41S
(Twp.)

23E
(Range)

SLEM
(Meridian)

Rutherford
(Field)

San Juan
(County or Subdivision)

Utah
(State or Territory)

Kelly Bushing

The elevation of the ~~derrick floor~~ above sea level is 4651.6 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)

- 5-13-58 Ran tubing to 5540, Lynes straddle packers at 5453 and 5465, injected 10,000 gal. retarded acid below bottom packer (5465-5563) overflushed with 10,000 gal. oil. Maximum pressure 4500 psi., injection rate 2.8 bbl/min.
- 5-14-58 Pulled packers, ran tubing to 5567' swabbed well to flowing, tested well.
- 7-12-58 Recompleted Initial Production flowed 24 hours, 312 B/D gross, 312 B/D clean, cut 0.1%, 2 1/2" bean, 100 MCF/B, GOR 320.

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
B. W. SHEPARD
By B. W. Shepard
Title Exploitation Engineer

3/2

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

	13	
	X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee Tribal Lands

Lease No. 14-20-403-247

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	X	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 Recomplete	X		

well

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

March 30, 19 60

NORTH DESERT CREEK

Well No. 33-13 is located 1970 ft. from S line and 1979 ft. from E line of sec. 13

N4 S2 13 41 S 23 E SLM
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

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

Kelly Rushing

The elevation of the ~~surface~~ floor above sea level is 4600 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)

Status: TD 5568', Casing 5-1/2" 9 5415', open hole (4-3/4") to 5568'
Completed: 3-10-58 flowing, 167 b/D oil from open hole interval 5535-5568.
Cumulative production to 3-1-60 89,600 bbls.

PROPOSED WORK:

1. Move in completion rig.
2. Perforate four - 1/2" holes/ft. 5351-5366 and 5372-5391.
3. Set Bridge plug at 5400'.
4. Acidize with 150 gal. mud acid, 1000 gal. regular and 4000 gal. retarded acid.
5. Retrieve Bridge plug.
6. Place well on production.

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 P. O. Box 158
Farmington, New Mexico

Original signed by
B. W. SHEPARD
By B. W. Shepard
Title Exploitation Engineer

April 4, 1960

Shell Oil Company
P. O. Box 158
Farmington, New Mexico

Attention: B. W. Shepard, Exploitation Eng.

Gentlemen:

This is to acknowledge receipt of your Notice of Intention to Recomplete Well No. North Desert Creek 33-13, which is located 1970 feet from the south line and 1979 feet from the east line of Section 13, Township 41 South, Range 23 East, S1EM, San Juan County, Utah.

Please be advised that insofar as this office is concerned approval is granted for recompletion of the above mentioned well.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT,
EXECUTIVE SECRETARY

CBF:awg

cc: Harvey L. Coonts,
Petroleum Engineer
Moab, Utah

2

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

	13		
		X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allotted Tribal Lands

Lease No. 16-20-603-247

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	X
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		Subsequent Report of Well Completion	X

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

April 12, 1960

Well No. 33-13 is located 1970 ft. from SW line and 1979 ft. from E line of sec. 43

NW SE 13 (1/4 Sec. and Sec. No.) 419 (Twp.) 23E (Range) S10M (Meridian)
Ratherford (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the Kelly Bushing above sea level is 4652 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)

- 4-4-60 Ran and set retrievable bridge plug at 5405'.
- 4-5-60 Perforated four 1/2" holes/Ft. 5361-66, 5372-91.
- 4-6-60 Spotted 200 gal. mud acid. Injected 1000 gal. regular and 4000 gal. retarded acid. Maximum pressure 1600 psi, average rate 6.6 bbls/min.
- 4-7-60 Swabbed to flowing. RECOMPLETED INITIAL PRODUCTION
Flowing, 392 B/D gross, 370 B/D oil, 5.6 % cut, 208 MCF/D gas, GOR 562, 48/64" choke, TP 100. Recompleted 4-8-60.

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 Post Office Box 158
Farmington, New Mexico

Original signed by
B. W. SHEPARD
By B. W. Shepard
Title Exploitation Engineer

(SUBMIT IN TRIPLICATES)

Copy to HC
Budget Bureau No. 42-R359.4
Approval expires 12-31-60.
Indian Agency Navajo

RSS

	13	
	X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee Tribal Lands
Lease No. 14-20-003-247

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>Notice of intention to pull bridge plug</u>	

Plug

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

November 20, 1950

North Desert Creek

Well No. 33-13 is located 1970 ft. from N line and 1979 ft. from E line of sec. 13

33-13

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

113

(Twp.)

23E

(Range)

113E

(Meridian)

Rutherford

(Field)

San Juan

(County or Subdivision)

Utah

(State or Territory)

Kelly Rushing

The elevation of the ~~dentition~~ dentition above sea level is 4652 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)

Status: Casing - 6-5/8" # 1350', 5-1/2" # 9415', 4-3/4" open hole 9415' to TD (5560').
Completion - 3-10-50 # 107 #/D interval 9415-5560 (open hole)
7-12-50 # 312 #/D interval 9415-5560 (after reacidizing)
4-3-60 # 370 #/D interval 9301-5371 (perforated and acidized)
bridge plug - 5405'.
Present production # 150 #/D cut 0.1, 90% 500, cumulative production to 11-1-60, 121,532 bbls.

Proposed work:

1. Retrieve bridge plug at 5405'.
2. Return well to production, establish rate.

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 Post Office Box 1200

Warrington, New Mexico

Original Signed By
W. M. MARSHALL

By

W. M. Marshall

Title Division Exploitation Engineer

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

	13	
	X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee Tribal Lands

Lease No. 14-20-603-247

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 of Pulling Bridge Plug</u>	X

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

January 12, 19 61

North Desert Creek
Well No. 33-13 is located 1970 ft. from [N] line and 1979 ft. from [E] line of sec. 13

NW SE 13
(1/4 Sec. and Sec. No.)

41S
(Twp.)

23E
(Range)

S.L.P.M.
(Meridian)

Rutherford
(Field)

San Juan
(County or Subdivision)

Utah
(State or Territory)

The elevation of the ~~drumhead~~ Kelly Bushing above sea level is 4652 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)

- 12-4-60 Removed bridge plug at 5405'.
- to Representative Initial Production:
- 12-9-60 Pumping 171 B/D gross, 168 B/D oil, cut 1.8%, 182 MCF/D gas, GOR 1060. Re-Completed 12-9-60.

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 Post Office Box 1200
Farmington, New Mexico

Original Signed By
W. M. MARSHALL

By W. M. Marshall
Title Division Exploitation Engineer

State of Utah, U.S.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-247

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

SU-1-4192

8. FARM OR LEASE NAME

Rutherford Unit

9. WELL NO.

13-33

10. FLOOD AND POOL, OR WILDCAT

11. SEC., T. & R., or COR. AND SURVEY OR AREA

Sec 13-418-23E S13M

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

3. ADDRESS OF OPERATOR

Phillips Petroleum Company

Shull

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

Box 2920 Casper, Wyoming 82601

1970' N and 1979' W of SE Cor of Sec. 13

14. PERMIT NO.

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

4651.6 REB

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)

(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.)*

Acidize with 1000 gals. Dowell 28% HCL Acid down annulus.

Present Production 23 BOFPD, 26 MCFGPD, No Water - Pumping.

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

SIGNED

F. E. Morgan

TITLE

Production Superintendent

DATE

8-26-71

(This space for Federal or State use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-247

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Narajo

7. UNIT AGREEMENT NAME

SN-I-4192

8. FARM OR LEASE NAME

Rutherford Unit

9. WELL NO.

13-33

10. FIELD AND POOL, OR WILDCAT

Greater Aneth

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

Sec 13-415-23E S10M

12. COUNTY OR PARISH 13. STATE

San Juan

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

3. ADDRESS OF OPERATOR

Box 2920 Casper, Wyoming 82601

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

1970' N and 1979' W of SE Cor. of Sec. 13

14. PERMIT NO.

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

4651.6 REB

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*

(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.)*

8/25/71

Acidize with 1000 gals Dowell 28% HCL acid down Annulus.

Previous Production 23 BOPD, 26 MCFOPD, No. wtr.

Present Production 8/28/71 32 BOPD, 27 MCFOPD

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

SIGNED _____

TITLE Production Superintendent

DATE September 14, 1971

(This space for Federal or State office use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

3 - U.S.G.S. - Farmington, N.M.

2 - Utah O & G CC - Salt Lake City, Utah

1 - Superior Oil Company, Cortez, Colo.

1 - File

*See Instructions on Reverse Side

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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. LEASE DESIGNATION AND SERIAL NO. 96-004192 ✓
2. NAME OF OPERATOR Phillips Oil Company		7. UNIT AGREEMENT NAME Ratherford Unit ✓
3. ADDRESS OF OPERATOR P. O. Box 2920, Casper, WY 82602		8. FARM OR LEASE NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: See Attached		9. WELL NO.
14. PERMIT NO. See Attached		10. FIELD AND POOL, OR WILDCAT N/A
15. ELEVATIONS (Show whether OF, AT, OR, etc.)		11. SEC., T., R., M., OR BLK. AND ACRES OR AREA See Attached
		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:

TEST WATER SHUT-OFF <input type="checkbox"/>	FULL 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:

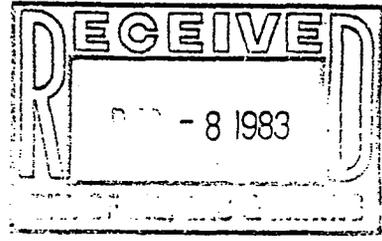
WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(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.)

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.

*190 wells
13-33*



Org. & 3-BLM

- | | | |
|---------------------|-----------------------|-------------------------|
| 1-The Navajo Nation | 1-Robert Klabzuba | 1-Shell Oil Co. |
| 1-Mary Wiley Black | 1-Micheal J. Moncrief | 1-Southland Royalty Co. |
| 1-Lawrence E. Brock | 1-Richard B. Moncrief | 1-Superior Oil Co. |
| 1-Cheveron USA | 1-Lee W. Moncrief | 1-Leroy Shave |
| 1-Ralph Fixel | 1-Mary H. Morgan | 1-Texaco, Inc. |
| 1-Royal Hogan | 1-W. A. Moncrief | 1-Wade Wiley, Jr. |
| 1-W. O. Keller | 1-W. A. Moncrief, Jr. | 1-Edwin W. Word, Jr. |
| 1-Dee Kelly Corp. | 1-L. F. Peterson | 1-File |

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

SIGNED *A. E. Stuart* 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

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

Attn: R. J. Firth
Associate Director

RECEIVED
MAY 16 1986

DIVISION OF
OIL, GAS & MINING

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



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

September 11, 1986

Newspaper Agency Corporation
Legal Advertising
143 South Main - Mezzanine Floor
Salt Lake City, Utah 84110

Gentlemen:

RE: Cause No. UIC-087

Enclosed is a Notice of Application of Administrative Approval before the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY, as soon as possible, but no later than the 24th day of September, 1986. In the event that said notice cannot be published by this date, please notify me immediately by calling 538-5340.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Marjorie L. Anderson
for

Marjorie L. Anderson
Administrative Assistant

mfp

Enclosure



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangert, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

September 11, 1986

San Juan Record
P.O. Box 879
937 East Highway 666
Monticello, Utah 84535

Gentlemen:

RE: Cause No. UIC-087

Enclosed is a Notice of Application of Administrative Approval before the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY, as soon as possible, but no later than the 24th day of September, 1986. In the event that said notice cannot be published by this date, please notify me immediately by calling 538-5340.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Marjorie L. Anderson
for
Marjorie L. Anderson
Administrative Assistant

mfp

Enclosure

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---00000---

IN THE MATTER OF THE APPLICATION :
OF PHILLIPS PETROLEUM COMPANY, :
FOR ADMINISTRATIVE APPROVAL TO :
INJECT FLUID INTO WELLS TO BE :
CONVERTED TO ENHANCED RECOVERY :
INJECTION WELLS LOCATED IN :
SECTIONS 11, 12, AND 13, TOWN- :
SHIP 41 SOUTH, RANGE 23 EAST; AND :
SECTIONS 8, 17 AND 18, TOWNSHIP :
41 SOUTH, RANGE 24 EAST, S.L.M., :
SAN JUAN COUNTY, UTAH :

CAUSE NO. UIC-087

---00000---

THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED
MATTER.

Notice is hereby given that Phillips Petroleum Company, Box 2920,
Casper, Wyoming 82602, has requested administrative approval from the
Division to convert the following listed wells to enhanced recovery
water injection wells:

RATHERFORD UNIT - San Juan County, Utah

#11W42, Sec. 11, T41S, R23E	#13W22, Sec. 13, T41S, R23E
#12W11, Sec. 12, T41S, R23E	#13W33, Sec. 13, T41S, R23E
#12W24, Sec. 12, T41S, R23E	# 8W34, Sec. 8, T41S, R24E
#12W33, Sec. 12, T41S, R23E	#17W32, Sec. 17, T41S, R24E
#13W11, Sec. 13, T41S, R23E	#18W12, Sec. 18, T41S, R24E
#13W13, Sec. 13, T41S, R23E	

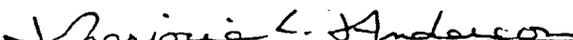
The proposed operating data for the wells is as follows:

INJECTION INTERVAL: Paradox Formation 5303' - 5548'
MAXIMUM ESTIMATED SURFACE PRESSURE: 3000 psig
MAXIMUM ESTIMATED WATER INJECTION RATE: 500 BWPD

Approval of this Application will be granted unless any objections
are filed with the Division of Oil, Gas and Mining within fifteen days
after publication of this Notice. Objections should be mailed to the
Division of Oil, Gas and Mining, Attention: UIC Program Manager, 355
West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah
84180-1203.

DATED this 8th day of September, 1986.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING


MARJORIE L. ANDERSON
Administrative Assistant

UIC CHECKLIST FOR APPLICATION APPROVAL

OPERATOR Phillips Petroleum WELL NUMBER 13-33

SEC. 13 T. 41S R. 23E COUNTY San Juan

API # 43-037-15855

NEW WELL _____ DISPOSAL WELL _____ ENHANCED RECOVERY WELL ✓

- Plat showing surface ownership Yes _____ No ✓
- Application forms complete Yes ✓ No _____
- Schematic of well bore Yes ✓ No _____
- Adequate geologic information Yes * ✓ No _____
- Rate and Pressure information Yes * ✓ No _____
- Fluid source Yes * ✓ No _____
- Analysis of formation fluid Yes * ✓ No _____
- Analysis of injection fluid Yes * ✓ No _____
- USDW information Yes * ✓ No _____
- Mechanical integrity test Yes _____ No ✓

Number of wells in 1/2 mile review: PA 0 Prod. 10 Inj. 2

Comments: 500 BWPD, 3000 psig

8 5/8" surface, 5 1/2" production

OPEN HOLE COMPLETION

* Info submitted in Feb. 1986

Reviewed by Dorothy Swindle 8/20/86

Operator

Phillips Petroleum

Well

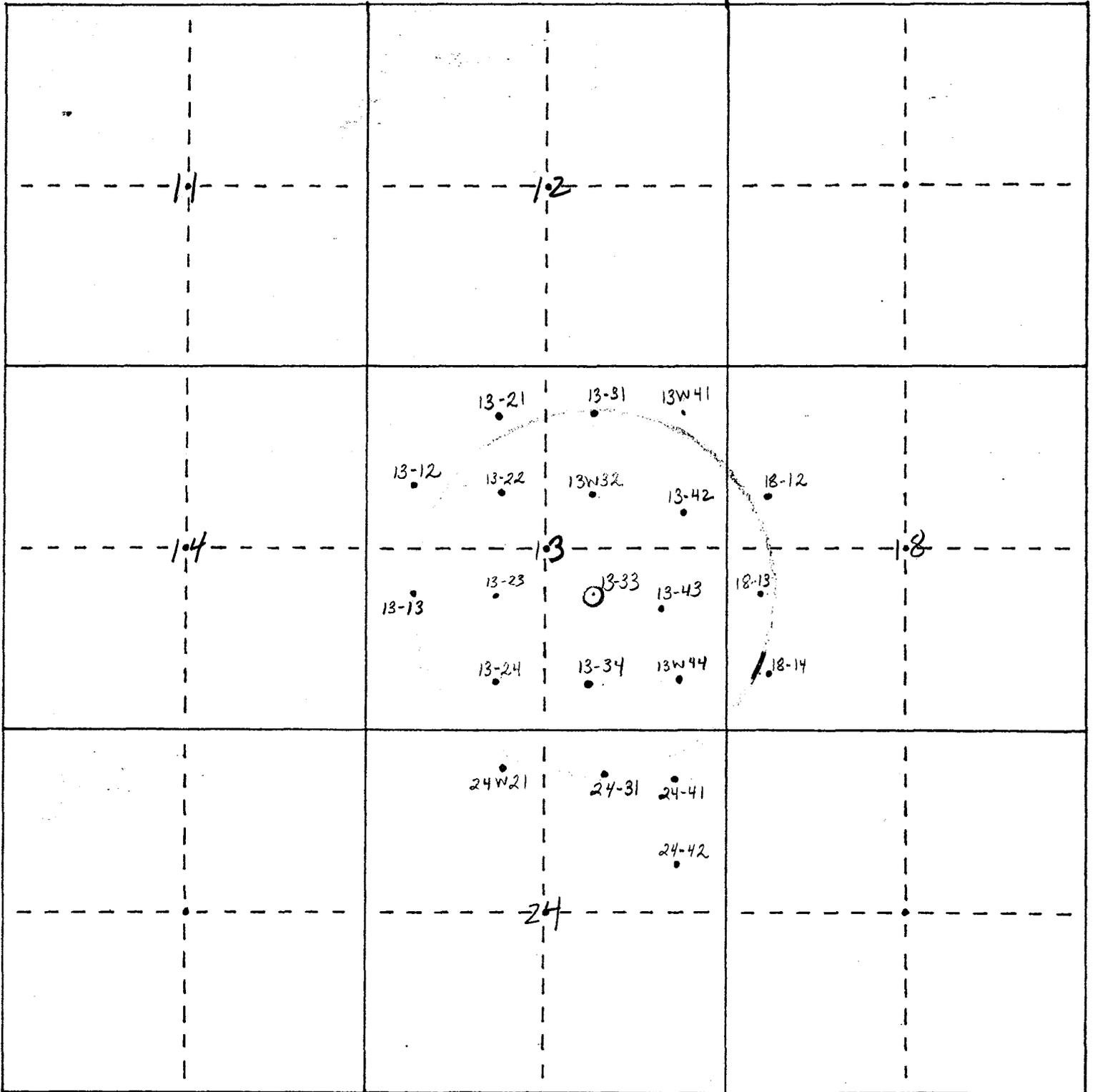
Ratherford Unit 13-33

Location

1970 FSL, 1979 FEL

Sec. 13, T41S, R23E

23E | 24E



LOCATION: SWSE Sec 13-T41S-R23 E
FIELD: GREATER ANEN San Juan Co, Ut
RESERVOIR: Desert Creek Zone I

COMPLETION: Proposed
PRESENT STATUS: Conversion to water injector

RKB 4651.6
GL 4640

SURFACE CASING: 8 5/8" 32#

Well #: 13W33

PRODUCTION CASING: 5 1/2" 14#

1355'

PERFORATIONS: Open hole 5415-5506

PACKER: Baker Model AB
Tension Type Pkr or Similar
Set at approx. 5315

Logs on file: _____
Gamma Ray
SP

Neutron Porosity
Electrical Resistivity

5415

PBTD: 5506
OTD: 5568



Phillips Petroleum Company

LOCATION: SWSE Sec 13-T41S-R. E
FIELD: GREATER ANETH San Juan Co, Ut
RESERVOIR: Desert Creek Zone I

WI COMPLETION: Proposed
PRESENT STATUS: Conversion to water injector

SURFACE CASING: 8 5/8" 32#

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GL 4640

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Leasim Type Pkr or Similar
Set at approx. 5315

Logs on file: _____
Gamma Ray _____
SP _____
Neutron Porosity _____
Electrical Resistivity _____

5415

PBTD: 5506
OTD: 5568

Phillips Petroleum Company



PHILLIPS PETROLEUM COMPANY

CASPER, WYOMING 82602
BOX 2920

EXPLORATION AND PRODUCTION GROUP

August 14, 1986

RECEIVED
AUG 15 1986

**DIVISION OF
OIL, GAS & MINING**

State of Utah
Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attn: Gil Hunt

RE: Ratherford Unit
San Juan County
Class II Injection Well
Conversions

Dear Mr. Hunt:

Enclosed are applications of conversions for the last eleven wells in the Ratherford Unit Conversion Program. The well numbers are:

	12-W11	13-W11	13-W33
8W34	12-W24	13-W13	17-W32
11W42	12-W33	13-W22	18-W12

We have listed, on each well bore schematic, the logs on file for that well. We have also enclosed a copy of our letters to mineral lease operators and landowners in the area informing them of these proposed well conversions. Please refer to the attachment package of February and June 1986 for other required information. Please contact Renee Taylor at (307) 237-3791 with any questions.

Thank you for your help in making this conversion program run smoothly.

Sincerely,

PHILLIPS PETROLEUM COMPANY

D. C. Gill
Area Manager

RCT/fb (23)

Attach

cc: B. J. Murphy - Casper w/o attach
J. R. Reno - Cortez w/attach.
Casper RC



PHILLIPS PETROLEUM COMPANY

CASPER, WYOMING 82602
BOX 2920, Casper, Wyoming 82602

EXPLORATION AND PRODUCTION GROUP

August 14, 1986

Navajo Tribe
Department of Water Management
P. O. Box 308
Window Rock, AZ 86515

Attn: Masued Uz Zaman

Re: Ratherford Unit
Injection Well Conversions

Dear Sirs,

Phillips Petroleum Company has made application to the State of Utah, Division of Oil, Gas and Mining to convert eleven existing producing wells to water injection wells in the Ratherford Unit secondary recovery project. The revised rule 502(b)(12) requires that you are notified of these plans and are provided with a copy of the application for injection well (Form DOGM-UIC-1). Under Rule 503 you are provided with the opportunity to object to the proposed application.

"Applications for Injection Well" are attached for the following existing wells:

	12W11	13W11	13W33
8W34	12W24	13W13	17W32
11W42	12W33	13W22	18W12

Please contact Renee Taylor or Blair Murphy at (307) 237-3791 with any questions.

Sincerely,
Original Signed By:
D. C. GILL

D. C. Gill
Area Manager

RCT/fb (17)

cc: B. J. Murphy-Casper
J. R. Reno-Cortez
St. of Utah OG&M/UIC
Casper-RC



PHILLIPS PETROLEUM COMPANY

CASPER, WYOMING 82602

BOX 2920

P.O. Box 2920, Casper, Wyoming 82602

EXPLORATION AND PRODUCTION GROUP

August 14, 1986

Mobil Oil Corp.
P.O. Box 5444
Denver, CO 80217
Attn: Joint Interest Advisor

Re: Ratherford Unit
Injection Well Conversions

Dear Sirs,

Phillips Petroleum Company has made application to the State of Utah, Division of Oil, Gas and Mining to convert eleven existing producing wells to water injection wells in the Ratherford Unit secondary recovery project. The revised rule 502(b)(12) requires that you are notified of these plans and are provided with a copy of the application for injection well (Form DOGM-UIC-1). Under Rule 503 you are provided with the opportunity to object to the proposed application.

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8W34	12W24	13W13	17W32
11W42	12W33	13W22	18W12

Please contact Renee Taylor or Blair Murphy at (307) 237-3791 with any questions.

Sincerely,

Original Signed By:

D. C. GILL

D. C. Gill
Area Manager

RCT/fb (17)

cc: B. J. Murphy-Casper
J. R. Reno-Cortez
St. of Utah OG&M/UIC
Casper-RC



PHILLIPS PETROLEUM COMPANY

CASPER, WYOMING 82602
P.O. Box 2920 Box 2920, Casper, Wyoming 82602

EXPLORATION AND PRODUCTION GROUP

August 14, 1986

Texaco, Inc.
P.O. Box 3360
Casper, WY 82602
Attn: A. J. Sanford

Re: Ratherford Unit
Injection Well Conversions

Dear Sirs,

Phillips Petroleum Company has made application to the State of Utah, Division of Oil, Gas and Mining to convert eleven existing producing wells to water injection wells in the Ratherford Unit secondary recovery project. The revised rule 502(b)(12) requires that you are notified of these plans and are provided with a copy of the application for injection well (Form DOGM-UIC-1). Under Rule 503 you are provided with the opportunity to object to the proposed application.

"Applications for Injection Well" are attached for the following existing wells:

	12W11	13W11	13W33
8W34	12W24	13W13	17W32
11W42	12W33	13W22	18W12

Please contact Renee Taylor or Blair Murphy at (307) 237-3791 with any questions.

Sincerely,

Original Signed By:
D. C. GILL

D. C. Gill
Area Manager

RCT/fb (17)

cc: B. J. Murphy-Casper
J. R. Reno-Cortez
St. of Utah OG&M/UIC
Casper-RC

LOCATION: SW SE Sec 13 - T41 S - R23 E

FIELD: GREATER ANGLE San Juan Co, Ut

RESERVOIR: Desert Creek Zone I

COMPLETION: Proposed
PRESENT STATUS: Conversion to water injector

RKB 4651.6
GL 4640

SURFACE CASING: 8 5/8" 32#

Well #: 13W33

PRODUCTION CASING: 5 1/2" 14#

1355'

PERFORATIONS:
Open hole 5415-5506

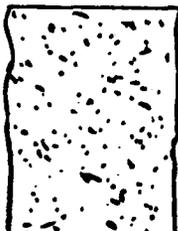
PACKER: Baker Model AB
Lensim Type Pkr or Similar
Set at approx. 5315

Logs on file: _____
Gamma Ray
SP

Neutron Porosity
Electrical Resistivity

5415

PBTD: 5506
OTD: 5568



Phillips Petroleum Company

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 Ratherford Unit Agreement.
Operator Name Change.

101703



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

October 9, 1986

Phillips Petroleum Company
P.O. Box 2920
Casper, Wyoming 82602

Gentlemen:

RE: Injection Well Approval - Cause No. UIC-087

Insofar as this Division is concerned, administrative approval is hereby granted to convert the following wells to Class II enhanced recovery water injection wells:

RATHERFORD UNIT - San Juan County, Utah

#11W42, Sec. 11, T41S, R23E	#13W22, Sec. 13, T41S, R23E
#12W11, Sec. 12, T41S, R23E	#13W33, Sec. 13, T41S, R23E
#12W24, Sec. 12, T41S, R23E	# 8W34, Sec. 8, T41S, R24E
#12W33, Sec. 12, T41S, R23E	#17W32, Sec. 17, T41S, R24E
#13W11, Sec. 13, T41S, R23E	#18W12, Sec. 18, T41S, R24E
#13W13, Sec. 13, T41S, R23S	

This approval is conditional upon full compliance with the UIC rules and regulations adopted by the Board of Oil, Gas and Mining, and construction and operation of the wells as outlined in the application submitted.

If you have any questions concerning this matter, please do not hesitate to call or write.

Best regards,

Dianne R. Nielson
Director

mfp
7627U

Affidavit of Publication

RECEIVED ADM-358 OCT 01 1986

STATE OF UTAH,
County of Salt Lake

SS.

DIVISION OF OIL, GAS & MINING

CHRIS. ANDERSON

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
CAUSE NO. UIC-087
IN THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR THE ADMINISTRATIVE APPROVAL TO INJECT FLUID INTO WELLS TO BE CONVERTED TO ENHANCED RECOVERY INJECTION WELLS LOCATED IN SECTIONS 11, 12, AND 13, TOWNSHIP 41 SOUTH, RANGE 23 EAST; AND SECTIONS 8, 17 AND 18, TOWNSHIP 41 SOUTH, RANGE 24 EAST, S.L.M., SAN JUAN COUNTY, UTAH.
THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED MATTER.
Notice is hereby given that Phillips Petroleum Company, Box 2920, Casper, Wyoming 82602, has requested administrative approval from the Division to convert the following listed wells to enhanced recovery water injection wells:
RATHERFORD UNIT - San Juan County, Utah
#11W42, Sec. 11, T41S, R23E #13W22, Sec. 13, T41S, R23E
#12W11, Sec. 12, T41S, R23E #13W33, Sec. 13, T41S, R23E
#12W24, Sec. 12, T41S, R23E # 8W34, Sec. 8, T41S, R24E
#12W33, Sec. 12, T41S, R23E # 17W32, Sec. 17, T41S, R24E
#13W11, Sec. 13, T41S, R23E # 18W12, Sec. 18, T41S, R24E
#13W13, Sec. 13, T41S, R23E
The proposed operating data for the wells is as follows:
Injection Interval: Paradox Formation 5303'-5548'
Maximum Estimated Surface Pressure: 3000 psig
Maximum Estimated Water Injection Rate: 500 BWPD
Approval of this Application will be granted unless any objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections should be mailed to the Division of Oil, Gas and Mining, Attention: UIC Program Manager, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.
DATED this 8th day of September, 1986.
STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
MARJORIE L. ANDERSON
Administrative Assistant
A-75

Being first duly sworn, deposes and says that he/she is legal advertising clerk of THE SALT LAKE TRIBUNE, a daily newspaper printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County, in the State of Utah, and of the DESERET NEWS, a daily newspaper printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County, in the State of Utah.

That the legal notice of which a copy is attached hereto

CAUSE #UIC-087

was published in said newspaper on

SEPT 18, 1986

[Handwritten signature of Chris Anderson]

Legal Advertising Clerk

Subscribed and sworn to before me this 30th day of

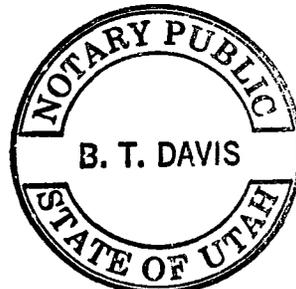
SEPTEMBER A.D. 19 86

[Handwritten signature of B. J. Davis]

Notary Public

My Commission Expires

MARCH 01, 1988



AFFIDAVIT OF PUBLICATION

Public Notice

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY, FOR ADMINISTRATIVE APPROVAL TO INJECT FLUID INTO WELLS TO BE CONVERTED TO ENHANCED RECOVERY INJECTION WELLS LOCATED IN SECTIONS 11, 12, AND 13, TOWNSHIP 41 SOUTH, RANGE 23 EAST, AND SECTIONS 8, 17 AND 18, TOWNSHIP 41 SOUTH, RANGE 24 EAST, S.L.M., SAN JUAN COUNTY, UTAH

CAUSE NO. UIC-087

THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that Phillips Petroleum Company, Box 2920, Casper, Wyoming 82602, has requested administrative approval from the Division to convert the following listed wells to enhanced recovery water injection wells:

- RATHERFORD UNIT - San Juan County, Utah
#11W42, Sec. 11, T41S, R23E
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#12W24, Sec. 12, T41S, R23E
#12W33, Sec. 12, T41S, R23E
#13W11, Sec. 13, T41S, R23E
#13W13, Sec. 13, T41S, R23E
#13W22, Sec. 13, T41S, R23E
#8W34, Sec. 8, T41S, R24E
#17W32, Sec. 17, T41S, R24E
#18W12, Sec. 18, T41S, R24E

The proposed operating data for the wells is as follows:

INJECTION INTERVAL: Paradox Formation 5303' - 5548'
MAXIMUM ESTIMATED SURFACE PRESSURE: 3000 psig
MAXIMUM ESTIMATED WATER INJECTION RATE: 500 BWPD.

Approval of this Application will be granted unless any objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections should be mailed to the Division of Oil, Gas and Mining, Attention: UIC Program Manager, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

DATED this 8th day of September, 1986.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
s/MARJORIE L. ANDERSON
Administrative Assistant

Published in The San Juan Record
September 24, 1986.

I, Joyce Martin, being duly sworn, depose and say that I am the publisher of The San Juan Record, a weekly newspaper of general circulation published at Monticello, Utah every Wednesday; that notice on converting wells, CAUSE NO. UIC-087

a copy of which is hereunto attached, was published in the regular and entire issue of each number of said newspaper for a period of one issues, the first publication having been made on September 24, 1986. last publication having been made on

Joyce A Martin
Publisher

Subscribed and sworn to before me this 24th day of September

A.D. 1986

Ingrid K. Adams
Notary Public residing at Monticello, Utah

My commission expires December 2, 1987

Publication was sent to the following:

Phillips Petroleum Company
Box 2920
Casper, Wyoming 82602

San Juan Record
PO Box 879
937 East Highway 666
Monticello, Utah 84535

Newspaper Agency
Legal Advertising
Mezzanine Floor
143 South Main
Salt Lake City, Utah 84110

Utah State Department of Health
Water Pollution Control
Attn: Loren Morton
4241 State Office Building
Salt Lake City, Utah 84114

U.S. Environmental Protection Agency
Suite 1300
Attn: Mike Strieby
999 18th Street
Denver, Colorado 80202-2413

Bureau of Land Management
Consolidated Financial Center
324 South State Street
Salt Lake City, Utah 84111-2303

Bureau of Land Management
Fluid Minerals Caller Service #4104
Farmington, New Mexico 87499

Navajo Tribe
Department of Water Management
PO Box 308
Window Rock Arizona 86515
Attn: Masued Uz Zaman

Mobil Oil Corporation
PO Box 5444
Denver, Colorado 80217

Texaco, Inc.
PO Box 3360
Casper, Wyoming 82602
Attn: A.J. Sanford

Sept. 11, 1986
Marlyne Louisa

(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

BLM Form No. 1004-0135
Expires August 31, 1985
14-20-603-247A
12/1/86 mlp

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. <input checked="" type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		7. WELL IDENTIFICATION NUMBER SW-I-4192
2. NAME OF OPERATOR Phillips Petroleum Company		8. NAME ON LEASE NAME Ratherford Unit
3. ADDRESS OF OPERATOR P. O. Box 2920, Casper, WY 82602		9. WELL NO. 13-33
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1970' FSL, 1979' FEL (NW SE)		10. FIELD AND FOOT, OR WILDCAT Greater Aneth
14. PERMIT NO. 43-037-15855		11. SEC., T., R., E., OR S.E. AND CORNER OR AREA Sec. 13-T41S-R23E
15. ELEVATIONS (Show whether SF, RT, OR, etc.) 4652' RKB		12. COUNTY OR PARISH San Juan
		13. STATE 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 <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"/>	ALDRESSING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" 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 type="checkbox"/>	
(Other) Convert to Water Injection <input checked="" type="checkbox"/>		(Note: Report results of multiple completion on Well Completion or Recombination 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.)

It is proposed to convert Ratherford Unit #13-33, an Ismay (cased hole completion) and Zone I & II (open hole completion) to a Zone I (open hole completion) water injection well. After isolating the Ismay & Zone II, Zone I will be acidized with approximately 4200 gallons of 28% HCl Acid and the well will be placed on injection.

A 10' x 8' x 6' fenced pit will be constructed on location in a previously disturbed area. Upon completion of the workover the pit will be dried and recovered.

5-BLM, Farmington, NM
2-Utah O&G CC, Salt Lake City, Utah
1-P. J. Adamson
1-M. Williams, 302 TRW
1-J. R. Reno
1-B. J. Murphy
1-File RC

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 12/1/84
BY: [Signature]
Approval letter 10/9/84

RECEIVED
NOV 21 1986
DIVISION OF OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct
SIGNED [Signature] TITLE Area Manager DATE November 17, 1986
D. C. Gill

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See instructions on Reverse Side

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.

Commencement

MONTHLY REPORT OF ENHANCED RECOVERY PROJECT - PART 2 Page 2

MONTHLY MONITORING OF INJECTION WELLS

<u>Well Name</u>	<u>Inl. Press.</u>	<u>Inl. Rate</u>	<u>Annulus Press.</u>	<u>Monthly Inl. Vol.</u>
9W23 43-037-16398	0	303		9390
9W41 43-037-16399	SI	SI		SI
9W43 43-037-16400	SI	SI		SI
10W21 43-037-16401	SI	SI		SI
10W23 43-037-16402	1450	218		6757
10W43 43-037-16403	2225	19		588
11W44 43-037-15842	2275	261		8089
12W13 43-037-16404	2275	128		3967
12W22 43-037-15845	450	766		23738
12W24 43-037-31151	0	324		10040
12W31 43-037-15847	0	462		14,317
12W33 43-037-15848	350	605		18,748
12W42 43-037-15850	1850	598		18,532
12W44 43-037-16405	SI	SI		SI
13W11 43-037-31152	0	443		13,728
✓ 13W13 43-037-15851	0	396		8711
13W22 43-037-15852	0	293		9080
13W24 43-037-15853	0	68		2106
3-10-87 ✓ 13W33 43-037-15855	600	384		7678
13W42 43-037-15857	2100	430		13,326
13W44 43-037-16407	2200	377		11,684
14W42 43-037-15860	0	386		11,963

Commencement

MONTHLY REPORT OF ENHANCED RECOVERY PROJECT - PART 2 Page 2

MONTHLY MONITORING OF INJECTION WELLS

<u>Well Name</u>	<u>Inj. Press.</u>	<u>Inj. Rate</u>	<u>Annulus Press.</u>	<u>Monthly Inj. Vol.</u>
9W23 43-037-16398	0	303		9390
9W41 43-037-16580	SI	SI		SI
9W4343-037-16400	SI	SI		SI
10W21 43-037-16401	SI	SI		SI
10W23 43-037-16402	1450	218		6757
10W4343-037-16403	2275	19		588
11W44 43-037-15842	2275	261		8089
12W13 43-037-16404	2275	128		3967
12W22 43-037-15845	450	766		23738
12W24 43-037-31151	0	324		10040
12W31 43-037-15847	0	462		14,317
12W33 43-037-15848	350	605		18,748
12W42 43-037-15850	1850	598		18,532
12W44 43-037-16405	SI	SI		SI
13W11 43-037-31152	0	443		13,728
✓ 13W13 43-037-15851	0	396		8711
13W22 43-037-15852	0	293		9080
13W24 43-037-15853	0	68		2106
2/10/87 ✓ 13W33 43-037-15855	600	384		7678
13W42 43-037-15857	2100	430		13,326
13W44 43-037-16407	2200	377		11,684
14W42 43-037-15860	0	386		11,963

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

SUBMIT IN TRIPlicate
(Other instructions on re-
verse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

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. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Water Injector		3. LEASE DESIGNATION AND SERIAL NO. 14-20-603-247A
2. NAME OF OPERATOR Phillips Petroleum Company		4. IF INDIAN, ALLOTTEE OR TRIBE NAME NAVAJO
3. ADDRESS OF OPERATOR P.O. Box 2920, Casper, WY 82602		7. UNIT ASSIGNMENT NAME SW-I-4192
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1970' FSL, 1979' FEL NW SE		8. NAME OR LEASE NAME Ratherford Unit
API# 43-037-15855		9. WELL NO. 13W33
14. PERMIT NO.	15. ELEVATIONS (Show whether SP, ST, OR, etc.) 4652' RKB	10. FIELD AND POOL, OR WILDCAT Greater Aneth
		11. SEC. T. R. N., OR S.E. AND SURVEY OR AREA Sec. 13-T41S-R23E
		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 <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 PLANE <input type="checkbox"/>	(Other) <u>Convert to water injection</u> <input checked="" type="checkbox"/>	
(Other) <input type="checkbox"/>		(Note: Report results of multiple completion or 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.)
Feb. 25, 1987 through Mar. 12, 1987

RU 2/25/87. COOH w/rods and tbg. Clean out hole to 5579'. Set cmt plug across Zone II. TOC at 5445'. Now GIH to dress off top of cmt plug. Dress off cmt plug to 5485'. Drld 4' of hard cmt, dropped thru bridge to 5558'. Dumped 100# hydromite, top of hydromite at 5469'. Set 5-1/2" CIBP at 5402'. Sqzd Ismay perms 5361-91' w/200 sx Class B cmt. Tested sqz to 1000 psi, OK. Drld up CIBP and drld hard cmt to 5469' PBTD. Perfd Zone I 5413-30', 5432-34', and 5438-42', 4 SPF. Acidized Zone I w/3900 gal 28% HCL Acid. Ran 2-7/8" Duo-line tbg and wtr inj pkr. Set pkr at 5402'. RR 3/11/87. HU to injection 3/12/87.

Production Before 39 BOPD 3 BWPD
Injection After 384 BWPD @ 600 psi

RECEIVED

AUG 4 1987

**DIVISION OF OIL
GAS & MINING**

- 4-BLM, Farmington, NM
- 2-Utah O&G CC, SLC, UT
- 1-M. Williams, B'Ville
- 1-J. Landrum, Denver
- 1-J. Reno, Cortez
- 1-Chieftain
- 1-Mobil Oil
- 1-Texaco, Inc.
- 1-Chevron USA
- 1-File RC

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

SIGNED D. C. Gitt TITLE Area Manager DATE 7/27/87

(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
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

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 WATER INJECTION & WATER SUPPLY WELLS

2. NAME OF OPERATOR
PHILLIPS PETROLEUM COMPANY

3. ADDRESS OF OPERATOR
152 N. DURBIN, 2ND FLOOR, CASPER, WYOMING 82601

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

14. PERMIT NO. _____

15. ELEVATIONS (Show whether DF, RT, OR, etc.)
OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.
SW-I-4192

7. UNIT AGREEMENT NAME
RATHERFORD UNIT #7960041920

8. FARM OR LEASE NAME

9. WELL NO.
VARIOUS (see attached)

10. FIELD AND POOL, OR WILDCAT
GREATER ANETH

11. SEC., T., R., N., OR BLK. AND SURVEY OR AREA
Sections 1 thru 30
T41S - R23E & 24E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

RECEIVED
MAR 20 1989
DIVISION OF
OIL, GAS & MINING

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) CHANGE OF OWNERSHIP <input checked="" type="checkbox"/>	
(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.)*

This is to advise all Water Injection and Water Supply Wells on the Ratherford Unit, listed on the attached sheet, were sold to Phillips Petroleum Company, effective August 1, 1985.

(former Operator - Phillips Oil Company)

3 - BLM, Farmington, NM
2 - Utah O&G CC, SLC, UT
1 - File

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

SIGNED S. H. Oden TITLE District Superintendent DATE March 17, 1989

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DOWN HOLE SCHEMATIC

Date: 8/6/87

RATHERFORD Unit # 13W33

Location NW SE Sec. 13
T41S-R23E

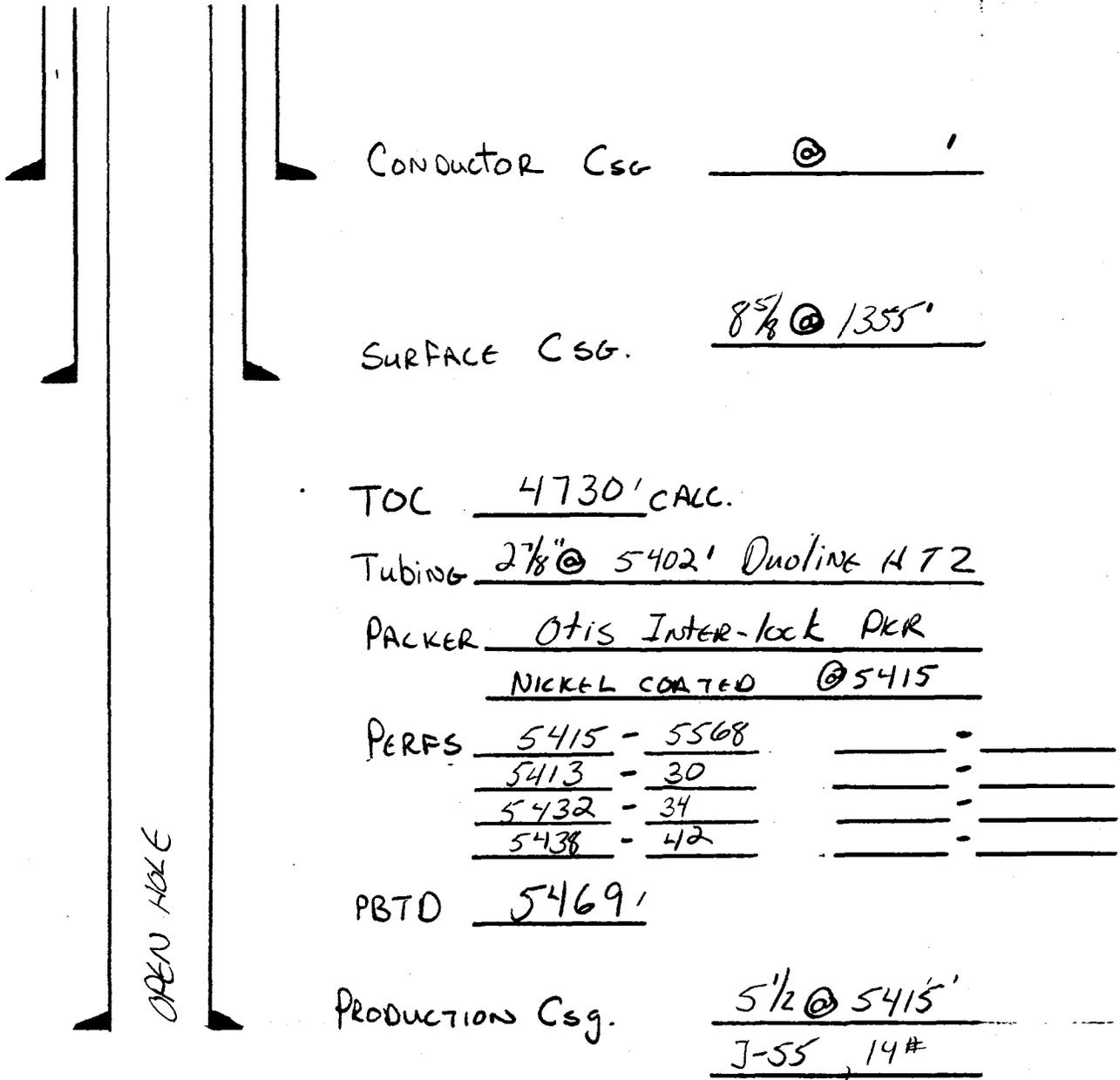
RKB Elev. 4652'

Well Drld 1/1/58

GL Elev. 4640'

Well converted
to injector 3/12/87

RKB Above GL' 12'



All PERFS ZONE I UNLESS NOTED

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

ACCOUNT NUMBER: N0772

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

RECEIVED

AUG 16 1993

REPORT PERIOD (MONTH/YEAR):

6 / 93

DIVISION OF
OIL, GAS & MINING

AMENDED REPORT (Highlight Changes)

Well Name	API Number	Entity	Location	Producing Zone	Well Status	Days Oper	Production Volumes		
							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

USRA
8-18-93

COMMENTS: Effective July 1, 1993, Phillips Petroleum Company has sold its interest in the Ratherford 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.B. SHEFFIELD
~~BRIAN BERRY~~
~~M.E.P.N.A. MOBIL~~
 P.O. DRAWER 6
 POB 249031 1807A RENTWYR
 DALLAS TX 75221-9031 *CORTEZ, Co. 81321*

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 7 / 93

AMENDED REPORT (Highlight Changes)

**931006 updated. See*

ENTITY NUMBER	PRODUCT	GRAVITY BTU	BEGINNING INVENTORY	VOLUME PRODUCED	DISPOSITIONS				ENDING INVENTORY
					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	243925	5885		

RECEIVED

SEP 13 1993

DIVISION OF OIL, GAS & MINING

COMMENTS: *PLEASE NOTE ADDRESS change. All in ~~ASO~~ 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
 Telephone Number: 303.865.2212
~~244.558.2578~~

Name and Signature: Lowell B Sheffield

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.

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.)

6. IF INDIAN ALLOTTEE OR TRIBE NAME

NAVAJO TRIBAL

1. OIL WELL GAS WELL OTHER

7. UNIT AGREEMENT NAME

RATHERFORD UNIT

2. NAME OF OPERATOR

MOBIL OIL CORPORATION

8. FARM OR LEASE NAME

3. ADDRESS OF OPERATOR

P. O. BOX 633 MIDLAND, TX 79702

9. WELL NO.

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

10. FIELD AND POOL, OR WILDCAT

GREATER ANETH

SEP 15 1993
DIVISION OF OIL, GAS & MINING

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

14. API NO.

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

12. COUNTY
SAN JUAN

13. STATE
UTAH

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 JULY 1, 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 _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

OCT 25 1993

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

OIL, GAS & MINING

Well name and number: _____
Field or Unit name: RATHERFORD UNIT API no. _____
Well location: QQ _____ section _____ township _____ range _____ county _____
Effective Date of Transfer: July 1, 1993

CURRENT OPERATOR

Transfer approved by:

Name Ed Hasely Company Phillips Petroleum Company
Signature Ed Hasely Address 5525 HWY. 64
Title Environmental Engineer Farmington, NM 87401
Date October 22, 1993 Phone (505) 599-3460

Comments:

NEW OPERATOR

Transfer approved by:

Name Shirley Todd Company Mobil Exploration & Producing North America
Signature Shirley Todd Address P O Box 633
Title Env. & Reg. Technician Midland, TX 79702
Date October 7, 1993 Phone (915) 688-2585

Comments:

(State use only)
Transfer approved by [Signature] Title ITC Manager
Approval Date 10-27-93

Lisha Cordova (801) 538-5340

BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF UTAH

APPLICATION OF PHILLIPS PETROLEUM)
 COMPANY FOR THE APPROVAL OF THE)
 UNIT OPERATIONS AND PRESSURE MAIN-) CAUSE NO. 63
 TENANCE PROGRAM FOR THE RATHERFORD)
 UNIT IN THE GREATER ANETH AREA,)
 SAN JUAN COUNTY, UTAH)

ORDER

This Cause came on for hearing before the Oil and Gas Conservation Commission of the State of Utah at 10 o'clock a. m. on Wednesday, September 13, 1961, in the Crystal Room, Hotel Newhouse, Fourth South at Main Street, Salt Lake City, Utah, pursuant to notice duly and regularly given. The entire Commission, except Walter G. Mann, was present, Edward W. Clyde presiding. Appearances were made as follows: Cecil C. Hamilton, attorney, on behalf of Phillips Petroleum Company; Clair H. Senior, attorney, on behalf of Texaco, Inc.; Gordon Mayberry, attorney, on behalf of Continental Oil Company; R. R. Robison on behalf of Shell Oil Company. Others present included Carl Trawick, on behalf of United States Geological Survey; and J. R. White, on behalf of Texaco, Inc.

Evidence in support of the application was introduced by Phillips Petroleum Company, the applicant and Unit Operator of the Ratherford Unit, which embraces as the unit area the following described land in San Juan County, State of Utah, to wit:

TOWNSHIP 41 SOUTH, RANGE 23 EAST, SEEM

Section 1:	All	Sections 12 and 13:	All
Section 2:	E/2	Section 14:	E/2
Section 11:	E/2	Section 24:	All

TOWNSHIP 41 SOUTH, RANGE 24 EAST, SEEM

Section 3:	SW/4	Sections 15	All
Section 4:	S/2	through 21:	NW/4 and
Sections 5 through 9:	All	Section 22:	E/2 of the
Section 10:	S/2 and NW/4		SW/4
	and W/2 of NE/4	Section 23:	NE/4 and
Section 11:	S/2 of SW/4		E/2 of NE/4
			and W/2 of SW/4
Section 14:	E/2	Section 29 and 30:	All
		Section 31:	E/2
		Section 32:	E/2

R. R. Robison on behalf of Shell Oil Company stated that (as contemplated by paragraph No. 5 of the Commission's order of February 24, 1959, in Cause No. 17 authorizing the drilling of certain test wells) Shell would submit to the Commission, as arbiter, the question as between Shell and Superior Oil Company

of the monetary value, if any, to be attributed to three test wells drilled within the Rutherford Unit area pursuant to said order of February 24, 1959.

No objection to the granting of the application was filed or expressed. The Shell Oil Company, Texaco, Inc. and Continental Oil Company expressed their support of the application of Phillips Petroleum Company.

FINDINGS OF FACT

The Commission finds that:

1. The unitized operation of the Rutherford Unit Area will enable pressure maintenance operations to be initiated and permit such Area to be operated in a manner which will prevent waste, protect correlative rights and result in greater ultimate recovery of oil and gas.

2. The Rutherford Unit Agreement has been approved by the various signatory parties as fair, reasonable and acceptable.

3. The water injection pressure maintenance program proposed by the applicant appears to be proper and designed to result in the greatest economic recovery of oil and gas to the end that all concerned, including the general public, may realize and enjoy the greatest good from the oil and gas resources of the unitized lands.

ORDER

THEREFORE, IT IS ORDERED BY THE COMMISSION, and subject to its continuing jurisdiction, that:

1. Unit operation of the Rutherford Unit Area under the Rutherford Unit Agreement is approved.

2. The plan and program of water injection pressure maintenance operations proposed by applicant in its application filed herein should be and the same is hereby approved and the unit operator is authorized to proceed with and under such plan and program as soon as the Rutherford Unit Agreement becomes effective and operative.

3. If, at any time or from time to time, it appears necessary or desirable to the unit operator to alter or modify the hereby approved plan of pressure maintenance, any such alteration or modification shall be submitted for

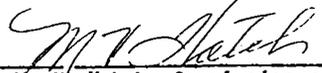
and shall be subject to approval by the Commission or its delegated representative, which approval may be given without notice or hearing, unless otherwise ordered or directed by the Commission.

Dated this 13th day of September, 1961.

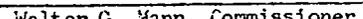
THE OIL AND GAS CONSERVATION
COMMISSION OF THE STATE OF UTAH


Edward W. Clyde, Commissioner presiding


C. R. Henderson, Chairman


M. V. Hatch, Commissioner


C. S. Thomson, Commissioner


Walter G. Mann, Commissioner

Sept 29, 1993

TO: Lisha Cordova - Utah Mining
Oil & Gas

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

Here is copy of Rutherford Unit
Successor Operator.

4 pages including this one.

Phillips Petroleum Unit (GC)

RECEIVED
BLM

JUL 27 AM 11:44

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

070 FARMINGTON, NM

ARES/543

JUL 26 1993

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

SEARCHED	INDEXED
SERIALIZED	FILED
JUL 26 1993	
FBI - FARMINGTON	
3	
2	
ALL SUPV.	
FILED	

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

RECEIVED
BLM

DESIGNATION OF OPERATOR

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

JUN 27 11:44
070 FARMINGTON, NM

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

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

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
	100% Indian Lands	TOTAL 12,909.74	100.0000000

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
OPERATOR CHANGE

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	REC/17-93
2	DEPT 8-FILE
3	VLC
4	RJEV
5	FILE
6	FILE

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: **SEE ATTACHED**	API: <u>43037-15855</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 1993. If yes, division response was made by letter dated 19 .

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 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.

✓ 12W-44	43-037-16405	14-20-603-246A	SEC. 12, T41S, R23E	SE/SE 660 FSL; 660 FEL
✓ 12W-44A	43-037-31543	14-20-603-246A	SEC. 12, T41S, R23E	SE/SE 807 FEL; 772 FSL
✓ 13-11W	43-037-31152	14-20-603-247A	SEC. 13, T41S, R23E	NW/NW 500 FNL; 660 FWL
✓ 13-12	43-037-31127	14-20-603-247A	SEC. 13, T41S, R23E	SW/NW 1705 FNL; 640 FWL
✓ 13W-13	43-037-15851	14-20-603-247A	SEC. 13, T41S, R23E	NW/SW 1980 FSL; 4620 FEL
✓ 13-14	43-037-31589	14-20-603-247A	SEC. 13, T41S, R23E	660 FSL; 660 FWL
✓ 13-21	43-037-31128	14-20-603-247A	SEC. 13, T41S, R23E	NE/NW 660 FNL; 1920 FWL
✓ 13W-22	43-037-15852	14-20-603-247A	SEC. 13, T41S, R23E	SE/NW 1988 FNL; 3300 FEL
✓ 13-23	43-037-31129	14-20-603-247A	SEC. 13, T41S, R23E	NE/SW 1980 FSL; 1930 FWL
13W-44	43-037-15853	14-20-603-247	SEC. 13, T41S, R23E	600 FSL; 3300 FEL
✓ 13W-32	43-037-16406	14-20-603-247A	SEC. 13, T41S, R23E	1881 FNL; 1979 FEL
★ 13W-33	43-037-15855	14-20-603-247A	SEC. 13, T41S, R23E	NW/SE 1970 FSL; 1979 FEL
✓ 13W-34	43-037-31130	14-20-603-247A	SEC. 13, T41S, R23E	SW/SE 660 FSL; 1980 FEL
✓ 13-41	43-037-15856	14-20-603-247A	SEC. 13, T41S, R23E	NE/NE 660 FNL; 660 FEL
✓ 13W-42	43-037-15857	14-20-603-247A	SEC. 13, T41S, R23E	SE/NE 2139; 585 FEL
✓ 13-43	43-037-31131	14-20-603-247A	SEC. 13, T41S, R23E	NE/SE 1700 FSL; 960 FEL
✓ 13W-44	43-037-16407	14-20-603-247A	SEC. 13, T41S, R23E	SE/SE 635 FSL; 659 FEL
14-02	NA	14-20-603-4037	SEC. 11, T41S, R23E	SW/SW 660 FSL; 660 FEL
✓ 14-32	43-037-15858	14-20-603-247A	SEC. 14, T41S, R23E	2130 FNL; 1830 FEL
✓ 14-41	43-037-31623	14-20-603-247A	SEC. 14, T41S, R23E	NE/NE 521 FEL; 810 FNL
✓ 14W-42	43-037-15860	14-20-603-247A	SEC. 14, T41S, R23E	SE/NE 1976 FNL; 653 FEL
✓ 14W-43	43-037-16410	14-20-603-247A	SEC. 14, T41S, R23E	3300 FSL; 4770 FEL
✓ 14-33	43-037-15859	14-20-603-247	SEC. 14, T41S, R23E	2130 FSL; 1830 FEL
✓ 15-12	43-037-15715	14-20-603-355	SEC. 15, T41S, R24E	1820 FNL; 500 FWL
✓ 15W-21	43-037-16411	14-20-603-355	SEC. 15, T41S, R24E	660 FNL; 1820 FWL
✓ 15-22	43-037-30449	14-20-603-355	SEC. 15, T41S, R24E	SE/NW, 1980 FNL; 2050 FWL
✓ 15-32	43-037-15717	14-20-603-355A	SEC. 15, T41S, R24E	1980 FNL; 1980 FEL
✓ 15-33	43-037-15718	14-20-603-355	SEC. 15, T41S, R24E	NW/SE 1650 FSL; 1980 FEL
✓ 15-41	43-037-15719	14-20-603-355	SEC. 15, T41S, R24E	660 FNL; 660' FEL
✓ 15-42	43-037-30448	14-20-603-355	SEC. 15, T41S, R24E	SE/NE 2020 FNL; 820 FEL
✓ 16W-12	43-037-15720	14-20-603-355	SEC. 16, T41S, R24E	SW/NW 1880 FNL; 660 FWL
✓ 16-13	43-037-31168	14-20-603-355	SEC. 16, T41S, R24E	1980 FSL; 660 FWL
✓ 16W-14	43-037-15721	14-20-603-355	SEC. 16, T41S, R24E	SW/SW 660 FSL; 660 FWL
✓ 16W-21	43-037-16414	14-20-603-355	SEC. 16, T41S, R24E	NE/NW 660 FNL; 1880 FWL
✓ 16W-23	43-037-15722	14-20-603-355	SEC. 16, T41S, R24E	NE/SW 1980 FSL; 1980 FWL
✓ 16-32	43-037-15723	14-20-603-355	SEC. 16, T41S, R24E	1980 FNL; 1980' FEL
✓ 16-34	43-037-15724	14-20-603-355	SEC. 16, T41S, R24E	660 FNL; 1980' FEL
✓ 16-41	43-037-15725	14-20-603-355	SEC. 16, T41S, R24E	660 FNL; 660 FEL
✓ 16W-43	43-037-16415	14-20-603-355	SEC. 16, T41S, R24E	NE/SE 2140 FSL; 820 FEL
✓ 17-11	43-037-31169	14-20-603-353	SEC. 17, T41S, R24E	NW/NW 1075' FNL; 800' FWL
✓ 17W-12	43-037-15726	14-20-603-353	SEC. 17, T41S, R24E	SW/NW 1980' FNL; 510' FWL
✓ 17-13	43-037-31133	14-20-603-353	SEC. 17, T41S, R24E	NW/SW 2100' FSL; 660' FWL
✓ 17W-14	43-037-15727	14-20-603-353	SEC. 17, T41S, R24E	SW/SW 660' FSL; 660' FWL
✓ 17W-21	43-037-16416	14-20-603-353	SEC. 17, T41S, R24E	510' FNL; 1830' FWL
✓ 17-22	43-037-31170	14-20-603-353	SEC. 17, T41S, R24E	1980' FNL; 1980' FWL
✓ 17W-23	43-037-15728	14-20-603-353	SEC. 17, T41S, R24E	NE/SW 1980' FWL; 1880' FSL
✓ 17-31	43-037-31178	14-20-603-353	SEC. 17, T41S, R24E	NW/NE 500' FNL; 1980' FEL
✓ 17-32W	43-037-15729	14-20-603-353	SEC. 17, T41S, R24E	SW/NE 1830' FNL; 2030' FEL
✓ 17-33	43-037-31134	14-20-603-353	SEC. 17, T41S, R24E	NW/SE 1980' FSL; 1845' FEL
✓ 17-34W	43-037-15730	14-20-603-353	SEC. 17, T41S, R24E	SW/SE 560' FSL; 1880' FEL
✓ 17W-41	43-037-15731	14-20-603-353	SEC. 17, T41S, R24E	610' FNL; 510' FEL
✓ 17-42	43-037-31177	14-20-603-353	SEC. 17, T41S, R24E	SE/NE 1980; FNL, 660' FEL
✓ 17-44	43-037-15732	14-20-603-353	SEC. 17, T41S, R24E	660 FSL; 660' FEL
✓ 17W-43	43-037-16417	14-20-603-353	SEC. 17, T41S, R24E	NE/SE 1980' FSL; 660' FEL
✓ 18-11	43-037-15733	14-20-603-353	SEC. 18, T41S, R24E	NW/NW 720' FNL; 730' FWL
✓ 18-12W	43-037-31153	14-20-603-353	SEC. 18, T41S, R24E	SW/NW 1980' FNL; 560' FWL
✓ 18W-21	43-037-16418	14-20-603-353	SEC. 18, T41S, R24E	NE/NW 660' FNL; 1882' FWL
✓ 18-22	43-037-31236	14-20-603-353	SEC. 18, T41S, R24E	SW/NW 2200' FNL; 2210' FWL
✓ 18W-23	43-037-30244	14-20-603-353	SEC. 18, T41S, R24E	NE/SW 2385' FSL; 2040' FWL
✓ 18W-14	43-037-15735	14-20-603-353	SEC. 18, T41S, R24E	SW/SW 810' FSL; 600' FWL
✓ 18-24	43-037-31079	14-20-603-353	SEC. 18, T41S, R24E	SE/SW 760' FSL; 1980' FWL
✓ 18-31	43-037-31181	14-20-603-353	SEC. 18, T41S, R24E	NW/NE 795' FNL; 2090; FEL
✓ 18W-32	43-037-15736	14-20-603-353	SEC. 18, T41S, R24E	SW/NE 2140' FNL; 1830' FEL
✓ 18-33	43-037-31135	14-20-603-353	SEC. 18, T41S, R24E	NW/SE 1870' FSL; 1980' FEL
✓ 18-34W	43-037-15737	14-20-603-353	SEC. 18, T41S, R24E	SW/SE 780' FSL; 1860 FEL
✓ 18W-41	43-037-15738	14-20-603-353	SEC. 18, T41S, R24E	NE/NE 660' FNL; 660' FEL
✓ 18-42	43-037-31182	14-20-603-353	SEC. 18, T41S, R24E	SE/NE 2120' FNL; 745' FEL
✓ 18W-43	43-037-16419	14-20-603-353	SEC. 18, T41S, R24E	NE/SE 1980' FSL; 660' FEL
✓ 18-44	43-037-31045	14-20-603-353	SEC. 18, T41S, R24E	SE/SE 660' FSL; 660' FEL
✓ 19-11	43-037-31080	14-20-603-353	SEC. 19, T41S, R24E	NW/NW 660' FNL; 660' FWL
✓ 19-12	43-037-15739	14-20-603-353	SEC. 19, T41S, R24E	600' FWL; 1980' FNL
✓ 19-14	43-037-15740	14-20-603-353	SEC. 19, T41S, R24E	600' FSL; 660' FEL

PA'd

PA'd

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 11 1994

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.
14-20-603-247A

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

8. Well Name and No.
RATHERFORD UNIT 13-W-33

9. API Well No.
43-037-15855

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 US, AS AGENT FOR MEPNA

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)
660' FSL, 1980' FEL; SEC. 13, T41S, R23E
1970' 1979'

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 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.)*

03-03-94 MIRU. PRESS TEST COIL TBG. & BOP TO 5000 PSI/HELD/OK. RIH W/COIL & TAG FILL @5464'. PUMP 4000 GALS 15% HCL PERF INTERVALS F/5413-42' W/3500 GALS ACID PUMPED. TAGGED FILL AT 5424'. DISP W/20 BBLs FW.

✓ 03-04-94 RIH & CIRC OUT FILL F/5424 TO 5469. CIRC. HOLE CLEAN.

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

Signed D. Winn for Shirley Todd Title ENV. & REG. TECHNICIAN

Date 04/01/94

(This space for Federal or State office use)

Approved by _____ Title _____

Date for credit

Conditions of approval, if any:

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).

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

1-LEC	7-PL
2-LWP	8-SJ
3-DES	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 & 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: ** SEE ATTACHED **	API: <u>037-15855</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. 8-21-95
- LWP 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)
- lec 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

- See* 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 / See* 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) ____.
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 4 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!

STATE OF UTAH
INVENTORY OF INJECTION WELLS

OPERATOR	API NO.	WELL	TNS	RGE	SE	WELLTYPE	INDIAN COUNT
*****	*****	*****	***	***	**	*****	*****
✓MEPNA (MOBIL	43-037-15506	L-21	41S	25E	18	INJW	Y
✓MEPNA (MOBIL	43-037-16358	K-24	41S	25E	18	INJW	Y
✓MEPNA (MOBIL	43-037-30400	K-22X	41S	25E	18	INJI	Y
✓MEPNA (MOBIL	43-037-15499	J-21	41S	25E	18	INJW	Y
✓MEPNA (MOBIL	43-037-15508	L-25	41S	25E	19	INJW	Y
✓MEPNA (MOBIL	43-037-15839	1W24	41S	23E	1	INJW	Y
✓MEPNA (MOBIL	43-037-15838	1W13	41S	23E	1	INJW	Y
✓MEPNA (MOBIL	43-037-16386	2W44	41S	23E	2	INJW	Y
✓MEPNA (MOBIL	43-037-15842	11W44	41S	23E	11	INJW	Y
✓MEPNA (MOBIL	43-037-15841	11W42	41S	23E	11	INJW	Y
✓MEPNA (MOBIL	43-037-15848	12W33	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-15850	12W42	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-15847	12W31	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-16404	12W13	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-15845	12W22	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-15843	12W11	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-31151	12W24	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-31543	RATERFORD 12	41S	23E	12	INJW	Y
✓MEPNA (MOBIL	43-037-15854	13W31	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-15851	13W13	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-15857	13W42	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-16407	13W44	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-15855	13W33	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-31152	13W11	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-15852	13W22	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-15853	13W24	41S	23E	13	INJW	Y
✓MEPNA (MOBIL	43-037-16410	14W43	41S	23E	14	INJI	Y
✓MEPNA (MOBIL	43-037-15860	14W43	41S	23E	14	INJW	Y
✓MEPNA (MOBIL	43-037-15863	24W42	41S	23E	24	INJW	Y
✓MEPNA (MOBIL	43-037-15862	24W31	41S	23E	24	INJW	Y
✓MEPNA (MOBIL	43-037-15984	6W14	41S	24E	6	INJW	Y
✓MEPNA (MOBIL	43-037-15988	7W32	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-15990	7W41	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-16394	7W21	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-15985	7W12	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-15989	7W34	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-15986	7W14	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-15987	7W23	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-16395	7W43	41S	24E	7	INJW	Y
✓MEPNA (MOBIL	43-037-16396	8W43	41S	24E	8	INJI	Y
✓MEPNA (MOBIL	43-037-15992	8W14	41S	24E	8	INJW	Y
✓MEPNA (MOBIL	43-037-16398	9W23	41S	24E	9	INJW	Y
✓MEPNA (MOBIL	43-037-16400	9W43	41S	24E	9	INJI	Y
✓MEPNA (MOBIL	43-037-16397	9W21	41S	24E	9	INJW	Y
✓MEPNA (MOBIL	43-037-16402	10W23	41S	24E	10	INJW	Y
✓MEPNA (MOBIL	43-037-16401	10W21	41S	24E	10	INJI	Y
✓MEPNA (MOBIL	43-037-16403	10W43	41S	24E	10	INJW	Y
✓MEPNA (MOBIL	43-037-16413	15W43	41S	24E	15	INJI	Y
✓MEPNA (MOBIL	43-037-16411	15W21	41S	24E	15	INJW	Y
✓MEPNA (MOBIL	43-037-16412	15W23	41S	24E	15	INJI	Y
✓MEPNA (MOBIL	43-037-16415	16W43	41S	24E	16	INJW	Y
✓MEPNA (MOBIL	43-037-15720	16W12	41S	24E	16	INJW	Y
✓MEPNA (MOBIL	43-037-15721	16W14	41S	24E	16	INJW	Y

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 deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

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

5. Lease Designation and Serial No.

14-20-603-247A

6. If Indian, Allottee or Tribe Name

NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation

RATHERFORD UNIT

8. Well Name and No.

RATHERFORD 13-W-33

9. API Well No.

43-037-15855

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 INJECTOR / SIDETRACK

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)
1970' FNL 1979' FWL
SEC. 13, T41S, R23E

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 SIDETRACK
 Change of Plans
 New Construction
 Non-Routine Fracturing
 Water Shut-Off
 Conversion to Injection
 Dispose Water

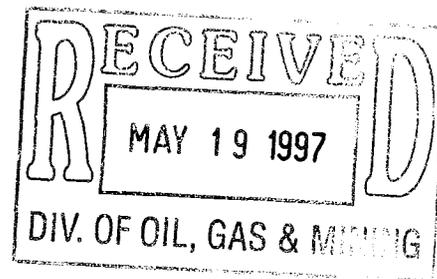
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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.)*

LATERAL #1: 1260' SOUTH & 985' EAST FROM SURFACE SPOT ZONE 1a-1b.

LATERAL #2: 1028' NORTH & 1225' WEST FROM SURFACE SPOT ZONE 1a/1b.

SEE ATTACHMENTS



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

Signed Shelley Houchens Title ENV. & REG. TECHNICIAN Date 05-13-97

(This space for Federal or State officer use)

Approved by John R. Baya Title Petroleum Engineer Date 5/29/97

Conditions of approval, if any:

**Rutherford Unit Well #13-33
Multilateral Horizontal Drilling Procedure**

The objective of this procedure is to prepare this wellbore for sidetracking, sidetrack the subject well and drill multiple short radius horizontal laterals (1500-3300 ft).

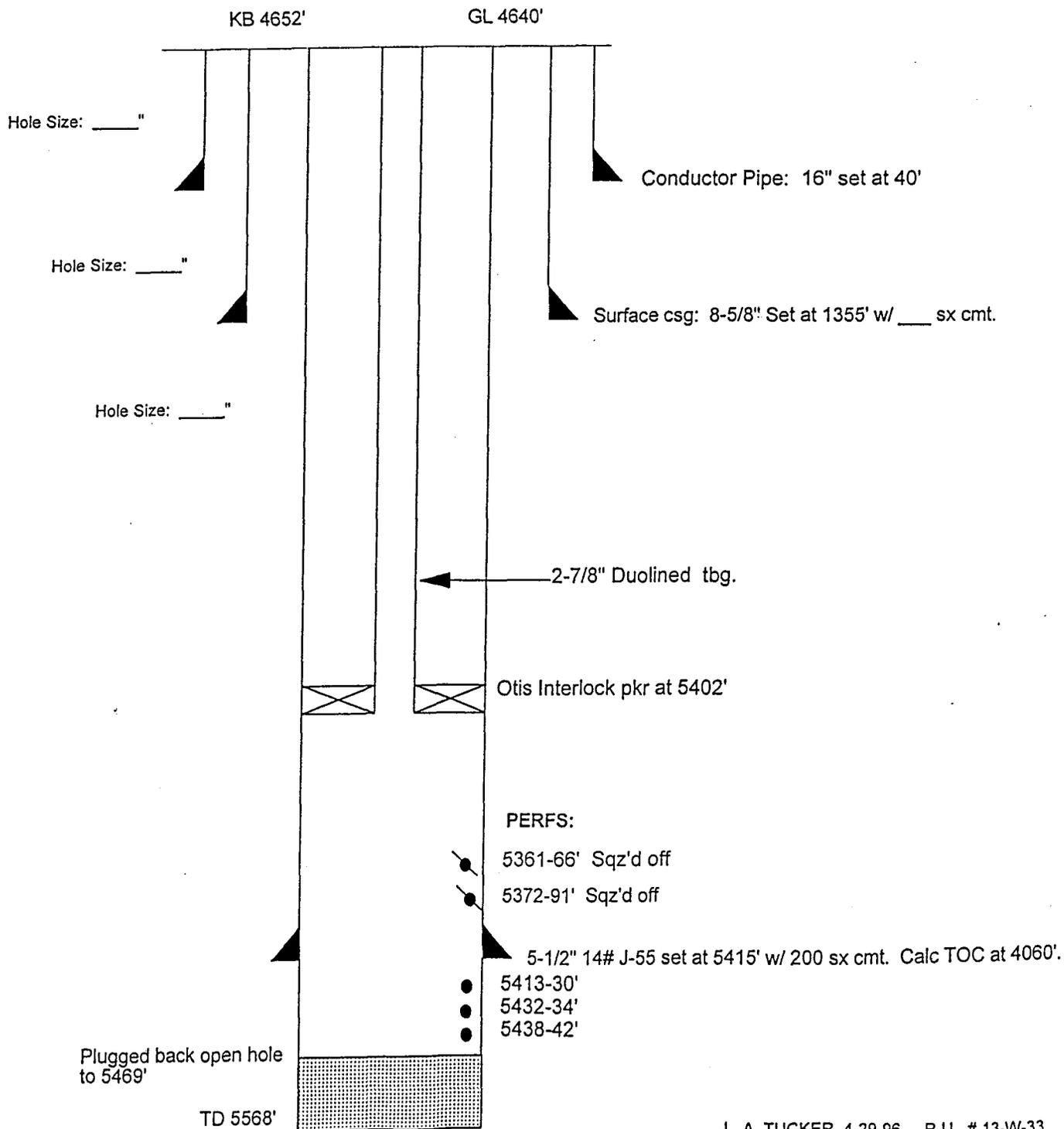
1. Prepare location and dig working pit.
2. MIRU WSU, reverse unit, and H₂S equipment. Bullhead kill weight fluid down tubing.
3. Release packer, and pick up on wellhead to remove. ND wellhead and NU BOP's. Pressure test BOP's.
4. Continue to POH with tubing.
5. TIH with full gauge bit and casing scraper to PBTB. TOH with bit and scraper.
6. Ensure well will circulate, and set RTBP above perms. Pressure test casing to 1000 psi.
7. RDMO WSU.
8. MIRU 24 hr WSU.
9. PU tubing, drill collars, and drill pipe in derrick and run in hole. Then POH and stand back.
10. RU wireline company and run gauge ring for casing down to packer setting depth.
11. Run packer on wireline and set using GR/CCL log to correlate with. RD wireline.
12. PU drillpipe with UBHO sub and latch assembly.
13. Latch into packer. Run gyro and obtain orientation of keyway on packer.
14. POH w/ gyro. POH w/ drill pipe and RIH w/ whipstock oriented on the surface for window azimuth desired.
15. Shear pilot mill bolt and start milling window.
16. POH and PU window mill and watermelon mill to finish window and drill 3 ft of formation.
17. POH w/ mills and RBIH w/ new mills to clean up window.
18. PU drill pipe and directional motors to drill curve. Use the gyro to drill until the inclination dictates that the gyro must be pulled.
19. Pull five stands of drill pipe and run steering tool to finish drilling the curve.
20. POH once curve is finished and PU lateral motor to drill the lateral using MWD.

21. Once lateral TD is reached, POH w/ directional equipment.
22. RIH w/ hook and retrieve whipstock.
23. PU new whipstock with extension in body for next window and orient on surface to desired azimuth.
24. Repeat steps 15-23, for each successive planned lateral.

RATHERFORD UNIT # 13-W-33
GREATER ANETH FIELD
 1970' FSL & 1798' FEL
 SEC 13-T41S-R23E
 SAN JUAN COUNTY, UTAH
 API 43-037-15855
 PRISM 0043009

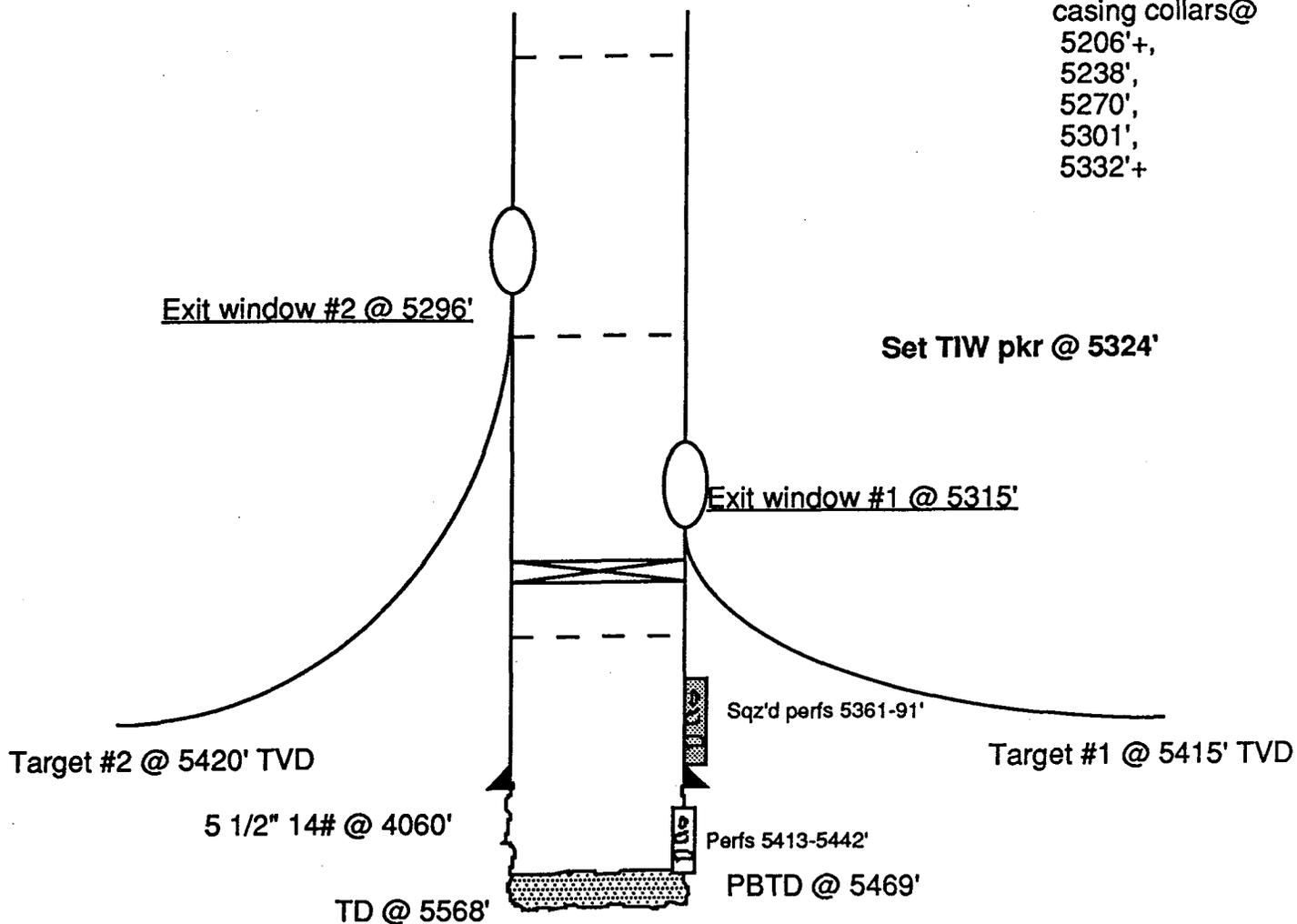
INJECTOR

Capacities:	bbbl/ft	gal/ft	cuft/ft
2-7/8" 6.5#	.00579	.2431	.0325
5-1/2" 14#	.0244	1.0249	.1370
2-7/8x5.5"14#	.0164	.6877	
.0919			



Whipstock plan for Ratherford #13-33

Estimated casing collars@
 5206'+,
 5238',
 5270',
 5301',
 5332'+



Window	Btm-Top of window	Extension length	Curve radius	Bearing	Horiz Displ
1	5315-06	-	100	142	1600
2	5296-87	19	124	310	1600

*The double spline is 2.42 ft long and the bottom of the whipstock, latch, and debris sub and shear sub are 8.68 ft long. These lengths must be added to the extension lengths to determine the entire whipstock assembly length.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 05/21/97

API NO. ASSIGNED: 43-037-15855

WELL NAME: RATHERFORD 13-W-13 (MULTI-LEG)
 OPERATOR: MOBIL EXPL & PROD INC (N7370)

PROPOSED LOCATION:
 NWSE 13 - T41S - R23E
 SURFACE: 1970-FSL-1979-FEL
 BOTTOM: 1995-FNL-2075-FWL
 SAN JUAN COUNTY
 GREATER ANETH FIELD (365)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: IND
 LEASE NUMBER: 14-20-603-247A

PROPOSED PRODUCING FORMATION: PRDX

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal State Fee
 (Number WELL BONDED WHEN DRILLED)

Potash (Y/N)

Oil shale (Y/N)

Water permit
 (Number HAWAII ALLOCATION)

RDCC Review (Y/N)
 (Date: _____)

LOCATION AND SITING:

R649-2-3. Unit: RATHERFORD UNIT

R649-3-2. General.

R649-3-3. Exception.

Drilling Unit.
 Board Cause no: _____
 Date: _____

COMMENTS: _____

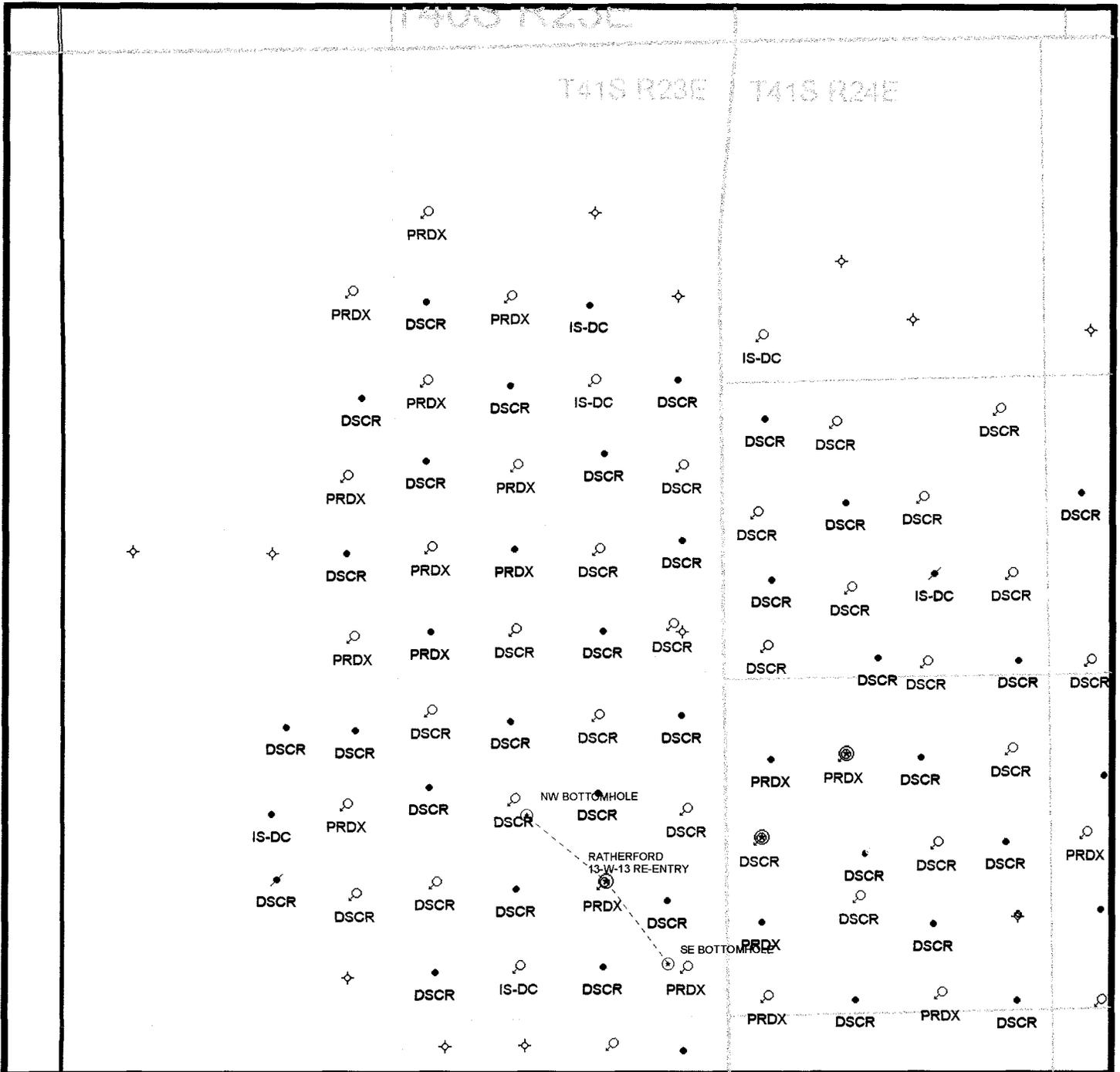
STIPULATIONS: 1- Directional drilling

OPERATOR: MOBIL (N7370)

FIELD: GREATER ANETH (365)

SEC, TWP, RNG: 13, T41S, R23E

COUNTY: SAN JUAN UAC: R649-2-3 RATHERFORD



PREPARED:
DATE: 22-MAY-97



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

May 29, 1997

Mobil Exploration & Producing
P.O. Box 633
Midland, Texas 79702

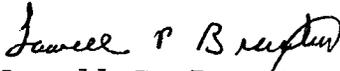
Re: Ratherford 13-W-33 Well, 1970' FNL, 1979' FWL, NW SE,
Sec. 13, T. 41 S., R. 23 E., San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to re-enter and drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-15855.

Sincerely,


Lowell P. Braxton
Deputy Director

lwp

Enclosures

cc: San Juan County Assessor
Bureau of Land Management, Moab District Office

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: MOBILE E & P

Well Name: RATHERFORD UNIT 13-W-13 (RE-ENTRY)

Api No. 43-037-15855

Section: 13 Township: 41S Range: 23E County: SAN JUAN

Drilling Contractor BIG "A"

Rig # 25

SPUDDED:

Date 7/17/97

Time _____

How ROTARY

Drilling will commence _____

Reported by SIMON BARRARA

Telephone # _____

Date: 7/17/97 Signed: JLT

↓



ROCKY MOUNTAIN GEO-ENGINEERING

Well Logging • Consulting Geology • Coal Bed Methane Services • Computerized Logging Equipment & Software

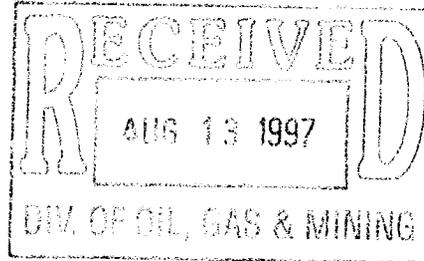
ROCKY MOUNTAIN GEO-ENGINEERING CORP.

2450 INDUSTRIAL BLVD. • GRAND JUNCTION, CO 81505

(970) 243-3044 • (FAX) 241-1085

Tuesday, August 5, 1997

Division of Oil & Gas Mining
State of Utah
355 W. North, Suite 350
Salt Lake City, UT 84180-1203



Re: Ratherford Unit #13-33 Legs 1 & 2
~~Sec 18, T41w, R24E~~ SEC 13 T41S R23E
San Juan County, Utah 43 037 15855
WIW

Dear Sirs:

Enclosed are the final computer colored logs and geology reports for the above referenced well.

We appreciate the opportunity to be of service to you and look forward to working with you again in the near future.

If you have any questions regarding the enclosed data, please contact us.

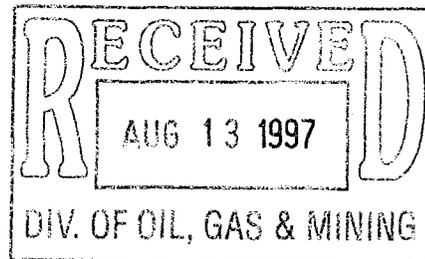
Sincerely,

Bill Nagel
Senior Geologist

BN/dn

Enc. 1 Final Computer Colored Log & 1 Geology Report

cc Letter Only; Dana Larson; Mobil E & P U.S., Inc.; Midland, TX



MOBIL

**RATHERFORD UNIT #13-33
SE HORIZONTAL LATERAL LEG #1 &
LEG #1 SIDETRACK
UPPER 1-A/B POROSITY BENCH
DESERT CREEK MEMBER
PARADOX FORMATION
SECTION 13, T41S, R23E
SAN JUAN, UTAH**

**GEOLOGY REPORT
by
DAVE MEADE / MARVIN ROANHORSE / JASON BLAKE
ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044**

MICROFICHE

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WELL SUMMARY

OPERATOR: MOBIL EXPLORATION & PRODUCTION U.S. INC.

NAME: RATHERFORD UNIT #13-33 SE HORIZONTAL LATERAL
LEG#1 IN 1-A/B UPPER POROSITY BENCH, DESERT CREEK

LOCATION: SECTION 13, T41S, R23E

COUNTY/STATE: SAN JUAN, UTAH

ELEVATION: KB:4640' GL:4652'

SPUD DATE: 7/15/97

COMPLETION DATE: 7/24 /97

DRILLING ENGINEER: SIMON BARRERA

WELLSITE GEOLOGY: DAVE MEADE / MARVIN ROANHORSE / JASON BLAKE

MUDLOGGING ENGINEERS: DAVE MEADE / MARVIN ROANHORSE / JASON BLAKE

CONTRACTOR: BIG "A" RIG 25
TOOLPUSHER: J. DEES

HOLE SIZE: 4 3/4"

CASING RECORD: SIDETRACK IN WINDOW AT 5317' MEASURED DEPTH

DRILLING MUD: M-I
ENGINEER: RON WESTENBERG/ DANNE BEASON
MUD TYPE: FRESH WATER & BRINE WATER W/ POLYMER SWEEPS

DIRECTIONAL DRILLING CO: SPERRY-SUN

ELECTICAL LOGGING: NA

TOTAL DEPTH: 7069' MEASURED DEPTH 5422.76' TVD

STATUS: TOH & LAY DOWN TOOLS. PREPARE TO RUN WHIPSTOCK #2

DRILLING CHRONOLOGY
RATHERFORD UNIT #13-33
1-A/B SE HORIZONTAL LATERAL LEG#1

DATE	DEPTH	DAILY	ACTIVITY
7/14/97	8364'	0'	TOH-LAY DOWN DRILL PIPE & COLLARS-RIG DOWN
7/15/97	5310'	0'	MOVE RIG & RIG UP
7/16/97	5310'	0'	RIG UP-PICK UP PIPE & TIH-LATCH IN TO & PULL BRIDGE PLUG-TOH-P.U. PACKER-TIH-SET PACKER-TOH
7/17/97	5310'	0'	TOH-PICK UP WHIPSTOCK & ORIENT-TIH-SET WHIPSTOCK & SHEAR OFF-P.U. SWIVEL & BREAK CIR. -START MILLING @ 5310'-5312' -CIR BTMS UP-LAY DOWN 2 JTS PIPE-TOH-LAY DOWN STARTER MILL-P.U. WINDOW MILL & WATERMELLON MILL-TIH-P.U. 1 JT PIPE-MILL 5310' TO 5318'-PUMP & CIR OUT 10 BBL SWEEP-LAY DOWN 12 JTS PIPE-TOH-LAY DOWN MILLS-P.U. CURVE BHA
7/18/97	5318'	8'	TEST CURVE BHA-P.U. 8 JTS PIPE-TIH-CIR & RIG UP GYRO DATA-RUN IN & SEAT GYRO-DIR DRLG & WIRE LINE SURVEYS 5318-5353'-SURVEY & PULL GYRO-DIR DRLG & SURVEYS- WORK TITE HOLE 5313' TO -5320'-DRL DLRG & SURVEYS-MUD MOTOR FAILED (TWISTED OFF) @ 5420'-TOH
7/19/97	5422'	104'	TOH-W.O. FISHING TOOLS-P.U. TOOLS-TIH-TAKING WT @ WINDOW-P.U. SWIVEL & TRY TO WORK THRU WINDOW-WON'T GO-TOH-LAY DOWN FISHING TOOLS-P.U. CURVE ASSEMBLY & ORIENT TO BEGIN SIDETRACK #1 -TIH W/CURVE BHA
7/20/97	5422'	0'	TIH-P.U. SWIVEL,BREAK CIR.-TIME DRLG FOR SIDETRACK #1 @ 5348'-TIME DRLG @ 5 MIN/ INCH 5348' TO 5353'-TIME DRLG @ 3 MIN/ INCH 5353' TO 5365'-DIR DRLG & SURVEYS -PUMP 10 BBL SWEEP & CIR. UP SMPLS @ 5485'-HANG SWIVEL & L.D. 52 JNTS AOH D.P.-TOOH
7/21/97	5485'	63'	TOOH-L.D. 8 JNTS PH-6 D.P.-L.D. CURVE BHA & P.U. LATERAL BHA-TIH-P.U. SWIVEL-BREAK CIR.-DIR DRLG & SURVEYS
7/22/97	6054'	569'	DIR DRLG & SURVEYS
7/23/97	6679'	625'	DIR DRLG & SURVEYS
7/24/97	7025'	346'	DIR DRLG & SURVEYS - TOTAL DEPTH OF 7069 REACHED AT 4:00 AM
7/25/97	7069'	44'	PREPARE HOLE FOR NORTHWEST LATERAL

DAILY ACTIVITY

Operator: MOBIL

Well Name: RATHERFORD UNIT #13-33 SE 1-A/B HORIZONTAL LATERAL LEG#1

DATE	DEPTH	DAILY	DATE	DEPTH	DAILY
7/14/97	8364'	0'			
7/15/97	5310'	0'			
7/16/97	5310'	0'			
7/17/97	5310'	8'			
7/18/97	5318'	102'			
7/19/97	5420'	0'			
TD	5420'				
BEGIN SIDETRACK					
	5348'	0'			
7/20/97	5422'	74'			
7/21/97	5485'	63'			
7/22/97	6054'	569'			
7/23/97	6679'	625'			
7/24/97	7025'	346'			
7/25/97	7069'	44'			

BIT RECORD

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #18-21 SE1-A/B HORIZONTAL LATERAL LEG#1

RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	HRS	FT/HR
#1	4 3/4"	STC	MF-3P	5310'/ 5420'	110'	43.5	2.59
#2 SIDETRACK	4 3/4"	STC	MF-13GP	5348'/ 5485'	137'	17.0	8.06
#3	4 3/4"	HTC	STR-30	5485'/ 7069'	1584'	50.25	31.52

MUD REPORT

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 SE 1-A/B HORIZONTAL LATERAL LEG#1 & LEG # 1

SIDETRACK

DATE	DEPTH	WT	VIS	PLS	YED	GEL	pH	WL	CK	CHL	CA	SD	OIL	WTR
7/14/97	0'	NO CHE CK	-	-	-	-	-	-	-	-	-	-	-	-
7/15/97	5310'	NO CHE CK	-	-	-	-	-	-	-	-	-	-	-	-
7/16/97	5310'	NO CHE CK	-	-	-	-	-	-	-	-	-	-	-	-
7/17/97	5310'	8.4	26	0	0	0/0	8.5	NC	NC	11500	6000	-	0%	100%
7/18/97	5322'	8.6	26	0	0	0/0	8.6	NC	NC	4900	720	-	0%	100%
7/19/97	5424'	8.8	28	2	1	0/0	11.6	NC	NC	7400	440	-	7%	93%
7/20/97	5352'	8.4	28	2	1	0/0	11.0	NC	NC	8200	560	-	6%	94%
7/21/97	5510'	8.4	28	2	1	0/0	9.5	31.9	NC	9000	400	-	5%	95%
7/22/97	6414'	8.3	29	2	1	0/0	11.8	12.6	NC	9100	480	-	10%	90%
7/23/97	6720'	8.3	29	2	1	0/0	11.8	12.6	NC	9100	480	-	10%	90%
7/24/97	7069'	NO CHE CK	-	-	-	-	-	-	-	-	-	-	-	-

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

Customer ... : MOBIL (UTAH)
 Platform ... : RATHERFORD UNIT
 Slot/Well .. : BA25/13-33,1A1B1,ST1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
5300.00	0.54	248.11	5299.50	27.77 N	30.68 W	-40.77	0.00
5310.00	0.49	209.22	5309.50	27.72 N	30.74 W	-40.77	3.46
5318.00	3.60	145.97	5317.49	27.48 N	30.62 W	-40.51	42.60
5328.00	9.40	142.74	5327.43	26.57 N	29.95 W	-39.38	58.09
5338.00	16.00	141.78	5337.18	24.84 N	28.60 W	-37.18	66.03
5348.00	23.10	141.31	5346.59	22.22 N	26.52 W	-33.84	71.02
5358.00	17.70	130.00	5355.97	19.71 N	24.13 W	-30.38	66.63
5368.00	22.90	118.00	5365.35	17.81 N	21.24 W	-27.12	66.37
5378.00	29.00	116.10	5374.33	15.83 N	17.34 W	-23.15	61.56
5388.00	34.80	114.80	5382.82	13.57 N	12.57 W	-18.43	58.40
5398.00	41.30	113.84	5390.69	11.03 N	6.96 W	-12.98	65.27
5408.00	47.20	113.09	5397.85	8.26 N	0.56 W	-6.85	59.23
5418.00	52.70	112.48	5404.28	5.30 N	6.50 E	-0.17	55.20
5428.00	58.20	111.95	5409.95	2.19 N	14.12 E	6.97	55.17
5438.00	64.80	111.49	5414.72	1.06 S	22.28 E	14.56	66.12
5448.00	71.10	111.07	5418.47	4.43 S	30.91 E	22.52	63.12
5458.00	76.90	110.68	5421.23	7.85 S	39.89 E	30.74	58.12
5463.00	79.50	110.50	5422.25	9.57 S	44.47 E	34.92	52.12
5485.00	89.10	108.40	5424.43	16.85 S	65.09 E	53.35	44.66
5515.88	88.90	112.30	5424.97	27.58 S	94.03 E	79.63	12.64
5547.64	90.20	115.10	5425.22	40.35 S	123.11 E	107.59	9.72
5579.47	92.60	117.20	5424.44	54.37 S	151.67 E	136.22	10.02
5611.32	91.90	117.90	5423.19	69.09 S	179.89 E	165.19	3.11
5643.04	91.30	121.10	5422.31	84.70 S	207.48 E	194.48	10.26
5674.81	88.90	124.80	5422.25	101.98 S	234.13 E	224.50	13.88
5706.58	87.30	127.60	5423.31	120.73 S	259.75 E	255.05	10.15
5738.29	87.10	128.50	5424.85	140.25 S	284.69 E	285.79	2.90
5770.10	89.40	130.20	5425.83	160.40 S	309.28 E	316.81	8.99
5801.87	89.20	133.60	5426.21	181.62 S	332.92 E	348.08	10.72
5833.60	88.30	133.60	5426.91	203.49 S	355.89 E	379.46	2.84
5865.41	89.70	136.40	5427.46	225.98 S	378.38 E	411.03	9.84
5897.24	90.30	139.90	5427.46	249.69 S	399.61 E	442.78	11.16
5928.94	91.00	142.90	5427.10	274.46 S	419.38 E	474.47	9.72
5960.74	90.30	142.00	5426.74	299.67 S	438.76 E	506.27	3.59
5992.45	90.80	141.00	5426.44	324.48 S	458.50 E	537.98	3.53
6023.38	91.00	144.50	5425.95	349.09 S	477.22 E	568.89	11.33
6055.16	92.10	144.50	5425.09	374.96 S	495.67 E	600.63	3.46
6086.91	91.40	148.00	5424.12	401.34 S	513.29 E	632.28	11.24

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

Customer ... : MOBIL (UTAH)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/13-33,1A1B1,ST1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
6118.67	92.00	147.60	5423.18	428.20 S	530.21 E	663.86	2.27
6150.53	91.70	150.60	5422.15	455.52 S	546.56 E	695.45	9.46
6182.38	92.50	151.00	5420.98	483.31 S	562.09 E	726.91	2.81
6214.17	92.60	153.80	5419.57	511.45 S	576.80 E	758.14	8.80
6245.92	93.40	154.30	5417.91	539.96 S	590.68 E	789.15	2.97
6277.68	91.80	157.30	5416.47	568.89 S	603.68 E	819.96	10.70
6309.51	92.00	157.30	5415.41	598.24 S	615.96 E	850.64	0.63
6341.17	92.50	160.80	5414.17	627.78 S	627.27 E	880.88	11.16
6372.90	91.90	161.70	5412.95	657.80 S	637.46 E	910.81	-3.41
6404.71	90.40	161.90	5412.31	688.02 S	647.39 E	940.74	4.76
6436.57	89.20	162.70	5412.42	718.37 S	657.08 E	970.62	4.53
6468.42	87.50	162.20	5413.34	748.72 S	666.68 E	1000.45	5.56
6500.10	85.30	160.30	5415.33	778.66 S	676.84 E	1030.29	9.17
6532.01	90.40	158.70	5416.52	808.51 S	688.00 E	1060.69	16.75
6563.87	87.50	156.60	5417.11	837.97 S	700.11 E	1091.36	11.24
6595.61	84.00	154.70	5419.46	866.80 S	713.16 E	1122.11	12.54
6627.42	86.20	152.60	5422.18	895.20 S	727.23 E	1153.15	9.54
6658.37	89.50	151.90	5423.34	922.57 S	741.62 E	1183.58	10.90
6690.11	90.70	151.50	5423.28	950.51 S	756.67 E	1214.87	3.99
6721.86	91.90	152.60	5422.56	978.55 S	771.55 E	1246.12	5.13
6752.87	93.50	152.60	5421.10	1006.05 S	785.80 E	1276.57	5.16
6784.72	88.90	150.60	5420.44	1034.05 S	800.94 E	1307.95	15.75
6816.56	86.50	148.90	5421.71	1061.53 S	816.97 E	1339.47	9.23
6848.32	87.80	146.90	5423.29	1088.40 S	833.82 E	1371.02	7.50
6880.19	89.50	145.50	5424.04	1114.87 S	851.55 E	1402.80	6.91
6911.94	89.90	145.90	5424.21	1141.10 S	869.44 E	1434.48	1.78
6943.80	88.90	145.00	5424.54	1167.34 S	887.51 E	1466.28	4.22
6974.97	89.50	142.50	5424.98	1192.47 S	905.93 E	1497.43	8.25
7006.71	91.60	143.20	5424.67	1217.77 S	925.10 E	1529.16	6.97
7038.43	91.80	142.90	5423.73	1243.11 S	944.16 E	1560.87	1.14
* 7069.43	91.80	142.90	5422.76	1267.82 S	962.85 E	1591.85	0.00 *

THE DOGLEG SEVERITY IS IN DEGREES PER 100.00 FEET.
N/E COORDINATE VALUES GIVEN RELATIVE TO WELL SYSTEM REFERENCE POINT.
TVD COORDINATE VALUES GIVEN RELATIVE TO WELL HEAD.
THE VERTICAL SECTION ORIGIN IS WELL HEAD.
THE VERTICAL SECTION WAS COMPUTED ALONG 142.00 (TRUE).
CALCULATION METHOD: MINIMUM CURVATURE.

* 7069 PROJECTED TO BIT, 5310 INTERPOLATED GYRO
5318-5458 HAVE INTERPOLATED AZIMUTHS
5348-5368 SIDETRACK INTERVAL

FORMATION TOPS

OPERATOR: MOBIL

**WELL NAME: RATHERFORD UNIT #13-33 SE 1-A/B HORIZONTAL LATERAL LEG #1 & LEG #1
SIDE TRACK**

FORMATION NAME	SAMPLES		DATUM
	MEASURED DEPTH	TRUE VERTICAL DEPTH	KB:4652'
LOWER ISMAY	5325'	5324'	-672'
GOTHIC SHALE	5404'	5395'	-743'
DESERT CREEK	5440'	5415'	-763'
DC 1-A ZONE	5462'	5422'	-770'
DC 1-B ZONE	6521'	5416'	-764'

GEOLOGICAL SUMMARY

AND

ZONES OF INTEREST

The Mobil Exploration and Production U.S. Inc., Ratherford Unit #13-33 Horizontal Lateral Leg 1 was a re-entry of the Mobil Ratherford Unit #13-33 located in Section 13, T41S, R23E, and was sidetracked in a southeasterly direction from 5318' measured depth, 5317.5' true vertical depth, on July 18, 1997. The lateral reached a measured depth of 7069', true vertical depth of 5422.76' at total depth, with a horizontal displacement of 1591.85' and true vertical plane 142.90 degrees, on July 24, 1997, in the upper Desert Creek 1-A and then 1-B porosity zone. The lateral was drilled with several problems, which were sticking problem while drilling the curve section, the mud motor failing and twisting off while drilling the curve section and the resulting fishing trips for the mud motor. On July 18th, the down hole mud motor failed, and two fishing trips were made on July 19th. After failing to retrieve the mud motor, the decision was made to sidetrack the curve around the mud motor & bit and sidetracking was begun on July 20, 1997 at 5348'. At a measured depth of approximately 6350', the lateral was turned downward toward and into the 1-B porosity zone. This lateral used fresh water and then oil and water emulsion with polymer sweeps as the drilling fluid. A very minor amount of oil was noted while drilling the lateral through the 1-A porosity zone. The background gases noted on the accompanying mud log showed moderate to good increases while drilling the 1-A porosity, and decreased very slightly over the last 1000' of the lateral. The samples showed a fair amount of oil shows through out the drilling of the lateral in the 1-A section.

The primary objectives of the Ratherford Unit #13-33 Leg 1 horizontal lateral was the upper 1-A and 1-B porosity benches of the Desert Creek, to identify and define the porosity benches, the effective porosity, staining and reservoir properties in 1-A zone and 1-B zones of the Desert Creek Member of the Upper Paradox Formation. The lower Upper Ismay, Lower Ismay, Gothic Shale, and the transition zone at the top of the Desert Creek were encountered while drilling the curve section of the lateral. Kick off point for this lateral was 5318', measured and true vertical depth, at the very base of the Upper Ismay member of the Paradox Formation and the curve was sidetracked at a measured depth of 5348' measured depth, 5347' true vertical depth, in the Lower Ismay member.

The top of the Upper Ismay was not seen during the drilling of the R.U. 13-33 reentry. The very base of the Upper Ismay was predominately white to cream, light gray to dark gray brown, cryptocrystalline, some microcrystalline, chalky to clean, slightly argillaceous, cherty, occasionally fossiliferous limestone and very marly, gray brown to dark brown, cryptocrystalline, slightly calcareous dolomite. There were very thin dark gray brown to black, carbonaceous, slightly calcareous to dolomitic shales, and scattered brown to black to translucent chert fragments noted at the base of the Upper Ismay. There was no visible porosity noted in the limestones and dolomites of the Upper Ismay, with no visible fluorescence, stain or cut, with no gas increases noted. The very dolomitic limestones at the base of the Upper Ismay graded into the very thin, carbonaceous, dolomitic shale of the Hovenweep.

The top of the Lower Ismay was picked at 5325' measured depth, 5324' true vertical depth, at the base of the very thin Hovenweep shale. The Lower Ismay was predominately a cream to white, tan to dark brown limestone, microcrystalline to cryptocrystalline, scattered streaks of very finely crystalline, occasionally silty to sandy, some clean, very thin algal streaks, cherty with a trace of scattered anhydrite crystals. Through out the Lower Ismay were minor amounts thin interbedded streaks of silty and sandy limestone grading to very limy, very fine to fine grained, subangular to rounded, light gray to translucent, very limy sandstone, which graded in to the very sandy limestone. These calcareous to slightly siliceous sands indicated remnants of the possible slumping features noted in off setting wells to the north, during the deposition of the Lower Ismay. Through most of the Lower Ismay, no to very rare intercrystalline porosity, with only very poor mineral fluorescence, and no stain or cut was seen in the limestones and very thin interbedded dolomites. From a measure depth of 5378' to 5385', fair to good intercrystalline to algal porosity, with a trace to moderately fair fluorescence, stain and cut was encountered in the Lower Ismay. This drilling break had only a minor gas increase noted. Interbedded in the limestones were rare and very thin scattered dark brown dolmites that were cryptocrystalline to microcrystalline, earthy to clean, with no visible porosity, fluorescence, stain or cut. The dolomitic limestones and very thin dolomites at the base of the Lower Ismay became gray brown, very argillaceous and shaley. These basal limestones and dolomites also became very marly and graded into the Gothic Shale.

The top of the Gothic Shale was at 5404' measured depth, 5395' true vertical depth. The Gothic Shale was predominantly dark gray to black, silty, carbonaceous, brittle to firm, subblocky to blocky to platy, calcareous to slightly dolomitic and slightly micaceous. Scattered with in the Gothic were very thin, cryptocrystalline to microcrystalline, earthy, limestones and dolomites, with very rare scattered anhydrite crystals. The top of the Gothic was gradational from the very thin interbedding of very argillaceous, carbonaceous limestone and very argillaceous, limy dolomite, with the dolomite grading into very dolomitic, carbonaceous shale. The top of the Gothic was picked predominantly by the decrease in penetration rate and a distinct increase in the percentage of shale in the samples.

Between the Gothic Shale and Desert Creek Porosity Members is a transitional zone, which appears to be upwardly gradational. The top of the Desert Creek is commonly picked at the Gothic Shale to transition zone facies change, which in this leg occurred at a measured depth of 5440' and a true vertical depth of 5415'. In this well the zone was silty, dolomitic limestone, with very thin interbedded brown, limy, argillaceous dolomites and very thin carbonaceous shales. The limestones were cream to tan, some gray to white to brown to dark brown, mottled light brown dark brown, cryptocrystalline to microcrystalline, some very finely crystalline, argillaceous, and anhydritic, with scattered anhydrite crystals. The limestones had no visible to very rare, very poor intercrystalline porosity, with only a rare, spotty fluorescence and a very poor stain and cut. The interbedded dolomites were microcrystalline, slightly silty and had no to very rare intercrystalline porosity, with no visible sample show.

The transition zone of the Upper Desert Creek graded into the oolitic porosity of the 1-A zone. The top of the Desert Creek 1-A porosity zone was picked at 5462' measured depth, 5422' true vertical depth, with a horizontal displacement of 52'. The pick was based on sample identification as well as a significant increase in the penetration rate. The top in this lateral was in a very oolitic, clean to very slightly dolomitic, slightly anhydritic limestone grainstone, which had very rare scattered chert fragments. Noted in the limestone were thinly interbedded tight, cryptocrystalline, occasionally platy, anhydritic to very slightly dolomitic, slightly oolitic, tight limestone packstones near the top and scattered in varying amounts as inclusions and fragments through the lateral. The limestone was cream to tan, light brown to occasionally brown, with predominately fair to good intercrystalline to oolitic porosity, some very rare algal porosity. It appears that the 1-A porosity bench is possibly defined by the interval 5422' true vertical depth to approximately 5443' true vertical depth. The top of the porosity bench was marked by a sharp facies change as the drill rate increased rapidly. The base of the porosity zone was approached but tagged during the drilling of the lateral section.

The oolitic limestone porosity of the 1-A zone was continuous through the length of the lateral, from a measured depth of 5462', 5422' true vertical depth, to 6518' measured depth, 5416' true vertical depth, with 1045' of horizontal displacement, when the 1-A to 1-B transition zone was penetrated. These limestones were tan to light brown to brown, microcrystalline to very finely crystalline, very oolitic to slightly oolitic, occasionally very slightly algal. Throughout the zone there were varying amounts of dolomite cement, translucent to buff chert fragments, cryptocrystalline oolitic limestone packstone and anhydrite crystals to inclusions. Scattered anhydrites filled porosities were also noted. As the well bore approached and bumped the top and penetrated the base of the 1-A zone an increase in tight, tan to cream to white, cryptocrystalline, very slightly oolitic limestone packstone, with a slight increase in scattered chert fragments, and decreasing porosity, stain, fluorescence and cut was noted. The top of the 1-A zone porosity zone was tagged at measured depths of 5650', 5800', 5920', and 6260', true vertical depths of 5422', 5426', 5427', 5416.5', with horizontal displacements of 200', 350', 468', and 800' respectively. Although the penetration rate did not reflect the vertical change, or if it did it was a very subtle change in the rate of penetration, in each case a slight decrease in the oolitic and intercrystalline porosity was noted, as well as a slight increase in white to cream, occasionally platy limestone packstone. At a measured depth of 6400', with a true vertical depth of 5412.3' and a horizontal displacement of 936' the well bore was turned downward toward the 1-B zone. The base of the 1-A porosity zone was penetrated at a measured depth of 6518', with true vertical depth of 5419' and had a horizontal displacement of 1045'.

The top of the 1-A zone in the lateral was approximately flat and slowly increased to a dip angle of approximately 88.5 degrees until reaching a horizontal displacement of 500'. At a horizontal displacement of 600' the apparent dip increased to 91.8 degrees.

The top of the 1-B zone in this lateral was encountered at a measured depth of 6542', 5416.5' true vertical depth, and a horizontal displacement of 1068'. The transition zone between the 1-A and 1-B was a very tight cream to white to tan, cryptocrystalline to slightly microcrystalline, dense, very slightly fossiliferous limestone packstone. The limestone had scattered translucent to clear, mottled light gray to white chert fragments and very thin interbedded dark brown to brown, cryptocrystalline, dense with very slightly marly dolomites. The transition zone had very rare very thin streaks of limestone grainstone, which had very poor intercrystalline to oolitic porosity and no to very poor visible fluorescence, stain and cut.

As the well bore penetrated the 1-B porosity zone the lithology returned to the tan to light brown, cryptocrystalline to very finely crystalline, oolitic, dolomitic limestone grainstone. This limestone has scattered white to translucent to clear chert fragments and very thin, occasionally platy, very slightly oolitic, tight limestone packstones. The oolitic limestone grainstone had fair to good oolitic to intercrystalline porosity, with a fair to good fluorescence, fair light brown to brown stain and a fair to good slow to moderately fast diffuse to streaming cut. The well bore was continued downward to a measured depth of 6637', 5423' true vertical depth, with 1153' of horizontal displacement, when the tight, cherty, occasionally platy, dense limestone at the base of the 1-B porosity was encountered and shallowly penetrated, and the well bore was oriented upward to move away from the base. As the lateral continued in the lower 1-B, the porosity appeared the thin to approximately 2' to 2 1/2' thick, as at a measured depth of 6769', with a true vertical depth of 5420' and a horizontal displacement of 1295' a hard streak within the 1-B porosity or the top of the porosity was encountered. This very thin porosity streak was a fair to good oolitic limestone grainstone with fair porosity fluorescence, stain and cut. After bumping off the top of this thin porosity zone, a significant increase in the background gas was also noted beginning at 6796' MD. From 6796' measured depth, 5421' true vertical depth to 6870' measured depth, 5424' true vertical depth, and the porosity zone was once again penetrated. The lithology was predominately limestone, tan to brown, occasionally cream, very fine to cryptocrystalline, granular to micro sucrosic, oolitic with rare anhydrite and a trace of translucent to clear chert. Fair to good oolitic porosity with fair light brown to rare spotty black stain was noted with and associated fair dull to bright yellow fluorescence and fair to good diffused to trace moderate fast streaming cut. A decrease in penetration rate from

6870' to 6910' measured depth was associated with a slight increase in chert and packstone matrix and may indicate a slight lateral facies variation within the 1-B zone. An increase in porosity and percentage of oolitic grainstone matrix was encountered from 6910' MD, 5424.21 TVD to 6990' MD, 5424.8' TVD with a slight increase in the shows. The lithology throughout the final portion of this lateral from 6990' measured depth (5424.8' TVD & 1506' VS) to 7069' total depth became increasingly dense and silty/chalky textured. Increases in chert were also noted through this lower portion of the lateral. Occasional fossils, including crinoids, were present in the last two samples before TD.

The lateral was terminated in the lower portion of the 1-B porosity zone at a measured depth of 7069', 5422.76' true vertical depth, and a horizontal displacement of 1591.85', on July 24, 1997. The penetration rate decreased toward total depth, reflecting the decrease of porosity development seen in the samples. Based on the wellbore plot, it appears that the well path dropped below the better developed 1-B porosity targeted in the R.U. #13-44 well.

In conclusion, in tracking the well bore through the 1-A bench, the oolitic limestone grainstone porosity was very good and was consistent through out its length with associated good to excellent shows. The porosity maintained an apparent thickness of 7' to 8'. Predominant facies changes were associated with the vertical changes within the limestones, with no noticeable lateral changes in the 1-A zone. The 1-B zone was less well developed than the 1-A and thinned considerably from what was expected. Minor lateral facies changes were encountered in the 1-B zone consisting of a decrease in oolitic/oomoldic porosity fabric and an increase of tight micritic matrix. The effective or better porosity was associated with the oolitic, to very slightly algal limestone grainstone facies, which had fair to good, intercrystalline to oolitic porosities only minor anhydrite plugging. The limestone packstone at the top and base of the 1-A zone had decreased porosity, poor permeabilities and decreased shows. The 1-B zone displayed less well-developed oolitic to rare oomoldic porosity with much of the zone showing a moderately tight matrix with poor intercrystalline porosity development. The 1-A zone in this well was the better developed of the two and should contribute the majority of the effective permeability for this lateral.

SAMPLE DESCRIPTIONS

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 SE 1-A/1-B HORIZONTAL LATERAL

DEPTH	LITHOLOGY
5318.00 5330.00	"LS crm-tan,occ mot crm-brn,wh ip,crpxl-micxl,cln-dns,rthy-chk,v sl anhy,w/brn CHT frag,v sl slty,v thn blk carb SH lams,occ v sl dol-rr ltbrn-brn crpxl lmy DOL incl,tt-rr intxl POR,tr-fr bri yel FLOR,n-v rr fnt ltbrn STN,tr slow dif-rr slow stmg CUT"
5330.00 5340.00	"LS AA,incr brn-smky gybrn CHT frag,rr mic fos,sl incr rthy-arg DOL,n-v rr intxl POR,n-v rr spty FLOR,n vis STN-CUT"
5340.00 5360.00	"DOL m-dkgybrn-dkbrn,crpxl,shy,sl lmy-lmy,w/dkbrn-blk-dksmky brn CHT frag,v mrly,grdg to v dol MLRST,tt,NFSOC,intbd brn-wh,ltgy crpxl-micxl,sl dol LS,v rr mic fos,w/thn calc vfgr SS incl,arg-cln,tt,NFSOC,v rr blk carb calc-dol SH lams"
5360.00 5370.00	"LS AA,v sl alg,tr intxl-arg POR,tr dull-bri yel FLOR,n-v rr ltbrn-blk STN,tr slow-mod fast CUT,decr mrly DOL,scat CHT frag,sl incr calc cmt SS AA"
5370.00 5380.00	"LS AA,POR-FLOR-STN-CUT AA,tr lt-dkbrn crpxl-micxl DOL rthy arg lmy sl mrly tt NFSOC,scat CHT frag AA,incr clr-trnsl vf-fgr sbrd v calc cmt tt SS NFSOC"
5380.00 5390.00	"LS AA,crpxl-micxl-vfxl,rexl ip,cln-dns,sl-v chk,sl anhy,w/CHT AA,occ v sl dol,tr-fr intxl-frac POR,fr bri yel FLOR,tr ltbrn/rr scat blk dd o STN,fr slow dif-tr slow stmg CUT"
5390.00 5410.00	"DOL ltbrn-tan,occ ltbrngy,micxl-crpxl,gran-occ micsuc,rthy,slty,dns,occ slty strk,tr dk brn CHT,tr trnsl xln ANHY frag-incl,tt-tr intxl POR,g scat mod bri-dull yel FLOR,fr ltbrn/rr brn STN,fr slow dif/tr slow strng mlky CUT"
5410.00 5420.00	"LS AA,crpxl-micxl-vfxl,occ rexl,cln-dns,sl-v chk,sl anhy,w/CHT AA,occ dol,tr-fr intxl-frac/rr agl POR,fr bri yel FLOR,tr ltbrn/rr scat blk dd o STN,fr slow dif-tr slow stmg CUT,w/scat DOL AA,POR AA-FLOR AA/rr orng mnrl FLOR-STN CUT AA"
SAMPLE DESCRIPTIONS BELOW ARE FROM SIDETRACK	
5348.00 5360.00	"LS wh-crm-ltgy-ltgybrn,crpxl-micxl,rthy,arg,sl dol,v sl anhy,tt,NFSOC,scat ltbrn-brn CHT frag,gybrn-ltbrn micxl rthy sl lmy occ v sl shy DOL tt,NFSOC"
5360.00 5380.00	"LS crm-wh,occ ltgy-ltbrn,crpxl-micxl,v rr vfxl,v sl gran,rdy ip,rthy-chk,occ cln,occ sl alg-v alg,dol ip,v rr mic fos,v rr ANHY xl,tt-fr alg-intxl POR,n-fr dull-bri yel FLOR,rr-tr ltbrn-blk STN,tr g dif-mod fast CUT,rr CHT occ clr AA,tr dkbrn mrly DOL AA,thn intbd SS clr-trnsl,vf-f gr,sbrd,w srt,calc-v calc cmt,sl arg,grdg to v sdy LS,tt,NFSOC"
5380.00 5390.00	"LS AA,tt-tr alg-intxl POR,FLOR-STN-CUT AA,thn intbd ltbrn-brn,micxl-micsuc DOL,rr intxl POR,tr dull yel FLOR,n-v rr ltbrn STN,tr slow dif-slow stmg CUT,rr CHT frag,v rr SS AA"
5390.00 5400.00	"LS AA,pred tt-v rr alg POR,tr FLOR-STN-CUT,incr ltbrn-rr dkbrn crpxl-micxl,occ mlry DOL POR-FLOR-STN-CUT AA,scat CHT frag,v rr v lmy SS AA"

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 SE 1-A/1-B HORIZONTAL LATERAL SIDETRACK

DEPTH	LITHOLOGY
5400.00 5410.00	"LS wh-crm,ltgy,crpxl,chk-rthy,occ cln,sl anhy-v sl dol,tt,NFSOC,w/intbd ltbrn-occ dkbrn DOL AA,POR-FLOR-STN-CUT AA,grdg to blk-dkgy sbblky carb SH"
5410.00 5420.00	"SH blk-dkgy,sbblky-sbplty,carb,calc-sl dol,mica,occ slty,sooty,w/v thn tt LS & DOL incl "
5420.00 5430.00	"LS AA,tt-tr intxl POR,fr scat spty mod bri yel FLOR,tr-rr brn STN,tr v dull res ring CUT,w/ SH AA"
5430.00 5440.00	"LS ltgy-gybrn,off wh,occ tan-brn,mgybrn,micxl-vfxl,gran-micsuc,occ crpxl,chk-plty,v slty-sl sdy ip,occ grdg to lmy vfgr SS/QTZ gr,occ mot/dk brnblk SH incl,sl anhy-rr xln ANHY,vrr GAST,POR-FLOR-STN-CUT AA"
5440.00 5460.00	"LS ltbrn-tan-crm,occ wh,brn,micxl-vfxl-crpxl,gran-oolclastic-sl oolmoldic,pred LS GRNST/abnt chky plty-arg prtgs,tr chk POR fl,sl anhy,tr mic fos-ool,tt-tr intxl POR,g-fr scat mod bri-bri yel FLOR,fr ltbrn/vrr blk STN,g slow dif/tr slow strmg mlky CUT "
5460.00 5485.00	"LS AA,occ crm-wh,vfxl-crpxl,micxl-oolclastic,occ oolmoldic-sl agl,pred ooc GRNST/scat dns-chk plty PCKST frag,sl chky,tr xln ANHY frag-incl,rr fos,vrr wh DOL incl,g intxl-ool/tr agl POR,g even spty bri-mod bri yel FLOR,fr ltbrn-brn STN,g fast strmg CUT"
5485.00 5490.00	"TR SH & lmy tt SS CVGS-FR SPL,LS AA,v sl alg,POR-FLOR-STN-CUT AA"
5490.00 5510.00	"LS ltbrn-brn,occ crm-wh,crpxl-vfxl,gran-micsuc ip,occ dns,oolicastic-sl alg,pred LS GRNST w/v thn LS PKST,rr ANHY xl-POR fl,occ DOL rich cmt,tr-g intxl-fr ool-rr alg POR,fr-g dull-bri yel FLOR,fr blk-tr ltbrn STN,fr-g mod fast dif-fast stmg CUT,tr SH CVG"
5510.00 5540.00	"LS ltbrn-brn,occ crm,mot ip,crpxl-vfxl,gran-micsuc ip,occ dns,pred oolclastic-sl alg LS GRNST & PKST,LS PKST tt-rr ool POR,occ ANHY xl-POR fl,tr DOL rich cmt,fr-g ool-arg-fr intxl POR,fr-g dull-bri yel FLOR,fr-g ltbrn STN,fr blk dd o STN,g mod fast CUT"
5540.00 5550.00	"LS AA,incr tt LS PKST,decr intxl POR,FLOR-STN-CUT AA"
5550.00 5560.00	"LS pred g oolclastic-sl alg LS GRNST & ool LS PKST,fr-g intxl-fr ool-sl alg POR,fr-g dull-bri yel FLOR,g ltbrn-fr blk STN,g mod fast-fast stmg CUT"
5560.00 5590.00	"LS ltbrn-brn,occ crm-tan,crpxl-vfxl,gran-micsuc ip,tr dns tt sl ool LS PKST,pred oolclastic-sl alg LS GRNST,occ DOL rich cmt,scat ANHY xl-rr POR fl,fr-g ool-fr intxl-tr alg POR,fr-g dull-bri yel FLOR,fr-g brn STN,tr-fr blk dd o STN,fr-g mod fast stmg CUT"
5590.00 5610.00	"LS AA,pred oolclastic-v sl alg LS GRNST,POR-FLOR-STN-CUT AA"
5610.00 5620.00	"LS AA,w/thn intbd dkbrn crpxl lmy tt DOL NFSOC,LS POR-FLOR-STN-CUT AA"
5620.00 5650.00	"LS pred tan-ltbrn,occ crm-brn,crpxl-vfxl,gran-micsuc ip,rthy-cln,occ sl chk,v sl chty-scat trnsi CHT frag,occ DOL rich cmt,rr ANHY xl-v rr POR fl,fr-g ool-tr intxl-rr alg POR,fr-g dull-bri yel FLOR,tr-fr ltbrn-tr blk STN,fr-g mod fast dif-mod fast CUT"

DEPTH

LITHOLOGY

5650.00 5670.00 "LS AA,sl decr ANHY xl-POR fl,v rr scat trnsl-clr CHT frag,g ool-intxl-v rr alg POR,fr-g dull-bri yel FLOR,tr-fr ltbrn STN,tr blk dd o STN,fr-g mod fast dif-mod fast stmg CUT"

5670.00 5690.00 "LS ltbrn-tan,occ crm-brn,crpxl-vfxl,gran-micsuc ip,tr dns tt sl ool LS PKST,pred oolclastic-sl alg LS GRNST,occ DOL rich cmt,scat ANHY xl-rr POR fl,fr-g ool-fr intxl-tr alg POR,fr-g dull-bri yel FLOR,fr-g brn STN,tr-fr blk dd o STN,fr-g mod fast stmg CUT"

5690.00 5700.00 "LS AA,scat tr trnsl-clr CHT frag,occ ANHY xl,v sl incr tt sl ool LS PKST,sl decr POR,FLOR-STN-CUT AA"

5700.00 5730.00 "LS ltbrn-tan,occ crm-brn,crpxl-vfxl,gran-micsuc ip,tr dns tt sl ool LS PKST,pred oolclastic-sl alg LS GRNST,occ DOL rich cmt,scat ANHY xl-rr POR fl,fr-g ool-fr intxl-tr alg POR,fr-g dull-bri yel FLOR,fr-g brn STN,tr-fr blk dd o STN,fr-g mod fast stmg CUT"

5720.00 5750.00 "LS ltbrn-tan,occ crm-brn,crpxl-vfxl,gran-micsuc ip,pred oolclastic-sl alg LS GRNST,tr DOL rich cmt,tr dns tt PCKST,scat ANHY xl-rr POR fl,fr-g ool-fr intxl-tr alg POR,fr-g dull-bri yel FLOR,fr-g brn STN,tr-fr blk dd o STN,fr-g mod fast stmg CUT"

5750.00 5760.00 "LS AA,pred oolclastic GRNST/tr DOL cmt,tr scat tt dns PCKST,rr ool incl,tr-rr wh CHT incl,POR-FLOR AA,g brn-ltbrn STN/tr dkbrn-blk STN"

5760.00 5780.00 "LS AA,pred oolclastic GRNST/incr DOL cmt,occ oolmoldic,tr scat dns tt PCKST,sl chky/tr POR fl,tr xln ANHY frag-incl,rr wh CHT incl,vrr ool-mic fos,g even mod bri-scat bri yel FLOR,POR AA,g ltbrn/incr scat brn & blk dd o STN,g fast-m fast stmg mlky CUT"

5780.00 5800.00 "LS tan-ltbrn,crm,occ wh,brn,vfxl-oolclastic-crpxl,occ oolmoldic-sl agl,pred ooc GRNST/tr dns tt PCKST frag-incl,sl chk/tr POR fl,tr xl ANHY,rr wh CHT incl,rr ool,g ooc-intxl/rr agl POR,g even mod bri-bri yel FLOR,g ltbrn-brn/scat blk dd o STN,CUT AA"

5800.00 5820.00 "LS AA,oolclastic GRNST/tr DOL rich cmt,rr scat dns PCKST,sl chk/tr POR fl,tr scat xl ANHY frag-incl,rr wh CHT incl,vrr ool & mic fos,g ooc-intxl/rr agl POR,g even mod bri-bri yel FLOR,g ltbrn-brn/scat blk STN,g mod fast-fast strm mlky CUT"

5820.00 5830.00 "LS AA,oolclastic GRNST/tr DOL cmt,decr dns PCKST,sl-occ v chk/tr POR fl,tr scat xl ANHY frag,rr wh CHT incl,POR-FLOR-STN-CUT AA"

5830.00 5850.00 "LS tan-ltbrn,occ crm-wh,brn,vfxl-gran-oolclastic,occ oolmoldic-crpxl,occ GRNST/occ DOL cmt,rr thn intbd dns tt PCKST incl,sl chk-tr POR fl,tr xl ANHY,rr wh CHT incl,g ooc-intxl POR,g even mod bri-bri yel FLOR,g ltbrn-brn STN/scat blk dd o STN,g CUT AA"

5850.00 5860.00 "LS AA,pred oolclastic GRNST/tr DOL rich cmt,incr scat tt dns PCKST,chk-tr POR fl,tr xln ANHY incl-frag,tr ool & mic fos,vrr CHT incl,POR-FLOR-STN-CUT AA"

5860.00 5880.00 "LS AA/incr brn,occ crm-wh,vfxl-oolclastic,gran-micxl,crpxl,occ GRNST/DOL cmt,tr scat dns tt PCKST frag-incl,chk-tr POR fl,tr xl ANHY,rr wh CHT incl,g ooc-intxl/tr agl POR,g even mod bri-bri yel FLOR,g ltbrn/incr brn STN,scat blk dd o STN,CUT AA"

5880.00 5900.00 "LS tan-ltbrn,occ brn,crm,wh,vfxl-oolclastic-gran,occ crpxl,occ GRNST/DOL cmt,tr scat dns tt PCKST frag-incl,chk/tr POR fl,tr sact xl ANHY frag,vrr ool & CHT incl,g ooc-intxl/tr pp agl POR,FLOR AA,g ltbrn/decr brn & blk STN,g mod fast strm mlky CUT"

DEPTH

LITHOLOGY

5900.00 5920.00 "LS tan-ltbrn,crm,occ wh,brn,vfxl-ooliclastic-crpxl,occ oolmoldic-sl agl,pred ooc GRNST/tr dns tt PCKST frag-incl,chk/tr POR fl,tr xl ANHY,rr wh CHT incl,rr ool,g ooc-intxl/rr agl POR,g even mod bri-bri yel FLOR,g ltbrn-brn/scat blk dd o STN,CUT AA"

5920.00 5950.00 "LS AA,vfxl-gran-ooliclastic,occ oolmoldic-crpxl,occ GRNST/tr DOL cmt,tr scat dns tt PCKST frag-incl,sl chk-tr POR fl,tr xl ANHY,rr wh CHT incl,g ooc-intxl-agl POR,g even mod bri-bri yel FLOR,g ltbrn-brn STN/decr blk dd o STN,g mod fast-fast strm mlky CUT"

5950.00 5960.00 "LS AA,pred ooliclastic GRNST/tr-rr DOI cmt,tr scat tt dns PCKST frag-incl,rr xl ANHY,rr ool incl,rr wh CHT incl,POR-FLOR AA,g brn-ltbrn STN/tr dkbrn-blk STN,g blooming-mod fast strm CUT"

5960.00 5990.00 "LS tan-ltbrn,occ brn,crm-wh,vfxl-ooliclastic-gran,occ crpxl,occ GRNST/DOL cmt,tr scat dns tt PCKST frag-incl,chk/tr POR fl,rr sact xl ANHY frag,vrr ool & CHT incl,g ooc-intxl/vrr agl POR,FLOR AA,g ltbrn/incr brn & blk STN,g blooming-fast strm mlky CUT"

5990.00 6010.00 "LS AA,vfxl-ooliclastic-crpxl,occ oolmoldic-agl mat,pred ooc GRNST/tr dns-rr chk pty PCKST frag,tr chk POR fl,tr xl ANHY,rr wh CHT incl,rr ool,g ooc-intxl POR,g even mod bri-bri yel FLOR,g ltbrn-brn/scat blk dd o STN,g mod fast strm mlky CUT"

6010.00 6040.00 "LS tan-ltbrn,occ brn,crm-wh,vfxl-ooliclastic-gran,occ crpxl,occ GRNST/DOL cmt,tr scat dns tt PCKST frag-incl,chk/tr POR fl,rr sact xl ANHY frag,vrr ool & CHT incl,g ooc-intxl/vrr agl POR,FLOR AA,g ltbrn/incr brn & blk STN,g mod fast strm mlky CUT"

6040.00 6050.00 "LS AA,pred ooliclastic GRNST/tr DOI cmt,tr scat dns tt PCKST,sl chk/tr chk POR fl,tr xl ANHY frag,POR-FLOR AA,g ltbrn-brn STN/scat blk dd o STN,g fast strm mlky CUT"

6050.00 6080.00 "LS ltbrn-tan/occ crm-wh incl,occ brn,gran-ooliclastic-vfxl,occ crpxl,ooliclastic GRNST/tr DOL cmt,chk/tr POR fl,tr scat dns PCKST,tr xln ANHY,rr ool,vrr CHT incl,g ooc-intxl-rr pp agl POR,g even mod bri-bri yel FLOR,g fast strm-blooming mlky CUT"

6080.00 6100.00 "LS AA,ooliclastic-gran,vfxl-micxl,occ crpxl,ooliclastic GRNST/tr DOL cmt,tr scat dns tt PCKST frag-incl,chk-tr POR fl,tr xl ANHY,rr ool,vrr wh CHT incl,g ooc-intxl/tr agl POR,g even mod bri-bri yel FLOR,g ltbrn-brn STN,tr scat blk dd o STN,CUT AA"

6100.00 6120.00 "LS ltbrn-tan,occ brn,crm-wh incl,ooliclastic-gran,micxl-crpxl,tr agl mat,occ GRNST/tr DOL cmt,tr scat dns tt PCKST frag-incl,chk-tr POR fl,rr xl ANHY & ool,vrr wh CHT incl,g ooc-intxl/tr agl POR,g FLOR AA,g ltbrn-brn STN,incr scat blk dd o STN,g CUT AA "

6120.00 6130.00 "LS AA,ooliclastic GRNST/DOL cmt,tr scat dns PCKST,chk/tr POR fl,tr xln ANHY frag-incl,rr ool,POR-FLOR-STN-CUT AA"

6130.00 6150.00 "LS AA,vfxl-gran-ooliclastic,occ oolmoldic-crpxl,sl agl,occ GRNST/tr DOL cmt,tr scat dns tt PCKST frag-incl,chk-tr POR fl,tr xl ANHY,rr wh CHT & ool incl,g POR AA,g even mod bri-bri yel FLOR,g ltbrn-brn STN/decr blk dd o STN,g fast strm-blooming mlky CUT"

6150.00 6180.00 "LS ltbrn-tan/occ wh-crm incl,occ brn,vfxl-gran-ooliclastic,crpxl,occ GRNST/tr DOL cmt,tr dns PCKST incl-frag,chk/tr POR fl,tr xln ANHY AA,rr ool incl-mic fos,vrr CHT incl,POR-FLOR AA,g ltbrn-fr brn STN,tr scat blk dd o STN,g fast strm-blooming mlky CUT"

DEPTH	LITHOLOGY
6180.00	6210.00 "LS ltbrn-brn,rr crm-ltgy,crpxl-vfxl,gran-micsuc ip,pred oolcastic-v sl alg LS GRNST,occ tt-sl ool LS PKST incl,rr ANHY xl-POR FL,sl DOL rich cmt,n-v rr scat trnsl CHT frag,fr-g dull-bri yel FLOR,fr-g intxl-ool-v rr alg POR,fr ltbrn-blk STN,fr-g fast CUT"
6210.00	6220.00 "LS AA,incr CHT frag,fr-g dull-bri yel FLOR,fr-g ool-fr intxl-rr alg POR,fr-g ltbrn STN,tr blk dd o STN,fr-g mod fast dif-stmg CUT"
6220.00	6250.00 "LS AA,g intxl-ool POR,n-v rr alg POR,FLOR-STN-CUT AA"
6250.00	6280.00 "LS ltbrn-tan,occ brn,v rr crm,crpxl-vfxl,gran-micsuc,cln-dns ip,oolcastic-sl alg,pred LS GRNST w/thn LS PKST incl-frag,sl DOL rich cmt,occ anhy-tr ANHY xl,fr-g ool-tr intxl-rr alg POR,fr-g dull-bri yel FLOR,tr-fr ltbrn-spty blk STN,fr-g mod fast CUT"
6280.00	6300.00 "LS AA,incr v oolcastic LS GRNST,fr-g dull-bri yel FLOR,fr-g ool-fr intxl-rr alg POR,fr ltbrn-tr brn STN,tr blk dd o STN,fr-g mod fast dif-stmg CUT"
6300.00	6310.00 "LS AA,occ crm-wh-ltgy crpxl LS PKST,pred oolcastic-v sl alg LS GRNST,POR-FLOR-STN-CUT AA"
6310.00	6340.00 "LS ltbrn-tan,occ crm-wh-ltgy,brn ip,crpxl-vfxl,gran-micsuc ip,occ dns,pred oolcastic-sl alg LS GRNST,tr scat tt-rr ool LS PKST,scat ANHY xl,v rr CHT frag,sl mic fos,tr-fr ool-intxl-rr alg POR,fr-g dull-bri yel FLOR,fr ltbrn-tr brn-blk STN,fr-g fast CUT"
6340.00	6350.00 "LS AA,pred v oolcastic-sl alg LS GRNS,scat CHT frag,POR-FLOR-STN-CUT"
6350.00	6370.00 "LS ltbrn-tan,occ brn,rr crm-wh,crpxl-vfxl,gran-micsuc,cln-dns ip,oolcastic-sl alg,pred LS GRNST w/tr pty LS PKST incl-frag,sl DOL rich cmt,occ anhy-tr ANHY xl,fr ool-tr intxl-rr alg POR,fr-g dull-bri yel FLOR,tr-fr ltbrn-spty blk STN,fr-g mod fast CUT"
6370.00	6400.00 "LS ltbrn-tan,rr crm-wh,sl ltgy,crpxl-vfxl,gran-micsuc,v rr intbd dns pty LS PKST,pred v oolcastic-sl alg LS GRNST,rr scat ANHY xl,v rr scat CHT frag,fr-g ool-intxl POR,fr-g dull-bri yel FLOR,fr ltbrn-tr brn STN,rr spty blk STN,fr-g slow dif-fast CUT"
6840.00	6860.00 "LS pred intbd tt sl ool LS PKST & oolcastic LS GRNST,AA,scat mot wh-trnsl clr CHT frag,tt-g intxl-fr ool POR,fr-g dull-bri yel FLOR,rr-g ltbrn-brn STN,v rr spty blk dd o STN,fr-g slow-mod fast dif-tr mod fast stmg CUT"
6860.00	6870.00 "LS tan-brn,occ ltbrn-crm-wh,crpxl-micxl,occ vfxl-gran-micsuc,pred sl oolcastic LS GRNST,bcmg tt occ pty LS PKST-v sl ool,scat trnsl-clr-mot CHT frag,sl dol,rr ANHY xl,fr-g intxl-tr ool POR,fr-g dull-bri yel FLOR,fr-fr ltbrn-brn-rr blk STN,n-fr fast CUT"
6870.00	6880.00 "LS AA,pred tt sl pty LS PKST,w/thn intbd oolcastic LS GRNST,tt-tr intxl-ool POR,decr FLOR-STN-CUT"
6880.00	6890.00 "LS pred dns,tt,occ chk,chy,sl ool LS PKST-sl pty,w/v rr scat oolcastic LS GRNST incl-intbd,tt-rr intxl-ool POR,fr-fr dull yel FLOR,rr spty brn-rr blk STN,rr of g mod fast dif-stmg CUT"
6890.00	6900.00 "LS AA,pred tt,occ pty LS PKST w/NFSOC,thn intbd oolcastic LS GRNST w/POR-FLOR-STN-CUT AA"

DEPTH

LITHOLOGY

6900.00 6920.00 "LS tan-crm-wh,occ ltbrn,brn,crpxl,vfxl-micxl,occ ooc,pred dns tt PCKST,cln-chk/scat plty prtgs,tr intbd-frag ooc GRNST/tr DOL cmt,scat tan-trnsl CHT frag-incl,rr xln ANHY,tt-tr intxl-rr ooc POR,fr scat dull yel FLOR,tr ltbrn-rr brn-vrr pp blk STN,CUT AA"

6920.00 6930.00 "LS AA,pred dns-occ chky plty tt PCKST,sl incr oolitic GRNST AA,tr CHT AA,rr xl ANHY,POR-FLOR-STN AA,fr slow dif/rr v slow strm mlky CUT"

6930.00 6950.00 "LS tan-crm,occ ltbrn,wh,crpxl,vfxl-gran-micxl,occ oolitic,pred chky dns-occ plty tt PCKST,tr scat GRNST-occ GRNST/tr DOL cmt ip,tr tan-trnsl-occ wh CHT incl-frag,rr xln ANHY,POR AA,fr veven dull-scat mod bri yel FLOR,STN AA,g-fr dif/rr slow strm CUT"

6950.00 6970.00 "LS tan-ltbrn,occ brn,crm-wh ip,crpxl,vfxl-gran,pred dns-occ plty LS PKST intbd/sl oolitic GRNST,sl-occ v chky,scat CHT AA,rr xl ANHY,v sl dol,tt-tr intxl-vrr ool POR,g even dull-scat bri yel FLOR,tr ltbrn-brn-vrr pp blk STN,g dif/tr mod fast mlky CUT"

6970.00 6980.00 "LS AA,pred chky dns-occ plty LS PCKST,decr scat oolitic GRNST frag,occ v sl DOL ip,incr scat trnsl-tan CHT incl-frag,rr xl ANHY,tt-tr intxl-vrr ooc POR/tr chky fl,fr even dull/scat mod bri yel FLOR,g-fr CUT AA"

6980.00 6990.00 "LS AA,pred dns-occ plty LS PKST/thn intbd oolitic LS GRNST,POR-FLOR-STN-CUT AA"

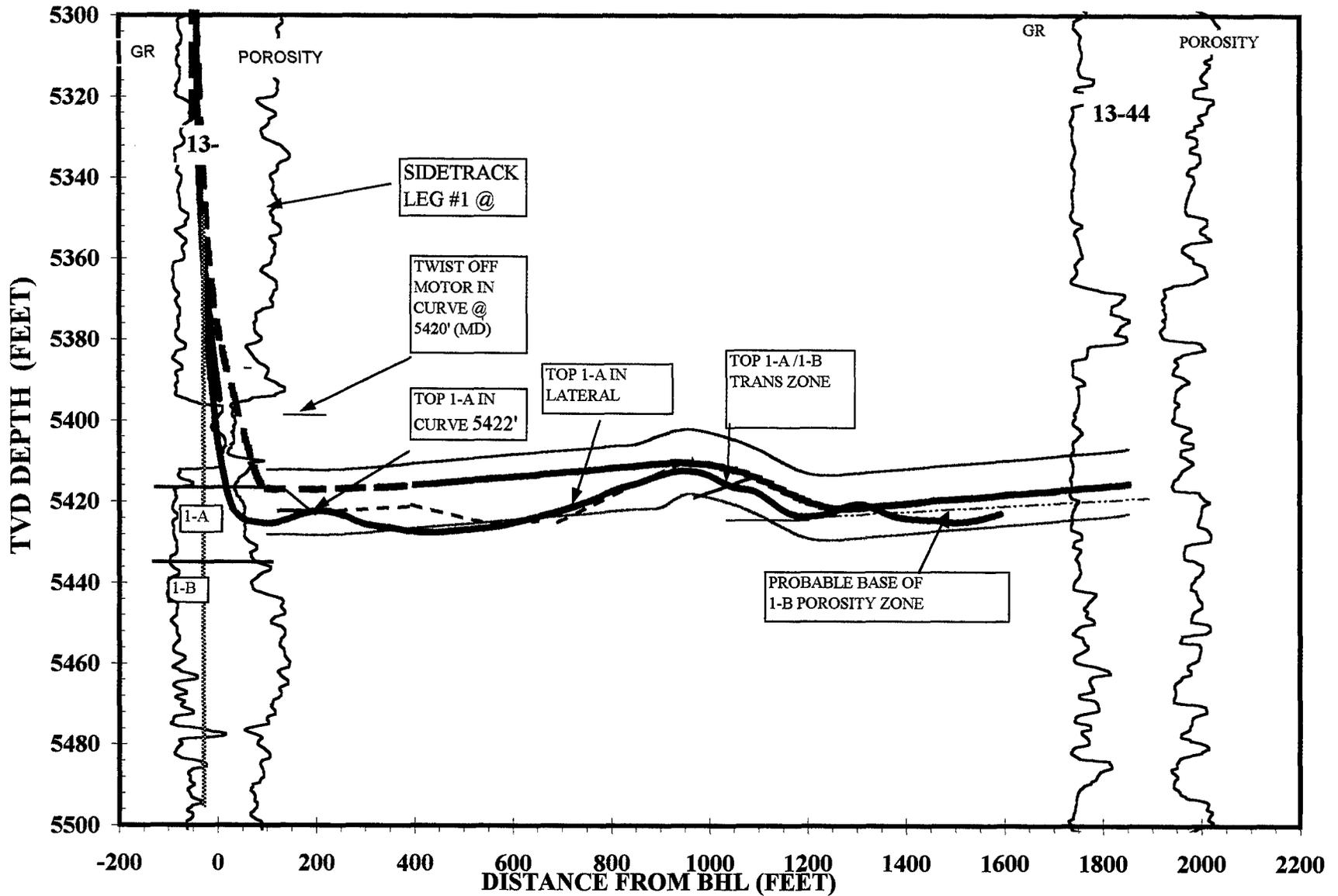
6990.00 7010.00 "LS tan-ltbrn,crm-wh,occ brn,crpxl,vfxl-gran,occ oolitic,pred chky dns-plty LS PKST intbd/oolitic GRNST,tr DOL cmt,scat CHT AA,rr xl ANHY,tt-tr intxl-vrr ool POR,FLOR AA,tr ltbrn-brn-rr pp blk STN,g dif/tr slow-mod fast strm mlky CUT"

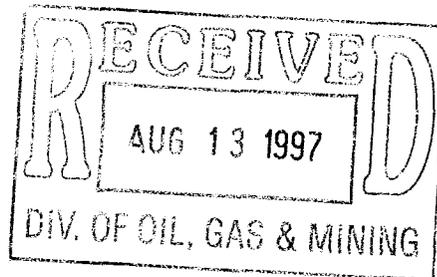
7010.00 7030.00 "LS tan-crm-wh,ltbrn,occ brn,crpxl,micxl-vfxl,occ micsuc-gran,dns-plty PCKST,tr scat occ ool GRNST,tr tan-trnsl-occ wh CHT frag-incl,rr-tr xln ANHY,sl-v chky,occ sl dol,tt-tr intxl-rr ooc POR/occ chk fl,fr dull-rr bri yel FLOR,fr STN-CUT AA "

7030.00 7050.00 "LS tan-ltbrn,crm-wh,occ brn,crpxl,vfxl-gran,pred dns-incr plty LS PKST intbd/tr oolitic GRNST,scat CHT AA,rr xl ANHY,occ v sl dol,tt-tr intxl-vrr ool POR,g even dull-tr scat mod bri yel FLOR,tr ltbrn-brn-vrr pp blk STN,g dif/rr-tr mod fast mlky CUT"

7050.00 7069.00 "LS tan-ltbrn,crm-wh,occ brn,crpxl,vfxl-gran,pred dns-incr plty LS PKST,sl foss/crin, scat oolitic GRNST,rr to com xl ANHY,tt-tr intxl-vrr ool POR,even dull-tr scat mod bri yel FLOR,tr ltbrn-brn-vrr pp blk STN,g dif/rr-tr mod mlky CUT"

MOBIL, Ratherford #13-33, Southeast Lateral





MOBIL

**RATHERFORD UNIT #13-33
NW HORIZONTAL LATERAL LEG #2
UPPER 1-A/B POROSITY BENCH
DESERT CREEK MEMBER
PARADOX FORMATION
SECTION 13, T41S, R23E
SAN JUAN, UTAH**

**GEOLOGY REPORT
by
JASON BLKAE / MARVIN ROANHORSE
ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044**

MICROFICHE

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WELL SUMMARY

OPERATOR: MOBIL EXPLORATION & PRODUCTION U.S. INC.

NAME: RATHERFORD UNIT #13-33 NW HORIZONTAL LATERAL
LEG#2 IN 1-A/B UPPER POROSITY BENCH, DESERT CREEK

LOCATION: SECTION 13, T41S, R23E

COUNTY/STATE: SAN JUAN, UTAH

ELEVATION: KB:4640' GL:4652'

SPUD DATE: 7/25/97

COMPLETION DATE: 7/30 /97

DRILLING ENGINEER: SIMON BARRERA / BENNY BRIGGS

WELLSITE GEOLOGY: JASON BLAKE / MARVIN ROANHORSE

**MUDLOGGING
ENGINEERS:** JASON BLAKE / MARVIN ROANHORSE

CONTRACTOR: BIG "A" RIG 25
TOOLPUSHER: J. DEES

HOLE SIZE: 4 3/4"

CASING RECORD: SIDETRACK IN WINDOW AT 5292' MEASURED DEPTH

**DRILLING MUD:
ENGINEER:** M-I
RON WESTENBERG/ DANNE BEASON
MUD TYPE: FRESH WATER & BRINE WATER W/ POLYMER SWEEPS

**DIRECTIONAL
DRILLING CO:** SPERRY-SUN

ELECTICAL LOGGING: NA

TOTAL DEPTH: 6931' MEASURED DEPTH 5432.40' TVD

STATUS: TOH & LAY DOWN TOOLS. PREPARE TO MOVE RIG TO NEXT
WELL

DRILLING CHRONOLOGY
RATHERFORD UNIT #13-33
1-A/B NW HORIZONTAL LATERAL LEG#2

DATE	DEPTH	DAILY	ACTIVITY
7/25/97	5284'	8'	TOH w /starter mill & LD tools. PU window and watermelon mill & TIH. PU swivel & break circulation. Mill window 5284'-5292', base of window at 5292'. LD 1 jnt & hang swivel. LD 12 jnts & POOH. LD mill assembly. PU curve assembly.
7/26/97	5292'	82'	PU curve assembly & orient. TIH. Rig up Gyro Data wireline. Orient tool & begin drilling @ 6:00 AM. time drlg 5292'-5299'. Dir drlg & wireline surveys 5299'-5319'. Rig down Gyro Data. Dir drlg & surveys 5319'-5374'. Not getting build rates needed for curve. LD 1 jnt DP & hang swivel & POOH. Pump water down drlg string. POOH to replace pad on mtr.
7/27/97	5374'	114'	TOOH, change motor pad & bit. TIH, PU swivel, 1 jt DP & break circulation. Dir drlg & Surveys 5374'-5488'. Pump 10 bbls high vis sweep & samples out. LD 50 jnts AOH DP & TOOH. Change out mud mtr & bit, then test. TIH
7/28/97	5488'	789'	TIH. Orient tool, Dir drlg & Surveys.
7/29/97	6277'	653'	Dir drlg & Surveys.
7/30/97	6931'		Dir drlg & Surveys. TD reached at 3:30 AM, Rig Down to move to next well.

DAILY ACTIVITY

Operator: MOBIL

Well Name: RATHERFORD UNIT #13-33 NW 1-A/B HORIZONTAL LATERAL LEG#2

DATE	DEPTH	DAILY	DATE	DEPTH	DAILY
7/25/97	5284'	8'			
7/26/97	5292'	82'			
7/27/97	5374'	114'			
7/28/97	5488'	789'			
7/29/97	6277'	653'			
7/30/97	6931'				

BIT RECORD

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 NW 1-A/B HORIZONTAL LATERAL LEG#2

RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	HRS	FT/HR
BIT#1 (RR)	4 3/4"	STC	MF15GP	5291'/ 5374'	83'	12.5	6.64
BIT#2 (RR)	4 3/4"	HTC	STR-30	5374'/ 5488'	114'	79.5	1.81
BIT#3	4 3/4"	HTC	STR-30	5488'/ 6931'	1442'	49.5	29.13

MUD REPORT

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 NW 1-A/B HORIZONTAL LATERAL LEG#2

DATE	DEPTH	WT	VIS	PLS	YLD	GEL	pH	WL	CK	CHL	CA	SD	OIL	WTR
7/25/97	5286'	8.4	29	2	1	0/0	11.8	21.6	NC	8900	420	0	8%	92%
7/26/97	5296'	8.4	29	2	1	0/0	11.8	36.2	N/C	8900	400	0	7%	93%
7/27/97	5394'	8.4	29	2	1	0/0	11.8	34.5	N/C	8700	380	0	6%	94%
7/28/97	5584'	8.4	29	2	1	0/0	11.8	36.2	N/C	8600	360	0	5%	95%
7/29/97	6450'	8.4	30	2	2	0/0	11.7	34.1	N/C	9000	400	0	4%	96%
7/30/97	6931'	-	-	-	-	-	-	-	no	report	-	-	-	-

FORMATION TOPS

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 NW 1-A/B HORIZONTAL LATERAL LEG #2

FORMATION NAME		SAMPLES	SAMPLES	DATUM
		MEASURED DEPTH	TRUE VERTICAL DEPTH	KB:4652'
LOWER ISMAY		5322'	5321.19'	-669
GOTHIC SHALE		5412'	5396.3'	-744
DESERT CREEK		5445'	5412'	-760
DC 1-A ZONE		5464'	5417'	-765
DC 1-B ZONE		6460'	5429.5'	-777

GEOLOGICAL SUMMARY

AND

ZONES OF INTEREST

The Mobil Exploration and Production U.S. Inc., Ratherford Unit #13-33 Horizontal Lateral Leg 2 was a re-entry of the Mobil Ratherford Unit #13-33 located in Section 13, T41S, R23E, and was sidetracked in a northwesterly direction from 5292' measured depth, 5291.5' true vertical depth, on July 26, 1997. The lateral reached a measured depth of 6931', true vertical depth of 5432.40' at total depth, with a horizontal displacement of 1600.72' and true vertical plane 309.80 degrees, on July 30, 1997, in the upper Desert Creek 1-B porosity zone. The lateral was drilled with a minimum of mechanical problems. At a measured depth of approximately 6350', the lateral was turned downward toward and into the 1-B porosity zone. This lateral was drilled using oil and water emulsion with polymer sweeps as the drilling fluid. A very minor amount of oil was noted while drilling the lateral through the 1-A porosity zone. The background gases noted on the accompanying mud log showed moderate to good increases while drilling the 1-A porosity, and decreased very slightly over the last 1000' of the lateral. The samples showed a fair amount of oil shows through out the drilling of the lateral in the 1-A section. Shows decreased somewhat through the 1-B porosity zone with an associated decrease in porosity development.

The primary objectives of the Ratherford Unit #13-33 Leg 2 NW horizontal lateral were the upper 1-A and 1-B porosity benches of the Desert Creek and to identify and define the porosity benches, the effective porosity, staining and reservoir properties in 1-A zone and 1-B zones of the Desert Creek Member of the Upper Paradox Formation. The Upper Ismay, Hovenweep Shale marker, Lower Ismay, Gothic Shale, and the transition zone at the top of the Desert Creek were encountered while drilling the curve section of the lateral. Kick off point for this lateral was 5292', measured and 5291.5' true vertical depth, in the basal Upper Ismay member of the Paradox Formation.

The top of the Upper Ismay was not seen during the drilling of the R.U. 13-33 reentry. The basal portion of the Upper Ismay was predominately limestone, brown to tan to light tan, some cream, cryptocrystalline, some microcrystalline, predominately dense to slightly earthy/chalky textured, slightly argillaceous, cherty and slightly anhydritic in part. There were thin dark gray brown to black, carbonaceous, hard, brittle, slightly calcareous to dolomitic shales, and scattered brown to black to translucent chert fragments noted at the base of the Upper Ismay. There was no visible porosity noted in the limestones and dolomites of the Upper Ismay, with no visible fluorescence, stain or cut, with no gas increases noted.

The top of the Lower Ismay was picked at 5322' measured depth, 5321' true vertical depth, at the base of a very thin Hovenweep shale marker. The lithology of the Lower Ismay was predominately cream to tan to light to dark brown limestone, microcrystalline to cryptocrystalline, dense to micro-sucrosic in part, interbedded with earthy/chalky textures. Minor amounts of anhydrite crystals as well as light gray to dark gray chert were observed throughout. From 5365' MD to 5394' MD (5361' TVD to 5384' TVD), thin zones exhibiting poor to fair porosity development with minor staining and cut were observed. This interval also had associated scattered fossils (gastropods) and oolites. The Lower Ismay became somewhat more dolomitic toward the base of the section with and increase in the amount of dark gray chert and a slight increase in anhydrite.

The top of the Gothic Shale was at 5412' measured depth, 5396.3' true vertical depth. The Gothic Shale was predominantly dark gray to black, silty, carbonaceous, brittle to firm, subblocky to blocky to platy, calcareous to slightly dolomitic and slightly micaceous. Scattered within the Gothic were very thin, cryptocrystalline to microcrystalline, earthy, limestones and dolomites, with very rare scattered anhydrite crystals. The top of the Gothic was quite abrupt, typical of what is seen on the electric logs and was picked predominantly by a slight increase in penetration rate and an increase in the percentage of shale in the samples.

Between the Gothic Shale and Desert Creek Porosity Members is a transitional zone, which appears to be upwardly gradational. The top of the Desert Creek is commonly picked at the Gothic Shale to transition zone facies change, which in this leg occurred at a measured depth of 5445' and a true vertical depth of 5412'. In this well the zone was a silty limestone, with very thin interbedded brown, limy, argillaceous dolomites and very thin carbonaceous shales. The limestone was predominately gray to white, soft, silty/earthy in texture, argillaceous and moderately soft. The thin interbeds of dolomite were brown to dark brown, moderately hard, cryptocrystalline to microcrystalline, anhydritic, with scattered anhydrite crystals and rare brown chert. The limestones had no visible to very rare, very poor intercrystalline porosity, with only a rare, spotty fluorescence and a very poor stain and cut. The interbedded dolomites were microcrystalline, slightly silty and had no to very rare intercrystalline porosity, with no visible sample show.

The transition zone of the Upper Desert Creek graded into the inter-oolitic to oolitic porosity of the 1-A zone. The top of the Desert Creek 1-A porosity zone, based on sample examination and increased penetration rate, was encountered at 5464' measured depth, 5417' true vertical depth, at a vertical section of 138'. The first 60' of the zone from 5464' to 5524' MD, 5417'-5422' TVD, displayed a rather amorphous limestone, tan to light brown to cream and off white in part, very fine to microcrystalline, dense to slightly earthy to slightly sucrosic texture with scattered oolites and minor algal material. Poor to fair intercrystalline porosity with minor enhancement from oolitic and rare algal porosity was observed through this interval with fair brown even stain, good even bright yellow-gold fluorescence and a slow streaming to fair diffused cut.

The well developed oolitic limestone with inter-oolitic to oolitic porosity of the 1-A zone was continuous from 5524' measured depth through 6434' measured depth (5422' TVD to 5428.5' TVD - 1100' vertical section) when the 1-A to 1-B transition zone was penetrated. These limestones were tan to light brown to brown, occasionally cream colored, micro to very finely crystalline, very oolitic to slightly fossiliferous in part and occasionally very slightly algal. Throughout the zone there were varying amounts of dolomite cement, translucent to buff chert fragments, cryptocrystalline oolitic limestone packstone and anhydrite crystal inclusions. The porosity development throughout the zone transitioned from primarily inter-oolitic with secondary oolitic to primarily oomoldic with secondary inter-oolitic to minor oolitic development in the section prior to turning down into the 1-B. Shows generally improved the further away from the flushed zone around the wellbore, and became very good with good brown stain, good even yellow-gold fluorescence and a fast streaming to flash diffused cut near the end where the oomoldic porosity developed. The lateral was kept very close to the target line and stayed in well developed porosity throughout the 1-A zone with the exception of the interval from 5322'-5334' MD (5428' TVD) where the base of the 1-A was encountered while attempting to penetrate into the 1-B. The bit "bounced" off the hard bottom and went back up into the 1-A, but was once again directed downward where the transition between the 1-A and 1-B was encountered. At a measured depth of 6434', with a true vertical depth of 5428.5' and a horizontal displacement of 1100' the well bore penetrated the base of the 1-A porosity zone.

The top of the 1-B zone in this lateral was encountered at a measured depth of 6460', 5429.5' true vertical depth, and a vertical section of 1130'. The transition zone between the 1-A and 1-B was a very tight cream to white to tan, cryptocrystalline to slightly microcrystalline, dense to slightly chalky texture, very slightly oolitic limestone packstone. The limestone had abundant (up to 10%) translucent to clear, mottled light gray to white chert fragments. The transition zone had rare thin streaks of limestone grainstones, which had poor intercrystalline to oolitic porosity and no to very poor visible fluorescence, stain and cut.

As the well bore penetrated the 1-B porosity zone the lithology returned to cream to tan to light brown, cryptocrystalline to very fine crystalline, oolitic limestone grainstone. This oolitic limestone of the 1-B was interbedded with off white-cream to tan, microcrystalline to cryptocrystalline, platy, very slightly oolitic, dense to earthy textured tight limestone packstones. In addition, an increase in overall content of tan-white, clear to triplitic chert was noted through the 1-B. The oolitic limestone grainstone had fair to good oolitic to intercrystalline porosity, with a fair to good fluorescence, fair light brown to brown to spotty black stain and a fair to good moderately fast streaming to diffused milky cut. Much of the milky white cut is most likely due to the oil emulsion in the mud system and not oil in the formation itself. The well bore was oriented essentially flat to a total measured depth of 6931', 5432.4' true vertical depth at a 1600.72' of vertical section. The last 200 feet of the lateral bumped along the upper limits of the 1-B porosity. This was reflected in the samples by a 50-50 mix of oolitic, porous grainstones and tight, chalky/earthy tight packstones.

The lateral was terminated in the upper portion of the 1-B porosity zone at a measured depth of 6931', 5432.40' true vertical depth, and a horizontal displacement of 1600.72', on July 30, 1997. The penetration rate through both the 1-A and 1-B remained consistently fast, indicating that the wellbore remained in the better developed porosity in both zones. This was reflected in the samples with consistently fair to good porosity development throughout with the exception of where the well path transitioned from the 1-A to the 1-B horizons.

In conclusion, in tracking the well bore through the 1-A bench, the oolitic limestone grainstone had very well developed and consistent inter-oolitic to oolitic porosity throughout with associated good to excellent shows. Subtle facies changes were noted, transitioning from predominately inter-crystalline porosity where the zone was first penetrated, to inter-oolitic with minor oomoldic, to primarily oomoldic with minor inter-crystalline and oolitic porosity near the end of the 1-A bench where the well path was turned downward into the 1-B. The porosity of the 1-B zone was less well developed than the 1-A but seemed to maintain a fairly consistent thickness throughout. Minor lateral facies changes were encountered in the 1-B zone consisting of a decrease in inter-oolitic/oolitic/oomoldic porosity fabric and an increase of tight micritic matrix. The effective or better porosity was associated with the oolitic/oomoldic grainstone facies, which had fair to good, intercrystalline to oolitic porosities with only minor anhydrite plugging. The limestone packstones at the top and base of the 1-A zone had decreased porosities, poor permeabilities and decreased shows. The 1-A zone in this well was the better developed of the two and should contribute the majority of the effective permeability for this lateral.

SAMPLE DESCRIPTIONS

OPERATOR: MOBIL

WELL NAME: RATHERFORD UNIT #13-33 NW 1-A/1-B HORIZONTAL LATERAL LEG#2

DEPTH	LITHOLOGY
5290.00 5300.00	"LS,crm-tan-lt brn,micxl-crpxl,dns,sl-mhd,vsl pyr,scat calc frac fl,tt,NFSOC,50% CMT"
5300.00 5310.00	"LS,brn-tan-lt tan ip,micxl-crpxl,dns xl mtx,rr anhy,scat argil DOLO,blk-dk gr,hd,sil,scat calc frac fill,tt,NFSOC"
5310.00 5320.00	"LS,brn-tn-crm ip,mhd-msft,dens-sl chky/rthy tex,rr lt-dl gr CHT,sl anhy,rr calc frac fill aa,tt,NFSOC"
5320.00 5331.00	"LS,brn-tn-crm ip,mhd-msft,dens-sl chky/rthy tex,rr lt sl pyritic cht-dK gr sl foss CHT,sl anhy,rr calc frac fill aa,rr pcs SHL,blk,tab,mfrm,brittle; LS,tt,NFSOC"
5330.00 5350.00	"LS m-ltgybrn,dkbrngy,occ brn-tan,wh,micxl-crpxl,occ vfxl,rthy,chk strk,pred mot/bk carb sl dol SH,tr slty-sl sdy strk,tr dkbrn CHT frag,tr GAST fos,tt-rr intxl POR/tr chk fl,tr scat mod bri-dull yel FLOR,tr slow dif CUT"
5350.00 5360.00	"DOL brn-dkbrn,micxl-micsuc,sl crpxl,rthy,sl slty,shy-arg,grdg to arg dol SH,tr LS incl,sl chk,tt-rr intxl POR,n-rr pp dull yel FLOR,n-rr brn STN,v slow dif/v fnt res ring CUT"
5360.00 5370.00	"LS AA/scat ltgy-wh chky sl anhy prtgs,occ mot AA,tr slty-sl sdy strk,tr dkbrn CHT frag,tt-rr intxl POR/tr chk fl,tr scat mod bri-dull yel FLOR,n-tr brn STN,tr slow dif CUT"
5370.00 5380.00	"LS,off wht-crm-tn-brn,mic-crypxln,rthy/sndy tex to dens,vsl foss (crin),carb shl ptgs ip,com lt gr-dk gr CHT,sl argil + com LS,tn,vfn xln,oolitic,fr introol/intrxln POR,blk STN,sl strm-diff CUT,oolitic ls has red staining-poss from water injection?"
5390.00 5400.00	"LS grd to lmy DOLO ip,off wht-crm-tn,vfn-micxln,sl frm,dens-sl chky to mic suc tex,sl anhy,pr intrxln POR,no vis STN,mod-bri yel FLUOR,no-vsl CUT"
5400.00 5410.00	"LS to lmy DOLO aa,crm-tn-brn,vfn-micxln,sl frm,dens-sl chky to mic suc tex,sl anhy,scat dk gr CHT,pr intrxln POR,vsl blk STN,mod-bri yel FLUOR,no-vsl CUT"
5410.00 5420.00	"pred SHL,blk-dk brn,sft-sl frm,sub blk-sub tab,slty tex ip,calc,vsl micpyritic + LS grd to calc DOLO aa"
5420.00 5430.00	"SHL,blk-dk brn,sft-sl frm,sub blk-sub tab,slty tex ip,calc,vsl micpyritic"
5430.00 5440.00	"SHL,blk-dk brn,sft-sl frm,sub blk-sub tab,slty tex ip,calc,vsl micpyritic + scat LS,crm-tn-lt brn,micxln,dens,NFSOC"
5440.00 5450.00	"20% SHL aa+LS,lt gr-off wht-tn ip,vfn-micxln,dens slty-sndy tex ip,sl frm-m sft,sl dolo ip,anhy,pr intrgrn POR,dull-mod yel FLUOR,no CUT"
5450.00 5460.00	"pred LS,crm-off wht-lt gr,vfn-micxln,slty-rthy tex,msft,argil,scat DOLO,brn,mhd,dens,rr brn CHT,15% SHL aa,scat SLTSTN,gr,sft,calc; no POR,STN,dull FLUOR,no CUT"

DEPTH	LITHOLOGY
5460.00 5480.00	"LS,tn-lt brn,vfn-micxln,suc-dens ip,sl oolitic,sl foss,scat anhy incl grd to algal GRNSTN ip,lt brn,vfn xln,suc tex;fr intrxln-intr ool to algal mat POR,brn even STN,gd even bri yel-gld FLUOR,vsl strm-fr milky CUT"
5480.00 5490.00	"SH blk-dkbrnblk,pty-sbblky-sbsply,frm-brit,occ sft,carb,sl calc,rr pp mica,sooty,w/LS AA.POR-FLOR-STN CUT AA"
5490.00 5500.00	"LS tan-ltbrn,occ ltrngy-ltgy,crm-wh,vfxl-gran-micxl,occ crpxl,rthy,sl-occ v chky,LS GRNST/scat pty chk prtgs,occ sl dol ip,dns,tt-tr intxl POR/rr chk fl,g even mod bri yel FLOR,tr ltrn/rr blk STN,g slow strm milky CUT "
5500.00 5510.00	"LS,tn-lt brn-occ wht-crm,vfn-mic xln,pred dens sl suc tex,m-sl hd,vsl oolitic ip to sl algal ip,pr intrxln-rr introol POR,even brn-spotty blk STN,even FLUOR,vsl strm-fr milky CUT"
5520.00 5530.00	"LS,tn-lt brn-occ crm ip,sl mottled,vfn-micxln,dens-sl suc/grny tex,ool & foss hash,sl hd;fr intrxln/ppt vug/rr oocast POR,evn brn STN,bri yel-gld FLUOR,sl strm-fr milky CUT"
5530.00 5540.00	"LS,tn-lt brn-occ crm ip,sl mottled,vfn-micxln,dens-sl suc/grny tex,ool & foss hash,sl hd;fr intrxln/ppt vug/scat oocast/oomold POR,evn brn STN,bri yel-gld FLUOR,sl strm-fr milky CUT"
5540.00 5560.00	"LS,tn-lt brn-occ crm ip,sl mottled,vfn-micxln,dens-sl suc/grny tex,ool & foss hash,sl hd;fr intrxln/ppt vug/scat oocast/oomold POR,brn-spot blk STN,mod-dul yel-gld FLUOR,sl strm-fr milky CUT"
5560.00 5580.00	"LS,tn-lt brn-occ crm ip,vfn-micxln,sl suc tex to dens,bcm prim oolitic,sl foss hash aa,m-sl hd;pr-fr intrxln-intr ool-rr oomold POR,lt brn spotty STN,even dul yel-grn FLUOR,sl strm-diff CUT"
5580.00 5590.00	"LS,tn-lt brn-occ crm ip,dens-sl suc/grny tex ip,mhd,oolitic,v sl foss,sl anhydritic,pr intrxln-oomoldic POR,sl lt brn STN,even dull yel-grn FLUOR,vsl strm-diff CUT"
5590.00 5610.00	"LS,tn-buff-lt brn,mic-vfn xln,dens-sl grny tex,oolitic,scat foss hash,m-sl frm,sl anhy,few pcs wht-lt tn,hd,sil grd to CHT ip,pr-fr intrxln-sl oomoldic POR,lt brn-brn spotty STN,even mod yel-gld FLUOR,fr stm-milky diff CUT"
5610.00 5630.00	"LS,tn-buff-lt brn,mic-vfn xln,dens-sl grny tex,oolitic,scat foss hash,m-sl frm,sl anhy,few pcs wht-lt tn,hd,sil grd to CHT ip,pr-fr intrxln-sl oomoldic POR,lt brn-brn spotty STN,even mod yel-gld FLUOR,fr stm-milky diff CUT"
5630.00 5640.00	"LS,tn-buff-lt brn-sl crm ip,m-sl hd,sl suc tex to dens,oolitic-sl foss hash,scat wht-occ oolitic CHT,rr xln ANHY,fr intrxln-rr introolitic POR,spotty brn-blk STN,even mod yel-gld FLUOR,fr strm-diff CUT"
5650.00 5670.00	"LS,tn-buff-lt brn-sl crm ip,m-sl hd,sl suc tex to dens,oolitic-sl foss hash,scat wht-occ oolitic CHT,rr xln ANHY,fr intrxln-rr introolitic-occatic POR,spotty brn-blk STN,even mod yel-gld FLUOR,fr strm-diff CUT"
5670.00 5690.00	"LS,tn-buff-lt brn-sl crm ip,m-sl hd,sl suc/grny tex to dens,oolitic-sl foss hash,scat wht-occ oolitic CHT,rr xln ANHY,fr-gd intrxln-incr introolitic POR,spotty brn-blk STN,even mod yel-gld FLUOR,fr strm-diff CUT"
5680.00 5700.00	"LS,tn-buff-lt brn-sl crm ip,m-sl hd,sl suc/grny tex to dens,oolitic-sl foss hash,scat wht-occ oolitic CHT,rr xln ANHY,fr-gd intrxln-incr introolitic POR,spotty brn-blk STN,even mod yel-gld FLUOR,fr strm-diff CUT"

DEPTH

LITHOLOGY

- 5700.00 5710.00 "LS,crm-tn-lt brn,vfn-micxln,dens matr,x,v oolitic,v sl foss hash,rr wht-crm oolitic CHT,rr ANHY; fr-gd introolitic to intrxln POR,spotty-even brn-dk brn STN,even mod-bri yel-gld FLUOR,fr strm-diff CUT"
- 5710.00 5730.00 "LS,crm-tn-lt brn,mottled,vfn-micxln,dens matr,x,v oolitic,v sl foss hash,rr wht-crm oolitic CHT,rr ANHY; fr-gd introolitic to intrxln POR,spotty-even brn-dk brn STN,even mod-bri yel-gld FLUOR,fr strm-diff CUT"
- 5730.00 5750.00 "LS,crm-tn-lt brn,mottled,vfn-micxln,dens matr,x,v oolitic,v sl foss hash,rr wht-crm oolitic CHT,rr ANHY; fr-gd introolitic to intrxln POR,spotty-even brn-dk brn STN,even mod-bri yel-gld FLUOR,fr strm-diff CUT"
- 5750.00 5761.00 "LS,crm-tn-lt brn,mic-vfnxln,dens mtr,x,m-sl hd,oolitic-vsl foss,fr introolitic-intrxln POR,even lt brn-spotty dk brn-blk STN,gd even yel-gld FLUOR,fr-gd strm-diff CUT"
- 5760.00 5780.00 "LS,crm-tn-lt brn,mic-vfnxln,dens mtr,x,m-sl hd,oolitic-vsl foss,fr introolitic-intrxln POR,even lt brn-spotty dk brn-blk STN,gd even yel-gld FLUOR,fr-gd strm-diff CUT"
- 5780.00 5800.00 "LS,crm-tn-lt brn,vfn-micxln,oolitic bcm dens xln matrix ip,m-sl hd,scat blk shl (cvgs);fr introol-intrxln POR,fr-gd brn-spotty blk STN,even mod-bri yel-gld FLUOR,fr-gd strm-diff CUT"
- 5800.00 5810.00 "LS,crm-tn-lt brn,vfn-mic xln,dens matrix to oolitic w gd introol POR,vsl foss aa,rr anhy,scat wht ool CHT,scat blk shl (cvgs),fr-gd dk brn STN in POR,even mod-bri yel-gld FLUOR,fr strm-diff CUT"
- 5810.00 5821.00 "LS,crm-tn-lt brn,vfn-mic xln,dens matrix to oolitic w gd introol POR,vsl foss aa,rr anhy,scat wht ool CHT,scat blk shl (cvgs),fr-gd dk brn STN in POR,even mod-bri yel-gld FLUOR,fr strm-diff CUT"
- 5820.00 5840.00 "LS,crm-tn-lt brn,sl mottled,mic-vfn xln,pred dens mtr,x to sl chky ip,oolitic,sl anhy,fr introolitic grd to oomoldic POR,spotty-even brn-dk brn STN,even dull-mod yel-grn FLUOR,sl strm-diff CUT"
- 5840.00 5850.00 "LS,tn-lt brn-crm ip,sl mottled,vfn-mic xln,mtr,x bcm less dens,oolitic,sl anhy,m-sl hd,fr intr ool-intrxln POR,fr even-spotty dk brn-blk STN,even mod yel-gld FLUOR,fr strm-diff CUT"
- 5850.00 5870.00 "LS,tn-lt brn-crm ip,sl mottled,vfn-mic xln,mtr,x bcm less dens,oolitic,sl anhy,m-sl hd,fr intr ool-intrxln POR,fr even-spotty dk brn-blk STN,even mod yel-gld FLUOR,fr strm-diff CUT"
- 5870.00 5890.00 "LS,tn-lt brn-crm ip,sl mottled,vfn-mic xln,sl frm,sl suc/grny tex,oolitic,sl anhy;fr-gd introol grd to oomoldic-intrxln POR,gd brn-dk brn stn,even mod yel-gld FLUOR,fr-gd strm CUT"
- 5890.00 5910.00 "LS tan-ltbrn/tr crm-wh strk,occ brn-mbrn,crpxl-vfxl,micxl-gran,ooliclastic GRNST/tr DOL cmt,tr scat dns PCKST frag,chky/tr POR fl,tr ool incl,v sl anhy/rr xl frag,vrr trnsl CHT,g POR & FLOR AA,fr-g ltbrn-tr brn/rr blk dd o STN,g dif/tr slow strm mlky CUT"
- 5910.00 5930.00 "LS AA,vfxl-gran,micxl-crpxl,ooliclastic GRNST/decr DOL cmt,tr scat chky plty-dns PCKST frag,tr chky POR fl,tr ool incl,v sl anhy/tr xl ANHY frag,vrr CHT incl AA,g POR & FLOR AA,fr-g ltbrn-tr brn/rr blk dd o STN,g slow-mod fast strm mlky CUT"
- 5930.00 5950.00 "LS tan-crm-wh.ltbrn,occ brn,ltgybrn,crpxl-ooliclastic-gran,occ vfxl-micxl,occ-occ oolimoldic GRNST,tr scat dns-plty chky PCKST,tr trnsl-wh CHT frag-incl,ool incl,g POR-FLOR AA,fr-g ltbrn-tr brn/incr blk STN,CUT AA"

DEPTH

LITHOLOGY

- 5950.00 5970.00 "LS AA,ooliclastic-vfxl-gran,crpxl-micxl,ool GRNST/tr DOL rich cmt,tr scat chky plty-dns PCKST frag,tr chky POR fl,ool incl,v sl anhy/rr xl ANHY frag,rr tan-trnsl CHT frag,g POR & FLOR AA,fr-g ltblrn-tr brn/rr blk dd o STN,g slow-mod fast strm mlky CUT"
- 5970.00 5990.00 "LS AA,ooliclastic GRNST/tr DOL cmt,tr scat dns-plty chky PCKST,sl anhy/tr xl ANHY,rr CHT incl AA,fr-g ool-intxl/rr agl POR,tr chky POR fl,g mod bri/scat bri yel FLOR,g brn/tr dkbrn STN,tr scat blk dd o STN,g mod fast-fast strmg mlky CUT"
- 5990.00 6000.00 "LS AA,pred oolliclastic GRNST/tr DOI cmt,tr scat dns-plty chky PCKST,tr tan-trnsl CHT frag-incl,ool incl,sl anhy/rr xln frag,POR-FLOR-STN-CUT AA"
- 6000.00 6030.00 "LS tan-ltblrn/crm-wh incl,occ brn-mbrn,ool-crppl-vfxl,micxl-gran,ooliclastic GRNST/tr DOL cmt,tr scat PCKST AA,chky/tr POR fl,tr ool incl,tr xl frag,tr trnsl-tan CHT,g POR & FLOR AA,g ltblrn-ool brn/rr-tr blk dd o STN,g fast strm-blooming mlky CUT"
- 6030.00 6050.00 "LS tan-crm-wh,ltbrn,occ brn,ooliclastic-vfxl-gran,crpxl-micxl,ooliclastic GRNST/decr DOL cmt,tr scat dns PCKST frag-incl,vrr chky plty prtgs,tr CHT & xl ANHY AA,g POR AA,g even mod bri-bri yel FLOR,g ltblrn-brn STN/tr scat blk dd o STN,g CUT AA"
- 6050.00 6070.00 "LS AA,sl incr brn,ooliclastic GRNST,tr scat dns PCKST frag-incl,vrr chky plty prtgs,occ v sl DOL,tr CHT & xl ANHY AA,g oolliclastic-intxl-rr pp agl POR,g even mod bri-bri yel FLOR,g ltblrn/incr brn STN,tr scat blk dd o STN,g mod fast blooming-strm mlky CUT"
- 6070.00 6080.00 "LS AA,ooliclastic LS GRNST/ool DOL cmt,tr scat dns PCKST,sl chky/rr plty frag,tr xl ANHY frag,rr tan-trnsl CHT frag-incl,ool incl,g POR & FLOR AA,STN AA/decr brn STN,CUT AA"
- 6080.00 6100.00 "LS tan-ltblrn,crm-wh,occ brn,gran-crppl-ooliclastic,micxl-vfxl,pred oolliclastic GRNST/tr DOI cmt,tr intbd-scat dns tt PCKST,tr scat chky plty frag,tr xln ANHY,rr CHT AA,g oolliclastic-intxl-vrr agl POR,FLOR & STN AA,g blooming-fast strm mlky CUT"
- 6100.00 6120.00 "LS AA,ooliclastic GRNST/tr DOL cmt,decr scat dns-plty chky PCKST,tr xl ANHY,rr CHT incl AA,fr-g oolliclastic-intxl/rr agl POR,tr chky POR fl,g even mod bri/scat bri yel FLOR,g brn-ltblrn/tr dkbrn STN,tr scat blk dd o STN,g blooming-fast strmg mlky CUT"
- 6120.00 6130.00 "LS AA,ooliclastic LS GRNST/tr DOI cmt,tr scat PCKST AA/ool incl ip,tr xln ANHY frag,rr CHT AA,POR-FLOR-STN-CUT AA"
- 6130.00 6150.00 "LS tan-ltblrn,crm-wh,occ brn,gran-crppl-ooliclastic,micxl-vfxl,pred oolliclastic GRNST/tr DOI cmt,incr scat-ool intbd dns-chky plty PCKST frag,tr xln ANHY,rr tan-trnsl-ool wh CHT incl,g ool-intxl-vrr pp agl POR,FLOR & STN AA,g blooming-fast strm mlky CUT"
- 6150.00 6170.00 "LS AA,ooliclastic GRNST/tr DOL cmt,incr scat plty chky-ool dns PCKST,tr xl-sl calc ANHY frag,rr CHT incl AA,g oolliclastic-intxl-vrr agl POR,tr chky POR fl,FLOR AA,g brn-ltblrn/tr dkbrn STN,tr scat blk dd o STN,g blooming-fast strmg mlky CUT"
- 6170.00 6190.00 "LS tan-ltblrn,crm-wh-ltgybrn,occ brn,ooliclastic-vfxl-gran,crpxl-micxl,ooliclastic GRNST/tr DOL cmt,tr scat dns PCKST frag-incl,decr chky plty prtgs,tr CHT & xl ANHY AA,g POR AA,g even mod bri-bri yel FLOR,g ltblrn-brn STN/tr scat blk dd o STN,g CUT AA"

DEPTH

LITHOLOGY

- 6190.00 6200.00 "LS AA,pred oolitic GRNST/tr DOI cmt,decr scat dns-pty chky PCKST,tr tan-trnsl CHT frag-incl,ool incl,tr xln ANHY frag,POR-FLOR-STN-CUT AA"
- 6200.00 6230.00 "LS tan-ltbrn,crm-wh,occ brn,vfxl-oolitic-gran,crpxl-micxl,oolitic GRNST/tr DOL cmt,tr scat dns PCKST frag-incl,rr-tr chky pty prtgs,tr CHT & xl ANHY AA,g POR AA/tr fl,g even mod bri-bri yel FLOR,g ltbrn-brn STN/tr scat blk dd o STN,g CUT AA"
- 6230.00 6250.00 "LS ltbrn-tan-brn/crm-wh incl,vfxl-gran-oolitic-oolmoldic,crpxl-micxl,oolmoldic-ool GRNST/tr dns tt PCKST incl,occ v sl DOL cmt,tr xln ANHY incl,rr CHT incl,g oolmoldic-ool-fr intxl POR,rr pp agl POR,g mod bri/spty bri yel FLOR,g incr brn STN -CUT AA"
- 6250.00 6260.00 "LS AA,pred oolmoldic-oolitic GRNST/PCKST AA,tr scat xl ANHY frag-incl,chky/tr POR fl,g POR-FLOR AA,g brn-ltbrn STN,tr dkbrn-blk dd o STN,g blooming-fast strm mlky CUT"
- 6260.00 6280.00 "LS AA,incr brn,oolmoldic-oolitic GRNST/tr DOL cmt,occ dns PCKST incl,tr chky POR fl/vrr pty prtgs,tr CHT & xl ANHY AA,g oolmoldic-oolitic/vrr pp agl POR,g FLOR AA,g ltbrn-brn STN,tr blk dd o STN,g mod fast blooming-strm mlky CUT"
- 6280.00 6300.00 "LS ltbrn-tan-brn/crm-wh incl,occ mbrn,gran-oolmoldic-oolitic,crpxl-micxl,sl agl,pred oom-ool GRNST/tr DOL cmt,tr sact PCKST incl-frag,sl chky/tr POR fl,tr ANHY incl-frag,rr CHT incl,g oom-ool intxl POR,g mod bri-scat bri yel FLOR,STN-CUT AA"
- 6300.00 6320.00 "LS ltbrn-tan-brn/crm-wh incl,occ mbrn,gran-oolmoldic-oolitic,crpxl-micxl,sl agl,pred oom-ool GRNST/tr DOL cmt,tr sact PCKST incl-frag,sl chky/tr POR fl,tr ANHY incl-frag,rr CHT incl,g oom-ool intxl POR,g mod bri-scat bri yel FLOR,STN-CUT AA"
- 6320.00 6340.00 "LS AA,pred oolmoldic-oolitic GRNST/incr PCKST frag,tr scat xl ANHY frag-incl,chky/tr POR fl,g POR-FLOR AA,g brn-ltbrn STN,tr dkbrn-blk dd o STN,g blooming-fast strm mlky CUT"
- 6340.00 6370.00 "LS ltbrn-tan-brn/crm-wh incl,occ mbrn,gran-oolmoldic-oolitic,crpxl-micxl,sl agl,pred oom-ool GRNST/tr DOL cmt,tr sact PCKST incl-frag,sl chky/tr POR fl,tr ANHY incl-frag,rr CHT incl,g oom-ool intxl POR,g mod bri-scat bri yel FLOR,STN/incr blk-CUT AA"
- 6370.00 6390.00 "LS,tn-crm-lt brn,micxln,pred dens mtrx,oolitic,scat ANHY incl,rr lt gr transl CHT;wl dev oomoldic POR,brn-blk STN,even mod yel-gld FLUOR,gd strm-flash diff CUT"
- 6390.00 6400.00 "LS,tn-crm-lt brn,micxln,pred dens mtrx,oolitic,scat ANHY incl,rr lt gr transl CHT;wl dev oomoldic POR,brn-blk STN,even mod yel-gld FLUOR,gd strm-flash diff CUT"
- 6400.00 6410.00 "LS,tn-lt brn-crm in pt,sl mottled,micxln,dens mtrx,oolitic,scat ANHY incl,rr tn transl CHT;fr-gd oomoldic POR,dk brn-blk STN,even mod yel-gld FLUOR,gd strm-flash diff CUT"
- 6410.00 6430.00 "LS,tn-lt brn-crm in pt,sl mottled,micxln,dens mtrx,oolitic,scat ANHY incl,rr tn transl CHT;sl dec oomoldic POR,dk brn-blk STN,even mod yel-gld FLUOR,gd strm-flash diff CUT"
- 6430.00 6440.00 "LS,tn-crm-lt brn,sl mottled,micxln,dens mtrx,oolitic,scat ANHY incl,com tn transl CHT;dec oomoldic POR,dk brn-blk STN,even mod yel-gld FLUOR,gd strm-flash diff CUT"
- 6440.00 6450.00 "LS,tn-crm-lt brn,bcm off wht ip,sl mottled,micxln,dens-sl chky mtrx,oolitic ip,scat ANHY incl,abund tn transl & tripl CHT;tt-scat oomoldic POR,dk brn-blk STN,spotty yel-gld FLUOR,fr strm CUT"

DEPTH

LITHOLOGY

- 6460.00 6470.00 "LS,tn-lt brn-crm,sl mottled,vfn-mic xln,dens mtrx,scat ANHY,com tn transl-wht tripl CHT;fr oomoldic POR,brn-blk STN,mod yel-gld FLUOR,fr strm-diff CUT"
- 6470.00 6490.00 "LS,tn-lt brn-crm,sl mottled,vfn-mic xln,dens mtrx,scat-com ANHY,scat tn transl-wht tripl CHT;fr oomoldic-intr ool POR,brn-blk STN,mod even yel-gld FLUOR,gd strm-diff CUT"
- 6490.00 6500.00 "LS,crm-tn-lt brn,mottled,vfn-micxln,sl suc-dens-sl chky tex ip,oolitic,v sl foss,scat anhy,com lt gr-wht tripl CHT;fr introol/oomld-scat oocast POR,brn-dk brn STN, mod yel-gld FLUOR,fr-gd strm-diff CUT"
- 6509.00 6530.00 "LS,crm-tn-lt brn,mottled,vfn-micxln,sl suc-dens-oolitic,scat anhy,decr lt gr-wht tripl CHT;fr introol/oomld-sl intrxln POR,brn-dk brn STN,even mod yel-gld FLUOR,fr-gd strm-diff CUT"
- 6530.00 6540.00 "LS,crm-tn-lt brn,mottled,vfn-micxln,sl suc-dens-oolitic,scat anhy,decr lt gr-wht tripl CHT;fr introol/oomld-sl intrxln POR,brn-dk brn STN,even mod yel-gld FLUOR,fr-gd strm-diff CUT"
- 6540.00 6560.00 "LS,crm-tn-lt brn,mottled,vfn-micxln,sl suc-dens-oolitic,scat anhy,scat lt gr-wht tripl CHT;scat LS,wht-crm,micxln,dens-sl sndy tex; fr introol/oomld-sl intrxln POR,brn-dk brn STN,even mod yel-gld FLUOR,fr-gd strm-diff CUT"
- 6560.00 6580.00 "LS tan-ltbrn,crm-wh-ltgy,crpxl-vfxl-gran,ooliclastic-sl agl mat,oc GRNST/tr DOL cmt,chky/tr plty-arg frag,tr scat tan-trnsl-wh CHT frag,rr xln ANHY,tr blk SH cvgs,g intxl-oc POR,g even mod bri yel FLOR,fr ltbrn-brn STN,CUT AA"
- 6580.00 6590.00 "LS AA,incr ltgy-crm-wh,pred GRNST/tr DOL cmt,scat dns PCKST/incr plty-arg chky prtgs,SH cvgs AA,decr CHT,POR-FLOR-STN CUT AA"
- 6590.00 6600.00 "LS AA,decr crm-wh,pred GRNST/DOL cmt,tr scat dns-oc plty chky PCKST,tr scat CHT AA,rr xln ANHY,decr SH frag,POR-FLOR-STN-CUT AA"
- 6600.00 6620.00 "LS tan-ltbrn,crm-wh,occ brn,ltgy,gran-micsuc-vfxl,crpxl-occ ooliticlastic,pred ooc GRNST/tr DOL cmt,scat chky plty-dns PCKST frag-prtgs,tr trnsl xln ANHY & occ wh CHT frag,g intxl-ooliticlastic POR,g even mod bri-bri yel FLOR,g ltbrn-brn STN,g fast strm CUT"
- 6620.00 6640.00 "LS AA,gran-micsuc-vfxl,crpxl-occ ooliticlastic,pred ooliticlastic GRNST/tr DOL cmt,scat chky plty-dns PCKST frag-prtgs,tr trnsl xln ANHY,tr scat tan-wh CHT frag,g intxl-ooliticlastic POR,g even mod bri-bri yel FLOR,g ltbrn-brn STN,g fast strm CUT"
- 6640.00 6660.00 "LS AA,gran-micsuc-vfxl,crpxl-occ ooliticlastic,sl agl mat,pred ooc GRNST/tr DOL cmt,scat chky plty-dns PCKST frag-prtgs,tr trnsl-wh CHT frag-incl,tr xln ANHY,g intxl-tr ooc POR,g even mod bri-spty bri yel FLOR,g STN AA/vrr pp blk STN,g mod fast-slow CUT"
- 6660.00 6680.00 "LS tan-ltbrn,crm-wh,occ brn,ltgy,gran-micsuc-vfxl,crpxl-occ ooliticlastic,pred ooc GRNST/tr DOL cmt,scat chky plty-dns PCKST frag-prtgs,tr ANHY & CHT AA,rr mic fos,g intxl-tr ooliticlastic POR,g even mod bri-bri yel FLOR,g ltbrn-brn STN,g mod fast strm CUT"
- 6680.00 6690.00 "LS AA,pred ooliticlastic GRNST/DOL rich cmt,tr scat chky plty-dns PCKST frag-prtgs,tr ANHY & CHT AA,POR-FLOR-STN-CUT AA"
- 6690.00 6710.00 "LS tan-crm-wh,ltbrn,occ brn,gran-vfxl-micsuc,crpxl-sl ooliticlastic,oc LS GRNST/DOL cmt,incr scat chky plty-dns PCKST frag-incl,sl anhy/incr xln ANHY,incr CHT frag AA,POR-FLOR AA,fr ltbrn/decr brn STN,g slow-mod fast strm mlky CUT"

DEPTH

LITHOLOGY

6710.00 6730.00 "LS tan-ltbrn-brn,wh-crm-trnsl,gran-vfxl-micsuc,crpxl-sl oolitic, ooc LS GRNST/tr DOL cmt,scat chky plty-dns PCKST frag-incl,sl anhy/tr xln ANHY,tr wh-trnsl CHT incl-frag,g intxl-tr ooc POR,FLOR AA,fr-g ltbrn-brn STN,g-fr dif/tr slow strm mlky CUT"

6730.00 6740.00 "LS AA,pred ooc LS GRNST/tr DOI cmt,incr chky plty-dns PCKST frag-prtgs,sl anhy/tr xl ANHY frag,tr CHT AA,g-fr intxl/tr ooc POR,g even mod bri-bri yel FLOR,g-fr ltbrn-brn STN,g dif/tr slow strm mlky CUT"

6740.00 6760.00 "LS tan-ltbrn-brn,wh-crm-trnsl,gran-vfxl-micsuc,crpxl-sl oolitic,LS GRNST/tr DOL cmt,scat chky plty-dns PCKST frag-incl,sl anhy/tr xln ANHY,tr wh-trnsl CHT incl-frag,g intxl-tr ooc POR,g even mod bri yel FLOR,fr-g ltbrn-brn STN, CUTg dif/mod fast CUT"

6760.00 6790.00 "LS tan-crm-wh,ltbrn,occ brn,gran-vfxl-micsuc,crpxl-sl oolitic,pred LS GRNST/DOL cmt,incr scat chky plty-dns tt PCKST frag-incl,sl anhy/tr xln ANHY,tr wh-tan-trnsl CHT frag-incl,POR-FLOR AA,fr ltbrn-tr scat brn STN,g mod fast dif/tr slow strm mlky CUT"

6790.00 6800.00 "LS AA,LS GRNST/LS PCKST AA,tr DOL cmt,tr xln ANHY,tr tan-trnsl-wh CHT frag-incl,g-fr intxl-tr ooc POR,g even mod bri/scat bri yel FLOR,fr-g ltbrn/tr-tr brn STN,g dif/tr slow strm mlky CUT"

6800.00 6820.00 "LS AA,vfxl-crpxl-gran,occ micsuc-micxl,sl ooc,pred scat dns-chky plty PCKST,w/scat-thn intbd GRNST w/tr DOL cmt,tr trnsl-wh-tan CHT frag,tr xl ANHY,pred tt/scat fr-g intxl-tr ooc POR/tr chk fl,g even mod bri-scat bri yel FLOR,fr ltbrn-tr brn STN,CUT AA"

6820.00 6830.00 "LS tan-crm-wh,ltbrn,occ brn,gran-vfxl-crpxl,micxl,sl oolitic,pred LS PCKST AA,w/incr GRNST AA,sl anhy/tr xln ANHY,tr wh-tan-trnsl CHT frag-incl,POR-FLOR AA,fr ltbrn-tr scat brn STN,g mod fast dif/tr slow strm mlky CUT"

6830.00 6860.00 "LS tan-crm-wh,ltbrn,occ brn,gran-vfxl-micsuc,crpxl,sl oolitic,pred LS GRNST/DOL cmt,scat chky plty-dns tt PCKST frag-incl,sl anhy/tr xln ANHY,tr wh-tan-trnsl CHT frag-incl,fr-g intxl-tr ooc POR,FLOR AA,fr ltbrn/tr-g scat brn STN,CUT AA"

6860.00 6880.00 "LS AA,gran-vfxl-micsuc,incr crpxl,sl oolitic,pred LS GRNST/tr DOL cmt,sl decr scat chky plty-dns tt PCKST frag-incl,tr ANHY & CHT frag-incl AA,fr-g intxl POR,g even mod bri-dull yel FLOR,fr ltbrn-tr scat brn STN,g mod fast dif/tr slow strm CUT"

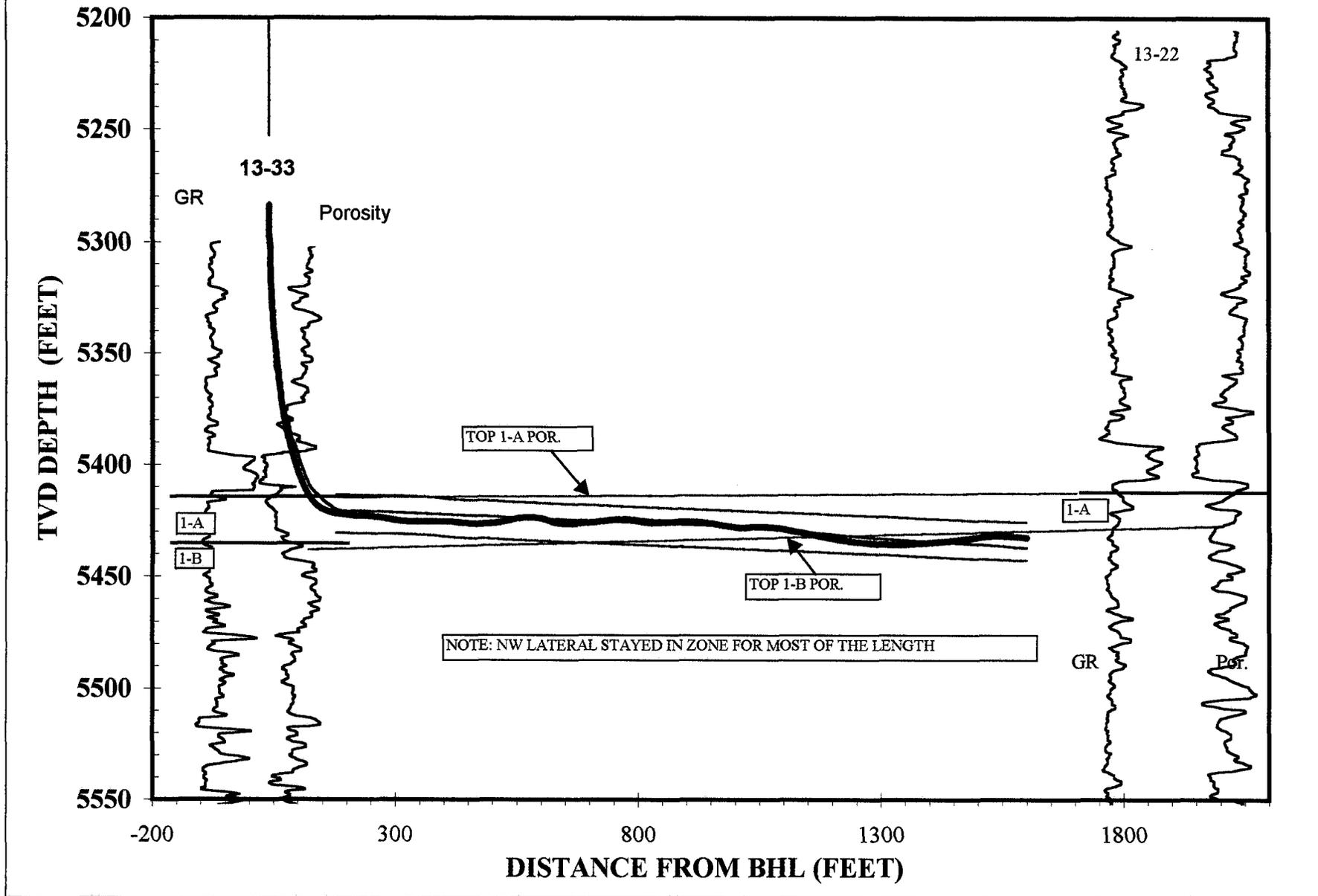
6880.00 6890.00 "LS AA,pred GRNST/tr DOI cmt,incr scat PCKST AA,tr xln ANHY,sl incr scat CHT frag AA,fr-g intxl POR,g even mod bri-dull yel FLOR,fr ltbrn-tr brn STN,CUT AA"

6890.00 6910.00 "LS AA,gran-vfxl-micsuc,incr crpxl,sl oolitic,pred LS GRNST/tr DOL cmt,incr scat chky plty-dns tt PCKST frag,occ v chky,tr ANHY & CHT frag-incl AA,fr-g intxl POR,g even mod bri-dull yel FLOR,fr ltbrn-tr scat brn STN,g mod fast dif/tr slow strm CUT"

6910.00 6920.00 "LS AA,pred GRNST/tr DOI cmt,incr scat PCKST AA,tr xln ANHY,sl incr scat CHT frag AA,fr-g intxl POR,g even mod bri-dull yel FLOR,fr ltbrn-tr brn STN,CUT AA"

6920.00 6931.00 "LS AA,vfxl-gran,crpxl,occ micsuc-micxl,sl ooc,pred LS GRNST AA/scat dns-chky plty PCKST,tr trnsl-wh-tan CHT frag,tr xl ANHY,pred tt/scat fr-g intxl-tr ooc POR/tr chk fl,g even mod bri-dull yel FLOR,fr ltbrn-tr brn STN,CUT AA"

MOBIL, Ratherform Unit #13-33, Northwest Laterals



**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <u>X</u> INJECTOR		5. LEASE DESIGNATION AND SERIAL NO. 14-20-603-247A	
b. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <u>X</u> SIDETRACK		6. IF INDIAN, ALLOTTEE OR TRIBE NAME NAVAJO TRIBAL	
2. NAME OF OPERATOR MOBIL PRODUCING TX & NM INC.* *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM		7. UNIT AGREEMENT NAME RATHERFORD UNIT	
3. ADDRESS AND TELEPHONE NO. P.O. Box 633, Midland TX 79702 (915) 688-2585		8. FARM OR LEASE NAME, WELL NO. RATHERFORD 13-W-33	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1970' FSL & 1979' FEL (NW/SE) At top prod. interval reported below *#37 At total depth *#37		9. API WELL NO. 43-037-15855	
14. PERMIT NO.		DATE ISSUED 5-22-97	
15. DATE SPUNNED 7-8-97		16. DATE T.D. REACHED 7-31-97	
17. DATE COMPL. (Ready to prod.) 8-14-97		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 4652' RKB, 4640' GR	
19. ELEV. CASINGHEAD		12. COUNTY OR PARISH SAN JUAN	
20. TOTAL DEPTH, MD & TVD **#37		13. STATE UT	
21. PLUG, BACK T.D., MD & TVD **#37		23. INTERVALS DRILLED BY X	
22. IF MULTIPLE COMPL., HOW MANY*		ROTARY TOOLS X	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* **#37 PRDX		CABLE TOOLS	
26. TYPE ELECTRIC AND OTHER LOGS RUN NO		25. WAS DIRECTIONAL SURVEY MADE YES	
27. WAS WELL CORED NO		27. WAS WELL CORED NO	

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8 5/8"	24#	1355'	NA	NA	NA
5 1/2"	14#	5415'	NA	4060' CALCULATED	NA

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 3/8"	5237'	5225'

<p align="center">RECEIVED ARR 23 1998 DIV. OF OIL, GAS & MINING</p>	31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED		
	5516-6462'	LAT #2A1/ACIDIZE W/29150 GAL 15% HCL ACID		
	5550-7050'	LAT #1B1/ACIDIZE W/28400 GAL 15% HCL ACID		

33.* PRODUCTION	
DATE FIRST PRODUCTION 11/97 INJECTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) INJECTION
WELL STATUS (Producing or shut-in) PRODUCING	
DATE OF TEST 12-97	HOURS TESTED AVERAGE
CHOKE SIZE	PROD'N. FOR TEST PERIOD
OIL - BBL.	GAS - MCF.
WATER - BBL.	GAS - OIL RATIO 888
FLOW. TUBING PRESS.	CASING PRESSURE
2950	CALCULATED 24-HOUR RATE
OIL - BBL.	GAS - MCF.
WATER - BBL.	OIL GRAVITY - API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)	TEST WITNESSED BY
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35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Shirley Houchins TITLE SHIRLEY HOUCHINS/ENV & REG TECH DATE 3-18-98

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
*#4	(1ST)	LAT 1A1	15' FSL & .92' FEL/SURFACE SPOT			
		LAT #1B1	1268' FSL & 963' FEL/SURFACE SPOT/ZONE 1a -1b			
		LAT #2A1	1035' FNL & 1221' FWL/SURFACE SPOT/ZONE 1a-1b			
**#20, 21 & 24	(1ST)	LAT #1A1	(5310-5420' TMD) (5310-5400' TVD)			
		LAT 1B1	5485-7069' TMD) (5424-5423' TVD)			
		LAT 2A1	(5488-6931') (5421-5432' TVD)			

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 deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
14-20-603-247A

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

8. Well Name and No.
RATHERFORD 13-W-33

9. API Well No.
43-037-15855

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

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)
**1970' FSL & 1979' FEL (NW/SE)
 SEC. 13, 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 SIDETRACK/INJECTOR
	<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.)*

LATERAL #1: 15.27' SOUTH & .92' EAST FROM SURFACE SPOT.
 LATERAL #1A1 (1ST): 1268' SOUTH & 963' EAST FROM SURFACE SPOT. (ZONE 1a-1b).
 LATERAL #2A1: 1035' NORTH & 1221' WEST FROM SURFACE SPOT ZONE (1a-1b).

SEE ATTACHMENTS: 7-8-97/8-14-97

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

Signed *Shirley Houchins* Title SHIRLEY HOUCHINS/ENV & REG TECH Date 3-18-98

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
 Conditions of approval, if any:

04/23/98
RJK

DRILLED FOOTAGE CALCULATION FOR DIRECTIONAL AND HORIZONTAL WELLS

Unit, Well Name: Ratherford Unit, Well 13-W-33
Surface Location: 1970' FSL, 1979' FEL (NW/SE), Sec. 13, T. 41S, R. 23
API Well #: 43-037-15855
Well Completion: Horizontal, Injector, 3 Laterals

First leg description:	Lateral #1
Kick Off Point MD	5310.00
End of Leg MD	5420.00
Footage drilled:	110.00
Max. TVD Recorded	5400.26

Second leg description:	Leg 1 ST
KOP MD:	5348.00
EOL MD:	7069.43
Footage drilled:	1721.43
Max. TVD Recorded	5427.46

Third leg description:	Leg #2
KOP MD:	5100.00
EOL MD:	6931.00
Footage drilled:	1831.00
Max. TVD Recorded	5435.43

Total Footage Drilled (MD):	3662.43
Deepest point (TVD):	5435.43

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #13-W-33
14-20-603-247A
NAVAJO TRIBAL
SAN JUAN, UTAH

- 07-08-97 CALLED BLM @ 10:30 ON 7-1-97, TALKED TO MARK KELLY. CALLED NAVAJO EPA @ 10:35 TALKED TO MELVIN CAPITAN'S ANSWERING MACHINE. INFORMED BOTH OF IMPENDING INTENT TO PREP WELL AND DIG LINED GROUND PIT. SITP @ 7:30 WAS 150 PSI. SICP @ 0 PSI. MIRU NAVAJO WEST RIG #36. RIG UP PUMP & PIT. FLOW WELL TO PIT. PRESSURE TO 50 PSI IN 30 MIN. RU& KILL WELL DOWN TBG. NIPPLE UP BOPE. RELEASE PKR, POH W/CMT LINED TBG & PKR. LAY DOWN 3.875" CMT LINED TBG & PKR. SIFN.
- 07-09-97 SICP @ 7:30 WAS 50 PSI. MIRU SCHLUMBERGER LOGGING UT. RIH W/COMPENSATED NEUTRON, GAMMA RAY, & CSG. COLLAR LOG LOG F/5415-5200', RIH W/MULTI-FREQUENCY ELECTROMAGNETIC THICKNESS LOG, LOG F/5469-5200'. RIH & SET RETV. BRIDGE PLUG., TEST CSG TO 750 PSI FOR 30 MIN. OK. SIFN.
- 07-10-97 SICP @ 7:30 WAS 0 PSI. RIH W/60' OF 2 3/8" TBG, CIRC CLEAN WATER AROUND. NIPPLE DOWN BOPE. DIG OUT CELLAR. CUT OFF COND. & 8.625" WELD ON 11" WELLHEAD. NIPPLE UP TBG, HANGER. TEST 1000 PSI FOR 15 MIN. OK CAP WELL.
- 07-11-97 SICP @ 7:30 WAS 0 PSI. RDMO NAVAJO WEST RIG #36. MOVE OFF MUD IT, BOPE, & PUMP. WELL SHUT IN. TEMPORARILY SUSPEND OPERATIONS. WO/DRLG TOOLS. WELL HEAD VALVES SHUT.
- 07-15-97 MIRU NAVAJO WEST 25 AND SUPPORT EQUIPMENT.
- 07-16-97 FINISH RU NAVAJO RIG #25. NU BOP STACK, CHOKE MANIFOLD, ETC. TEST SAME. PU RETHD., TALLY 2 7/8" AOHDP & TIH TO 5340'. POOH W/SAME RU WEATHERFORD WL. RAN GAUGE RING & TIW PKR. WL SET @ 5326'.
- 07-17-97 TIH W/WHIPSTOCK ASSY. LATCH INTO PKR @ 5326' CUT WINDOW W/STARTING MILL. @ 5310 -5312'. CIRC CLEAN. POOH W/STARTING MILL. LAY DOWN SAME. TIH W/WINDOW & WATERMELON MILL TO 5309'. RU POWER SWIVEL AND BREAK CIRC.
- 07-17-97 RIH W/TIW KEYWAY LATCH ASSY. LATCH INTO TIW PKR @ 5326'. RU GYRO DATA. RAN SURVEYS FOUND PKR. KEYWAY SET AT 335 DEGREE GTF (4 READINGS) RD WL. POOH W/UBHO & LATCH KEY. FINAL REPORT FOR REENTRY.
- 07-18-97 PU POWER SWIVEL, BREAK CIRC. & START CUTTING WINDOW F/5310-5318'. (1' FORMATION). PUMP SWEEP & CIRC TO SURFACE. SET SWIVEL BACK. TOO H W/MILLS & LAY DOWN SAME. FINAL REPORT - LATERAL #1A1.
- 07-18-97 PU SWIVEL & CIRC. RU GYRO. RIH W/ ORIENT TOOL FACE. TIME DRILL AND ORIENT TOOL FACE FROM 5318-5353'. RD GYRO. SLIDE DRILL F/5353-5380'. (CURVE SECTION).
- 07-19-97 SLIDE DRILL F/5380-5420'. WORKING TIGHT HOLE. MOTOR PARTED. TOO H. TIH W/4 11/16" O/S TO TOP OF WINDOW @ 5310'. ATTEMPT TO WORK O/S THROUGH WINDOW. O/S STOPS AT BTM. OF WHIPSTOCK SLIDE @ 5317'. TOO H WITH O/S. WAIT ON MODIFIED GUIDE./RIH W/MODIFIED CUT LIP GUIDE. SHORTEN GUIDE APPROX. 3".
- 07-20-97 CONT. IN HOLE W/MODIFIED O/S TO TOP OF WINDOW @ 5310' RU POWER SWIVEL. ATTEMPT TO WORK O/S THROUGH BTM OF WINDOW @ 5317'. SET SWIVEL BACK. POOH WITH O/S & LAY DOWN SAME. FINAL REPORT ON FISHING LATERAL #1A1.
- 07-20-97 TIH W/CURVE BUILDING BHA & START SIDETRACK F/CURVE SECTION OF LATERAL #1A1 @ 5348'. TIME DRILL TO 5420'. (ORIGINAL DEPTH OF LATERAL 1A1).

ATTACHMENT - FORM 3160-5

RATHERFORD UNIT #13-W-33

14-20-603-247A

NAVAJO TRIBAL

SAN JUAN, UTAH

PAGE 2

- 07-21-97 CONTINUE TO DRILL LATERAL #1B1 CURVE SECTION TO 5485'. PUMP SWEEP & CIRC. POOH LAYING DOWN 50 JTS. AOHP & 8 JNTS. PH-6. PU LATERAL BUILDING ASSY. & 60 JTS. PH-6. WORKED BIT INTO SIDTRACT @ 5348' AND DRILL F/5485-5725'. (AVG. 43.6 FPH).
- 07-22-97 SLIDE DRILL , ROTATE & SURVEY F/5725-6540'.
- 07-23-97 SLIDE DRILL , ROTATE & SURVEY F/6540-6902' (DESERT CREEK ZONE 1B).
- 07-24-97 SLIDE DRILL , ROTATE & SURVEY F/6902-7069' IN DESERT CREEK ZONE 1B (VERTICAL SECTION 1592'). POOH W/DRILLSTRING & DIRECTIONAL TOOLS. LAY DOWN TOOLS. TIH W/RET. TOOL (SUPER HOOK) LATCH WHIPSTOCK. TOOH & LAY DOWN WHIPSTOCK. FINAL REPORT FOR LATERAL 1B1.
- 07-25-97 LATERAL #2 / PU WHIPSTOCK & SET PKR @ 5326' (PKR KEYWAY @ 335 AZ.) LATCH INTO PKR. SHEAR STARTING MILL. BREAK CIRC & MILL WINDOW W/STARTING MILL F/5284-5286' AND CIRC. TOOH W/STARTING MILL/LAY DOWN SAME. MAKE-UP WINDOW & WATERMELON MILL. TIH. RU POWER SEIVEL, START MILLING WINDOW IN 5.5" CSG F/5284-5292' (2 FT FORMATION).
- 07-26-97 CONTINUE TO MILL WINDOW F/5288.5/5292' (TOP OF WINDOW @ 5284' BTM 5290'). HANG SWIVEL BACK. LAY DOWN 13 JTS. POOH & LAY DOWN MILLS. FINAL REPORT LATERAL 2.
- 07-26-97 LATERAL #2A1 PU RIH W/CURVE BUILDING ASSY. AOHP TO 5300'. PU SWIVEL. RU GYRO DATA. RIH W/ORIENT TOOL FACE. TIME DRILL AND ORIENT TOOL FACE F/5292-5320' RD GYRO. SLIDE DRILL F/5320-5327'.
- 07-27-97 SLIDE DRILL CURVE (LATERAL 2A1) F/5327-5457'.
- 07-28-97 CONTINUE SLIDE DRILL CURVE (LATERAL 2A1) F/5457-5488', CIRC HOLE CLEAN. RIH W/LATERAL ASSY DRILL LATERAL 2A1 TO 5865'.
- 07-29-97 SLIDE & ROTATE DRILL LATERAL 2A1 F/5865-6563.
- 07-30-97 SLIDE & ROTATE DRILL LATERAL 2A1 F/6563-6931' TD LATERAL 2A1 IN 1a & 1b ZONE F/5488-6931 TMD, 5420-5432' TVD (1600' VS). CIRC CLEAN. PULLED TO WINDOW, DISPLACE DRILLING MUD. POH W/DP, LD DC'S & TBG. MUD MOTOR, RIH & SET RBP @ 4425'. PRESSURE TEST RBP & CSG TO 1000#, HELD OK.
- 07-31-97 POH & LD 2.875" AOHP & SETTING TOOL, ND BOP, CLEANED & JETTED PITS, RD & RELEASE RIG @ 23:45 (7-30-97). FINAL REPORT.

COMPLETION

- 08-03-97 MIRU NAVAJO WEST RIG #36. SHUT IN PRESSURE @ 9:30 WAS 0 PSI. NIPPLE DOWN WELL HEAD FLANGE. NIPPLE UP BOPE TALLY & PICK -UP RETV. HEAD FOR BRIDGE PLUG. RUN ON 2 7/8" TBG TO 4425'. RETV. POH. PICK-UP 2 7/8" PH6 TAIL PIT, PKR & RIH W/2 7/8" TBG TO 5482'. SIFN.
- 08-04-97 SITP @ 7:30 WAS 250 PSI. SICP @ 7:30 WAS 500 PSI. RIG UP FLOW LINES TO TEST TANK. MIRU DOWELL COILED TBG. UT. PREP TO ACIDIZE LATERAL #2A1.

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT #13-W-33
14-20-603-247A
NAVAJO TRIBAL
SAN JUAN, UTAH
PAGE 3

- 08-05-97 SITP @ 7:30 WAS 147 PSI, RIH W/1.5" COILED TBG TO 5488'. WORK COILED TBG & CIRC. COULD NOT ADVANCE. POH W/COILED TBG & RUN IN HOLE W/1 JT OF 2 7/8" 8 RD TBG TO 5232.55', PACKER DEPTH, END OF PH6 TAIL PIPE @ 5513.94'. NO SIGN OF HOLE PROBLEMS WHILE RUNNING IN HOLE. RIH W 1.5 COILED TBG. TBG TO TD @ 6931'. ACIDIZED LATERAL #2A1 FROM 6462' & FROM 6434' TO 5516' W/29,150 GALS OF 15% HCL ACID. RD COILED TBG UNIT. WELL HEAD PRESSURE OF 920 PSI. OPEN WELL TO TEST TANK. LATERAL #2A1 F/6931-5516'.
- 08-06-97 FLOW WELL TO TEST TANK. SHUT WELL IN FOR 4.5 HRS. RELEASE PACKER. POH. RIH W/RETV TOOLS FOR WHIPSTOCK TO 5290'. LATCH ONTO WHIPSTOCK RELEASE. POH. RIH W/RETV WHIPSTOCK TO 5326' SET. POH, RIH W/PKR, SET. SIFN. CALLED EARL AHTSOIE & INFORMED OF INJECTION LINES HOOK-UP READY IN 3 DAYS.
- 08-07-97 SITP @ 4:30 WAS 0 PSI. MIRU DOWELL COILED TBG UT. RIH W/1.75" COILED TBG TO 7050'. ACIDIZE LATERAL #1A1 F/7050' - 6910' - 6872' - 6794' - 6774' - 6682' - 6638' - 6564' AND F/6518'-5550' W/28,400 GALS 15% HCL ACID. WELL SHUT IN, POH W/COILED TBG TO 3000'. JET WELL TO 5400' . POH W/COILED TBG UT. RIG DOWN DOWELL, SIFN.
- 08-08-97 RIG DOWN PUMP, PIT & FLOWLINES. RDMO NAVAJO WEST RIG #36. TEMPORARILY SUSPEND COMPLETION OPERATIONS.
- 08-11-97 100 PSI ON TBG. MIRU NAVAJO WEST RIG #36. RU PUMP, PIT, LINES TO TANKS. READY TO PULL PKR & FISH WHIPSTOCK IN AM. SDFN.
- 08-12-97 NOTIFIED JIM THOMPSON W/STATE OF UTAH @ 1100 HRS. 8-12-97 OF MOVING OFF RATHERFORD 18-14 AND MOVING TO 18-W-13 (AUDIX). 30% RIGGED UP.
- 08-12-97 100 PSI ON TBG, BLEED GAS OFF, PUMP 30 BBL 20# BRINE, TBG DEAD. UNSET TREATING PKR, BACKSIDE DEAD. POOH W/PKR & PH6 TAILPIPE. RIH W/WHIPSTOCK RETRIEVING TOOL, LATCH ON TO WHIPSTOCK.
- 08-13-97 BLEED GAS OFF WELL, PUMP 30 BBL 10# BRINE, WELL DEAD. RU TONG GUAGE & BACKUP ASSY. RIH W/TBG ASSY. SET PKR, CIRC PKR FLUID, TEST PKR ON CHART FOR 30 MIN @ 1000 PSI. FIN NU TREE, SWI & SDFN.
- 08-14-97 RDMO NAVAJO WEST RIG #36.

sperry-sun
DRILLING SERVICES

A DRESSER INDUSTRIES, INC. COMPANY

Mobil
San Juan County
Utah
Ratherford Unit
RU 13-33 - MWD Survey Leg #1

SURVEY REPORT

4 August, 1997

Survey Ref: svy1831

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Rutherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyro							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
100.00	0.340	21.450	100.00	0.28 N	0.11 E	-0.27	0.340
300.00	0.190	2.960	300.00	1.16 N	0.34 E	-1.14	0.085
500.00	0.290	304.390	500.00	1.78 N	0.06 W	-1.78	0.125
700.00	1.050	310.910	699.98	3.26 N	1.86 W	-3.37	0.381
900.00	1.120	312.330	899.94	5.78 N	4.69 W	-6.05	0.037
1100.00	1.730	316.940	1099.88	9.30 N	8.20 W	-9.78	0.310
1300.00	1.470	319.510	1299.80	13.46 N	11.92 W	-14.15	0.135
1500.00	1.160	316.980	1499.75	16.89 N	14.97 W	-17.76	0.158
1700.00	1.050	320.020	1699.71	19.77 N	17.53 W	-20.79	0.062
1900.00	1.110	318.380	1899.68	22.63 N	19.99 W	-23.78	0.034
2100.00	1.090	329.390	2099.64	25.71 N	22.25 W	-27.00	0.106
2300.00	0.600	15.020	2299.62	28.36 N	22.95 W	-29.69	0.398
2500.00	0.730	340.610	2499.61	30.57 N	23.10 W	-31.90	0.206
2700.00	0.860	336.170	2699.59	33.15 N	24.13 W	-34.54	0.072
2900.00	0.660	348.140	2899.57	35.65 N	24.97 W	-37.08	0.127
3100.00	0.480	2.010	3099.56	37.61 N	25.18 W	-39.06	0.113
3300.00	0.160	57.030	3299.56	38.60 N	24.91 W	-40.03	0.205
3500.00	0.170	86.690	3499.56	38.77 N	24.38 W	-40.16	0.043
3700.00	0.530	161.310	3699.55	37.91 N	23.79 W	-39.27	0.256
3900.00	0.360	179.790	3899.55	36.41 N	23.49 W	-37.75	0.110
4100.00	0.430	235.740	4099.54	35.36 N	24.11 W	-36.74	0.188
4300.00	0.400	212.820	4299.54	34.35 N	25.11 W	-35.79	0.084
4500.00	0.660	215.090	4499.53	32.82 N	26.15 W	-34.33	0.130
4700.00	0.530	204.920	4699.52	31.04 N	27.20 W	-32.61	0.084
4900.00	0.410	235.330	4899.51	29.79 N	28.18 W	-31.43	0.136
5100.00	0.470	219.500	5099.51	28.75 N	29.29 W	-30.46	0.067
5300.00	0.540	248.110	5299.50	27.77 N	30.69 W	-29.56	0.129
MWD Survey Leg #1							
5310.00	0.490	209.226	5309.50	27.71 N	30.75 W	-29.51	3.461
5318.00	3.600	145.970	5317.49	27.47 N	30.63 W	-29.26	42.594
5328.00	9.400	142.740	5327.43	26.56 N	29.96 W	-28.31	58.092
5338.00	16.000	141.780	5337.18	24.83 N	28.61 W	-26.50	66.031
5348.00	23.100	141.310	5346.59	22.21 N	26.53 W	-23.76	71.017
5358.00	29.900	141.030	5355.54	18.74 N	23.73 W	-20.13	68.011
5368.00	35.100	140.840	5363.97	14.57 N	20.34 W	-15.76	52.010
5378.00	38.000	140.700	5372.00	9.95 N	16.58 W	-10.93	29.012
5388.00	41.700	140.600	5379.68	5.00 N	12.51 W	-5.74	37.006
5398.00	45.900	147.400	5386.90	0.60 S	8.46 W	0.09	63.036

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
5420.00	59.100	147.400	5400.26	15.27 S	0.92 E	15.30	60.000

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.

Vertical Section is from Well and calculated along an Azimuth of 176.561° (True).

Based Upon Minimum Curvature type calculations, at a Measured Depth of 5420.00ft,
The Bottom Hole Displacement is 15.30ft., in the Direction of 176.561° (True).

sperry-sun
DRILLING SERVICES

A DRESSER INDUSTRIES, INC. COMPANY

Mobil
San Juan County
Utah
Ratherford Unit
RU 13-33 - MWD Leg 1 ST
LEG 181

SURVEY REPORT

4 August, 1997

Survey Ref: svy1835

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Rutherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyro							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
100.00	0.340	21.450	100.00	0.28 N	0.11 E	-0.15	0.340
300.00	0.190	2.960	300.00	1.16 N	0.34 E	-0.70	0.085
500.00	0.290	304.390	500.00	1.78 N	0.06 W	-1.44	0.125
700.00	1.050	310.910	699.98	3.26 N	1.86 W	-3.72	0.381
900.00	1.120	312.330	899.94	5.78 N	4.69 W	-7.44	0.037
1100.00	1.730	316.940	1099.88	9.30 N	8.20 W	-12.38	0.310
1300.00	1.470	319.510	1299.80	13.46 N	11.92 W	-17.95	0.135
1500.00	1.160	316.980	1499.75	16.89 N	14.97 W	-22.53	0.158
1700.00	1.050	320.020	1699.71	19.77 N	17.53 W	-26.37	0.062
1900.00	1.110	318.380	1899.68	22.63 N	19.99 W	-30.14	0.034
2100.00	1.090	329.390	2099.64	25.71 N	22.25 W	-33.96	0.106
2300.00	0.600	15.020	2299.62	28.36 N	22.95 W	-36.47	0.398
2500.00	0.730	340.610	2499.61	30.57 N	23.10 W	-38.31	0.206
2700.00	0.860	336.170	2699.59	33.15 N	24.13 W	-40.97	0.072
2900.00	0.660	348.140	2899.57	35.65 N	24.97 W	-43.46	0.127
3100.00	0.480	2.010	3099.56	37.61 N	25.18 W	-45.14	0.113
3300.00	0.160	57.030	3299.56	38.60 N	24.91 W	-45.76	0.205
3500.00	0.170	86.690	3499.56	38.77 N	24.38 W	-45.56	0.043
3700.00	0.530	161.310	3699.55	37.91 N	23.79 W	-44.52	0.256
3900.00	0.360	179.790	3899.55	36.41 N	23.49 W	-43.15	0.110
4100.00	0.430	235.740	4099.54	35.36 N	24.11 W	-42.70	0.188
4300.00	0.400	212.820	4299.54	34.35 N	25.11 W	-42.52	0.084
4500.00	0.660	215.090	4499.53	32.82 N	26.15 W	-41.96	0.130
4700.00	0.530	204.920	4699.52	31.04 N	27.20 W	-41.20	0.084
4900.00	0.410	235.330	4899.51	29.79 N	28.18 W	-40.82	0.136
5100.00	0.470	219.500	5099.51	28.75 N	29.29 W	-40.69	0.067
5300.00	0.540	248.110	5299.50	27.77 N	30.69 W	-40.77	0.129
MWD Survey Leg #1							
5310.00	0.490	209.226	5309.50	27.71 N	30.75 W	-40.77	3.461
5318.00	3.600	145.970	5317.49	27.47 N	30.63 W	-40.50	42.594
5328.00	9.400	142.740	5327.43	26.56 N	29.96 W	-39.37	58.092
5338.00	16.000	141.780	5337.18	24.83 N	28.61 W	-37.18	66.031
MWD Leg 1 ST							
5348.00	23.100	141.310	5346.59	22.21 N	26.53 W	-33.83	71.017
5358.00	17.700	130.000	5355.97	19.70 N	24.13 W	-30.38	66.631
5368.00	22.900	118.000	5365.35	17.81 N	21.25 W	-27.11	66.366
5378.00	29.000	116.100	5374.33	15.82 N	17.35 W	-23.15	61.557
5388.00	34.800	114.800	5382.82	13.56 N	12.58 W	-18.43	58.402

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Rutherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (*100ft)
5398.00	41.300	113.840	5390.69	11.03 N	6.96 W	-12.97	65.267
5408.00	47.200	113.090	5397.85	8.25 N	0.56 W	-6.85	59.231
5418.00	52.700	112.480	5404.28	5.29 N	6.49 E	-0.17	55.197
5428.00	58.200	111.950	5409.95	2.18 N	14.11 E	6.97	55.173
5438.00	64.800	111.490	5414.72	1.07 S	22.28 E	14.56	66.123
5448.00	71.100	111.070	5418.47	4.43 S	30.91 E	22.52	63.120
5458.00	76.900	110.680	5421.23	7.86 S	39.89 E	30.75	58.121
5463.00	79.500	110.500	5422.25	9.58 S	44.47 E	34.92	52.119
5485.00	89.100	108.400	5424.43	16.86 S	65.08 E	53.35	44.656
5515.88	88.900	112.300	5424.97	27.59 S	94.03 E	79.63	12.644
5547.64	90.200	115.100	5425.22	40.35 S	123.10 E	107.59	9.720
5579.47	92.600	117.200	5424.44	54.38 S	151.66 E	136.22	10.017
5611.32	91.900	117.900	5423.19	69.10 S	179.88 E	165.19	3.107
5643.04	91.300	121.100	5422.31	84.71 S	207.47 E	194.48	10.260
5674.81	88.900	124.800	5422.25	101.98 S	234.13 E	224.51	13.881
5706.58	87.300	127.600	5423.31	120.73 S	259.75 E	255.06	10.146
5738.29	87.100	128.500	5424.85	140.25 S	284.69 E	285.79	2.904
5770.10	89.400	130.200	5425.83	160.41 S	309.27 E	316.81	8.989
5801.87	89.200	133.600	5426.21	181.62 S	332.91 E	348.08	10.720
5833.60	88.300	133.600	5426.91	203.50 S	355.88 E	379.47	2.836
5865.41	89.700	136.400	5427.46	225.99 S	378.37 E	411.03	9.840
5897.24	90.300	139.900	5427.46	249.69 S	399.60 E	442.78	11.156
5928.94	91.000	142.900	5427.10	274.46 S	419.38 E	474.48	9.717
5960.74	90.300	142.000	5426.74	299.67 S	438.76 E	506.27	3.585
5992.45	90.800	141.000	5426.44	324.49 S	458.50 E	537.98	3.526
6023.38	91.000	144.500	5425.95	349.10 S	477.21 E	568.90	11.333
6055.16	92.100	144.500	5425.09	374.96 S	495.66 E	600.63	3.461
6086.91	91.400	148.000	5424.12	401.35 S	513.29 E	632.28	11.237
6118.67	92.000	147.600	5423.18	428.21 S	530.20 E	663.86	2.270
6150.53	91.700	150.600	5422.15	455.53 S	546.56 E	695.46	9.458
6182.38	92.500	151.000	5420.98	483.31 S	562.08 E	726.91	2.808
6214.17	92.600	153.800	5419.57	511.46 S	576.80 E	758.14	8.805
6245.92	93.400	154.300	5417.91	539.97 S	590.67 E	789.15	2.970
6277.68	91.800	157.300	5416.47	568.90 S	603.67 E	819.96	10.696
6309.51	92.000	157.300	5415.41	598.25 S	615.95 E	850.64	0.628
6341.17	92.500	160.800	5414.17	627.79 S	627.26 E	880.88	11.159
6372.90	91.900	161.700	5412.95	657.81 S	637.45 E	910.82	3.407
6404.71	90.400	161.900	5412.31	688.02 S	647.38 E	940.74	4.757
6436.57	89.200	162.700	5412.42	718.37 S	657.07 E	970.62	4.527
6468.42	87.500	162.200	5413.34	748.73 S	666.67 E	1000.45	5.563
6500.10	85.300	160.300	5415.33	778.66 S	676.83 E	1030.30	9.168
6532.01	90.400	158.700	5416.53	808.52 S	688.00 E	1060.70	16.749
6563.87	87.500	156.600	5417.11	837.98 S	700.11 E	1091.36	11.237
6595.61	84.000	154.700	5419.46	866.81 S	713.15 E	1122.12	12.539
6627.42	86.200	152.600	5422.18	895.21 S	727.22 E	1153.15	9.544

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Rutherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
6658.37	89.500	151.900	5423.34	922.57 S	741.62 E	1183.58	10.899
6690.11	90.700	151.500	5423.28	950.52 S	756.67 E	1214.87	3.985
6721.86	91.900	152.600	5422.56	978.56 S	771.54 E	1246.12	5.127
6752.87	93.500	152.600	5421.10	1006.06 S	785.80 E	1276.57	5.160
6784.72	88.900	150.600	5420.44	1034.06 S	800.94 E	1307.96	15.748
6818.56	86.500	148.900	5421.79	1063.27 S	817.97 E	1341.46	8.689
6848.32	87.800	146.900	5423.27	1088.44 S	833.76 E	1371.02	8.008
6880.19	89.500	145.500	5424.02	1114.92 S	851.49 E	1402.79	6.909
6911.94	89.900	145.900	5424.19	1141.15 S	869.38 E	1434.48	1.782
6943.80	88.900	145.000	5424.52	1167.38 S	887.45 E	1466.28	4.223
6974.97	89.500	142.500	5424.96	1192.52 S	905.87 E	1497.43	8.247
7006.71	91.600	143.200	5424.66	1217.81 S	925.04 E	1529.16	6.974
7038.43	91.800	142.900	5423.71	1243.15 S	944.10 E	1560.86	1.136
7069.43	91.800	142.900	5422.74	1267.86 S	962.79 E	1591.84	0.000

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.
Vertical Section is from Well and calculated along an Azimuth of 142.000° (True).

Based Upon Minimum Curvature type calculations, at a Measured Depth of 7069.43ft.,
The Bottom Hole Displacement is 1591.99ft., in the Direction of 142.788° (True).

sperry-sun
DRILLING SERVICES

A DRESSER INDUSTRIES, INC. COMPANY

Mobil
San Juan County
Utah
Ratherford Unit
RU 13-33 - MWD Survey Leg #2

SURVEY REPORT

4 August, 1997

Survey Ref: svy1833

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyro							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
100.00	0.340	21.450	100.00	0.28 N	0.11 E	0.09	0.340
300.00	0.190	2.960	300.00	1.16 N	0.34 E	0.48	0.085
500.00	0.290	304.390	500.00	1.78 N	0.06 W	1.19	0.125
700.00	1.050	310.910	699.98	3.26 N	1.86 W	3.52	0.381
900.00	1.120	312.330	899.94	5.78 N	4.69 W	7.31	0.037
1100.00	1.730	316.940	1099.88	9.30 N	8.20 W	12.26	0.310
1300.00	1.470	319.510	1299.80	13.46 N	11.92 W	17.78	0.135
1500.00	1.160	316.980	1499.75	16.89 N	14.97 W	22.32	0.158
1700.00	1.050	320.020	1699.71	19.77 N	17.53 W	26.14	0.062
1900.00	1.110	318.380	1899.68	22.63 N	19.99 W	29.86	0.034
2100.00	1.090	329.390	2099.64	25.71 N	22.25 W	33.57	0.106
2300.00	0.600	15.020	2299.62	28.36 N	22.95 W	35.81	0.398
2500.00	0.730	340.610	2499.61	30.57 N	23.10 W	37.35	0.206
2700.00	0.860	336.170	2699.59	33.15 N	24.13 W	39.79	0.072
2900.00	0.660	348.140	2899.57	35.65 N	24.97 W	42.04	0.127
3100.00	0.480	2.010	3099.56	37.61 N	25.18 W	43.46	0.113
3300.00	0.160	57.030	3299.56	38.60 N	24.91 W	43.90	0.205
3500.00	0.170	86.690	3499.56	38.77 N	24.38 W	43.60	0.043
3700.00	0.530	161.310	3699.55	37.91 N	23.79 W	42.59	0.256
3900.00	0.360	179.790	3899.55	36.41 N	23.49 W	41.40	0.110
4100.00	0.430	235.740	4099.54	35.36 N	24.11 W	41.20	0.188
4300.00	0.400	212.820	4299.54	34.35 N	25.11 W	41.31	0.084
4500.00	0.660	215.090	4499.53	32.82 N	26.15 W	41.13	0.130
4700.00	0.530	204.920	4699.52	31.04 N	27.20 W	40.79	0.084
4900.00	0.410	235.330	4899.51	29.79 N	28.18 W	40.74	0.136
MWD Survey Leg #2							
5100.00	0.470	219.500	5099.51	28.75 N	29.29 W	40.92	0.067
5283.98	0.530	246.160	5283.48	27.82 N	30.55 W	41.29	0.129
5292.00	2.000	293.270	5291.50	27.86 N	30.71 W	41.44	21.005
5302.00	5.400	296.320	5301.48	28.14 N	31.29 W	42.06	34.045
5312.00	9.600	297.360	5311.39	28.73 N	32.46 W	43.33	42.020
5322.00	13.400	297.870	5321.19	29.66 N	34.22 W	45.28	38.013
5332.00	17.200	298.180	5330.83	30.90 N	36.55 W	47.86	38.009
5342.00	20.500	298.390	5340.29	32.43 N	39.39 W	51.02	33.007
5352.00	24.300	298.540	5349.54	34.25 N	42.74 W	54.76	38.004
5362.00	27.900	298.650	5358.51	36.35 N	46.61 W	59.07	36.003

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
5372.00	31.900	298.740	5367.18	38.75 N	50.98 W	63.96	40.003
5382.00	37.300	298.820	5375.41	41.48 N	55.95 W	69.52	54.002
5392.00	42.900	298.880	5383.06	44.59 N	61.59 W	75.84	56.001
5402.00	48.600	298.940	5390.03	48.05 N	67.86 W	82.87	57.002
5412.00	53.800	298.990	5396.30	51.82 N	74.68 W	90.51	52.001
5422.00	58.000	299.030	5401.90	55.84 N	81.92 W	98.64	42.001
5432.00	62.400	299.070	5406.87	60.05 N	89.50 W	107.16	44.001
5442.00	67.100	299.110	5411.13	64.44 N	97.40 W	116.04	47.001
5452.00	72.300	299.150	5414.60	69.01 N	105.59 W	125.24	52.001
5466.00	79.400	299.200	5418.02	75.62 N	117.44 W	138.57	50.715
5488.00	87.000	303.900	5420.63	87.05 N	136.03 W	160.16	40.530
5515.81	87.500	307.000	5421.96	103.16 N	158.65 W	187.84	11.278
5547.59	90.100	309.000	5422.63	122.71 N	183.69 W	219.59	10.321
5579.36	88.700	311.800	5422.96	143.30 N	207.88 W	251.36	9.853
5611.24	87.500	311.400	5424.02	164.46 N	231.70 W	283.21	3.967
5643.10	88.900	312.300	5425.02	185.70 N	255.42 W	315.03	5.223
5674.88	89.900	313.000	5425.35	207.23 N	278.80 W	346.78	3.841
5706.61	90.600	313.900	5425.21	229.05 N	301.83 W	378.45	3.593
5738.46	88.900	314.100	5425.35	251.18 N	324.74 W	410.22	5.374
5770.33	88.900	314.200	5425.96	273.37 N	347.60 W	442.00	0.314
5802.14	89.600	315.300	5426.38	295.76 N	370.19 W	473.70	4.099
5834.00	91.900	317.400	5425.96	318.81 N	392.18 W	505.35	9.775
5865.85	92.700	318.100	5424.68	342.37 N	413.58 W	536.89	3.336
5897.60	92.100	315.800	5423.35	365.55 N	435.23 W	568.38	7.480
5929.31	86.700	311.900	5423.69	387.50 N	458.08 W	599.99	21.003
5961.12	85.700	311.100	5425.79	408.53 N	481.86 W	631.72	4.022
5992.91	92.100	311.600	5426.40	429.52 N	505.70 W	663.48	20.193
6024.67	90.800	309.700	5425.60	450.20 N	529.79 W	695.23	7.247
6056.39	91.500	308.800	5424.96	470.27 N	554.35 W	726.94	3.594
6087.34	91.200	308.100	5424.23	489.51 N	578.58 W	757.87	2.460
6119.09	88.500	306.100	5424.32	508.66 N	603.90 W	789.57	10.583
6150.93	88.400	304.700	5425.18	527.09 N	629.84 W	821.30	4.407
6182.66	90.400	306.300	5425.51	545.52 N	655.67 W	852.92	8.072
6214.37	90.200	310.400	5425.34	565.19 N	680.53 W	884.61	12.945
6246.21	90.000	312.700	5425.29	586.30 N	704.36 W	916.44	7.251
6277.96	88.100	310.400	5425.82	607.36 N	728.12 W	948.17	9.395
6309.77	87.100	313.000	5427.15	628.50 N	751.84 W	979.94	8.750
6341.42	89.600	311.600	5428.06	649.79 N	775.24 W	1011.54	9.052
6373.14	92.100	312.100	5427.59	670.95 N	798.86 W	1043.24	8.037
6404.94	87.200	311.200	5427.78	692.07 N	822.62 W	1075.02	15.666
6436.79	88.600	312.700	5428.95	713.35 N	846.29 W	1106.83	6.440
6468.52	87.200	313.000	5430.11	734.91 N	869.53 W	1138.49	4.512
6500.28	87.100	313.000	5431.69	756.55 N	892.73 W	1170.17	0.315
6532.20	88.200	312.700	5433.00	778.24 N	916.11 W	1202.03	3.572
6564.06	88.700	311.400	5433.86	799.57 N	939.76 W	1233.85	4.370

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 13-33

Mobil
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
6595.89	88.600	311.100	5434.61	820.55 N	963.69 W	1265.67	0.993
6626.86	89.100	309.500	5435.23	840.57 N	987.30 W	1296.63	5.412
6658.53	90.200	310.200	5435.43	860.87 N	1011.61 W	1328.30	4.117
6690.38	90.700	310.000	5435.18	881.38 N	1035.98 W	1360.15	1.691
6721.40	91.000	310.000	5434.72	901.32 N	1059.74 W	1391.16	0.967
6753.15	90.700	309.500	5434.25	921.62 N	1084.14 W	1422.91	1.836
6784.87	91.600	309.300	5433.61	941.75 N	1108.65 W	1454.62	2.906
6816.62	91.900	309.700	5432.64	961.93 N	1133.14 W	1486.35	1.574
6848.34	90.900	309.700	5431.87	982.19 N	1157.54 W	1518.06	3.153
6880.19	89.700	309.500	5431.70	1002.49 N	1182.08 W	1549.91	3.820
6900.00	89.100	309.800	5431.91	1015.13 N	1197.33 W	1569.72	3.386
6931.00	89.100	309.800	5432.39	1034.97 N	1221.14 W	1600.72	0.000

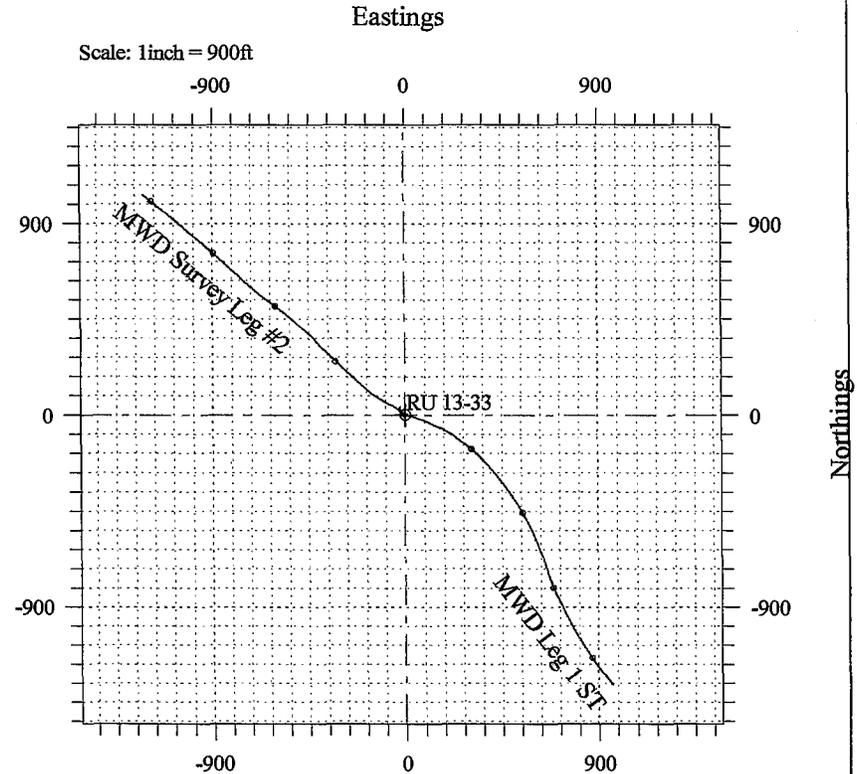
All data is in feet unless otherwise stated. Directions and coordinates are relative to True North. Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.

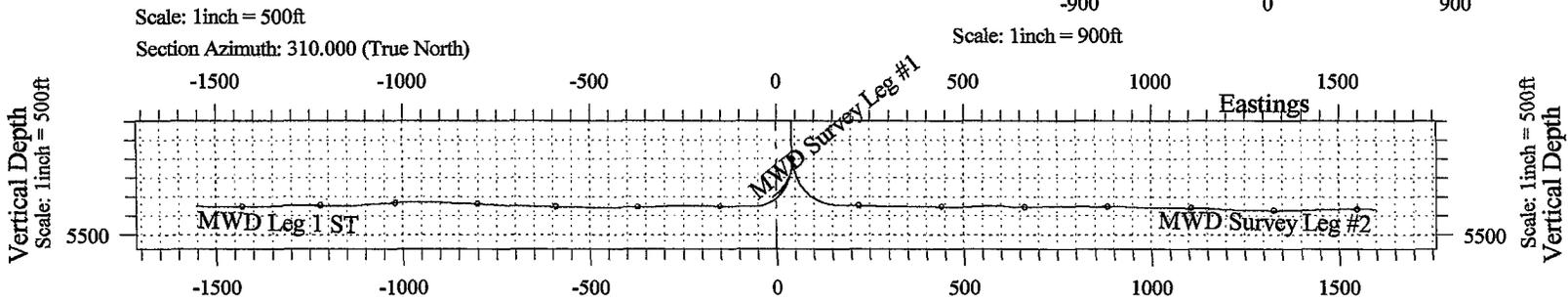
Vertical Section is from Well and calculated along an Azimuth of 310.000° (True).

Based Upon Minimum Curvature type calculations, at a Measured Depth of 6931.00ft., The Bottom Hole Displacement is 1600.74ft., in the Direction of 310.283° (True).

Customer: Mobil
Folder: Mobil
Field: San Juan County
Project: Utah
Structure: Rutherford Unit
Well: RU 13-33



Vertical Section



Scale: 1inch = 500ft
 Section Azimuth: 310.000 (True North)

Vertical Section

Prepared: Checked: Approved:

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.
14-20-603-247A

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

8. Well Name and No.
RATHERFORD 13-W-33

9. API Well No.
43-037-15855

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

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)
SEC. 13, T41S, R23E
(NW/SE) 1970' FSL & 1979' FEL

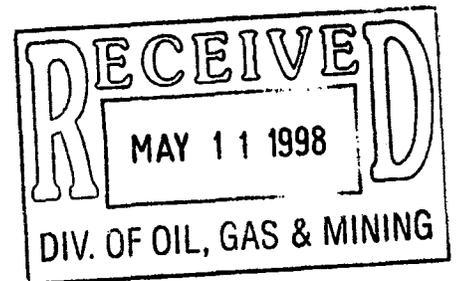
12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> 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 MIT TESTS
	<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.)*

SEE ATTACHED MIT AND CHART.



14. I hereby certify that the foregoing is true and correct
Signed *Shirley Houchins* for Title **SHIRLEY HOUCHINS/ENV & REG TECH** Date **5-13-98**

(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.

ANNULAR PRESSURE TEST

(Mechanical Integrity Test)

Operator Mobil E. & P., Inc Date of Test 8-25-97

Well Name RU # 13W-33 EPA Permit No. _____

Location Sec. 13, T41S-R23E Tribal Lease No. 14-20-603-247A

State and County San Juan County, UT

Continuous Recorder? YES NO Pressure Gauge? YES NO

Bradenhead Opened? YES NO Fluid Flow? YES NO

<u>TIME</u>	<u>ANNULUS PRESSURE, psi</u>	<u>TUBING PRESSURE, psi</u>
<u>4:45</u>	<u>1100</u>	<u>0</u>
<u>4:50</u>	<u>1100</u>	/
<u>4:55</u>	<u>1100</u>	
<u>5:05</u>	<u>1100</u>	
<u>5:15</u>	<u>1095</u>	

MAX. INJECTION PRESSURE: _____ PSI
MAX. ALLOWABLE PRESSURE CHANGE: _____ PSI (TEST PRESSURE X 0.05)
REMARKS: Passed? Failed? If failed, cease injection until well passes MIT (40CFR§144.21(c)(6)).

PASSED M.I.T.

FRITZ JOHNSON *Fritz Johnson* 8-25-97
COMPANY REPRESENTATIVE: (Print and Sign) DATE
Melvin Capitan Jr. *Melvin Capitan Jr.* 8-25-97
INSPECTOR: (Print and Sign) DATE

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF INSPECTION

Address (EPA Regional Office) Region 9 Environmental Inspection Agency 215 Fremont Street (W-6-2) San Francisco, CA 94105	Inspection Contractor Navajo EPA THE CALMUS GROUP, INC. CORPORATE OFFICE XXXXXX XXXXXX Waltham, MA 02154 XXXXXX XXXXXX	Firm To Be Inspected Mobil E.&P., Inc. P.O. Box Dawer G Cortez, Co 81321
---	---	--

Date <i>8-25-97</i>	Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300 f et seg.).
Hour <i>8:30 AM</i>	

Reason For Inspection

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable permit or rule.

MCU # J-21, WATER INJECTION WELL, M.I.T. - PASSED

MCU # P-19, WATER INJECTION WELL, M.I.T. - PASSED

MCU # P-17, WATER INJECTION WELL, M.I.T. - PASSED

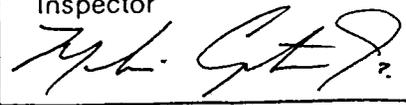
MCU # Q-14, WATER INJECTION WELL, M.I.T. - PASSED

MCU # R-15, WATER INJECTION WELL, M.I.T. - PASSED

RU # 13W-33, WATER INJECTION WELL, M.I.T. - PASSED

Section 1445(b) of the SDWA (42 U.S.C. §300 j-4 (b) is quoted on the reverse of this form.

Receipt of this Notice of Inspection is hereby acknowledged.

Firm Representative 	Date <i>8-25-97</i>	Inspector 
---	------------------------	--

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.

5. Lease Serial No.
14-20-603-247A

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 #13W33

9. API Well No.
43-037-15855

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 **INJECTION WELL**

2. Name of Operator
Mobil Producing TX & NM Inc. *

3a. Address
P.O. Box 4358 Houston, TX 77210-4358

3b. Phone No. (include area code)
713-431-1197

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec. 13, T41S, R23E (NW/SE) 1970' FSL & 1979' FEL

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 checked="" type="checkbox"/> Other <u>MIT RESULTS</u>
	<input type="checkbox"/> Change Plans	<input 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 recomplate 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)

MIT results and chart are attached.

RECEIVED
MAY 24 2000
DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)
Ellen M. Carroll

Title Senior Staff Office Assistant

* ExxonMobil Production Company, A division of Exxon Mobil Corporation, acting for Mobil Producing Texas & New Mexico, Inc.

Signature *Ellen M. Carroll* Date 5/12/2000

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.

ANNULAR PRESSURE TEST

(Mechanical Integrity Test)

Operator EXXON-MOBILE + P. INC. Date of Test 1-19-2000
 Well Name RATHERFORD UNIT WELL #3W-33 EPA Permit No. _____
 Location SEC 13, T41S, R23E Tribal Lease No. 1420603247A
 State and County SAN JUAN COUNTY, N.M.

Continuous Recorder? YES NO Pressure Gauge? YES NO
 Bradenhead Opened? YES NO Fluid Flow? YES NO

TIME	ANNULUS PRESSURE, psi <small>0-2000 psi gauge</small>	ANNULUS PRESSURE, psi <small>0-1500 psi recorder</small>	TUBING PRESSURE, psi <small>0-5000 psi gauge</small>
3:02 pm	1080	1078	2945
3:07 pm	1080	1078	2945
3:12 pm	1080	1070	2945
3:17 pm	1080	1070	2945
3:22 pm	1080	1070	2945
3:27 pm	1080	1075	2945
3:32 pm	1080	1075	2945

MAX. INJECTION PRESSURE: 3000 PSI
 MAX. ALLOWABLE PRESSURE CHANGE: 54.0 PSI (TEST PRESSURE X 0.05)

REMARKS: Passed? Failed? If failed, cease injection until well passes MIT (40CFR§144.21(c)(6)).

Bradenhead buried.
 Active, Injecting
 Passed MIT

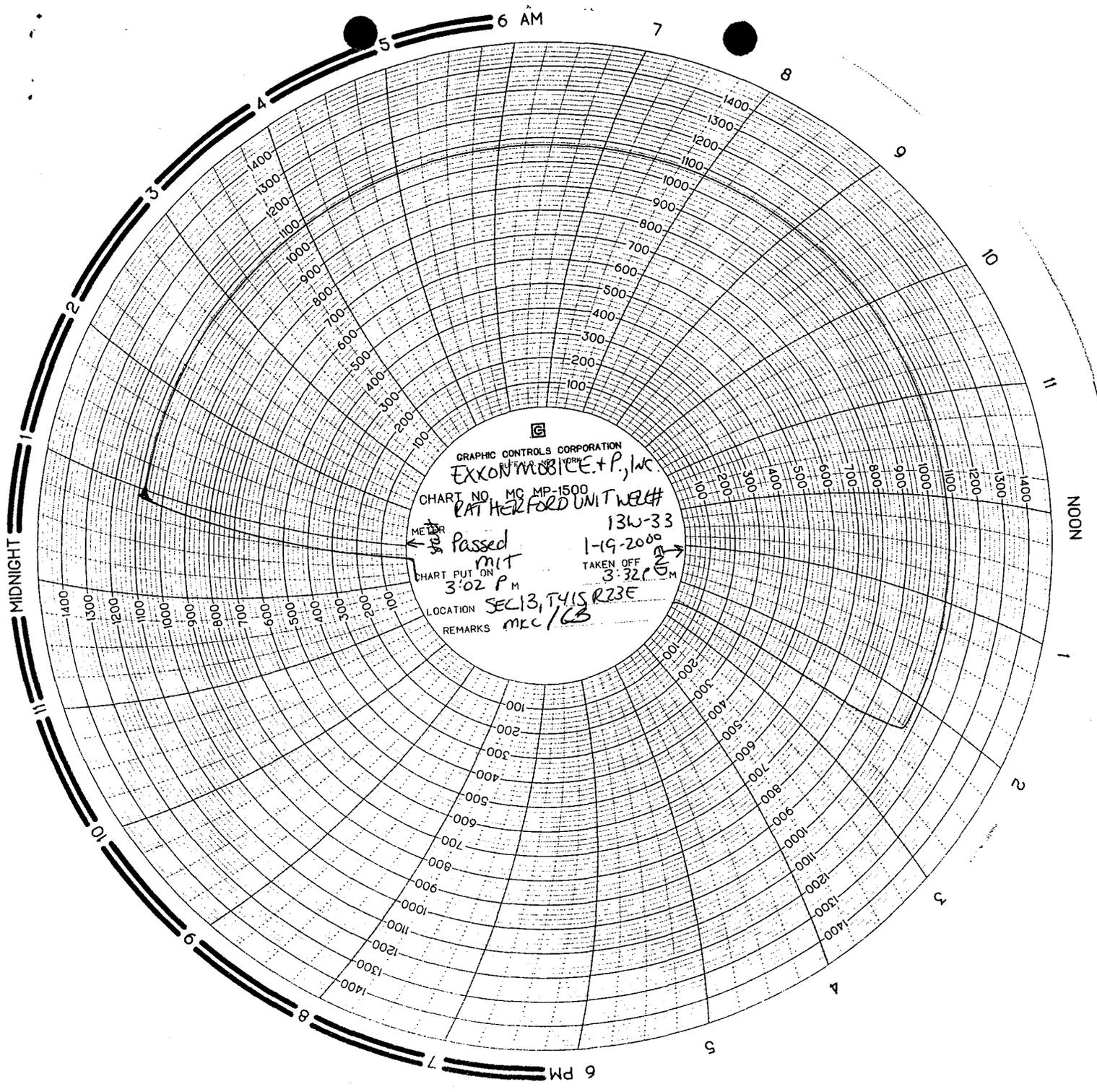
RECEIVED
 JAN 19 2000
 DEPARTMENT OF
 OIL, GAS AND MINING

Carson Blackgoat
 COMPANY REPRESENTATIVE: (Print and Sign)

1/19/00
 DATE

Melvina K. Clah
 INSPECTOR: (Print and Sign)

1-19-2000
 DATE



RECORDED

INDEXED

DIVISION OF OIL, GAS AND MINING

ExxonMobil Production Comp
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

June 27, 2001

ExxonMobil
Production

Mr. Jim Thompson
State of Utah, Division of Oil, Gas and Mining
1549 West North Temple
Suite 1210
Salt Lake City, UT 84114-5801

Change of Name – Mobil Oil Corporation to
ExxonMobil Oil Corporation

Dear Mr. Thompson

Effective June 1, 2001, Mobil Oil Corporation (MOC) changed its name to ExxonMobil Oil Corporation (EMOC). This was a name change only; EMOC is the same corporation as Mobil Oil Corporation, but with a new name. No facility or other asset was transferred from one corporation to another by virtue of the name change. Specifically, EMOC will remain the owner and operator of its existing exploration and production oil and gas properties and facilities, as well as relevant permits.

There is no change to the name of Exxon Mobil Corporation, the ultimate shareholder of EMOC.

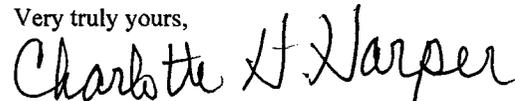
Please note the change of name of MOC to ExxonMobil Oil Corporation in your records pertaining to any MOC permits.

The Federal Identification Number for MOC (13-5401570) will remain the same for EMOC.

A copy of the Certification, Bond Rider and a list of wells are attached.

If you have any questions please feel free to call Joel Talavera at 713-431-1010

Very truly yours,



Charlotte H. Harper
Permitting Supervisor

ExxonMobil Production Company
a division of Exxon Mobil Corporation,
acting for ExxonMobil Oil Corporation

RECEIVED

JUN 27 2001

DIVISION OF
OIL, GAS AND MINING



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

Navajo Area Office
~~XXXXXXXXXXXX~~
NAVAJO REGION

P.O. Box 1060
Gallup, New Mexico 87305-1060

AUG 30 2001

IN REPLY REFER TO:

RRES/543

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Charlotte H. Harper, Permitting Supervisor
Exxon Mobil Production Company
U. S. West
P. O. Box 4358
Houston, TX 77210-4358

Dear Ms. Harper:

This is to acknowledge receipt of your company's name change from Mobil Oil Corporation to ExxonMobil Oil Corporation effective June 1, 2001. The receipt of documents includes the Name Change Certification, current listing of Officers and Directors, Listing of Leases, Financial Statement, filing fees of \$75.00 and a copy of the Rider for Bond Number 8027 31 97. There are no other changes.

Please note that we will provide copies of these documents to other concerned parties. If you need further assistance, you may contact Ms. Bertha Spencer, Realty Specialist, at (928) 871-5938.

Sincerely,

GENNI DENETSONE

Regional Realty Officer

cc: BLM, Farmington Field Office w/enclosures ✓
Navajo Nation Minerals Office, Attn: Mr. Akhtar Zaman, Director/w enclosures

MINERAL RESOURCES	
ADM 1	<i>DMC</i>
NATV AM MIN COORD	_____
SOLID MIN TEAM	_____
PETRO MIN TEAM	<i>2</i>
O & G INSPECT TEAM	_____
ALL TEAM LEADERS	_____
LAND RESOURCES	_____
ENVIRONMENT	_____
FILES	_____

ExxonMobil Production Company
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

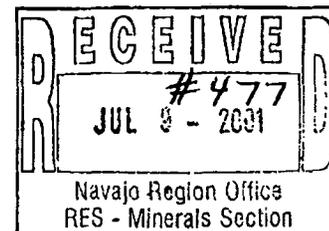
By 7/12/2001
SN
543
File

June 27, 2001

ExxonMobil
Production

Certified Mail
Return Receipt Requested

Ms. Genni Denetsone
United States Department of the Interior
Bureau of Indian Affairs, Navajo Region
Real Estate Services
P. O. Box 1060
Gallup, New Mexico 87305-1060
Mail Code 543



Change of Name -
Mobil Oil Corporation to
ExxonMobil Oil Corporation

Dear Ms. Denetsone:

Effective June 1, 2001, Mobil Oil Corporation (MOC) changed its name to ExxonMobil Oil Corporation (EMOC). This was a name change only; EMOC is the same corporation as Mobil Oil Corporation, but with a new name. No facility or other asset was transferred from one corporation to another by virtue of the name change. Specifically, EMOC will remain the owner and operator of its existing exploration and production oil and gas properties and facilities, as well as relevant permits.

There is no change to the name of Exxon Mobil Corporation, the ultimate shareholder of EMOC.

Please note the change of name of MOC to ExxonMobil Oil Corporation in your records pertaining to any MOC permits.

The Federal Identification Number for MOC (13-5401570) will remain the same for EMOC.

Attached is the Name Change Certification, Current listing of Officers and Directors, Filing Fee of \$75/-, Listing of Leases, Financial Statement and a copy of the Rider for Bond number 8027 31 97. The original Bond Rider has been sent to Ms. Barbar Davis at your Washington Office.

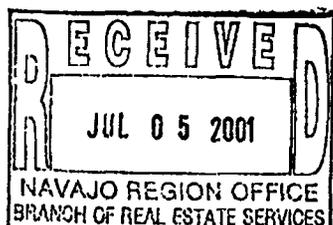
If you have any questions, please contact Alex Correa at (713) 431-1012.

Very truly yours,

Charlotte H. Harper

Charlotte H. Harper
Permitting Supervisor

Attachments



ExxonMobil Production Company
a division of Exxon Mobil Corporation,
acting for ExxonMobil Oil Corporation

NOTE: Check forwarded to Ella Issa

Bureau of Indian Affairs
Navajo Region Office
Attn: RRES - Mineral and Mining Section
P.O. Box 1060
Gallup, New Mexico 87305-1060

Gentlemen:

The current listing of officers and director of ExxonMobil Oil Corporation (Name of Corporation), of New York (State) is as follows:

OFFICERS

President	<u>F.A. Risch</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>
Vice President	<u>K.T. Koonce</u>	Address <u>800 Bell Street Houston, TX 77002</u>
Secretary	<u>F.L. Reid</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>
Treasure	<u>B.A. Maher</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>

DIRECTORS

Name	<u>D.D. Humphreys</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>
Name	<u>P.A. Hanson</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>
Name	<u>T.P. Townsend</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>
Name	<u>B.A. Maher</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>
Name	<u>F.A. Risch</u>	Address <u>5959 Las Colinas Blvd. Irving, TX 75039</u>

Sincerely,



Alex Correa

This is to certify that the above information pertaining to ExxonMobil Oil Corporation (Corporation) is true and correct as evidenced by the records and accounts covering business for the State of Utah and in the custody of Corporation Service Company (Agent), Phone: 1 (800) 927-9800 whose business address is One Utah Center, 201 South Main Street, Salt Lake City, Utah 84111-2218



Signature

AGENT AND ATTORNEY IN FACT

Title

CERTIFICATION

I, the undersigned Assistant Secretary of ExxonMobil Oil Corporation. (formerly Mobil Oil Corporation), a corporation organized and existing under the laws of the State of New York, United States of America, DO HEREBY CERTIFY, That, the following is a true and exact copy of the resolutions adopted by the Board of Directors on May 22, 2001:

CHANGE OF COMPANY NAME

WHEREAS, the undersigned Directors of the Corporation deem it to be in the best interest of the Corporation to amend the Certificate of Incorporation of the Corporation to change the name and principal office of the Corporation:

NOW THEREFORE BE IT RESOLVED, That Article 1st relating to the corporate name is hereby amended to read as follows:

"1st The corporate name of said Company shall be,

ExxonMobil Oil Corporation",

FURTHER RESOLVED, That the amendment of the Corporation's Certificate of Incorporation referred to in the preceding resolutions be submitted to the sole shareholder of the Corporation entitled to vote thereon for its approval and, if such shareholder gives its written consent, pursuant to Section 803 of the Business Corporation Law of the State of New York, approving such amendment, the proper officers of the Corporation be, and they hereby are, authorized to execute in the name of the Corporation the Certificate of Amendment of Certificate of Incorporation, in the form attached hereto;

FURTHER RESOLVED, That the proper officers of the Corporation be and they hereby are authorized and directed to deliver, file and record in its behalf, the Certificate of Amendment of Certificate of Incorporation, and to take such action as may be deemed necessary or advisable to confirm and make effective in all respects the change of this Company's name to EXXONMOBIL OIL CORPORATION.

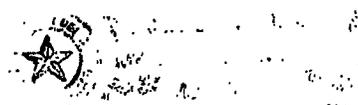
WITNESS, my hand and the seal of the Corporation at Irving, Texas, this 8th day of June, 2001.

S. A. Milligan
Assistant Secretary

COUNTY OF DALLAS)
STATE OF TEXAS)
UNITED STATES OF AMERICA)

Sworn to and subscribed before me at Irving, Texas, U. S. A. on this the 8th day of June, 2001.

Janice M. Phillips
Notary Public



LISTING OF LEASES OF MOBIL OIL CORPORATION**Lease Number**

- 1) 14-20-0603-6504
- 2) 14-20-0603-6505
- 3) 14-20-0603-6506
- 4) 14-20-0603-6508
- 5) 14-20-0603-6509
- 6) 14-20-0603-6510
- 7) 14-20-0603-7171
- 8) 14-20-0603-7172A
- 9) 14-20-600-3530
- 10) 14-20-603-359
- 11) 14-20-603-368
- 12) 14-20-603-370
- 13) 14-20-603-370A
- 14) 14-20-603-372
- 15) 14-20-603-372A
- 16) 14-20-603-4495
- 17) 14-20-603-5447
- 18) 14-20-603-5448
- 19) 14-20-603-5449
- 20) 14-20-603-5450
- 21) 14-20-603-5451

6/1/01

CHUBB GROUP OF INSURANCE COMPANIES

One Chubb Plaza, Suite 1900, Houston, Texas 77027-3501
Telephone: (713) 297-4600 • Facsimile: (713) 297-4750

NW Bond

FEDERAL INSURANCE COMPANY RIDER
to be attached to and form a part of

BOND NO 8027 31 97

wherein

Mobil Oil Corporation and Mobil Exploration and Producing U.S., Inc. is
named as Principal and

FEDERAL INSURANCE COMPANY AS SURETY,

in favor of **United States of America, Department of the Interior**
Bureau of Indian Affairs

in the amount of **\$150,000.00**
bond date: 11/01/65

IT IS HEREBY UNDERSTOOD AND AGREED THAT effective June 1, 2001
the name of the Principal is changed

FROM: Mobil Oil Corporation and Mobil Exploration and Producing U.S., Inc.

TO : ExxonMobil Oil Corporation

All other terms and conditions of this Bond are unchanged.

Signed, sealed and dated this 12th of June, 2001.

ExxonMobil Oil Corporation

By: 

FEDERAL INSURANCE COMPANY

By: 
Mary Pierson, Attorney-in-fact



**Chubb
Surety**

**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn.: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint **R.F. Bobo, Mary Pierson, Philana Berros, and Jody E. Specht of Houston, Texas**-----

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this 10th day of May, 2001.

Kenneth C. Wendel, Assistant Secretary

Frank E. Robertson, Vice President

STATE OF NEW JERSEY } ss.
County of Somerset

On this 10th day of May, 2001, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel being by me duly sworn, did depose and say that he is Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with Frank E. Robertson, and knows him to be Vice President of said Companies; and that the signature of Frank E. Robertson, subscribed to said Power of Attorney is in the genuine handwriting of Frank E. Robertson, and was thereto subscribed by authority of said Companies in the presence of the Notary Public.



Notary Public State of New Jersey
No. 2231647
Commission Expires Oct 28, 2004

Notary Public

Extract from the By-Laws of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY**:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U. S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U. S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 12th day of June, 2001



Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3485 Fax (908) 903-3656 e-mail: surety@chubb.com

CSC

5184334741

06/01 '01 08:46 NO.410 03/05

CSC

06/01 '01 09:06 NO.135 02/04

F010601000187

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
MOBIL OIL CORPORATION

CSC 45

(Under Section 805 of the Business Corporation Law)

Pursuant to the provisions of Section 805 of the Business Corporation Law, the undersigned President and Secretary, respectively, of Mobil Oil Corporation hereby certify:

FIRST: That the name of the corporation is MOBIL OIL CORPORATION and that said corporation was incorporated under the name of Standard Oil Company of New York.

SECOND: That the Certificate of Incorporation of the corporation was filed by the Department of State, Albany, New York, on the 10th day of August, 1882.

THIRD: That the amendments to the Certificate of Incorporation effected by this Certificate are as follows:

(a) Article 1st of the Certificate of Incorporation, relating to the corporate name, is hereby amended to read as follows:

"1st The corporate name of said Company shall be,
ExxonMobil Oil Corporation",

(b) Article 7th of the Certificate of Incorporation, relating to the office of the corporation is hereby amended to read as follows:

The office of the corporation within the State of New York is to be located in the County of Albany. The Company shall have offices at such other places as the Board of Directors may from time to time determine.

CSC
CSC

5184334741

06/01 '01 08:47 NO.410 04/05
06/01 '01 09:06 NO.133 03/04

FOURTH: That the amendments to the Certificate of Incorporation were authorized by the Board of Directors followed by the holder of all outstanding shares entitled to vote on amendments to the Certificate of Incorporation by written consent of the sole shareholder dated May 22, 2001.

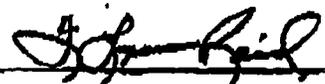
IN WITNESS WHEREOF, this Certificate has been signed this 22nd Day of May, 2001.



F. A. Risch, President 

STATE OF TEXAS)
COUNTY OF DALLAS)

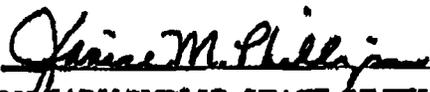
F. L. REID, being duly sworn, deposes and says that he is the Secretary of MOBIL OIL CORPORATION, the corporation mentioned and described in the foregoing instrument; that he has read and signed the same and that the statements contained therein are true.



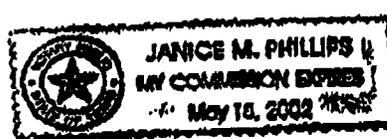
F. L. REID, Secretary

SUBSCRIBED AND SWORN TO before me, the undersigned authority, on this the 22nd day of May, 2001.

[SEAL]



NOTARY PUBLIC, STATE OF TEXAS



CSC
CSC

5184334741

06/01 '01 09:01 NO. 411 02/02
06/01 '01 09:06 NO. 133 04/04
F010601000187

CSC 45

CERTIFICATE OF AMENDMENT

OF

MOBIL OIL CORPORATION

Under Section 805 of the Business Corporation Law

SAC

100 cc
STATE OF NEW YORK
DEPARTMENT OF STATE

Filed by: EXXONMOBIL CORPORATION

(Name)

FILED JUN 01 2001

5959 Las Colinas Blvd.

(Mailing address)

TAX \$

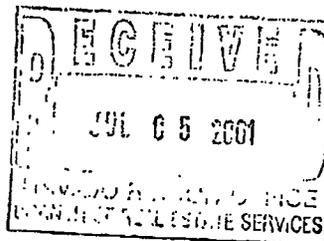
BY: *SAC*

Irving, TX 75039-2298

(City, State and Zip code)

ny Albany

Cust Ref # 165578 MPJ



010601000195

State of New York }
Department of State } ss:

I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on **JUN 01 2001**



Special Deputy Secretary of State

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent

X Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective: **06-01-2001**

FROM: (Old Operator):	TO: (New Operator):
MOBIL EXPLORATION & PRODUCTION	EXXONMOBIL OIL CORPORATION
Address: P O BOX DRAWER "G"	Address: U S WEST P O BOX 4358
CORTEZ, CO 81321	HOUSTON, TX 77210-4358
Phone: 1-(970)-564-5212	Phone: 1-(713)-431-1010
Account No. N7370	Account No. N1855

CA No. Unit: RATHERFORD

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
1-24	01-41S-23E	43-037-15839	6280	INDIAN	WI	A
N DESERT CR 44-2 (2-44)	02-41S-23E	43-037-16386	99990	INDIAN	WI	A
11-42	11-41S-23E	43-037-15841	6280	INDIAN	WI	A
11-44	11-41S-23E	43-037-15842	6280	INDIAN	WI	A
12-11	12-41S-23E	43-037-15843	6280	INDIAN	WI	A
RATHERFORD 12-W-22	12-41S-23E	43-037-15845	6280	INDIAN	WI	A
12-31	12-41S-23E	43-037-15847	6280	INDIAN	WI	A
RATHERFORD 12-W-33	12-41S-23E	43-037-15848	6280	INDIAN	WI	A
12-42	12-41S-23E	43-037-15850	6280	INDIAN	WI	A
N DESERT CR 13-12 (12-13)	12-41S-23E	43-037-16404	99990	INDIAN	WI	A
RATHERFORD U 12-24	12-41S-23E	43-037-31151	6280	INDIAN	WI	A
RATHERFORD U 12-W-44A	12-41S-23E	43-037-31543	6280	INDIAN	WI	A
13-W-13	13-41S-23E	43-037-15851	6280	INDIAN	WI	A
13-22	13-41S-23E	43-037-15852	6280	INDIAN	WI	A
13-24	13-41S-23E	43-037-15853	6280	INDIAN	WI	A
13-31	13-41S-23E	43-037-15854	6280	INDIAN	WI	A
RATHERFORD 13-W-33	13-41S-23E	43-037-15855	6280	INDIAN	WI	A
13-42	13-41S-23E	43-037-15857	6280	INDIAN	WI	A
N DESERT CR 44-13 (13W44)	13-41S-23E	43-037-16407	99990	INDIAN	WI	A
RATHERFORD U 13-W-11	13-41S-23E	43-037-31152	6280	INDIAN	WI	A

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 06/29/2001
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 06/29/2001
- The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 04/09/2002
- Is the new operator registered in the State of Utah: YES Business Number: 579865-0143
- If **NO**, the operator was contacted on: N/A

6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BIA-06/01/01

7. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: 06/01/2001

8. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

9. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

NOTE: EPA ISSUES UIC PERMIT

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 04/09/2002
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 04/9/2002
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: N/A

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: N/A

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 80273197

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

ROUTING
1. DJJ
2. CDW

X Change of Operator (Well Sold)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:		6/1/2006
FROM: (Old Operator): N1855-ExxonMobil Oil Corporation PO Box 4358 Houston, TX 77210-4358 Phone: 1 (281) 654-1936	TO: (New Operator): N2700-Resolute Natural Resources Company 1675 Broadway, Suite 1950 Denver, CO 80202 Phone: 1 (303) 534-4600	
CA No.	Unit:	RATHERFORD (UIC)

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/21/2006
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/24/2006
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/7/2006
- Is the new operator registered in the State of Utah: YES Business Number: 5733505-0143
- If **NO**, the operator was contacted on: _____
- (R649-9-2)Waste Management Plan has been received on: requested
- Inspections of LA PA state/fee well sites complete on: n/a
- Reports current for Production/Disposition & Sundries on: ok
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM n/a BIA not yet
- Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: not yet
- Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/12/2006

DATA ENTRY:

- Changes entered in the **Oil and Gas Database** on: 6/22/2006
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 6/22/2006
- Bond information entered in RBDMS on: n/a
- Fee/State wells attached to bond in RBDMS on: n/a
- Injection Projects to new operator in RBDMS on: 6/22/2006
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

- Federal well(s) covered by Bond Number: n/a
- Indian well(s) covered by Bond Number: PA002769
- (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number n/a
- The **FORMER** operator has requested a release of liability from their bond on: n/a
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

- (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

STATE OF UTAH
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See attached list		API Number Attached
Location of Well		Field or Unit Name Rutherford Unit
Footage: See attached list	County: San Juan	Lease Designation and Number See attached list
QQ, Section, Township, Range:	State: UTAH	

EFFECTIVE DATE OF TRANSFER: 6/1/2006

CURRENT OPERATOR

Company: Exxon Mobil Oil Corporation Name: _____
 Address: PO Box 4358 Signature: _____
city Houston state TX zip 77210-4358 Title: _____
 Phone: (281) 654-1936 Date: _____

Comments: Exxon Mobil has submitted a separate, signed copy of UIC Form 5

NEW OPERATOR

Company: Resolute Natural Resources Company Name: Dwight E Mallory
 Address: 1675 Broadway, Suite 1950 Signature: 
city Denver state CO zip 80202 Title: Regulatory Coordinator
 Phone: (303) 534-4600 Date: 4/20/2006

Comments: A list of affected UIC wells is attached.
 New bond numbers for these wells are:
 BIA Bond # PA002769 and US EPA Bond # B001252

(This space for State use only)

Transfer approved by: 
 Title: Field Operations Manager Approval Date: 6/12/06

Comments:

RECEIVED
APR 24 2006

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: See attached list
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo Tribe
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Unit Agreement</u>		7. UNIT or CA AGREEMENT NAME: Ratherford Unit
2. NAME OF OPERATOR: Resolute Natural Resources Company <i>N2700</i>		8. WELL NAME and NUMBER: See attached list
3. ADDRESS OF OPERATOR: 1675 Broadway, Suite 1950 CITY Denver STATE CO ZIP 80202	PHONE NUMBER: (303) 534-4600	9. API NUMBER: Attached
4. LOCATION OF WELL FOOTAGES AT SURFACE: See attached list COUNTY: San Juan		10. FIELD AND POOL, OR WILDCAT: Greater Aneth
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____ STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective June 1, 2006 Exxon Mobil Oil Corporation resigns as operator of the Ratherford Unit. Also effective June 1, 2006 Resolute Natural Resources Company is designated as successor operator of the Ratherford Unit.

A list of affected producing and water source wells is attached. A separate of affected injection wells is being submitted with UIC Form 5, Transfer of Authority to Inject.

As of the effective date, bond coverage for the affected wells will transfer to BIA Bond # PA002769.

NAME (PLEASE PRINT) <u>Dwight E Malloy</u>	TITLE <u>Regulatory Coordinator</u>
SIGNATURE	DATE <u>4/20/2006</u>

(This space for State use only)

APPROVED 6127106
Earlene Russell
Division of Oil, Gas and Mining (See Instructions on Reverse Side)
Earlene Russell, Engineering Technician

RECEIVED
APR 24 2006
DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ship Rock
		7. UNIT or CA AGREEMENT NAME: UTU68931A
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Injection</u>	8. WELL NAME and NUMBER: Ratherford	
2. NAME OF OPERATOR: ExxonMobil Oil Corporation <i>N1855</i>		9. API NUMBER: attached
3. ADDRESS OF OPERATOR: P.O. Box 4358 CITY Houston STATE TX ZIP 77210-4358	PHONE NUMBER: (281) 654-1936	10. FIELD AND POOL, OR WILDCAT: Aneth
4. LOCATION OF WELL FOOTAGES AT SURFACE:		COUNTY: San Juan
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>6/1/2006</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

ExxonMobil Oil Corporation is transferring operatorship of Greater Aneth field, Ratherford lease to Resolute Natural Resources Company. All change of operator notices should be made effective as of 7:00 AM MST on June 1, 2006.

Attached please find a listing of injection wells included in the transfer.

NAME (PLEASE PRINT) Laurie Kilbride TITLE Permitting Supervisor

SIGNATURE *Laurie S. Kilbride* DATE 4/19/2006

(This space for State use only) **APPROVED** 6/27/06
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician
(See Instructions on Reverse Side)

RECEIVED
APR 21 2006

GREATER ANETH FIELD UIC WELL LIST
Ratherford lease, San Juan County, Utah

Reg Lease Name	Well ID	API Num	Status	Reg Lease #	Surface Location						
					Qtr 1	Qtr 2	Sec	TN	RNG	NS Foot	EW Foot
RATHERFORD UNIT	1W24	430371583900S1	Shut-in	14-20-603-246A	NE	SE	1	41S	23E	0651FSL	3300FEL
RATHERFORD UNIT	2W44	430371638600S1	Active	14-20-603-246A	SE	SE	2	41S	23E	0810FSL	0510FEL
RATHERFORD UNIT	11W42	430371584100S1	Active	14-20-603-246A	SE	NE	11	41S	23E	3290FSL	4617FWL
RATHERFORD UNIT	11W44	430371584200S1	Shut-in	14-20-603-246A	SE	SE	11	41S	23E	0660FSL	0558FEL
RATHERFORD UNIT	12W11	430371584300S1	Active	14-20-603-246A	NW	NW	12	41S	23E	0678FNL	4620FEL
RATHERFORD UNIT	12W13	430371640400S1	Active	14-20-603-246A	NW	SW	12	41S	23E	1980FSL	4620FEL
RATHERFORD UNIT	12W22	430371584501S1	Active	14-20-603-246A	SE	NW	12	41S	23E	1920FNL	2080FWL
RATHERFORD UNIT	12W24	430373115101S1	Active	14-20-603-246A	SE	SW	12	41S	23E	0775FSL	1980FWL
RATHERFORD UNIT	12W31	430371584700S1	Active	14-20-603-246A	NW	NE	12	41S	23E	0661FNL	1981FEL
RATHERFORD UNIT	12W33	430371584800S1	Active	14-20-603-246A	NW	SE	12	41S	23E	1958FSL	3300FEL
RATHERFORD UNIT	12W42	430371585000S1	Active	14-20-603-246A	SE	NE	12	41S	23E	3275FSL	0662FEL
RATHERFORD UNIT	12W44A	430373154300S1	Shut-in	14-20-603-246A	SE	SE	12	41S	23E	0772FSL	0807FEL
RATHERFORD UNIT	13W11	430373115201S1	Active	14-20-603-247A	NW	NW	13	41S	23E	0500FNL	0660FWL
RATHERFORD UNIT	13W13	430371585100S1	Active	14-20-603-247A	NW	SW	13	41S	23E	1980FSL	4620FEL
RATHERFORD UNIT	13W22	430371585200S1	Active	14-20-603-247A	SE	NW	13	41S	23E	1988FNL	3300FEL
RATHERFORD UNIT	13W24	430371585300S1	Active	14-20-603-247A	SE	SW	13	41S	23E	0660FSL	3300FEL
RATHERFORD UNIT	13W33	430371585501S1	Active	14-20-603-247A	NW	SE	13	41S	23E	1970FSL	1979FEL
RATHERFORD UNIT	13W42	430371585700S1	Shut-in	14-20-603-247A	SE	NE	13	41S	23E	2139FNL	0585FEL
RATHERFORD UNIT	13W44	430371640700S1	Active	14-20-603-247A	SE	SE	13	41S	23E	0653FSL	0659FEL
RATHERFORD UNIT	14-31	430373171700S1	Active	14-20-603-247A	NW	NE	14	41S	23E	0754FNL	1604FEL
RATHERFORD UNIT	14W42	430371586001S1	Active	14-20-603-247A	SE	NE	14	41S	23E	1976FNL	653FEL
RATHERFORD UNIT	24W31	430371586200S1	Shut-in	14-20-603-247A	NW	NE	24	41S	24E	0560FNL	1830FEL
RATHERFORD UNIT	24W42	430371586300S1	Shut-in	14-20-603-247A	SE	NE	24	41S	24E	1980FNL	0660FEL
RATHERFORD UNIT	17W12	430371572601S1	Active	14-20-603-353	SW	NW	17	41S	24E	1980FNL	510FWL
RATHERFORD UNIT	17W14	430371572700S1	Active	14-20-603-353	SW	SW	17	41S	24E	0610FSL	0510FWL
RATHERFORD UNIT	17W21	430371641601S1	Active	14-20-603-353	NE	NW	17	41S	24E	0510FNL	1830FWL
RATHERFORD UNIT	17W23	430371572801S1	Active	14-20-603-353	NE	SW	17	41S	24E	1880FSL	1980FWL
RATHERFORD UNIT	17W32	430371572900S1	TA'd	14-20-603-353	SW	NE	17	41S	24E	1830FNL	2030FEL
RATHERFORD UNIT	17W34	430371573000S1	Active	14-20-603-353	SW	SE	17	41S	24E	0560FSL	1880FEL
RATHERFORD UNIT	17W41	430371573100S1	Shut-in	14-20-603-353	NE	NE	17	41S	24E	0610FNL	0510FEL
RATHERFORD UNIT	17W43	430371641701S1	Active	14-20-603-353	NE	SE	17	41S	24E	1980FSL	0660FEL
RATHERFORD UNIT	18-43B	430373171801S1	Active	14-20-603-353	NE	SE	18	41S	24E	2023FSL	0651FEL
RATHERFORD UNIT	18W12	430373115301S1	Active	14-20-603-353	SW	NW	18	41S	24E	1980FNL	560FWL
RATHERFORD UNIT	18W14	430371573501S1	Active	14-20-603-353	SW	SW	18	41S	24E	0810FSL	0600FWL
RATHERFORD UNIT	18W21	430371641801S1	Active	14-20-603-353	NE	NW	18	41S	24E	660FNL	1882FWL
RATHERFORD UNIT	18W23	430373024400S1	Shut-in	14-20-603-353	NE	SW	18	41S	24E	2385FSL	2040FWL
RATHERFORD UNIT	18W32	430371573601S1	Active	14-20-603-353	SW	NE	18	41S	24E	2140FNL	1830FEL
RATHERFORD UNIT	18W34	430371573701S1	Active	14-20-603-353	SW	SE	18	41S	24E	780FSL	1860FEL
RATHERFORD UNIT	18W41	430371573800S1	TA'd	14-20-603-353	NE	NE	18	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	19-12	430371573901S1	Active	14-20-603-353	SW	NW	19	41S	24E	1980FNL	0600FWL
RATHERFORD UNIT	19-32	430371574301S1	Active	14-20-603-353	SW	NE	19	41S	24E	2717FNL	2802FEL
RATHERFORD UNIT	19-34	430371574401S1	Active	14-20-603-353	SW	SE	19	41S	24E	0660FSL	1980FEL
RATHERFORD UNIT	19W21	430371574100S1	Shut-in	14-20-603-353	NE	NW	19	41S	24E	0660FNL	1860FWL
RATHERFORD UNIT	19W23	430371574200S1	Shut-in	14-20-603-353	NE	SW	19	41S	24E	2080FSL	1860FWL
RATHERFORD UNIT	19W43	430371642000S1	Shut-in	14-20-603-353	NE	SE	19	41S	24E	1980FSL	0760FEL
RATHERFORD UNIT	20-12	430371574601S1	Active	14-20-603-353	SW	NW	20	41S	24E	0709FNL	0748FEL
RATHERFORD UNIT	20-14	430371574701S1	Active	14-20-603-353	SW	SW	20	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	20-32	430371574901S1	Active	14-20-603-353	SW	NE	20	41S	24E	0037FNL	0035FWL
RATHERFORD UNIT	20-34	430371575001S1	Active	14-20-603-353	SW	SE	20	41S	24E	0774FNL	0617FWL
RATHERFORD UNIT	20-67	430373159000S1	Active	14-20-603-353	NE	SW	20	41S	24E	2629FSL	1412FWL
RATHERFORD UNIT	20W21	430371642300S1	Active	14-20-603-353	NE	NW	20	41S	24E	0660FNL	1880FWL
RATHERFORD UNIT	20W23	430371574800S1	Active	14-20-603-353	NW	SW	20	41S	24E	2080FSL	2120FWL
RATHERFORD UNIT	20W41	430371575100S1	Active	14-20-603-353	NE	NE	20	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	20W43	430371642400S1	TA'd	14-20-603-353	NE	SE	20	41S	24E	2070FSL	0810FEL
RATHERFORD UNIT	16W12	430371572000S1	Active	14-20-603-355	SW	NW	16	41S	24E	1880FNL	0660FWL

GREATER ANETH FIELD UIC WELL LIST
Ratherford lease, San Juan County, Utah

Reg Lease Name	Well ID	API Num	Status	Reg Lease #	Surface Location						
					Qtr 1	Qtr 2	Sec	TN	RNG	NS Foot	EW Foot
RATHERFORD UNIT	16W14	430371572100S1	Shut-in	14-20-603-355	SW	SW	16	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	16W21	430371641400S1	Active	14-20-603-355	NE	NW	16	41S	24E	0660FNL	1880FWL
RATHERFORD UNIT	16W23	430371572201S1	Active	14-20-603-355	NE	SW	16	41S	24E	1980FSL	1980FWL
RATHERFORD UNIT	16W43	430371641501S1	Active	14-20-603-355	NE	SE	16	41S	24E	2140FSL	0820FEL
RATHERFORD UNIT	21-14	430371575301S1	Active	14-20-603-355	SW	SW	21	41S	24E	0660FSL	0460FWL
RATHERFORD UNIT	21-67	430373175301S1	Active	14-20-603-355	NE	SW	21	41S	24E	2560FSL	1325FWL
RATHERFORD UNIT	21W21	430371642501S1	Active	14-20-603-355	NE	NW	21	41S	24E	0660FNL	2030FWL
RATHERFORD UNIT	6W14	430371598400S1	Active	14-20-603-368	NE	SE	6	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	7W12	430371598500S1	Active	14-20-603-368	NE	SE	7	41S	24E	2140FNL	0585FWL
RATHERFORD UNIT	7W14	430371598600S1	Active	14-20-603-368	NE	SE	7	41S	24E	1065FSL	0660FWL
RATHERFORD UNIT	7W21	430371639400S1	Active	14-20-603-368	NE	NW	7	41S	24E	0710FNL	1820FWL
RATHERFORD UNIT	7W34	430371598900S1	Active	14-20-603-368	SW	SE	7	41S	24E	0710FSL	2003FEL
RATHERFORD UNIT	7W43	430371639500S1	Active	14-20-603-368	NE	SE	7	41S	24E	2110FSL	0660FEL
RATHERFORD UNIT	8W14	430371599200S1	Active	14-20-603-368	SW	NE	8	41S	24E	0745FSL	0575FWL
RATHERFORD UNIT	10W43	430371640300S1	TA'd	14-20-603-4037	NE	SE	10	41S	24E	1980FSL	0550FEL
RATHERFORD UNIT	29-12	430371533701S1	Active	14-20-603-407	SW	NW	29	41S	24E	2870FNL	1422FWL
RATHERFORD UNIT	29-32	430371533901S1	Active	14-20-603-407	SW	NE	29	41S	24E	0694FNL	0685FWL
RATHERFORD UNIT	29W21	430371643200S1	Active	14-20-603-407	NE	NW	29	41S	24E	0667FNL	2122FWL
RATHERFORD UNIT	29W41	430371643300S1	Active	14-20-603-407	NE	NE	29	41S	24E	0557FNL	0591FEL
RATHERFORD UNIT	29W43	430371643400S1	Shut-in	14-20-603-407	NE	SE	29	41S	24E	1980FSL	0660FEL
RATHERFORD UNIT	30W41	430371534300S1	Shut-in	14-20-603-407	NE	NE	30	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	28-12	430371533601S1	Active	14-20-603-409	SW	SE	28	41S	24E	2121FNL	0623FWL
RATHERFORD UNIT	28W21	430371643100S1	Shut-in	14-20-603-409	NE	NW	28	41S	24E	0660FNL	2022FWL
RATHERFORD UNIT	9W23	430371639800S1	Active	14-20-603-5046	NW	SE	9	41S	24E	1980FSL	1980FWL