

FILE INDICATIONS

Entered in NID File

Entered on S R Sheet

Location Map Pinned

Card Indexed

Write Station File Label

Checked by Chief

Copy NID to Field Office

Approval Letter

Disposal Ticket

COMPLETION DATA

Recompleted 10-9-57

Date Well Completed

11-14-56

Location Rechecked

EWL

WV

TA

Band rechecked

EWL

QSS

PA

State of Fee Land

LOGS FILED

Driller's Logs

11-20-56

Electric Logs (Nos)

1 6

EE

LI

EFL

GR

GR-N

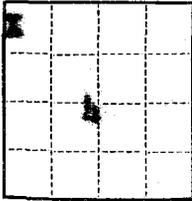
Micro

Lat

Mi-L

Sonic

Others



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City, Utah

Lease No. 071403-A

Unit Bluff

SUNDRY NOTICES AND REPORTS ON WELLS

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

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

April 30, 1956

Bluff Unit 3

Well No. _____ is located 605 ft. from 101 ^N line and 760 ft. from 105 ^E line of sec. 4

NW/4, NW/4 4 40S 23E S.L.B.M.
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

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

The elevation ~~of the bench mark above sea level is 4776~~ 4776 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)

Exploratory Well

1. Drill 12 1/4" hole to 500'±.
2. Run and cement 9 5/8" casing at 500' with sufficient cement to reach surface.
3. Drill 7 7/8" hole to a total depth of 7125'±.
4. If commercial production is obtained a supplementary completion notice will be filed, otherwise, plug and abandon in accordance with U.S.G.S. regulations. Surface formation is Recapture.

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 33 Richards Street

Salt Lake City, Utah

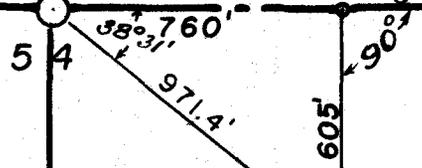
By B. W. Shepard

Title B. W. Shepard
Exploitation Engineer

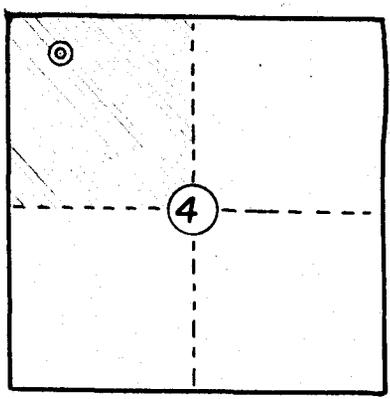
O. J. Smart

Elev. MKd. stone
4745.43 TBM on S.S. Ledge at Cor. 5 & 4

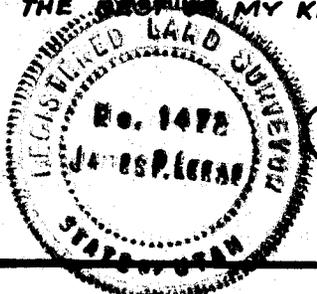
Mkd. Stone



WELL LOCATION SHELL BLUFF UNIT N° 3
• 605' FROM THE NORTH LINE & 760' FROM THE WEST LINE Elev. 4746.09
R.P.'S SET 100' E-W-N-S



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



James P. Leese
JAMES P. LEESE
REG. LAND SURVEYOR
REG NO. 1472 UTAH

SHELL OIL CO.
WELL LOCATION NW1/4 NW1/4 SECTION 4 T40S R23E SLM SAN JUAN COUNTY UTAH
APRIL 19 1956 SCALE 1" = 500'
DRAWN BY W.C.
SAN JUAN ENGINEERING CO. FARMINGTON NEW MEXICO.
216-519

41.52'

Marked Stones

89° 55' W

Stone
Marked $\frac{1}{4}$

698'

N 42° 16' W 950'

645'

89° 58'

RESURVEY OF

WELL LOCATION - SHELL BLUFF UNIT No. 3

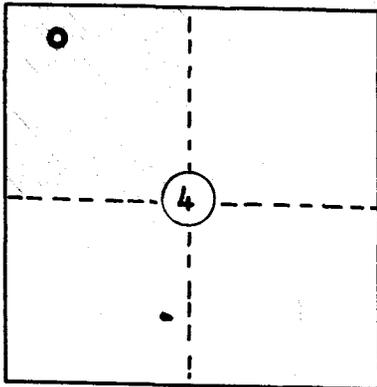
645' from the NORTH line and 698' from the WEST line.

Elevations: Graded Ground 4746.29

Derrick Floor 4755.84

Kelly Bushung 4757.14

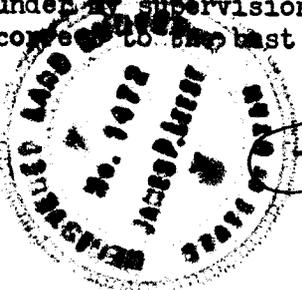
S 0° 03' E



N



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



James P. Leese
 JAMES P. LEESE
 N.M. REG. NO. 1463
 UTAH REG. NO. 1472
 REG. LAND SURVEYOR

SHELL OIL COMPANY

WELL LOCATION NW $\frac{1}{4}$ NW $\frac{1}{4}$ of
SECTION 4, T 40 S, R 23 E, S.L.M.
SAN JUAN COUNTY UTAH

26 MAY 1956

Scale 1" = 500'

Drawn by JPL

SAN JUAN ENGINEERING COMPANY
FARMINGTON, NEW MEXICO

216-544

Bluff Area
 (FIELD)
 San Juan, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING

Section 4
 (SECTION OR LEASE)
 T 40 S. R 23 E, S1EM.
 (TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
4/30/56-5/9/56	0	388	<p><i>Notes C.A.H. 11/26/56</i></p> <p><u>BLUFF UNIT 3 - WATER WELL NO. 1</u></p> <p>Approximate Location: 3340' E and 650' S of NW Corner Section 4, T. 40 S., R. 23 E., S.L.B.M., San Juan County, Utah.</p> <p>Drilled 6" hole with cable tools to a total depth of 388'. Landed casing (0-176' - 7" and 176-364 - 6 5/8") at 364'. Perforated interval 170'-190' and 343'-363'. Open hole 364'-388'. Artesian flow produced 11 gal./min.</p> <p><u>Ditch Samples</u></p> <p>0-388' 65% <u>Sandstone</u>, white, red and brown, very fine grained, argillaceous, calcareous, tripolitic in part.</p> <p>20% <u>Siltstone</u>, dark brown, calcareous, sandy.</p> <p>15% <u>Shale</u>, dark brown, silty, calcareous.</p>

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
6"	0	388	6 5/8" & 7"	364'
DRILL PIPE SIZES				

Contractor:

R. B. Newman
 Aztec, New Mexico

Karl A. Hauptfleisch

SIGNED

DRILLING REPORT
FOR PERIOD ENDING

5-21-56

Section 4
(SECTION OR LEASE)
T. 40 S., R. 23 E., SLM
(TOWNSHIP OR RANCHO)

Bluff Unit
(FIELD)
San Juan County, Utah
(COUNTY)

DAY	DEPTHS		REMARKS
	FROM	TO	
1956			
5-17	0'	44'	Location: 605' S. and 760' E. of N. W. corner Section 4., T. 40 S., R. 23 E., S.L.M., San Juan County, Utah.
5-18	--	--	Elevations: D. F. 4755.84' MAT. 4746.29' K.B. 4757.14'
5-19	44'	343'	Drilled 44' Spudded 12-1/4" surface hole at 10:00 P.M. (5-17-56).
5-20	343'	534'	Rigged up. Drilled rathole. Repaired mud lines. Drilled 299'. Mixed mud and treated with gel.
5-21	--	--	Drilled 191'. Repair pump and mud lines. Ran 9-5/8" 36# casing, shoe at 515', Halliburton cemented 200 sacks construction cement, 15-16# slurry, treated with 2% calcium chloride. Displaced with 10 bbls. water ahead and wood plug behind, 48' cement left in casing, good cement returns, two centralizers: (1): On top of shoe joint, (2): On top of second joint up. Started mixing at 2:55 P.M. Mixing time: 7 minutes, displaced in 13 minutes. Finished cementing 3:20 P.M. Flanged up casing and installed 10" series 900 GK Hydrill blow- out preventer with accumulator and 10" series 900 double, hydraulic control gate with pipe rams and complete shut-off rams. Tested blowout equipment and casing with 700# for 15 minutes, O. K. Drilled mousehole. Drilled out cement in casing, treated mud with gel.

Mud Summary 5-17 to 5-21-56

Wt. 9.2 #/gal. Vis. 43-50 sec.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

Contractor: Mesa Drilling Company
Drillers: W. Jacoby
A. L. Bartlett
R. Duncan

B. B. Robinson

SIGNED

SHELL OIL COMPANY

WELL NO. 3

Bluff Unit

(FIELD)

DRILLING REPORT

FOR PERIOD ENDING

Sec. 4

(SECTION OR LEASE)

San Juan County

(COUNTY)

May 25, 1956

T. 40 S., R. 23 E., SLM

(TOWNSHIP OR RANGHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
5-22	534	1113	<u>Drilled 579'</u> . Repaired rotary chain, air line, recorder line survey, and pumps. Jetted cellar. Stuck pipe, 12' off bottom, at 10:00 a.m., worked pipe, circulated, no good. Treated mud with gel, quebracho, soda ash, and phosphate.
5-23	-	-	<u>Fishing</u> . Jarred with Bowen jars 6 hours, no good. Ran Homco Magnetector. pipe stuck to top of drill collars, ran string shot, backed off drill pipe. Top of fish at 692'. Fish consists of 13 drill collars and one joint of drill pipe. Circulated on top of fish. Treated mud with gel, caustic soda, Q-X, Magcophos.
5-24	-	-	<u>Fishing</u> . Circulated on top of fish, screwed on to fish, ran Homco Magnetector. Backed off pipe with string shot - recovered 3 drill collars.
5-25	1113	1207	<u>Drilled 94'</u> . Washed over fish, screwed on fish & jarred 2 hours. Ran Homco Magnetector. Ran string shot and backed off pipe - recovered 2 drill collars. Washed over fish, screwed on fish, jarred 1 hour, recovered fish. Repaired mud lines, treated mud with Q-X, and caustic soda.
			<u>Mud Summary 5-22 to 5-25-56:</u> Wt. 9.2 #/Gal. Vis. 52-100 Sec. W.L. 6.5-10 cc. F.C. 2/32 in. pH 10 Sand 3 1/2%

Checked B.O.E. daily.

Contractor: Mesa Drilling Company.

Drillers: W. Jacoby
 A. L. Bartlett
 R. Duncan

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/4"	0	534	9 5/8"	515'
7 7/8"	534			
DRILL PIPE SIZES <u>4 1/2"</u>				

B. B. Robinson

SIGNED

Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 May 31, 1956

Section 4
 (SECTION OR LEASE)
 T.10S., R.23E., S.1M
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
5-26	1207	1695	Drilled 488'. Repaired rotary chain and air lines, jetted pits. Treated mud with gel, Q-X, caustic soda, and quebracho.
5-27	1695	2013	Drilled 318'. Repaired air line to rotary clutch, jetted pits. Treated mud with quebracho, caustic soda, gel, soda ash.
5-28	2013	2132	Drilled 119'. Repaired Hydril. Twisted off, leaving 5 drill collars in hole, at 8:20 a.m. Top of fish approximately 1982'. Levelled derrick. Ran 4 1/2" hydraulic jars, 7 1/2" Bowen overshot, 6" grapple, 4 1/2" F.H. bumper sub, and recovered fish.
5-29	2132	2441	Drilled 309'. Shortened drilling line 100'. Treated mud with caustic soda and gel.
5-30	2441	2785	Drilled 344'. Jetted pits. Treated mud with caustic soda, gel, and quebracho.
5-31	2785	2959	Drilled 174'. Repacked swivel. Treated mud with quebracho and magcophos.
Mud Summary 5-26 to 5-31-56:			
Wt. 9.8#/gal. Vis. 44 Sec. W.L. 9 cc. F.C. 2/32 in. pH 9. Sand 2%.			

Checked B.C.E. daily.

Contractor: Mesa Drilling Company

Drillers: W. Jacoby
 A. Bartlett
 R. Duncan

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/4"	0	534	9 5/8"	515'
7 7/8"	534	1207		
DRILL PIPE SIZES 4 1/2"				

B. B. Robinson

SIGNED

Bluff Unit
(FIELD)
San Juan County
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING
June 7, 1956

Section 11
(SECTION OR LEASE)
T40S., R23E., SLM
(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
6-1	2959	3084	<u>Drilled 125'</u> . Changed heads and liners in pump, repaired motors, and waited for water - 8 1/2 hours. Changed over to gypsum base mud. Treated mud with gypsum, mylogel perservative, and my-lo-gel, converted to salt base mud.
6-2	3084	3290	<u>Drilled 206'</u> . Jetted pits. Treated mud with starch, preservative, and my-lo-gel.
6-3	3290	3510	<u>Drilled 220'</u> . Repaired mud lines. Treated mud with preservative and my-lo-gel.
6-4	3510	3673	<u>Drilled 163'</u> . Repaired mud lines and drawworks.
6-5	3673	3769	<u>Drilled 96'</u> . Repaired mud lines. Twisted off 14 drill collars and 26 feet of drill pipe. Top of fish ± 3323'. Ran Bowen overshot, recovered fish.
6-6	3769	3911	<u>Drilled 142'</u> . Repaired mud pump. Treated mud with gypsum, preservative, and my-lo-gel.
6-7	3911	4066	<u>Drilled 155'</u> . Jetted pits. Treated mud with preservative, my-lo-gel, and gypsum.
			<u>Mud Summary 6-1 to 6-7-56:</u> Wt. 10 #/gal. Vis. 36-53 Sec. W.L. .06-16 cc. F.C. 2-3/32 in. pH 6-9. Sand 1%. Salinity 600-8000 ppm (t).

Checked B.O.E. daily.

Contractor: Mesa Drilling Company

Drillers: W. Jacoby
A. Bartlett
R. Duncan

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/4"	0	534	9 5/8"	515'
7 7/8"	534	2959		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

DRILLING REPORT

FOR PERIOD ENDING

June 13, 1956

Bluff Unit

(FIELD)

San Juan Co.

(COUNTY)

Section 4

(SECTION OR LEASE)

T10S., R23E., SLBM

(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
6-8	4066	4209	<u>Drilled 143'</u> . Jetted pits and cellar. Treated mud with my-lo-gel, preservative, and gypsum.
6-9	4209	4340	<u>Drilled 131'</u> . Serviced B.O.P., cut 100' from drilling line. Treated mud with gypsum, my-lo-gel, and preservative.
6-10	4340	4409	<u>Drilled 69'</u> . Ran Reconnaissance Electrical Survey and Gamma Ray logs (Geo-logger, Well Reconnaissance, Inc.). Treated mud with starch and preservative.
6-11	4409	4503	<u>Drilled 94'</u> . Repaired oil pumps and motor drive chain. Magnafluxed drill collars. Treated mud with my-lo-gel. Rotary logging trailer rigged up.
6-12	4503	4556	<u>Drilled 53'</u> . Magnafluxed drill collars - layed down four. Repaired oil pump and drive chain. Treated mud with gypsum and preservative.
6-13	4556	4653	<u>Drilled 97'</u> . Repaired rotary chain. Treated mud with gypsum and my-lo-gel.
			<u>Mud Summary 6-8 to 6-13-56:</u>
			Wt. 10 #/Gal. Vis. 42 Sec. W.L. 5.2-13 cc. F.C. 3/32". pH 7 Sand 1% Sal. 1105-1650 ppm(^g) NaCl Checked B.O.E. daily.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/4"	0	534	9 5/8"	515'
7 7/8"	534	4066		
DRILL PIPE SIZES 4 1/2"				

Contractor: Mesa Drilling Company

Drillers: W. Jacoby
A. Bartlett
R. Duncan

B. B. Robinson

SIGNED

DRILLING REPORT
FOR PERIOD ENDING

Bluff Unit
(FIELD)
San Juan County
(COUNTY)

June 19, 1956

Section 4
(SECTION OR LEASE)
T10S., R23E., S1B&M
(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
6-14	4653	4702	<u>Drilled 49'</u> . Repaired pump. Treated mud with My-Lo-Gel, preservative, gypsum, and zeogel.
6-15	4702	4760	<u>Drilled 58'</u> . Twisted off 5 drill collars, top of fish at 4690', ran Bowen overshot, recovered fish, total time spent fishing - 9 hours. Repaired the mud lines and pump. Treated mud with My-Lo-Gel.
6-16	4760	4838	<u>Drilled 78'</u> . Jetted pits, layed down 1 drill collar, picked up 8 drill collars - drilling with 16 drill collars. Treated mud with gypsum, preservative, salt-gel, and My-Lo-Gel.
6-17	4838	4916	<u>Drilled 78'</u> . Cut and respooled drilling line. Treated mud with gypsum and My-Lo-Gel.
6-18	4916	5004	<u>Drilled 88'</u> . Repaired mud pump. Treated mud with gypsum, preservative, and My-Lo-Gel.
6-19	5004	5065	<u>Drilled 61'</u> . Picked up 4 drill collars - drilling with 20 drill collars. Treated mud with My-Lo-Gel.
<p><u>Mud Summary 6-14 to 6-19-56:</u></p> <p>Wt. 10 #/Gal. Vis. 43-50 Sec. W.L. 5.8-11.1 cc. F.C. 2-3/32" pH 7 Sand 1% Sal. 660-1320 ppm (t) NaCl.</p>			

Checked B.O.E. daily.
 Contractors: Mesa Drilling Company
 Drillers: W. Jacoby
 A. Bartlet
 R. Duncan

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	4653		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson
SIGNED

Bluff Unit
 (FIELD)
San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
June 24, 1956

Section 4
 (SECTION OR LEASE)
T10S., R23E., S.L.B.M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
6-20	5065	5201	<u>Drilled 101'</u> . Layed down 1 drill collar (drill collars - 19). Repaired and repacked swivel. Treated mud with gypsum, preservative, My-Lo-Gel, and salt gel.
6-21	5201	5289	<u>Drilled 88'</u> . Ran Well Reconnaissance Electrical Survey and Gamma Ray logs. Repaired cathead. Treated mud with My-Lo-Gel, gypsum, and preservative.
6-22	5289	5360	<u>Drilled 71'</u> . Cut 100' from drilling line, repaired water line and hydromatic.
6-23	5360	5420	<u>Drilled 60'</u> . Repaired pump. Ran Reconnaissance Electrical Survey and Gamma Ray logs. Treated mud with My-Lo-Gel, preservative, and salt gel.
6-24	5420	5440	<u>Drilled 20'</u> . Repaired rotary table and drawworks; jetted cellar. Ran DST #1, <u>5353'-5422'</u> , packers at 5353' and 5347', air cushion 30', 4 pressure recorders, initial shut-in 20 minutes, drill collar washout after dropping bar, no flow period or final shut-in. Initial hydrostatic - 2875, final hydrostatic 2800, ISIP 95 - stabilized throughout initial shut-in period. No recovery.
			<p><u>Mud Summary</u> 6-20 to 6-24-56</p> <p>Wt. 10 #/Gal. Vis. 45 Sec. W.L. 5.4-11.1 cc. F.C. 2-3/32 in. pH 7 Sand 1%.</p>

Checked B.O.E. daily.
 Contractor: Mesa Drilling Company
 Drillers: W. Jacoby
 R. Duncan
 A. Bartlett

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	5065		
DRILL PIPE SIZES <u>4 1/2"</u>				

Bluff Unit
(FIELD)
San Juan County, Utah
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING
June 27, 1956

Section 4
(SECTION OR LEASE)
T10S., R23E. S.L.B.M.
(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
6-25	5440	5492	<u>Drilled 52'</u> . Checked B.O.P. - OK, cut 200' from drilling line. Treated mud with My-Lo-Gel, gypsum, and preservative.
6-26	5492	5533	<u>Cored 41'</u> . Core #1 - Recovered 39'. Treated mud with My-Lo-Gel and salt gel.
6-27	5533	5566	<u>Cored 33'</u> . Core #2. DST #2, 5458'-5533', packers at 5458' and 5452', air cushion 30', 4 pressure recorders. Johnston Tester, dual Bobtail packer, 3/4" subsurface bean, 1" surface bean, perforations 5458'-5486' and 5504'-5522'. Initial shut-in 20 minutes, open tool 12:30 A.M. - 2 hours 30 minutes, shut in 1 hour 30 min. Immediate moderate blow, diminishing slightly after 1 hour, heading for remainder of test. Gas to surface in 10 minutes. Recovered 90' slightly oily gas cut mud (1.3 barrels); 90' heavily gas and oil cut mud (1.3 barrels); 1950' slightly muddy, gas cut oil (27.7 barrels); 90' watery, gassy, oil cut mud (90 barrels); 1119' slightly oily and gas cut water (11.2 barrels). Salinity 3339' from bottom 825 ppm (t), 1119' from bottom 1138-1172 ppm (t). Mud in pits before test 1139 ppm (t). IHP 2898, FHP 2872, FFP 1236, ISIP None - tool plugged, FSIP 1908 still rising after 1 hour 30 minutes. BHT 126° F. Gas rate nil.

Mud Summary 6-25 to 6-27-56

Wt. 10 #/Gal
Vis. 45 Sec.
W.L. 7.8-10 cc.
F.C. 2-3/32 in.
pH 7
Sand 1%

Tested B.O.E. daily

Contractor: Mesa Drilling Company

Drillers: R. Duncan
A. Bartlett
W. Jacoby

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	5440		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit
(FIELD)
San Juan County, Utah
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING
July 1, 1956

Section 4
(SECTION OR LEASE)
T4OS., R23E. S.L.B.M.
(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
6-28	5566	5619	<u>Cored 53'</u> . Core #2, Recovered 48'. Checked B.O.P, OK.
6-29	5619	5643	<u>Cored 24'</u> . Core #3, Recovered 37'. Core #4, Recovered 23'. 6 hours waiting for Schlumberger.
6-30	5643	-	7.5 hours waiting for Schlumberger. Reamed hole and cleaned out bridge. Ran Gamma Ray-Neutron, Microlog, and Electrical Survey to T.D. Treated mud with salt gel, My-Lo-Gel, and preservative.
7-1	5643	5685	<u>Drilled 42'</u> . Ran Drill Stem Test #3. Johnston Testers, dual Bobtail packers at 5554' and 5559', air cushion 30', 4 pressure recorders, 3/4" subsurface bean, 1" surface bean, perforations 5559'-5565', 5624'-5642'. ISI 20 minutes, tool open 4:37 A.M. - 2 hours 30 minutes, shut in 1 hour 30 minutes. Blow immediate, very weak increasing throughout test. Trace of flammable gas to surface in 1 hour 15 minutes (10-30 MSA Units). Recovered 375' fluid: 163' (.8) gassy slightly oily water cut mud, 90' (.4) very gassy slightly oily water cut mud, 122' (.6) very gassy oily water cut mud. Salinity 302' above tester 1420 ppm (t), 32' above tester 3700 ppm (t), mud in pits 1485 ppm (t). IHP and FHP 2840, IFP 140, FFP 160, ISIP 2260, FSIP 500 (rising), BHT 115° F. Converted to salt base mud. Treated mud with salt, My-Lo-Gel, and salt gel.

Mud Summary 6-28 to 7-1-56

Wt. 10 #/Gal.
Vis. 45 Sec.
W.L. 6.5-9 cc.
F.C. 2-3/32 in.
pH 7
Sand 1/2%
Sal. 1800 ppm (t) Av. NaCl

Checked B.O.E. daily

Contractor: Mesa Drilling Company

Drillers: R. Duncan
A. Bartlett
W. Jacoby

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	5566		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 July 4, 1956

Section 4
 (SECTION OR LEASE)
 T40S., R23E. S.1.B.M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-2	5685	5866	<u>Drilled 181'</u> . Installed new star recorder, checked B.O.P. - OK. Treated mud with salt, salt gel, My-Lo-Gel.
7-3	5866	6026	<u>Drilled 160'</u> . Treated mud with Impermix, salt gel, and salt.
7-4	6026	6046	<u>Drilled 20'</u> . Ran D.S.T. #4, 5841'-6029', packers at 5836' and 5841', air cushion 60', 4 pressure recorders, Johnston Testers, dual Bobtail packers, 3/4" subsurface bean, 1" surface bean, perforations 5841'-5866', 6010'-6029'. Initial shut in 20 minutes, open tool 5:59 A.M. - 2 hours 1 minute, shut in 1 hour 30 minutes. Moderate air blow immediately continued to end, recovered 622' (4.7 barrels) very gassy water cut mud - salinity ±240,000 ppm (t), mud in pits 280,000 ppm (t). IHP 3505, FHP 3485, FFP 388, IFP 347, ISIP 2973, FSIP 740 (rising). B.H.T. 137° F. Packers stuck - 3 hours spent jarring, successfully pulled tool loose. Necessary to ream 1 1/2 hours to reach bottom after test.

Mud Summary 7-2- to 7-4-56

Wt. 10.1 #/Gal.
 Vis. 45 Sec.
 W.L. 4.6-10.6 cc.
 F.C. 2-3/32 in.
 pH 7
 Sand 1%

Tested B.O.E. daily

Contractor: Mesa Drilling Company

Drillers: R. Duncan
 W. Jacoby
 A. Bartlett

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	5685		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

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Bluff Unit

(FIELD)

San Juan County, Utah

(COUNTY)

DRILLING REPORT

FOR PERIOD ENDING

July 11, 1956

Section 4

(SECTION OR LEASE)

T4OS., R23E. S.L.B.M.

(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-5	6046	6265	<u>Drilled 219'</u> . Treated mud with salt, My-Lo-Gel, salt gel.
7-6	6265	6360	<u>Drilled 95'</u> . Checked B.O.P. and Hydrill. Treated mud with My-Lo-Gel, salt gel, salt.
7-7	6360	6456	<u>Drilled 96'</u> . Cut off end of drilling line. Treated mud with salt, salt gel, My-Lo-Gel, Impermix.
7-8	6456	6538	<u>Drilled 82'</u> . Repaired water pump. Treated mud with salt gel and My-Lo-Gel.
7-9	6538	6615	<u>Drilled 77'</u> . Laid down 1 drill collar, picked up 1 drill collar. Drilling with 20 drill collars. Treated mud with salt and My-Lo-Gel.
7-10	6615	6672	<u>Drilled 67'</u> . Repaired "jerk" line. Laid down and picked up 1 drill collar. Drained and flushed transmission. Treated mud with salt and My-Lo-Gel.
7-11	6672	6726	<u>Drilled 54'</u> . Treated mud with salt gel and My-Lo-Gel.

Mud Summary 7-5 to 7-11-56

Wt. 10.5 #/Gal.
 Vis. 50 Sec.
 W.L. 6.4-11 cc.
 F.C. 2-3/32 in.
 pH 6.5
 Sand 1 1/2%
 Sal. 300,000 ppm (t) NaCl

Tested B.O.E. daily

Contractor: Mesa Drilling Company

Drillers: W. Jacoby
 R. Duncan
 A. Bartlett

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	6046		
DRILL PIPE SIZES				
4 1/2"				

B. B. Robinson

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Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 July 14, 1956

4
 (SECTION OR LEASE)
 T4OS, R23E, S.L.B.M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-12	6726	6797	Drilled 71'. Repaired transmission, cut off end of drilling line. Treated mud with salt and My-Lo-Gel.
7-13	6797	6903	Drilled 106'. Treated mud with My-Lo-Gel and salt gel.
7-14	6903	6940	Drilled 37'. Ran DST #5, 6914-6940', packers @ 6909' and 6914'; 30' air cushion; 4 outside pressure recorders; Johnston Testers; dual Bobtail packers, 3/4" surface - 1" subsurface bean, perforations 6914'-6940'. Initial shut in 20 minutes, open 1 hour 30 minutes, final shut in 45 minutes. Strong blow immediately, steady throughout test, gauged 4000± Mcf/day CO ₂ ; CO ₂ to surface in less than 5 minutes, trace of flammable gas in 15 minutes. Recovered 120' (.6 bbls.) gassy oily mud cut water (25% oil), 190,000 ppm (t), 8.4 #/gal.; 300' (1.5 bbls.) gassy slightly oily muddy water, 190,000 ppm (t), 8.3 #/gal. Mud in pits, 196,000 ppm (t), 10.3 #/gal. IHP 4030, FHP 4000, IFP 1765, FFP 1860, ISIP 2680, FSIP 2670, still rising; BHT 139° F., oil 55° API.
			Checked BOP daily.
			Mud Summary: <u>7-12 to 7-14-56</u>
			Wt. 10.5 #/Gal. Vis. 55 Sec. W.L. 6.4-9.6 cc. F.C. 2-3/32 in. pH 6.5 Sand 1% Sal. 195,000-280,000 ppm (t) NaCl

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	6726		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

DRILLING REPORT

FOR PERIOD ENDING

July 16, 1956

Section 1

(SECTION OR LEASE)

T40S, R23E, S.L.B.M.

(TOWNSHIP OR RANCHO)

Bluff Unit

(FIELD)

San Juan County, Utah

(COUNTY)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-15	6940	7057	Drilled 117'. Repaired draw works. Treated mud with salt gel, My-Lo-Gel and salt.
7-16	7057	7082	<p>Drilled 25'. Ran DST #6, 6940'-7057', Johnston Testers. Packers at 6935' and 6940', 60' air cushion, 5 outside pressure recorders, dual Bobtail packers, beans 3/4" surface - 1" subsurface, perforations 6940'-6945' and 7035'-7055'. Initial shut in 20 minutes, open 1 hour 32 minutes, shut in (final) 45 minutes. Blow strong immediately, steady throughout test. Gauged 550+ Mcf/day CO₂. Gas to surface in less than 5 minutes, trace of flammable gas in 20 minutes. Recovered 210' (3.0 bbls.) gassy slightly oily water cut mud (less than 1% oil), 150,000 ppm (NaCl)^t, 9.5 #/gal.; 1176' (11.9 bbls.) gassy mud cut water, 66,800-117,000 ppm (t) - (fresher near bottom), 8.8 #/gal. Mud in pits 178,850 ppm, 10.4 #/gal. HP 3400, IFP 315, FFP 740, ISIP 2700, FSIP 2630 (still rising), 140-146° F. BHT.</p> <p style="text-align: right;">Treated mud with salt gel, salt, My-Lo-Gel, and preservative.</p> <p><u>Mud Summary 7-15 to 7-16-56</u></p> <p>Wt. 10.4 #/gal. Vis. 51-62 Sec. W.L. 4.6-9.8 cc. F.C. 2-3/32 in. pH 6.5 Sand 1% Sal. 179,860-300,000 ppm (t). NaCl</p> <p>Checked BOP daily.</p>

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	6940		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

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Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 July 20, 1956

Section 4
 (SECTION OR LEASE)
 T10S, R23E, S1L, B.M.
 (TOWNSHIP OR RANGHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-17	7082	7128	<u>Drilled 46'</u> . Cut end off drilling line.
7-18	7128	7157	<u>Drilled 27'</u> . Circulated 2 1/2 hours, rigged up to run Schlumberger. Released Rotary Well Logging trailer at 5:00 P.M.
7-19	7157	-	Ran Schlumberger Gamma Ray-Neutron, Microlaterolog, Laterolog. Laid down drill collars.
7-20	7157	-	Set plugs with Halliburton Cementers. <u>Plug #1</u> , drill pipe hung at 7080', mixed and pumped in 50 sacks construction cement - 3 1/2 bbls. water ahead - 1 bbl. water behind. Displaced with 96.5 bbls. drilling fluid (14-15# slurry). <u>Plug #2</u> , drill pipe hung at 6215', mixed and pumped in 30 sacks construction cement - 3 1/2 bbls. water ahead, 1 bbl. behind. Displaced with 85 bbls. drilling fluid. <u>Plug #3</u> , drill pipe hung at 5735', mixed and pumped in 25 sacks construction cement - 3 1/2 bbls. ahead, 1 bbl. behind. Displaced with 78.5 bbls. drilling fluid. Stood cemented 8 hours. Ran in to 5797', could not find plug.

Checked BOP daily.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	7082		
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 July 24, 1956

Section 4
 (SECTION OR LEASE)
 T10S, R23E, S1L.B.M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-21	T.D.	7156	Circulated 9 hours. With drill pipe at 5731', mixed and pumped in 50 sacks of construction cement - 20 bbls. water ahead, 5.5 bbls. behind. Displaced with 73 bbls. of drilling fluid, 15.5# slurry - Halliburton Cementers. Top of plug at 5628'. Circulated at 5500' for 3 hours.
7-22	-	-	Circulated 1 1/2 hours at 5500'. Laid down drill pipe and drill collars. Ran and cemented 5 1/2" 17# casing @ 5703 with 200 sacks of construction cement, 15-16# slurry, 10 bbls. of water ahead, 1 top plug, displaced with rig pump. Bumped plug at 1500# psi. Halliburton Cementers. 9 3/4 hours standing cemented.
7-23	-	-	Picked up tubing. Repaired kelly, changed mud to water, 8 hours waiting on 3 1/2" kelly.
7-24	P.B.T.D.	5650	Two hours waiting on 3 1/2" kelly. Cleaned out cement plug to 5650'. Two hours running McCullough Tool Company neutron log and collar locator, 5 hours perforating the interval 5600'-5609' and 5615'-5635' with four 1/2" bullets per foot.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	7156	5 1/2"	5703'
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit
(FIELD)
San Juan County, Utah
(COUNTY)

DRILLING REPORT
FOR PERIOD ENDING
July 27, 1956

Section 4
(SECTION OR LEASE)
T10S, R23E, S.L.B.M.
(TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-25	TD FBTD	7156 5650	Ran in with 2 3/8" tubing (5583'), including a Lane Wells tubing packer at 5583' and a Guiberson "Hold Down". Installed the Christmas Tree, pulled out B.O.P., 3 hours waiting on swabbing unit. Swabbed 10 hours. Recovered 17.5 bbls. water, 99% cut, trace of oil and slightly gassy. Swabbed off. 2 hours waiting on Dowell, Inc.
7-26	-	-	Dowell, Inc., Treatment #1, 5600'-5609' and 5615'-5635'. Treated with 2000 gallons XF32 (acid), flushed with 925 gallons water. Surface pressures: Initial 3200, Final 3600, Maximum 3800; Minimum 3200, Casing pressure 3500, average rate Bbls./Min. 0.3-.5. Packer leaked. Formation did not break down. Swabbed 23.5 bbls. of acid water in 35 minutes (5 runs), well began to flow. Flowed 29.5 bbls. clean oil and 22 bbls. water in the first 4 hours. Gas rate 1900-Nil Mcf/day. Flowed well 17 hours.
7-27	-	-	Flowed well 18 hours, shut well in. Total production 99.9 bbls 42° oil, 23.2 bbls. acid water, 48 bbls./day rate flowing. Gas rate Nil. Pour point of oil 30-35° F. Dowell, Inc., Treatment #2. Treated interval 5600'-5609' and 5615'-5635' with 1000 gallons XF32 (acid), 4000 gallons Acid petrofrac, overflushed with 35 bbls. crude oil, and flushed with 925 gallons of water. Pressure tested packer with 40 bbls. oil at 1300 psi after resetting packer under 1700#. Injected oil at 5 bbls./min. Surface pressures: Final 4000#, Maximum 5500#, Minimum 3750#, Casing pressure 3100-4100#. Packer leaked. Maximum rate 4 bbls./min. Formation did not break down; no sand was added.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	7156	5 1/2"	5703'
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit

DRILLING REPORT

FOR PERIOD ENDING

Section 4

(FIELD)
San Juan County, Utah

July 31, 1956

(SECTION OR LEASE)
T.0S, R.23E, S.1.E.M.
(TOWNSHIP OR RANGHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
7-28	TD PBSD	7156 5650	Swabbed 30 minutes. Recovered 6.5 bbls. acid water. Tubing plugged with paraffin at 1000'. 14 hours waiting for tubing knives. Treated plugged tubing with 10 gallons of Dowell P-4 paraffin solvent in four 2 1/2 gallon doses over a 10 minute period. Ran in with tubing knives and cut through paraffin.
7-29	-	-	8 hours of swabbing with well flowing periodically. 16 hours swabbing. Rate: 5.5 bbls. oil per hour; 6.9 bbls. fluid gross; 20.7% cut. Total 131.9 bbls. oil, 35.9 bbls. water.
7-30	-	-	21 hours of swabbing, 3 hours of sand line repair. Rate 1.8 bbls. of oil per hour, 2.2 bbls. (gross) per hour, 15.4% cut. Total 43.8 bbls. oil, 8.0 bbls. water.
7-31	-	-	Well flowed 7 hours, swabbed 17 hours. Rate 2.3 bbls. oil per hour, 2.4 bbls. per hour gross, 3.1%. Total 55.7 bbls oil, 1.8 bbls. water.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	7156	5 1/2"	5703'
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 August 2, 1956

Section 4
 (SECTION OR LEASE)
 T4OS, R23E, S1E.B.M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
8-1	TD PBTD	7156 5650	Flowed well 5 hours. Swabbed 11 hours. Killed well with water, pulled off Christmas Tree, pulling tubing. Rate: 1.9 bbls. oil per hour, 2.1 bbls. gross per hour, 7.6% cut; total 32.9 bbls. gross (30.5 bbls. oil and 2.4 bbls. water).
8-2	-	-	<p>Repaired tubing packer, ran in tubing and rigged Christmas Tree. Rigged up Dowell, Inc. for third chemical-physical treatment. Treated perforations 5600'-5635' with 2000 gals. XFW-17 acid and 5000 gals. acid petrofrac preceded with 50 gals. Preflow mixed in 50 bbls. oil and followed with 20 gals. Preflow mixed in 20 bbls. oil. Maximum treating pressures 6300 psi, minimum treating pressure 4800 psi. Average treating rate 3.4 bbls. per minute. Pressure broke from 6300 psi with two trucks partially pumping to 5800 psi with two trucks pumping at full capacity - 6 bbls. per minute. While pumping acid pressure broke from 6100 psi to 4800 psi while pumping acid petrofrac. Flushed with 171 bbls. oil. Average injection rate of flush 3.2 bbls. per minute. Total load 168 bbls. water, 241 bbls. oil (total 409 bbls. fluid).</p> <p>Flowed well 2 hours. Rate: 47.1 bbls. oil per hour (load oil), 66.5 bbls. gross per hour, 29.2% cut. Total 94.1 bbls. oil, 38.9 bbls. water.</p>

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	7156	5 1/2"	5703'
DRILL PIPE SIZES			4 1/2"	

B. B. Robinson

SIGNED

Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 August 6, 1956

WELL NO. 3

Section 4
 (SECTION OR LEASE)
 T40S, R23E, S1E, B. 6M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTHS		REMARKS
	FROM	TO	
8-3	TD PBTD	7156 5650	Flowed well 6 hours. Rate: 21.1 bbls. oil per hour, 28.1 bbls. gross per hour, 24.9% cut; total 126.5 bbls. oil, 42.0 bbls. water. Gas 3500 MCF per day to 450 MCF per day. Shut well in 6 hrs for lack of sump capacity (6 hours). Flowed well on 3/4" choke 12 hours. Tubing pressure while shut in 600 psi, tubing pressure while flowing 0 psi. Rate: 12.8 bbls. oil per hour, 15.1 bbls. gross per hour, 15.1% cut, total: 153.7 bbls. oil, 27.3 bbls. water. Gas rate nil. pH 4.5, salinity 225,000 ppm (t).
8-4	-	-	Flowed well 24 hours. Rate: (3/4" choke) 5.2 bbls. oil per hour, 6.2 bbls. gross fluid, 15.5% cut. Total 126.2 bbls. oil and 23.3 bbls. water. Gas nil, salinity 134,000 ppm (t), pH 5.
8-5	-	-	Flowed well 24 hours. Rate: (3/4" choke) 4.5 bbls. oil per hour, 4.8 bbls. gross fluid per hour, 5.6% cut. Total 102 bbls. gross, 96.3 bbls. oil, and 5.7 bbls. water. Salinity 147,000 ppm (t), pH 4.5, Gas nil.
8-6	-	-	Rig released at 5:00 P.M. Flowed well 24 hours. Rate: (3/4" choke, no tubing pressure) 3.0 bbls. oil per hour, 3.1 bbls. fluid gross per hour, cut 4.9%. Total 75.5 bbls. gross, 71.8 bbls. oil, 3.7 bbls. water. Salinity 165,000 ppm (t), pH 4.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12 1/2"	0	534	9 5/8"	515'
7 7/8"	534	7156	5 1/2"	5703'
DRILL PIPE SIZES				
4 1/2"				

Contractor: Mesa Drilling Company

Drillers: W. Jacoby
 A. Bartlett
 B. Duncan

Tubing 2 3/8"

B. B. Robinson

SIGNED

Bluff Unit
 (FIELD)
 San Juan County, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 August 16, 1956

Section 4
 (SECTION OR LEASE)
 T10S, R23E, S.L.B.M.
 (TOWNSHIP OR RANCHO)

DAY 1956	DEPTH		REMARKS
	FROM	TO	
8-7	12:00 PM	21 hrs	Gross 98.5 bbls., clean oil 95.7 bbls., water 2.8 bbls.; gross B/H 4.7, oil B/H 4.6, average cut 2.8%. Salinity 165,000 ppm (t), pH 4.
8-8	9:00 AM		
8-8	9:00 AM	24.5 hrs	Gross 51.5 bbls., clean oil 50.6 bbls., water 0.9 bbls.; gross B/H 2.1+, oil B/H 2.1-, average cut 1.7%.
8-9	9:30 AM		
8-9	9:30 AM	4 hrs	Gross 10.5 bbls., clean oil 10.3 bbls., water 0.2 bbls.; gross B/H 2.6+, oil B/H 2.6-, average cut 1.9%.
8-9	1:30 PM		
8-9	1:30 PM		Shut in. Laying pipelines, moving out contractor's rig. Maximum tubing pressure - 500 lbs.
8-12	9:00 AM		
8-12	9:00 AM	23 hrs	Produced +2-3 bbls. paraffin when opened. Gross 55.0 bbls., clean oil 53.3 bbls., water 1.7 bbls.; gross B/H 2.3, oil B/H 2.4, average cut 3.0%.
8-13	8:00 AM		
8-13	8:00 AM	10 hrs	Gross 25.0, clean oil 24.4, water 0.6; gross B/H 2.5, oil B/H 2.4, average cut 2.5%.
8-13	6:00 PM		
8-13	6:00 PM	13.5 hrs	Gross 71.0, clean oil 68.2, water 2.8; gross B/H 1.8, oil B/H 1.9, average cut 4.0%. Salinity 158,000 ppm (t), pH 4.5.
8-15	7:30 AM		
8-15	7:30 AM	26 hrs	Gross 34.0, clean oil 32.8, water 1.2; gross B/H 1.3+, oil B/H 1.3-, average cut 3.5%, gravity 39° API.
8-16	9:30 AM		

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
DRILL PIPE SIZES				

B. B. Robinson

SIGNED

Bluff Area

DRILLING REPORT

FOR PERIOD ENDING

(FIELD)

San Juan, Utah

(COUNTY)

8-27-56

4

(SECTION OR LEASE)

T. 40 S., R. 23 E.,

SLB&M (TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
8-17 to 8-18	9:30 AM		Flowed 2.0 bbl/hr (48 B/D rate) gross, 1.8 bbl/hr. (43 B/D rate) clean, cut 5.0%.
8-18 to 8-19	11:00 AM		Flowed 1.2 bbl/hr (29 B/D rate) gross, 1.2 bbl/hr. clean (28 B/D rate), cut 4.0%.
8-19 to 8-20	11:00 AM 11:30 AM		Flowed 26 B/D rate gross, 26 B/D rate clean, cut 1.0%.
8-20 to 8-21			Service rig moved in (Well Inc). Killed well with oil. Pulled tubing and packer.
8-22			Waited on Dowell (trucks broke down).
8-23	7156 5650	T.D. PBTD	Acid treatment #4 (5600-5609 and 5615-5635) injected 300 bbl crude oil at 18 bbl/min. with 0 psi followed by 115 bbl. crude oil at 30 bbl/min. with 4500 psi. Injected 9000 gal. acid petrofrac mixed with 1#/gal sand at 4500 psi, average injection rate 3.2 bbl/min. Flushed with 260 bbl crude oil. Overall treating rate 3.2 bbl/min. Overall flush rate 2.9 bbl/min. Minimum and initial flush rate 1.3 bbl/min. Maximum and final flush rate 6.0 bbl/min. Total load oil used 765 bbl crude and 215 bbl water. Shut in well.
8-24 to 8-26			Opened well 8:00 A.M. Ran packer and 2-3/8" tubing to 5584'. Swabbed, located paraffin in tubing at 3500'. Cleaned out paraffin by swabbing. Swabbed total of 107 bbl. oil, acid water and trace of frac sand. Stuck swab at 2000'.
8-27			Pulled tubing. Located top of fracture sand at 5600'.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/2"	0	534	9-5/8"	515
7-7/8"	534	7156	5-1/2"	5703
DRILL PIPE SIZES 4-1/2				

B. B. Robinson

SIGNED

Bluff Area

DRILLING REPORT

FOR PERIOD ENDING

4

(FIELD)
San Juan, Utah

9-21-56

(SECTION OR LEASE)
T. 40 S., R. 23 E., SLBM

(COUNTY)

(TOWNSHIP OR RANGHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
56			
8-28 to 8-29	7156	T.D. P.B.T.D.	Bailed fracture sand to 5600' (sand coming in through perforations). Operations suspended, waiting on cavin bailer.
8-30 to 9-4			Waited on Cavin bailer.
9-5 to 9-6			Bailed to bottom, ran tubing.
9-7 to 9-14			Swabbed, recovered a total of 680 bbl. load and fracture oil. Released Service Rig (Well Inc) because of personnel difficulties. Shut-in well. 10:00 A.M. 9-14-56.
9-15			Moved in Four State Well Servicing Company. Opened well 9:00 P.M. 9-15-56. Well flowed 30 bbls. in 2 hours, and died. Swabbed 10 bbls.
9-16 to 9-17			Swabbed 9 hours, recovered 123 bbls. fluid level 1000'-5500'. Recovered all of load and fracture oil (765 bbls) + 58 bbls. new oil and 35 bbls of acid water.
9-18			Felt for sand fill with wireline sinker bar through tubing. Perforations open to 5628. Swabbed 18 hours. 115 bbl. fluid. Fluid level 4900'.
9-19 to 9-21			Swabbed from midnight 9-18-56 to 9:00 P.M. 9-19-56 rate 5.75 bbl/hr. Lost swab rubbers in tubing. Pulled tubing recovered rubbers. Total oil recovered on test 1036 bbl. oil + 35 bbl. acid water.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/2	0	534	9-5/8"	515
7-7/8	534	7156	5-1/2"	5703
DRILL PIPE SIZES <u>4-1/2</u>				

B. B. Robinson

SIGNED

Bluff Area
 (FIELD)
 San Juan, Utah
 (COUNTY)

DRILLING REPORT
 FOR PERIOD ENDING
 9-30-56

4
 (SECTION OR LEASE)
 (TOWNSHIP OR RANGHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
56			
9-21 to 9-22	7156 5582	T.D. FBTD	Set aluminum bridge plug at 5582'. Dump bailed 1-1/2 sacks cement on plug. Filled hole with 90 bbl. water. Perforated four 1/2" jet holes/ft. interval 5470-5495. Ran and set packer at 5400', tubing stringer to 5461'. Treated formation (#5) with 2000 gal XFW acid maximum pressure 5300 psi broke to 4300 psi when acid entered formation. Injection rate 4.3 bbl/min. Displaced acid with 25 bbl. oil at 3600 psi at 2.5 bbl/min. rate. Minimum displacing pressure 3300 psi. Final pressure decreased to 1700 psi in 50 minutes. Opened well at 2:00 P.M. Well started flowing by heads, 16 hours, 129 bbl. (19 1/4 B/D rate) gross, cut 4-46%.
9-23			24 hours, 57 bbl. gross, cut 4-46%.
9-24			Swabbed 10 hours, 70 bbl. gross, 37% (watery rotary mud) cut. Fluid level 4500'.
9-25			Swabbed 24 hours, 49 bbl. gross, 20% cut (watery rotary mud-salinity 26,000 - 30,000 ppm (t), pH 5.0). Fluid level 5200'.
9-26			Swabbed, average rate 2 bbl/hr., fluid level 5200'. Strung in sinker bar, located fill in casing, top at 5483'.
9-27			Pulled tubing, bailed mud and small formation cuttings from casing.
9-28 to 9-30			Ran tubing and set packer at 5400'. Swabbed 28 hours, recovered 96 bbl. gross, 50% cut (muddy water). Fluid level 5200'.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/2"	0	534	9-5/8"	515
7-7/8"	534	7156	5-1/2"	5703
DRILL PIPE SIZES				

B. B. Robinson

SIGNED

SHELL OIL COMPANY

WELL NO. 3

Bluff Area

DRILLING REPORT

FOR PERIOD ENDING

4

(FIELD)
San Juan, Utah

10-15-56

(SECTION OR LEASE)
T. 40 S., R. 23 E., S1B1M
(TOWNSHIP OR RANGHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
56			
10-1	7156 5582	T.D. PBD	Pulled tubing.
10-2			Set aluminum bridge plug at 5427'. Shot four 1/2" bullet holes at 5420'. Set Baker (Model K) retainer at 5412'. Ran tubing. Attempted formation break down with 6500 psi, bled to 3500 psi in 30 minutes, no break down. Released pressure and pressured up to 6000 psi, no break down. Pulled tubing out of retainer. Shut down rig - released crew.
10-3 to 10-5			Operations suspended.
10-6 to 10-11			Pulled tubing. Rigged up rotary equipment. Drilled and pushed plug to 5574'. Rigged up to acidize.
10-12 to 10-14			Ran tubing and packer to 5400', stinger at 5475'. Pressured tested lines to 4000 psi, OK. Started oil into tubing, inadvertently pumped away 200 gal. acid (XFW) due to faulty acid tank valve. Shut down, repiped system. Pumped away 200 bbl. oil containing freflo. Packer leaked. Opened well, flowed back 35 bbl. oil. Well gassy and heading, killed well with 15 bbl. acid. Reset packer, would not hold. Opened well to pull tubing, flowed back oil. Shut well in.
10-15			Pulled and reran tubing with packer at 5428', stinger to 5465'.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/2	0	534	9-5/8"	515
7-7/8	534	7156	5-1/2"	5703
DRILL PIPE SIZES				

B. B. Robinson

SIGNED

Bluff Area

DRILLING REPORT

FOR PERIOD ENDING

4

(SECTION OR LEASE)

(FIELD)
San Juan, Utah

10-21-56

T. 40 S., R. 23 E., SLBM
(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
56			
10-16	7156 5582	T.D. PBTB	<p>Injected 4500 gal. petrofrac, no break down, pump injection pressure (initial) 1000 psi, final 3100 psi. Average injection rate 5 bbl/ min. Injected 200 gal. fix-a-frac to 4500'± in tubing, waited 15 minutes, displaced fix-a-frac into formation with no pressure increase. Waited 14 minutes. Injected 4500 gal. petrofrac, no break down. Pump pressure at start 3000 psi, final 4200 psi. Average injection rate 5 gal/min. Displaced with 170 bbl. crude mixed with freflo. Displacing pressure (initial) 4200 psi, final pressure 4200 psi. Maximum injection rate 2.4 bbl/min. Average injection rate 2.9 bbl/min. Shut in pressure 3700 psi. Total load to recover 340 bbl. + 220 bbl. acid. Shut well in 4:40 P.M. (10-16-56). Opened well at 6:00 P.M. (10-16-56) and started flowing. Flowed 6 hours, 250 bbl. gross. Rate 11:00 P.M. to 12 midnight 480 B/D rate gross, not cut.</p>
10-17			<p>Flowed 23½ hours - 21½ hours, 266 bbl. (296 B/D average rate), not cut, 32/64" bean, TP 40 psi; 2 hours, 14 bbl. (168 B/D rate), not cut, 32/64" bean, TP 40 psi.</p>
10-18			<p>Well died 8:30 A.M. (10-18-56) Ran swab once, well started to flow. Flowed average rate of 320 B/D.</p>
10-19 to 10-24			<p>Flowed average rate of 21 B/D, 0.5% cut. Recovered all load oil (340 bbl.) and acid water (220 bbl.)</p> <p><u>Initial Rate, Upper Hermosa Zone.</u> 5470-5495. (10-18-56 after recovery of load oil). Flowing 168 B/D gross, 138 B/D clean, cut 18%, 32/64" bean, TP 40 psi.</p> <p><u>Final swabbing test. Paradox Zone.</u> 5600-5609 and 5615-5635 (9-19-56). Swabbed 144, B/D gross, 135 B/D oil, cut 6%, fluid level 5000', officially completed 10-18-56.</p>

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/2	0	534	9-5/8"	515
7-7/8	534	7156	5-1/2"	5703
DRILL PIPE SIZES				

B. B. Robinson

SIGNED

DITCH SAMPLES

Examined by B. Robinson 330 to 760
_____ to _____Well Bluff Unit 3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
330	340	90	<u>Sandstone</u> , as above, slightly calcareous.	
		10	<u>Shale</u> , as above.	
340	360	100	<u>Sandstone</u> , light red brown, fine grain, frosted grains, calcareous.	
360	390	100	<u>Sandstone</u> , as above, mottled white, slightly dolomitic, rare tripolite.	
390	420	100	<u>Sandstone</u> , as above, slightly dolomitic.	
420	530	80	<u>Sandstone</u> , as above, slightly dolomitic.	
		20	<u>Shale</u> , dark brown, calcareous, in part silty.	
530	540	—	No Samples.	
540	550	50	<u>Shale</u> , as above, mottled light gray green.	
		50	<u>Sandstone</u> , white, fine to medium grained, poorly sorted, calcareous.	
550	560	80	<u>Sandstone</u> , as above.	
		20	<u>Shale</u> , as above.	
560	590	100	<u>Shale</u> , as above.	
590	600	100	<u>Siltstone</u> , dark red, mottled light gray green, calcareous.	
600	610	100	<u>Siltstone</u> , as above, trace loose quartz sand grains.	
610	630	80	<u>Siltstone</u> , as above, mottled light red.	
		20	<u>Sandstone</u> , white, fine to medium grain, calcareous.	
630	640	80	<u>Shale</u> , as above.	
		20	<u>Siltstone</u> , buff-light gray green, non calcareous.	
640	650	80	<u>Siltstone</u> , light gray - gray green, non calcareous.	
		20	<u>Sandstone</u> , white, very fine to medium grain, subrounded to rounded, fair to good sorting, non calcareous, largely unconsolidated.	
650	690	100	<u>Sandstone</u> , as above.	
690	710	100	<u>Sandstone</u> , as above, slightly calcareous, chert fragments.	
710	760	80	<u>Sandstone</u> , as above, slightly calcareous, chert fragments.	
		20	<u>Shale</u> , light to dark red, calcareous.	

DITCH SAMPLES

Examined by B. Robinson 760 to 1230
_____ to _____Well Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
760	780	100	<u>Sandstone</u> , white, very fine to medium grained, sub-rounded to rounded, fair to good sorting, slightly calcareous, chert fragments, largely unconsolidated.	
780	790	60	<u>Sandstone</u> , as above.	
		30	<u>Siltstone</u> , light gray to light gray green, calcareous.	
		10	<u>Shale</u> , light red, calcareous.	
790	810	70	<u>Sandstone</u> , as above, except no chert.	
		30	<u>Siltstone</u> , as above.	
810	850	100	<u>Sandstone</u> , as above, no chert.	
850	870	90	<u>Sandstone</u> , as above, no chert.	
		10	<u>Shale</u> , as above.	
870	920	100	<u>Sandstone</u> , white mottled light red, very fine to medium grained, sub-round to sub-angular, calcareous, argillaceous, tripolitic, in part unconsolidated.	
920	970	100	<u>Sandstone</u> , light red brown, very fine to fine grained, as above.	
970	1030	100	<u>Sandstone</u> , as above, very fine grained, in part siltstone, largely non-calcareous.	
1030	1040	80	<u>Sandstone</u> , as above.	
		20	<u>Shale</u> , as above.	
1040	1110	100	<u>Sandstone</u> , as above.	
1110	1130	100	<u>Shale</u> , light to dark red brown, non-calcareous.	
1130	1180	100	<u>Sandstone</u> , light red brown, fair to medium grained, subangular, slightly calcareous, tripolitic.	
1180	1220	80	<u>Sandstone</u> , as above.	
		20	<u>Shale</u> , as above.	
1220	1230	80	<u>Siltstone</u> , white to light red brown, in part very fine sandstone, slightly calcareous.	
		20	<u>Shale</u> , as above.	

DITCH SAMPLES

Examined by B. Robinson 1230 to 2170
_____ to _____Well Bluff Unit 3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED Not Lagged
1230	1240	100	<u>Shale</u> , light red, non-calcareous, in part siltstone.	
1240	1250	100	<u>Siltstone</u> , light red, mottled white, very sandy, non-calcareous.	
1250	1280	100	<u>Sandstone</u> , light red, very fine to fine grain, very argillaceous, non-calcareous.	
1280	1290	90	<u>Sandstone</u> , as above.	
		10	<u>Shale</u> , as above.	
1290	1440	100	<u>Sandstone</u> , as above.	
1440	1560	100	<u>Sandstone</u> , as above, slightly calcareous.	
1560	1590	--	No sample.	
1590	1610	100	<u>Siltstone</u> , dark red brown, non-calcareous.	
1610	1680	100	<u>Siltstone</u> , dark red brown mottled white, sandy, slightly calcareous.	
1680	1700	100	<u>Shale</u> , light reddish purple, silty, non-calcareous.	
1700	1770	100	<u>Shale</u> , light red brown, silty, calcareous.	
1770	1790	90	<u>Shale</u> , as above.	
		10	<u>Sandstone</u> , white, unconsolidated, quartz grains, fine to coarse grained, sub- to well-rounded.	
1790	1860	100	<u>Siltstone</u> , light red brown, calcareous.	
1860	1890	100	<u>Shale</u> , light red brown, very calcareous.	
1890	2020	100	<u>Siltstone</u> , as above.	
2020	2050	100	<u>Shale</u> , light red to red brown, very calcareous, lime pellets.	
2050	2070	100	<u>Shale</u> , as above, with abundant lime pellets.	
2070	2100	90	<u>Shale</u> , as above.	
		10	<u>Sandstone</u> , white, unconsolidated quartz grains, very fine to coarse grained, sub- to well-rounded.	
2100	2150	100	<u>Shale</u> , as above.	
2150	2170	100	<u>Sandstone</u> , light red brown mottled white, very fine grained, sub-angular, poorly sorted, very argillaceous, very calcareous, siltstone in part.	

DITCH SAMPLES

Examined by B. Robinson 2170 to 2370
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED Not Lagged
2170	2190	100	<u>Shale</u> , light red to lavender, very calcareous.	
2190	2230	100	<u>Shale</u> , light red, very calcareous, numerous lime pellets, rare anhydrite (?) inclusions. Trace bright green shale.	
2230	2240	50	<u>Limestone</u> , light brown mottled white, IVFA, very argillaceous.	
		50	<u>Shale</u> , light to dark brown, very calcareous, very silty.	
2240	2280	100	<u>Shale</u> , as above, light brown to lavender, mottled light green, rare anhydrite inclusions (?).	
2280	2300	90	<u>Limestone</u> , white mottled lavender, IVFA, very argillaceous, abundant clear chert fragments.	
		10	<u>Shale</u> , as above.	
2300	2310	50	<u>Limestone</u> , as above.	
		50	<u>Shale</u> , as above.	
2310	2320	80	<u>Shale</u> , light to dark red, very calcareous, abundant lime nodules.	
		20	<u>Limestone</u> , white mottled lavender, I/III VFA, very argillaceous, abundant chert.	
2320	2330	100	<u>Shale</u> , as above.	
2330	2340	100	<u>Shale</u> , as above mottled lavender, in part very shaly limestone.	
2340	2350	10	<u>Limestone</u> , as above.	
		90	<u>Shale</u>	
2350	2360	70	<u>Shale</u> , light gray mottled light brown, very calcareous.	
		20	<u>Limestone</u> , white to light gray, IVFA, abundant chert.	
		10	<u>Sandstone</u> , white to light red, fine to medium grained, subangular, poorly sorted, slightly calcareous.	
2360	2370	100	<u>Sandstone</u> , as above, fine-coarse grained, largely unconsolidated quartz grains and chert fragments.	

DITCH SAMPLES

Examined by B. Robinson 2370 to 2690Well Bluff Unit 3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED	Not Lagged
2370	2380	50	<u>Sandstone</u> , as above.		
		50	<u>Shale</u> , light green to white, slightly calcareous, soft, bentonitic (?).		
2380	2390	100	<u>Shale</u> , dark brown, non-calcareous, "floating" quartz grain.		
2390	2400	50	<u>Shale</u> , dark brown, as above.		
		50	<u>Shale</u> , light green, as above.		
2400	2440	100	<u>Sandstone</u> , white, medium-coarse grained, subangular to angular, non-calcareous, abundant chert fragments, largely unconsolidated.		
2440	2450	100	<u>Shale</u> , dark brown, non-calcareous.		
2450	2460	100	<u>Shale</u> , as above, mottled lavender.		
2460	2470	100	<u>Shale</u> , as above, mottled lavender and white.		
2470	2480	100	<u>Shale</u> , lavender, very calcareous.		
2480	2510	100	<u>Shale</u> , light red, slightly calcareous.		
2510	2580	100	<u>Shale</u> , light red to light brown, non-calcareous.		
2580	2600	100	<u>Siltstone</u> , light red brown, slightly dolomitic (?).		
2600	2630	80	<u>Siltstone</u> , as above.		
		20	<u>Sandstone</u> , light red brown, very fine grained, subangular to angular, poorly sorted, very argillaceous, calcareous.		
2630	2640	60	<u>Siltstone</u> , as above.		
		40	<u>Sandstone</u> , as above.		
2640	2650	100	<u>Siltstone</u> , as above.		
2650	2660	90	<u>Shale</u> , light red, calcareous.		
		10	<u>Sandstone</u> , white, very fine to fine grained, subangular, poorly sorted, calcareous.		
2660	2680	80	<u>Shale</u> , light red, calcareous, floating frosted quartz grain.		
		20	<u>Sandstone</u> , as above.		
2680	2690	100	<u>Shale</u> , varicolored, non-calcareous.		

DITCH SAMPLES

Examined by B. Robinson 2690 to 2850
_____ to _____Well Bluff Unit 3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
2690	2720	90	<u>Shale</u> , as above.	
		10	<u>Sandstone</u> , white, fine-cse grained, subangular, poorly sorted, calcareous, <u>dead oil stains and small stringers of tar.</u> <u>No fluorescence, no cut fluorescence.</u>	
2720	2730	80	<u>Shale</u> , as above.	
		10	<u>Sandstone</u> , as above.	
		10	<u>Limestone</u> , light green gray, IVFA, very argillaceous.	
2730	2740	100	<u>Shale</u> , as above.	
2740	2750	100	<u>Siltstone</u> , dark red, dolomitic (?).	
2750	2760	90	<u>Siltstone</u> , as above.	
		10	<u>Limestone</u> , as above.	
2760	2780	100	<u>Siltstone</u> , as above.	
2780	2790	50	<u>Siltstone</u> , as above.	
		40	<u>Shale</u> , white to light green, non-calcareous.	
		10	<u>Limestone</u> , as above.	
2790	2810	90	<u>Shale</u> , varicolored, slightly calcareous.	
		10	<u>Limestone</u> , as above.	
2810	2830	100	<u>Shale</u> , varicolored, as above.	
2830	2840	90	<u>Shale</u> , as above.	
		10	<u>Limestone</u> , light red, IVFA, very argillaceous.	
2840	2850	100	<u>Shale</u> , light red, calcareous.	

DITCH SAMPLES

Examined by B. Robinson 2850 to 3080
_____ to _____Well Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED	NOT LAGGED
2850	2870	100	<u>Shale</u> , varicolored, slightly calcareous, rare chert fragments.		
2870	2900	-	No samples.		
2900	2930	90	<u>Shale</u> , as above.		
		10	<u>Sandstone</u> , white, fine to coarse grains, subangular to angular, non-calcareous, largely quartz and chert grains.		
2930	2960	80	<u>Shale</u> , as above.		
		20	<u>Sandstone</u> , as above, with rare green shale grains.		
2960	2970	100	<u>Shale</u> , as above, sandy.		
2970	2980	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , pink, I VFA, very argillaceous.		
2980	3000	100	<u>Shale</u> , light brown red, mottled green, non-calcareous.		
3000	3010	90	<u>Shale</u> , as above.		
		10	<u>Sandstone</u> , as above.		
3010	3020	90	<u>Shale</u> , as above, "floating" sand grains.		
		10	<u>Sandstone</u> , as above, <u>dead oil stains, no sample fluorescence, no cut fluorescence.</u>		
3020	3030	80	<u>Shale</u> , as above.		
		20	<u>Sandstone</u> , as above.		
3030	3040	70	<u>Shale</u> , as above.		
		30	<u>Sandstone</u> , as above.		
3040	3050	50	<u>Shale</u> , varicolored, calcareous.		
		50	<u>Shale</u> , light red, calcareous.		
3050	3060	80	<u>Shale</u> , varicolored, as above.		
		20	<u>Sandstone</u> , white, fine to coarse grains, largely unconsolidated quartz and chert grains.		
3060	3070	100	<u>Shale</u> , varicolored, calcareous.		
3070	3080	90	<u>Shale</u> , light red, calcareous.		
		10	<u>Sandstone</u> , as above.		

DITCH SAMPLES

Examined by B. Robinson 3080 to 3280
_____ to _____Well Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED	NOT LAGGED
3080	3090	100	<u>Siltstone</u> , light red brown, lime pellets, calcareous.		
3090	3100	100	<u>Siltstone</u> , as above; trace limestone, white; I VFA; anhydrite inclusions (?).		
3100	3110	90	<u>Siltstone</u> , as above.		
		10	<u>Sandstone</u> , as above.		
3110	3120	90	<u>Siltstone</u> , as above.		
		10	<u>Limestone</u> , light gray, I VFA.		
3120	3130	80	<u>Siltstone</u> , as above.		
		20	<u>Sandstone</u> , as above.		
3130	3200	100	<u>Siltstone</u> , as above.		
3200	3210	80	<u>Shale</u> , dark purple brown, very calcareous.		
		20	<u>Sandstone</u> , as above.		
3210	3220	70	<u>Shale</u> , light red, calcareous.		
		30	<u>Sandstone</u> , as above, <u>dead oil stains</u> , <u>no sample fluorescence</u> , <u>no cut fluorescence</u> .		
3220	3230	90	<u>Shale</u> , light red, mottled lavender, calcareous.		
		10	<u>Sandstone</u> , as above, glauconitic (?).		
3230	3240	90	<u>Siltstone</u> , as above.		
		10	<u>Sandstone</u> , as above.		
3240	3250	100	<u>Shale</u> , light red mottled brown and lavender, calcareous.		
3250	3260	70	<u>Shale</u> , as above.		
		30	<u>Sandstone</u> , as above, very cherty.		
3260	3270	80	<u>Shale</u> , as above.		
		20	<u>Sandstone</u> , as above.		
3270	3280	80	<u>Shale</u> , as above.		
		10	<u>Sandstone</u> , as above.		
		10	<u>Limestone</u> , as above.		

DITCH SAMPLES

Examined by B. Robinson 3280 to 3550
_____ to _____Well Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
3280	3310	100	<u>Shale</u> , as above.	
3310	3320	100	<u>Siltstone</u> , light red, calcareous.	
3320	3340	100	<u>Shale</u> , as above, silty.	
3340	3350	90	<u>Shale</u> , as above, silty.	
		10	<u>Sandstone</u> , as above, glauconitic (?).	
3350	3360	100	<u>Siltstone</u> , as above.	
3360	3370	100	<u>Shale</u> , as above, very micaceous.	
3370	3380	80	<u>Shale</u> , as above, very micaceous.	
		10	<u>Limestone</u> , white to light gray, I VFA.	
		10	<u>Sandstone</u> , white to light green, as above.	
3380	3390	-	No samples.	
3390	3420	100	<u>Siltstone</u> , light red brown, calcareous, numerous anhydrite inclusions.	
3420	3430	90	<u>Shale</u> , light red brown, calcareous.	
		10	<u>Limestone</u> , light gray, I VFA.	
3430	3440	100	<u>Siltstone</u> , as above, very sandy.	
3440	3470	100	<u>Shale</u> , as above, numerous anhydrite inclusions.	
3470	3490	100	<u>Siltstone</u> , light red brown, slightly dolomitic, anhydritic, chert fragments.	
3490	3500	100	<u>Shale</u> , light red, non-calcareous.	
3500	3510	90	<u>Siltstone</u> , as above.	
		10	<u>Sandstone</u> , as above.	
3510	3520	100	<u>Shale</u> , as above.	
3520	3530	90	<u>Shale</u> , as above.	
		10	<u>Limestone</u> , light gray, chert fragments, I VFA.	
3530	3540	90	<u>Shale</u> , as above.	
		10	<u>Chert</u> , translucent to opaque (milky).	
3540	3550	100	<u>Shale</u> , as above, chert fragments.	

DITCH SAMPLES

Examined by B. Robinson 3550 to 3820
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
3550	3570	90	<u>Shale</u> , as above, anhydritic.	
		10	<u>Limestone</u> , I VFA, as above.	
3570	3580	100	<u>Shale</u> , as above, chert fragments.	
3580	3590	80	<u>Shale</u> , as above.	
		20	<u>Chert</u> , as above.	
3590	3600	90	<u>Siltstone</u> , dark red brown, slightly dolomitic.	
		10	<u>Limestone</u> , dark gray, I VFA, very sandy, very argillaceous, calcareous.	
3600	3630	100	<u>Siltstone</u> , as above, mottled light green, sandy, rare anhydrite.	
3630	3660	100	<u>Sandstone</u> , white, very fine to fine grained, in part siltstone, poorly sorted, subangular, very calcareous.	
3660	3670	50	<u>Sandstone</u> , as above.	
		50	<u>Siltstone</u> , as above.	
3670	3680	90	<u>Sandstone</u> , as above.	
		10	<u>Limestone</u> , pink, I VFA, very angular.	
3680	3700	100	<u>Shale</u> , dark brown, dolomitic.	
3700	3730	-	No samples.	
3730	3740	100	<u>Siltstone</u> , as above, anhydritic, slightly dolomitic, chert fragments.	
3740	3750	100	<u>Siltstone</u> , light red brown, slightly dolomitic, chert fragments.	
3750	3760	90	<u>Siltstone</u> , as above.	
		10	<u>Limestone</u> , white, I VFA.	
3760	3770	100	<u>Shale</u> , light brown to light red brown, varicolored in part, very limy, lime pellets, anhydrite, silty, chert fragments; trace <u>limestone</u> , pink, I VFA.	
3770	3780	-	No samples.	
3780	3800	100	<u>Shale</u> , light medium brown, silty in part, calcareous, micaceous in part.	
3800	3810	-	No samples.	
3810	3820	100	<u>Shale</u> , as above, anhydritic.	

DITCH SAMPLES

Examined by B. Robinson 3820 to 4060
_____ to _____Well Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED	NOT TAGGED
3820	3860	90	<u>Shale</u> , as above, mottled light green, in part varicolored.		
		10	<u>Limestone</u> , white, I VFA.		
3860	3870	100	<u>Shale</u> , light red to mottled light purple, calcareous to non-calcareous.		
3870	3880	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , light gray to green, I VFA.		
3890	3900	80	<u>Shale</u> , as above.		
		20	<u>Limestone</u> , as above.		
3900	3910	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , as above.		
3910	3930	100	<u>Shale</u> , light red, very silty, calcareous; trace <u>limestone</u> , light red, I VFA, very argillaceous.		
3930	3960	70	<u>Shale</u> , as above.		
		30	<u>Limestone</u> , white, tan, light gray, I/III VFA.		
3960	3980	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , as above.		
3980	3990	100	<u>Shale</u> , as above, mottled green gray.		
3990	4000	90	<u>Shale</u> , as above.		
		10	<u>Sandstone</u> , very fine to fine grained, friable, slightly argillaceous, calcareous.		
4000	4010	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , I/II VFA, as above.		
4010	4020	80	<u>Shale</u> , as above.		
		20	<u>Limestone</u> , cream to tan, I VFA.		
4020	4030	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , as above; trace <u>sandstone</u> , as above.		
4030	4050	100	<u>Shale</u> , as above.		
4050	4060	100	<u>Shale</u> , as above, trace chert, bright orange.		

DITCH SAMPLES

Examined by B. Robinson 4060 to 4130
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES L AGGED NOT LAGGED
4060	4070	90	<u>Shale</u> , as above.	
		10	<u>Limestone</u> , light red, tan, dark gray, I VFA, dark gray with calcite veins, trace chert, dark gray.	
4070	4080	75	<u>Sandstone</u> , white to light green, very fine grained, hard, calcareous.	
		25	<u>Shale</u> , as above.	
4080	4090	60	<u>Sandstone</u> , as above.	
		40	<u>Shale</u> , as above.	
4090	4110	-	No samples.	
4110	4120	40	<u>Shale</u> , as above.	
		50	<u>Sandstone</u> , as above.	
		10	<u>Limestone</u> , tan, I VFA.	
4120	4130	90	<u>Shale</u> , as above, in part varicolored.	
		10	<u>Sandstone</u> , as above.	

DITCH SAMPLES

Examined by B. Robinson 4130 to 4400
to _____Well Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
4130	4150	100	<u>Shale</u> , light red, brown, gray, green, purple, calcareous, chert fragments, trace <u>Limestone</u> , white to light gray, I/II VFA.	
4150	4160	90	<u>Dolomite</u> , light gray to light green, I VFA, very arenaceous (very fine grained), slightly calcareous.	
		10	<u>Shale</u> , as above.	
4160	4170	100	<u>Dolomite</u> , as above.	
4170	4180	80	<u>Shale</u> , dark brown, very calcareous.	
		20	<u>Limestone</u> , light to dark gray, I VFA.	
4180	4190	90	<u>Shale</u> , as above.	
		10	<u>Limestone</u> , as above.	
4190	4210	-	No Samples.	
4210	4220	90	<u>Shale</u> , varicolored, calcareous.	
		10	<u>Sandstone</u> , white, very fine to fine grained, finely sorted, calcareous, Trace <u>Limestone</u> , light to dark gray, I VFA.	
4220	4230	90	<u>Shale</u> , as above, largely light brown.	
		10	<u>Limestone</u> , white to light gray, I/II VFA, argillaceous.	
4230	4260	-	No Samples.	
4260	4270	80	<u>Shale</u> , as above.	
		20	<u>Limestone</u> , white to light gray, I VFA, very arenaceous in part.	
4270	4340	100	<u>Shale</u> , as above, silty in part.	
4340	4350	80	<u>Shale</u> , as above.	
		20	<u>Limestone</u> , white to light gray, I VFA, fossiliferous (?), calcite veinlet.	
4350	4360	90	<u>Shale</u> , as above.	
		10	<u>Limestone</u> , as above, fossiliferous.	
4360	4370	100	<u>Shale</u> , as above. Trace <u>Limestone</u> , white, I VFA.	
4370	4380	100	<u>Shale</u> , as above, very calcareous.	
4380	4400	100	<u>Shale</u> , light brown to gray green, very calcareous, silty in part.	

DITCH SAMPLES

Examined by B. Robinson 4400 to 4470
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED	NOT LAGGED
4400	4410	90	<u>Shale</u> , as above.		
		10	<u>Sandstone</u> , white to light gray, very fine to fine grained, calcareous,		
4410	4420	100	<u>Shale</u> , as above.		
4420	4430	100	<u>Shale</u> , as above, trace <u>Limestone</u> , light gray green, I VFA, slightly arenaceous.		
4430	4460	100	<u>Shale</u> , as above.		
4460	4470	100	<u>Shale</u> , as above, trace <u>Limestone</u> , I/II VFA.		

DITCH SAMPLES

Examined by B. Robinson 4470 to 4575
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED	NOT LAGGED
4470	4480	100	<u>Shale</u> , as above, trace <u>Limestone</u> , white to light gray, I VFA, slightly arenaceous.		
4480	4490	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , light gray to light green gray, I VFA.		
4490	4500	100	<u>Shale</u> , as above, with floating (rare) sand grains in the red shale, trace <u>Limestone</u> , as above.		
4500	4515	100	<u>Shale</u> , as above, silty in part, carbonaceous.		
4515	4520	50	<u>Shale</u> , dark brown, very silty, carbonaceous, very calcareous.		
		50	<u>Limestone</u> , dark gray green, I/III VFA, very argillaceous.		
4520	4525	100	<u>Shale</u> , dark gray to dark brown, slightly to very calcareous.		
4525	4530	90	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , white to light gray, I VFA, fossiliferous (?).		
4530	4535	100	<u>Limestone</u> , light gray to light green brown, I/II VFA, arenaceous, fossiliferous.		
4535	4540	100	<u>Limestone</u> , white to light green brown, I/II VFA, arenaceous, argillaceous.		
4540	4545	50	<u>Limestone</u> , as above.		
		50	<u>Shale</u> , light brown to dark red brown, very calcareous, rare floating sand grains, very calcareous.		
4545	4550	100	<u>Shale</u> , as above, trace <u>Limestone</u> , as above.		
4550	4555	80	<u>Shale</u> , as above.		
		10	<u>Limestone</u> , white to light gray, I/II VFA.		
		10	<u>Sandstone</u> , white to light gray, very fine grained, calcareous, very silty.		
4555	4560	80	<u>Limestone</u> , white to light gray, I/II VFA, slightly arenaceous.		
		20	<u>Shale</u> , green, brown, purple; calcareous.		
4560	4565	60	<u>Limestone</u> , as above.		
		40	<u>Shale</u> , as above.		
4565	4570	100	<u>Limestone</u> , white to dark gray, I/II VFA.		
4570	4575	100	<u>Siltstone</u> , dark gray, very calcareous, slightly arenaceous, in part very fine sandstone, carbonaceous.		

DITCH SAMPLES

Examined by B. Robinson 4575 to 4670
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED	NOT LAGGED
4575	4580	100	<u>Shale</u> , as above.		
4580	4585	100	<u>Shale</u> , as above, trace <u>Sandstone</u> , white, very fine to fine grained, very calcareous.		
4585	4590	80	<u>Shale</u> , as above.		
		20	<u>Limestone</u> , white to light gray, I VFA.		
4590	4600	100	<u>Limestone</u> , white, I VFA, very fossiliferous, trace milky chert.		
4600	4605	50	<u>Limestone</u> , as above.		
		50	<u>Shale</u> , light to dark brown, slightly calcareous.		
4605	4610	30	<u>Limestone</u> , as above.		
		70	<u>Shale</u> , as above.		
4610	4615	100	<u>Siltstone</u> , light gray green, argillaceous, very calcareous.		
4615	4620	100	<u>Sandstone</u> , light gray, very fine to fine grained, very limy, very silty in part.		
4620	4630	90	<u>Sandstone</u> , as above, grades to very arenaceous limestone, I VFA.		
		10	<u>Limestone</u> , I VFA, white.		
4630	4635	90	<u>Limestone</u> , light gray, I VFA, very arenaceous to subround quartz grains, in part limy sandstone.		
		10	<u>Shale</u> , light to dark gray, calcareous.		
4635	4640	100	<u>Limestone</u> , sandy, as above.		
4640	4650	70	<u>Limestone</u> , as above.		
		30	<u>Shale</u> , as above.		
4650	4655	50	<u>Limestone</u> , as above, fossiliferous.		
		50	<u>Shale</u> , as above.		
4655	4660	100	<u>Limestone</u> , white, I VFA, very arenaceous, in part limy sandstone.		
4660	4665	100	<u>Sandstone</u> , white, very fine grained, very limy, very silty, micaceous.		
4665	4670	50	<u>Limestone</u> , as above.		
		50	<u>Sandstone</u> , as above.		

DITCH SAMPLES

Examined by B. Robinson 4670 to 4830
Q. Eskelsen to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
4670	4675	75	<u>Shale</u> , varicolored, as above.	
		25	<u>Limestone</u> , as above.	
4675	4685	50	<u>Shale</u> , varicolored, as above.	
		50	<u>Limestone</u> , as above, chert fragments.	
4685	4690	100	<u>Shale</u> , varicolored, as above.	
4690	4695	100	<u>Sandstone</u> , gray green, very fine grained, calcareous.	
4695	4700	75	<u>Limestone</u> , light gray, I VFA, arenaceous.	
		25	<u>Sandstone</u> , as above.	
4700	4705	100	<u>Limestone</u> , light gray to tan, I VFA.	
4705	4710	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , gray green, calcareous.	
4710	4720	100	<u>Shale</u> , as above.	
4720	4725	100	<u>Shale</u> , red brown, calcareous.	
4725	4740	100	<u>Shale</u> , varicolored, gray green, red to brown.	
4740	4750	75	<u>Shale</u> , as above, purple.	
		25	<u>Limestone</u> , light gray, I VFA.	
4750	4760	100	<u>Shale</u> , as above, purple.	
4760	4775	100	<u>Limestone</u> , white to light gray, I VFA, arenaceous, fossiliferous (?).	
4775	4790	75	<u>Shale</u> , gray green, silty, calcareous.	
		25	<u>Limestone</u> , as above.	
4790	4795	50	<u>Shale</u> , as above.	
		50	<u>Limestone</u> , light gray, I VFA, arenaceous.	
4795	4805	100	<u>Limestone</u> , light to medium gray, I VFA, arenaceous.	
4805	5810	100	<u>Limestone</u> , medium gray to tan, I VFA.	
4810	4830	100	<u>Limestone</u> , white to light gray, I VFA, arenaceous, fossiliferous.	

DITCH SAMPLES

Examined by B. Robinson 4830 to 4935
Q. Eskelsen to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES L AGGED NOT LAGGED
4830	4835	50	<u>Limestone</u> , as above.	
		50	<u>Shale</u> , medium gray, slightly calcareous, sub-fissile.	
4835	4840	100	<u>Shale</u> , as above.	
4840	4845	100	<u>Shale</u> , varicolored, (gray and reddish brown).	
4845	4850	100	<u>Limestone</u> , light gray to tan, I VFA, very arenaceous.	
4850	4855	50	<u>Limestone</u> , as above.	
		50	<u>Sandstone</u> , tan, very fine grained, calcareous.	
4855	4870	100	<u>Sandstone</u> , as above.	
4870	4885	100	<u>Limestone</u> , light to medium gray, I VFA, slightly arenaceous.	
4885	4890	90	<u>Limestone</u> , white, I VFA, silty.	
		10	<u>Chert</u> , white to milky.	
4890	4895	75	<u>Limestone</u> , as above.	
		25	<u>Chert</u> , as above.	
4895	4900	100	<u>Limestone</u> , light gray, I VFA, trace chert.	
4900	4910	90	<u>Limestone</u> , white to light gray, I VFA, arenaceous.	
		10	<u>Chert</u> , as above.	
4910	4915	50	<u>Limestone</u> , as above.	
		50	<u>Shale</u> , medium gray, slightly calcareous.	
4915	4925	100	<u>Shale</u> , as above.	
4925	4935	75	<u>Limestone</u> , white to light gray, I/III VFA.	
		25	<u>Chert</u> , milky.	

DITCH SAMPLES

Examined by Eskelsen 4935 to 5035
Robinson toWell Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
4935	4940	90	<u>Limestone</u> , white, I VFA, arenaceous.	
		10	<u>Chert</u> , as above.	
4940	4950	100	<u>Limestone</u> , as above.	
4950	4955	100	<u>Limestone</u> , light gray, I VFA.	
4955	4965	100	<u>Limestone</u> , light to medium gray, I VFA, slightly argillaceous.	
4965	4970	-	No sample.	
4970	4975	100	<u>Limestone</u> , medium gray, I VFA, slightly argillaceous.	
4975	4980	75	<u>Shale</u> , medium gray, blocky to sub-fissile, calcareous.	
		25	<u>Limestone</u> , white to light gray, I VFA.	
4980	4985	50	<u>Shale</u> , as above.	
		50	<u>Limestone</u> , as above.	
4985	4990	75	<u>Limestone</u> , white to light gray, I/III VFA, arenaceous.	
		25	<u>Shale</u> , as above.	
4990	4995	100	<u>Limestone</u> , light to medium gray, I VFA, minor III VFA.	
4995	5000	75	<u>Limestone</u> , medium gray, I VFA, argillaceous.	
		25	<u>Shale</u> , medium gray, calcareous.	
5000	5005	100	<u>Limestone</u> , as above.	
5005	5010	50	<u>Limestone</u> , light medium gray, I VFA.	
		50	<u>Shale</u> , as above.	
5010	5020	100	<u>Limestone</u> , medium gray to tan, I VFA, in part III FA.	
5020	5025	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	
5025	5030	75	<u>Limestone</u> , tan, I VFA, arenaceous, argillaceous.	
		25	<u>Shale</u> , as above.	
5030	5035	100	<u>Limestone</u> , medium gray to tan, I/III VFA, arenaceous, argillaceous.	

DITCH SAMPLES

Examined by Eskelsen 5035 to 5205
Robinson to _____

Well Bluff Unit 3
 Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
5035	5040	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	
5040	5045	100	<u>Limestone</u> , as above.	
5045	5050	100	<u>Limestone</u> , light gray, I VFA, arenaceous, fossiliferous.	
5050	5055	75	<u>Limestone</u> , medium gray, I VFA, argillaceous.	
		25	<u>Shale</u> , as above.	
5055	5065	100	<u>Limestone</u> , white to light gray, I VFA, cherty.	
5065	5075	100	<u>Limestone</u> , light gray, I VFA.	
5075	5080	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	
5080	5090	100	<u>Limestone</u> , medium gray to brown, I VFA, argillaceous.	
5090	5095	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	
5095	5100	100	<u>Limestone</u> , as above.	
5100	5110	100	<u>Shale</u> , as above.	
5110	5115	100	<u>Limestone</u> , light to medium gray, I VFA.	
5115	5125	75	<u>Limestone</u> , light gray, I VFA, cherty.	
		25	<u>Shale</u> , as above.	
5125	5140	100	<u>Limestone</u> , white to medium gray, I VFA, argillaceous in part.	
5140	5155	55	<u>Shale</u> , as above.	
		45	<u>Limestone</u> , tan to light gray, I VFA.	
5155	5175	100	<u>Limestone</u> , white to tan to light gray, I VFA, in part arenaceous.	
5175	5190	100	<u>Shale</u> , as above.	
5190	5200	100	<u>Limestone</u> , white to light gray, I VFA.	
5200	5205	75	<u>Shale</u> , as above.	
		25	<u>Limestone</u> , tan, I VFA.	

DITCH SAMPLES

Examined by Eskelsen 5205 to 5290
Robinson toWell Bluff Unit 3
Field or Area San Juan County

FROM	TO	%	SHOWS UNDERLINED	SAMPLES L AGGED	NOT LAGGED
5205	5210	100	<u>Shale</u> , as above.		
5210	5220	60	<u>Shale</u> , as above.		
		40	<u>Limestone</u> , white to tan, I VFA, arenaceous.		
5220	5225	100	<u>Sandstone</u> , gray green, very fine grained, silty, very calcareous.		
5225	5230	25	<u>Shale</u> , as above.		
		25	<u>Sandstone</u> , as above.		
		50	<u>Limestone</u> , as above.		
5230	5235	75	<u>Limestone</u> , as above.		
		25	<u>Shale</u> , as above.		
5235	5240	100	<u>Limestone</u> , light gray, I VFA.		
5240	5245	75	<u>Limestone</u> , as above.		
		25	<u>Shale</u> , as above.		
5245	5250	50	<u>Limestone</u> , as above.		
		50	<u>Shale</u> , as above.		
5250	5255	75	<u>Shale</u> , as above.		
		25	<u>Limestone</u> , as above.		
5255	5265	100	<u>Shale</u> , as above.		
5265	5270	50	<u>Shale</u> , as above.		
		25	<u>Limestone</u> , tan, I VFA.		
		25	<u>Chert</u> , brown.		
5270	5275	85	<u>Limestone</u> , light brown, I VFA.		
		15	<u>Chert</u> , as above.		
5275	5285	50	<u>Shale</u> , varicolored, calcareous.		
		50	<u>Limestone</u> , white, I VFA.		
5285	5290	50	<u>Limestone</u> , as above.		
		50	<u>Shale</u> , gray, blocky, calcareous.		

DITCH SAMPLES

Examined by Eskelsen 5290 to 5395
Robinson _____ to _____Well Bluff Unit 3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
5290	5295	100	<u>Limestone</u> , light gray to tan, I VFA, cherty.	
5295	5300	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	
5300	5310	75	<u>Shale</u> , vari-colored.	
		25	<u>Limestone</u> , as above, chert rare.	
5310	5315	100	<u>Shale</u> , as above.	
5315	5320	100	<u>Limestone</u> , light gray to tan, I VFA, very argillaceous.	
5320	5325	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , dark gray, calcareous.	
5325	5330	100	<u>Shale</u> , as above.	
5330	5335		No Samples.	
5335	5340	75	<u>Shale</u> , as above.	
		25	<u>Limestone</u> , as above.	
5340	5345	100	<u>Shale</u> , as above.	
5345	5350	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , as above.	
5350	5360	50	<u>Shale</u> , as above.	
		50	<u>Limestone</u> , as above.	
5360	5370	75	<u>Sandstone</u> , light gray, very fine grained, silty, very calcareous.	
		25	<u>Limestone</u> , as above.	
5370	5375	100	<u>Limestone</u> , white to light gray, I/III VF-FA-1B ₁ , <u>20% strong yellow sample fluorescence, strong milky to yellow cut fluorescence.</u>	
5375	5380	100	<u>Limestone</u> , I VFA, as above, <u>2% strong yellow sample fluorescence, cut fluorescence, as above.</u>	
5380	5390	100	<u>Limestone</u> , gray, I VFA.	
5390	5395	75	<u>Limestone</u> , as above.	
		25	<u>Shale</u> , medium to dark gray, calcareous.	

DITCH SAMPLES

Examined by Eskelsen 5395 to 5642
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
5395	5405	95	<u>Limestone</u> , light gray to tan, I VFA.	
		5	<u>Shale</u> , as above.	
5405	5410	75	<u>Shale</u> , as above.	
		25	<u>Limestone</u> , as above.	
5410	5420	75	<u>Limestone</u> , medium gray to brown, I VFA, argillaceous.	
		25	<u>Shale</u> , as above.	
5420	5430	100	<u>Shale</u> , as above.	
5430	5435	60	<u>Limestone</u> , as above.	
		40	<u>Shale</u> , as above.	
5435	5445	25	<u>Shale</u> , as above.	
		75	<u>Limestone</u> , as above, cherty.	
5445	5450	100	<u>Limestone</u> , as above, cherty.	
5450	5461	30	<u>Shale</u> , as above.	
		70	<u>Limestone</u> , medium to light brown, IVFA, cherty.	
5461	5465	100	<u>Limestone</u> , as above, cherty.	
5465	5471	90	<u>Limestone</u> , as above.	
		10	<u>Chert</u> , blue gray.	
5471	5480	100	<u>Limestone</u> , as above, cherty, rare fusulinids.	
5480	5485	100	<u>Limestone</u> , medium to light brown, I/III VFA + trace D, calcite recemented in vugs and along fractures, some fractures appear open. <u>60% spotty yellow fluorescence, faint milky yellow cut fluorescence, some visible oil staining on some surfaces and near fractures.</u>	
5485	5492	100	<u>Limestone</u> , as above, <u>shows as above.</u>	
5492	Cir. Spl. 10 Min.	100	<u>Limestone</u> , as above, <u>shows as above.</u>	
	Cir. Spl. 20 Min.	100	<u>Limestone</u> , as above, <u>shows as above.</u>	
5492	5642		Cores 1, 2, 3, and 4.	

SHELL OIL COMPANY

WEEK ENDING _____

AREA OR FIELD _____

CORE FROM 5492 TO 5533

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY Robinson

LEASE AND WELL NO. Bluff Unit 3

FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS CORE OR DITCH
5492	5533	39'				
5492	5493	1'	<u>Limestone</u> , medium to light brown, III-I VF-MA, fossiliferous, fractures slightly recemented with clear calcite.			<u>Slight yellow fluorescence on fracture surface, good pet. odor on fresh surface.</u>
5493	5494	1'	<u>Limestone</u> , as above.			
5494	5495	1'	<u>Limestone</u> , III FA, slightly argillaceous, fossiliferous, slightly fractured and recemented with calcite.			
5495	5496	1'	<u>Limestone</u> , as above.			<u>Slight yellow fluo. on vert. fractures, good petrol. odor.</u>
5496	5497	1'	<u>Limestone</u> , as above.			
5497	5498	1'	<u>Limestone</u> , light gray brown, III FA, many fossil fragments, highly fractured and recemented with calcite. (Appears fairly tight.)			<u>Sli. oil stain on a few fractures., strong yellow fluo., faint milky yellow cut fluo., petrol. odor on fresh break.</u>
5498	5499	1'	<u>Limestone</u> , as above.			<u>Only trace of oil staining, faint sample fluo. & cut fluo. as above, weak petrol. odor.</u>

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

Core #1 (Continued)

Sheet 2 of 2.

WEEK ENDING _____

CORE FROM 5492 TO 5433

CORES EXAMINED BY Robinson

CORE RECORD

AREA OR FIELD _____

COMPANY Shell Oil Company

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS
							OIL-GAS
							CORE OR DITCH
5499	5500	1'		<u>Limestone</u> , as above.			
5500	5501	1'		<u>Limestone</u> , medium brown, gray, III/I VFA, slightly fossiliferous.			
5501	5502	1'		<u>Limestone</u> , dark brown to gray, I VFA, very argillaceous.			
5502	5531	29'		<u>Shale</u> , black, hard, fossiliferous, fissility present in places.			

SHELL OIL COMPANY

Sheet 1 of 3.

WEEK ENDING _____

AREA OR FIELD _____

CORE FROM 5533 TO 5581

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY Robinson

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS
							OIL-GAS
							CORE OR DITC
2	5533	5581	48'				
	5533	5537	4'	<u>Shale</u> , black, slightly calcareous, fossiliferous, carbonaceous fragments.			
	5537	5539	2'	<u>Limestone</u> , dark brown to dark gray brown, I VF-FA, very argillaceous, shale streaks.			
	5539	5541	2'	<u>Limestone</u> , medium gray, III FA, medium to very argillaceous.			
	5541	5543	2'	<u>Limestone</u> , medium gray, III VF-FA, very argillaceous, micaceous, dolomitic, some shale partings.			
	5543	5545	2'	<u>Dolomite</u> , dark brown gray, III/I VFA, very argillaceous, slightly calcareous.			<u>Bleeding traces of oil & gas, prob. from fine fractcs., pet odor good, fluo. lt. bluish yellow, cut fluo. v. faint blue yellow.</u>
	5545	5548	3'	<u>Limestone</u> , dark gray brown, III VF-FA, very argillaceous, very dolomitic.			<u>Bleeding, a above, petro odor as above fluo. as abc</u>
	5548	5549	1'	<u>Limestone</u> , as above, with shale partings, no shows.			
	5549	5550	1'	50% <u>Limestone</u> , dark gray brown, III VFA + 3D ₁ , very argillaceous, vugs up to 1/2" diameter, partially filled with anhydrite crystals. Vugs form small portion & are not present throughout sample. 50% <u>Anhydrite</u> , clear to light brown, fractures filled with argillaceous material.			<u>Dead oil stains between cryst.</u>

SHELL OIL COMPANY

Core #2 (Continued)

Sheet 2 of 3.

WEEK ENDING _____

CORE FROM 5533 TO 5581

CORE RECORD

AREA OR FIELD _____

COMPANY Shell Oil CompanyCORES EXAMINED BY RobinsonLEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOV- ERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
5550	5563	13'		<u>Anhydrite</u> , as above, less fractures.			
5563	5564	1'		50% <u>Anhydrite</u> , as above.			
				50% <u>Limestone</u> , dark to medium brown, I/III VFA, very argillaceous, vertical fractures filled with anhydrite and calcite.			
5564	5565	1'		<u>Limestone</u> , as above, no fractures, very argillaceous.			<u>Petrol. odor on fresh bre</u>
5565	5567	2'		<u>Limestone</u> , as above, I/III VFA, very argillaceous, slightly dolomitic, vertical fractures.			<u>Rare spotty oil stains, milky yellow fluo., v. lt milky-yellow cut fluo., bleeding, tra gas, petrol. odor.</u>
5567	5568	1'		<u>Shale</u> , dark brown gray, slightly calcareous.			
5568	5569	1'		40% <u>Shale</u> , as above.			
				60% <u>Limestone</u> , medium gray brown, III/I VFA, very argillaceous, dolomitic in part, fossil fragments.			
5569	5571	2'		<u>Limestone</u> , as above, Stylolites vertical and horizontal.			
5571	5572	1'		<u>Limestone</u> , as above.			<u>Fine vertical fract., produ bleeding tra oil, faint y low fluo., petrol. odor good.</u>
5572	5574	2'		<u>Dolomite</u> , light to medium brown, III VFA + Tr. B. B porosity recemented with calcite in part.			<u>Shows as abo</u>

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

Core #2 (Continued)

Sheet 3 of 3.

WEEK ENDING _____

CORE FROM 5533 TO 5581

CORES EXAMINED BY Robinson

CORE RECORD

AREA OR FIELD _____

COMPANY Shell Oil Company

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS
							OIL-GAS
							CORE OR DITC
5574	5575	1'		<u>Dolomite</u> , as above, with trace D_1 , largely recemented with anhydrite, vugs to 1/4" diameter.			Petrol. odor on fresh surface & show as above.
5575	5576	1'		50% <u>Anhydrite</u> , crystalline. 50% <u>Limestone</u> , III VFA, medium brown, argillaceous.			
5576	5579	3'		<u>Limestone</u> , III VFA, dolomitic, argillaceous, rare fractures cemented with anhydrite.			
5579	5580	1'		50% <u>Shale</u> , dark gray, calcareous. 50% <u>Limestone</u> , as above, III VF-IMA, psuedoolitic in part.			
5580	5581	1'		<u>Limestone</u> , as above, III VF-LA, psuedoolitic, fossiliferous.			
				Whole core appears tight.			

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

WEEK ENDING _____

AREA OR FIELD _____

CORE FROM 5581 TO 5620

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY Robinson

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS
							OIL-GAS
							CORE OR DITCH
3	5581	5620	37'				
	5581	5587	6'	<u>Limestone</u> , light to medium gray brown, III/I VF-FA, slightly fossiliferous, slightly argillaceous, fusulinids, rare fractures recemented with calcite.			
	5587	5590	3'	<u>Limestone</u> , as above, numerous hairline fractures completely resealed with calcite, rare small vugs completely recemented.			
	5590	5592	2'	<u>Limestone</u> , I/III VFA, as above, few small vugs, as above.			
	5592	5595	3'	<u>Limestone</u> , as above, I VFA, few fine fractures recemented with calcite.			
	5595	5596	1'	<u>Limestone</u> , as above, I VF-FA, argillaceous, fractures as above.			
	5596	5597	1'	<u>Limestone</u> , as above, III/I VF-FA, argillaceous, fractures as above.			
	5597	5601	4'	<u>Limestone</u> , as above, I VFA, numerous hairline fractures recemented with calcite, rare small vugs also recemented.			
	5601	5602	1'	<u>Limestone</u> , light gray, I VFA + 20B-D ₁₀ , strongly brecciated or fractured, open fractures and vugs.			<u>Oil stained</u> <u>mod.-strong</u> <u>milky yellow</u> <u>fluo., faint</u> <u>milky yellow</u> <u>cut fluo.,</u> <u>strong petr</u> <u>odor.</u>
	5202	5603	1'	<u>Limestone</u> , I VFA + B-D ₂₀ .			<u>Shows as abo</u>
	5603	5604	1'	<u>Limestone</u> , I VFA + 25 B-D ₅ .			<u>Shows as abo</u>
	5604	5605	1'	<u>Limestone</u> , I VFA + 90 B-D ₁₅ .			<u>Shows as abo</u>

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%), 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%), 2-CLAY OR SHALE AND SAND (SAND 25-60%), 3-SAND WITH SHALE STREAKS (SAND 60-90%), S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

WEEK ENDING _____

CORE FROM 5581 TO 5620

CORES EXAMINED BY Robinson

CORE RECORD

AREA OR FIELD _____

COMPANY Shell Oil Company

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOV- ERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
5605	5606	1'		<u>Limestone</u> , I VFA + B-D ₁₅₋₂₀ .			Shows as abc
5606	5607	1'		<u>Limestone</u> , I VFA + 90 B-D ₂₀ .			Shows as abc
5607	5608	1'		<u>Limestone</u> , I VFA + 50 B-D ₁₅ .			Shows as abc
5608	5609	1'		<u>Limestone</u> , I VFA + 50 B-D ₁₅ .			Shows as abc
5609	5610	1'		<u>Limestone</u> , I VFA + 20 C-D ₅ .			Shows as abc
5610	5611	1'		<u>Limestone</u> , I VFA + 10 B-C ₂ Trace D.			Spotty sampl fluo., faint milky yellow fluo., sligh petrol. odor sli. oil stai
5611	5612	1'		<u>Limestone</u> , I VFA + 5 B-C ₂ Trace D.			Shows as abc
5612	5613	1'		<u>Limestone</u> , I VFA + 15 B-C ₅ Trace D.			Shows as abc
5613	5614	1'		<u>Limestone</u> , I VFA + 5 B-C ₂ .			Shows as abc
5614	5615	1'		<u>Limestone</u> , I VFA + 1 B-C ₁ , Trace D.			Very weak spotty fluo. oil stain as above, cut fluo. as abc
5615	5616	1'		<u>Limestone</u> , as above, largely brecciated but well recemented with calcite.			
5616	5617	1'		<u>Limestone</u> , as above, III VFA, salty taste.			
5617	5618	1'		<u>Limestone</u> , as above, I/III VFA, very argillaceous, salty taste.			

(Core appears to have good permeability in addition to high porosity.)

WEEK ENDING _____

AREA OR FIELD _____

CORE FROM 5620 TO 5642

CORE RECORD

COMPANY Shell Oil CompanyCORES EXAMINED BY RobinsonLEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOV- ERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITC
4	5620	5642	22'				
	5620	5621	1'	<u>Limestone</u> , brown gray, III/I VFA, argillaceous, slightly fractured with fine fractures, partially cemented with calcite.			Fair spotty pale yel. fl faint milky- cut fluo., petrol. odor shows predom along fract.
	5621	5622	1'	<u>Limestone</u> , as above, III F-MA + 25 B ₁₋₂ , argillaceous.			Good uniform yel. fluo., fluo. a.a., odor a.a., s' salty taste.
	5622	5623	1'	<u>Limestone</u> , as above, III VFA, salty taste.			Spotty yello fluo., cut & odor a.a.
	5623	5624	1'	<u>Dolomite</u> , light gray, III/I VFA + 25 C ₂₋₃ , small open fractures. Not salty.			Oil stains, predom. al fracts., un yel. fluo., fluo., a.a., g petrol. odor
	5624	5625	1'	<u>Dolomite</u> , as above, III/I VFA + 50 C-D ₁₀ , numerous open fractures			Oil stains a shows a.a.
	5625	5626	1'	<u>Dolomite</u> , as above, III/I VFA + 50-75 C-D ₁₅ , open fractures and vugs (to 1/4" diameter).			Shows a.a.
	5626	5627	1'	<u>Dolomite</u> , as above, III/I VFA + 10 B-D ₅ , vugs largely with anhydrite, numerous fractures filled with calcite.			Oil shows a.a.

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

WEEK ENDING _____

CORE FROM 5620 TO 5642

CORES EXAMINED BY Robinson

CORE RECORD

AREA OR FIELD _____

COMPANY Shell Oil Company

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS OIL-GAS
							CORE OR DITCH
5627	5628	1'		Dolomite, III/I VFA + 35 B-D ₁₀ , open fractures and vugs, partially filled with calcite.			Shows as abo
5628	5629	1'		Dolomite, III/I VFA + 40 B-D ₁₀ , salty taste in part.			Shows as abo
5629	5630	1'		Dolomite, III/I VFA + 5 B-C ₁₋₂ , Trace D, slightly fractured, salty taste.			Uniform sam fluo., cut flu a.a., odor a.
5630	5631	1'		Dolomite, III/I VFA + 5 B-C ₁₂ , slightly salty.			Shows as abo
5631	5632	1'		Dolomite, III/I VFA + 40 B-D ₅₋₁₀ , vugs to 1/4" diameter, fractured as above.			Shows as abo
5632	5633	1'		Dolomite, III/I VFA + 25 B-D ₅ , vugs and fractures as above.			Shows as abo
5633	5634	1'		Dolomite, III/I + 1-5 B-C ₅ , fractures as above.			Shows as abo
5634	5635	1'		Dolomite, as above, I-III VFA + 3 B-C ₁₋₂ , slightly fractured, salty taste.			Shows as abo
5635	5636	1'		Dolomite, as above, III VFA + 5 B ₁₋₂ , fractures as above.			Shows as abo
5636	5637	1'		Dolomite, as above, III VFA + 1 B, salty taste.			Fair-good fluo., v. fal yel. cut flu slight petro odor, sli. fra
5637	5639	2'		Dolomite, as above, III VFA + 3 B-C ₁ , slightly fractured, salty taste.			Shows as abo
5639	5640	1'		Dolomite, as above, III/I + 1 B-C ₁ , salty taste.			Sli. spotty yel. oil flu sli. oil sta no cut fluo. faint odor.

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

Core #4 (Continued)
Sheet 3 of 3

WEEK ENDING _____

CORE FROM 5620 TO 5642

CORES EXAMINED BY Robinson

CORE RECORD

AREA OR FIELD _____

COMPANY Shell Oil Company

LEASE AND WELL NO. Bluff Unit 3

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS
							OIL-GAS
							CORE OR DITCH
5640	5641	1'		<u>Dolomite</u> , as above, little to no fractures, salty taste.			
5641	5642	1'		<u>Dolomite</u> , dark gray, III VFA, very argillaceous, salty taste.			
				Entire core had fair to good porosity but appeared to lack permeability. Entire core appeared water-wet when recovered from barrel.			

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

DITCH SAMPLES

Examined by Bachelor 5642 to 5715
_____ to _____Well Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED NOT
5642	5645	100	Very poor sample, mostly cavings, but few samples similar to Core #4 (at bottom) (100% <u>Dolomite</u> , medium to dark brown, III VFA, medium argillaceous.)	
5645	5650	100	<u>Dolomite</u> , as above, but becoming very calcareous and light tan in part, also I VFA, as above, sample is very poor, mostly cavings.	
5650	5655	50	<u>Shale</u> , black, medium calcareous, very soft in part.	
		50	<u>Limestone</u> , light tan to medium brown, I VFA, medium dolomitic.	
5655	5660	100	<u>Shale</u> , black, as above.	
5660	5665	100	<u>Shale</u> , as above.	
5665	5670	100	<u>Shale</u> , as above.	
5670	5675	100	<u>Shale</u> , as above.	
5675	5680	100	<u>Shale</u> , as above, but becoming very calcareous.	
5680	5685	75	<u>Shale</u> , as above.	
		25	<u>Sandstone</u> , medium gray-brown gray, very fine subround quartz with few mica crystals, very argillaceous, and very calcareous.	
5685	5690	100	<u>Sandstone</u> , as above.	
5690	5695	40	<u>Sandstone</u> , as above.	
		60	<u>Limestone</u> , medium brown, I VFA, slightly argillaceous.	
5695	5700	100	<u>Limestone</u> , as above, in part medium cherty, medium gray-brown, translucent.	
5700	5705	70	<u>Dolomite</u> , medium to dark brown, III VFA, very argillaceous, very sandy, with anhydrite inclusions.	
		30	<u>Limestone</u> , as above, cherty.	
5705	5710	25	<u>Anhydrite</u> , clear to white.	
		60	<u>Dolomite</u> , as above, predominantly very dark brown, anhydrite inclusions.	
		15	<u>Limestone</u> , as above.	
5710	5715	70	<u>Anhydrite</u> , as above.	
		30	<u>Dolomite</u> , as above.	

DITCH SAMPLES

Examined by Bachelor 5715 to 5825
 _____ to _____

Well Bluff Unit #3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED- NOT
5715	5720	80	<u>Anhydrite</u> , as above.	
		20	<u>Dolomite</u> , as above.	
5720	5725	100	<u>Anhydrite</u> , as above, very poor sample, probably mostly cavings.	
5725	5730	100	<u>Anhydrite</u> , white to clear, very soft, very poor sample, mostly cavings.	
5730	5735	100	<u>Anhydrite</u> , as above.	
5735	5740	100	<u>Salt</u> .	
5740	5750	100	<u>Salt</u> , as above.	
5750	5755	100	<u>Salt</u> , as above.	
5755	5760	100	<u>Salt</u> , as above.	
5760	5765	100	<u>Salt</u> , as above, no sample.	
5765	5770	100	<u>Salt</u> , as above, cavings.	
5770	5775	100	<u>Salt</u> , as above, cavings.	
5775	5795	100	<u>Salt</u> , as above.	
5795	5800	100	<u>Limestone</u> , medium brown to gray brown, I VFA, slightly argillaceous, very poor sample after trip, cherty, medium brown, translucent.	
5800	5805	100	<u>Limestone</u> , as above, but with anhydrite inclusions becoming dolomitic, not cherty.	
5805	5810	35	<u>Anhydrite</u> , clear crystalline with salt+ casts, white, massive. . .	
		65	<u>Limestone</u> , as above, becoming cherty in part.	
5810	5815	40	<u>Anhydrite</u> , as above.	
		60	<u>Dolomite</u> , medium gray to brown gray, I VFA, medium argillaceous, anhydrite inclusions, slightly calcareous.	
5815	5820	40	<u>Shale</u> , medium gray, fine to very fine, medium sandy, well rounded quartz grains.	
		30	<u>Anhydrite</u> , as above.	
		30	<u>Dolomite</u> , as above.	
5820	5825	70	<u>Shale</u> , as above.	
		30	<u>Anhydrite</u> , as above.	

DITCH SAMPLES

Examined by Bachelor 5825 to 5895
toWell Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES ±A60E0 NOT
5825	5830	75	<u>Shale</u> , medium to light brown gray, slightly calcareous to medium, very finely to finely sandy, well rounded quartz grains.	
		25	<u>Anhydrite</u> , white to light gray, finely crystalline with salt casts.	
5830	5835	80	<u>Shale</u> , predominantly light gray, medium to very sandy.	
		20	<u>Anhydrite</u> , as above.	
5835	5840	60	<u>Shale</u> , as above, very sandy.	
		40	<u>Anhydrite</u> , few salt casts with very thin black shale streaks.	
5840	5845	60	<u>Shale</u> , as above.	
		40	<u>Anhydrite</u> , as above, becoming somewhat porous but could be dissolved salt.	
5845	5850	50	<u>Shale</u> , as above.	
		50	<u>Anhydrite</u> , as above, but becoming slightly calcareous.	
5850	5855	20	<u>Shale</u> , as above.	
		80	<u>Anhydrite</u> , as above.	
5855	5860	100	<u>Anhydrite</u> , white to light gray, slightly argillaceous, few holes up to 1/16" diameter.	
5860	5865	100	<u>Anhydrite</u> , as above.	
5865	5870	100	<u>Anhydrite</u> , as above, with black shale streaks and medium argillaceous in part.	
5870	5875	25	<u>Shale</u> , medium gray, medium calcareous.	
		75	<u>Anhydrite</u> , as above, a few fragments have <u>slightly spotty oil show, fluorescence pale yellow gold, cut fluorescence, pale milky, no cut.</u> Trace <u>Limestone</u> .	
5875	5880	25	<u>Shale</u> , as above.	
		75	<u>Anhydrite</u> , as above, <u>shows as above</u> , trace <u>Limestone</u> .	
5880	5885	50	<u>Shale</u> , as above, becoming medium sandy in part and very soft.	
		50	<u>Anhydrite</u> , as above.	
5885	5890	100	<u>Shale</u> , as above, medium gray, medium calcareous, medium sandy, very soft.	
5890	5895	100	<u>Shale</u> , as above, but only slightly calcareous.	

DITCH SAMPLES

Examined by Bachelor 5895 to 6045
 _____ to _____

Well Bluff Unit #3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TESTED NOT
5895	5900	100	<u>Shale</u> , as above.	
5900	5915	100	<u>Shale</u> , as above, becoming light tan to light gray and very sandy in part.	
5915	5925	100	<u>Anhydrite</u> , white, chalky, very soft.	
5925	5930	100	<u>Anhydrite</u> , as above, becoming harder and more crystalline.	
5930	5935	100	<u>Anhydrite</u> , white, very soft and chalky and finely granular to crystalline, slightly argillaceous in part.	
5935	5940	65	<u>Shale</u> , medium brown gray, medium dolomitic, soft, with anhydrite inclusions.	
		35	<u>Anhydrite</u> , as above.	
5940	5945	70	<u>Shale</u> , as above, but becoming slightly silty.	
		30	<u>Anhydrite</u> , as above.	
5945	5950	100	<u>Shale</u> , as above, but becoming medium to very finely sandy to silty.	
5950	5955	80	<u>Shale</u> , as above, with occasional anhydrite inclusions.	
		20	<u>Dolomite</u> , medium to light brown, I VFA, very argillaceous and very soft.	
5955	5960	100	<u>Shale</u> , becoming light to medium gray brown to brown gray, medium dolomitic, soft with few anhydrite inclusions, medium to very finely sandy.	
5960	5965	100	<u>Shale</u> , as above but becoming very sandy, medium to dark brown gray in part, also medium calcareous in part.	
5965	5970	100	<u>Shale</u> , black, somewhat hard and blocky.	
5970	5975	100	<u>Shale</u> , as above.	
5975	5980	100	<u>Shale</u> , as above.	
5980	5985	100	<u>Shale</u> , as above.	
5985	5990	100	<u>Shale</u> , as above.	
5990	6005	100	<u>Shale</u> , black, before this it was quite hard, now becoming very soft in part.	
6005	6010	100	<u>Shale</u> , black, very soft.	
6010	6025	100	<u>Shale</u> , black, as above.	
6025	6030	100	<u>Salt</u> , clear to white.	
6030	6045	100	<u>Salt</u> , as above. Poor samples after trip and reaming.	

DITCH SAMPLES

Examined by Bachelor 6045 to 6325
to _____Well Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES 466E NOT
6045	6050	70	<u>Shale</u> , light to medium brown gray, medium - very finely sandy to silty and slightly calcareous in large part, apparently interbedded with anhydrite.	
		30	<u>Anhydrite</u> , white to clear, with seams of medium gray <u>shale</u> also argillaceous in part.	
6050	6055	75	<u>Shale</u> , as above, becoming pyritic.	
		25	<u>Anhydrite</u> , as above.	
6055	6060	50	<u>Shale</u> , as above, but becoming medium gray and not sandy in part.	
		50	<u>Anhydrite</u> , as above.	
6060	6065	100	<u>Anhydrite</u> , white to clear, granular and some crystals, medium argillaceous in streaks.	
6065	6080	100	<u>Anhydrite</u> , as above, some psuedomorphs after salt crystals.	
6080	6095	100	<u>Salt</u> , clear to white, very anhydritic in part (medium streak), inter-twined crystals, no inclusions.	
6095	6100	100	<u>Salt</u> , as above, becoming less anhydritic.	
6100	6105	100	<u>Salt</u> , as above, not anhydritic.	
6105	6165	100	<u>Salt</u> , clear.	
6165	6170	70	<u>Salt</u> , as above.	
		30	<u>Shale</u> , black, slightly calcareous.	
6170	6275	100	<u>Salt</u> , as above.	
6275	6280	100	<u>Shale</u> , medium gray brown and black, medium gray brown is medium calcareous and very fine sandy to silty, other is slightly calcareous and very soft.	
6280	6285	100	<u>Shale</u> , as above, appears interbedded.	
6285	6295	100	<u>Shale</u> , as above, predominantly medium brown gray, still very sandy.	
6295	6310		No Samples.	
6310	6325	100	<u>Shale</u> , medium to dark gray brown, medium calcareous, fairly hard, more so than in sample 6285-95.	

DITCH SAMPLES

Examined by Bachelor 6325 to 6390
 _____ to _____

Well Bluff Unit #3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT
6325	6330	100	<u>Shale</u> , as above, but predominantly dark brown and very hard to very sandy.	
6330	6335	70	<u>Shale</u> , as above, but light gray to tan in part.	
		30	<u>Limestone</u> , medium gray brown to dark brown, I VFA, slightly argillaceous.	
6335	6340	50	<u>Shale</u> , as above.	
		20	<u>Anhydrite</u> , white, very soft, possibly cavings.)) Poor sample after trip.
		30	<u>Limestone</u> , as above.)	
6340	6345	75	<u>Shale</u> , light to medium gray brown, slightly calcareous, soft.	
		25	<u>Limestone</u> , as above, but becoming lighter brown. Poor sample.	
6345	6350	100	<u>Limestone</u> , light tan to dark brown, I VFA, with rare <u>anhydrite</u> inclusions.	
6350	6355	100	<u>Limestone</u> , as above with <u>anhydrite</u> inclusions, also becoming slightly argillaceous.	
6355	6360	30	<u>Shale</u> , medium to light brown gray, medium calcareous, very to very finely sandy to silty, micaceous.	
		70	<u>Limestone</u> , as above, becoming medium argillaceous, anhydritic.	
6360	6365	100	<u>Shale</u> , as above, very soft in part.	
6365	6370	50	<u>Shale</u> , as above, but with few <u>anhydrite</u> inclusions.	
		50	<u>Limestone</u> , medium brown to tan, I VFA, variably argillaceous and with <u>anhydrite</u> inclusions.	
6370	6375	60	<u>Anhydrite</u> , white.	
		40	<u>Limestone</u> , as above.	
6375	6380	50	<u>Anhydrite</u> , as above.	
		50	<u>Limestone</u> , as above, medium argillaceous, and <u>anhydrite</u> inclusions.	
6380	6385	100	<u>Shale</u> , medium to light gray brown, medium calcareous and very to very finely sandy to silty, (Note: It approaches the siltstone classification.) with fossil fragments, few <u>anhydrite</u> inclusions.	
6385	6390	70	<u>Shale</u> , as above, but no fossils and becoming coarser sandstone.	
		30	<u>Limestone</u> , brown to dark brown, I VFA.	

DITCH SAMPLES

Examined by Bachelor 6390 to 6450
 _____ to _____

Well Bluff Unit #3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED- NOT
6390	6395		No Samples.	
6395	6400	70	<u>Shale</u> , as above, becoming hard in part.	
		30	<u>Limestone</u> , as above.	
6400	6405	20	<u>Shale</u> , medium to light gray brown, medium calcareous and very to very finely sandy, micaceous in part.	
		80	<u>Limestone</u> , brown to tan and dark brown, I VFA, slightly argillaceous in part, apparently Limestone and Shale are interbedded.	
6405	6410	100	<u>Limestone</u> , as above.	
6410	6415	100	<u>Shale</u> , dark to medium brown gray, medium calcareous, very silty to very finely sandy, slightly micaceous in part.	
6415	6420	80	<u>Shale</u> , as above, medium red brown in small part and very micaceous in small part.	
		20	<u>Limestone</u> , medium brown to tan, I VFA.	
6420	6425	20	<u>Shale</u> , as above.	
		30	<u>Limestone</u> , as above, predominantly tan, pyritic.	
		50	<u>Sandstone</u> , light tan to light brown gray, very fine well rounded quartz, micaceous, very argillaceous, slightly to medium calcareous.	
6425	6430	80	<u>Limestone</u> , cream to tan, I VFA.	
		20	<u>Sandstone</u> , as above.	
6430	6435	75	<u>Limestone</u> , as above.	
		25	<u>Sandstone</u> , as above.	
6435	6440	25	<u>Shale</u> , medium brown gray, silty.	
		75	<u>Limestone</u> , as above.	
6440	6445	65	<u>Limestone</u> , as above, but becoming medium brown in part.	
		35	<u>Sandstone</u> , tan to light gray brown, very fine, subround to round quartz grains, very argillaceous in large part, slightly to medium calcareous in large part, <u>slightly spotty oil in a small part of sandstone. Fluorescence pale yellow, cut fluorescence pale milky, no cut.</u>	
6445	6450	70	<u>Limestone</u> , medium brown to tan, I VFA.	
		30	<u>Sandstone</u> , as above, <u>in part oil stained, about 5% to 10% of sample.</u>	

DITCH SAMPLES

Examined by Bacheller 6450 to 6510
toWell Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED- NOT
6450	6455	100	<u>Limestone</u> , light tan to medium brown, J-II VFA, medium to very finely sandy in part. Latter limestone is II VFA and sandy about 40% of sample.	
6455	6460	15	<u>Dolomite</u> , light gray, III-I VFA.	
		85	<u>Limestone</u> , as above, but predominantly I VFA and medium brown, slightly pseudoolitic in part.	
6460	6465	20	<u>Dolomite</u> , as above.	
		80	<u>Limestone</u> , as above, but not pseudoolitic.	
6465	6470	30	<u>Dolomite</u> , light to medium brown to light gray, I VFA, sandy (very fine, round).	
		70	<u>Limestone</u> , light to medium brown, I VFA.	
6470	6475	80	<u>Dolomite</u> , dark gray and small amount light to medium brown, III-I VFA, medium argillaceous in large part.	
		20	<u>Limestone</u> , as above.	
6475	6480	60	<u>Dolomite</u> , dark gray, as above.	
		40	<u>Limestone</u> , medium to light brown, I VFA.	
6480	6485	100	<u>Limestone</u> , medium to light brown, III-I VF-FA, pseudoolitic in part.	
6485	8490	30	<u>Dolomite</u> , dark gray, very finely sandy, III-I VFA.	
		70	<u>Limestone</u> , as above.	
6490	6495	20	<u>Dolomite</u> , as above.	
		80	<u>Limestone</u> , medium gray brown to dark brown, I VFA, cherty in small part, gray.	
6495	6500	35	<u>Dolomite</u> , dark gray to medium gray brown, III-I VFA.	
		65	<u>Limestone</u> , as above.	
6500	6505	40	<u>Shale</u> , medium orange brown and light gray, medium finely sandy in part, only light gray <u>Limestone</u> very calcareous and fossil fragments.	
		60	<u>Limestone</u> , as above, no chert, becoming dark brown to dark gray brown in part.	
6505	6510	90	<u>Limestone</u> , medium gray to light brown, I VFA.	
		10	<u>Dolomite</u> , light gray, slightly sandy, very fine grained.	

DITCH SAMPLES

Examined by E. M. Wright 6510 to 6585
_____ to _____Well Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES ±AGED NOT
6510	6515	75	<u>Limestone</u> , as above.	
		25	<u>Dolomite</u> , as above.	
6515	6520	80	<u>Limestone</u> , as above.	
		20	<u>Dolomite</u> , as above.	
6520	6525	80	<u>Limestone</u> , as above.	
		20	<u>Dolomite</u> , as above.	
6525	6530	90	<u>Limestone</u> , medium to light gray, I VFA.	
		10	<u>Sandstone</u> , coarse grained, calcareous.	
6530	6535	70	<u>Limestone</u> , as above.	
		30	<u>Sandstone</u> , as above, some fine grains, calcareous.	
6535	6540	10	<u>Shale</u> , purple, noncalcareous.	
		40	<u>Sandstone</u> , coarse to fine grained, calcareous.	
		50	<u>Limestone</u> , as above.	
6540	6545	10	<u>Sandstone</u> , as above.	
		60	<u>Limestone</u> , white, III/I VFA, sandy, very fine grained.	
		30	<u>Limestone</u> , light gray to light tan, I VFA.	
6545	6550	50	<u>Limestone</u> , white, as above.	
		50	<u>Limestone</u> , light gray, as above.	
6550	6565	100	<u>Limestone</u> , white, as above, some chert.	
6565	6570	100	<u>Limestone</u> , white to light tan, III/I VFA, some chert.	
6570	6575	80	<u>Limestone</u> , as above.	
		20	<u>Chert</u> , clear to slightly milky, some amber.	
6575	6585	10	<u>Anhydrite</u> , white, massive to crystalline.	
		20	<u>Chert</u> , as above.	
		70	<u>Limestone</u> , as above.	

DITCH SAMPLES

Examined by E.M. Wright 6585 to 6655
_____ to _____Well Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED NOT
6585	6590	80	<u>Limestone</u> , III/I VFA, white to light tan.	
		20	<u>Chert</u> , clear to slightly milky.	
6590	6605	80	<u>Limestone</u> , as above.	
		20	<u>Chert</u> , as above.	
6605	6610	10	<u>Shale</u> , reddish to purple, slightly green mottled.	
		10	<u>Chert</u> , as above.	
		80	<u>Limestone</u> , I/II VFA, slightly argillaceous.	
6610	6615		No Samples.	
6615	6620	10	<u>Shale</u> , reddish purple with some green mottling ?.	
		10	<u>Chert</u> , as above, trace pyrite.	
		80	<u>Limestone</u> , white to light tan, I/II VFA, fossiliferous, some pyrite.	
6620	6625	40	<u>Shale</u> , light gray, red to purple, purple with green mottling, slightly sandy.	
		60	<u>Limestone</u> , as above, some chert.	
6625	6630	50	<u>Shale</u> , variegated, as above.	
		50	<u>Limestone</u> , as above, trace chert.	
6630	6635	70	<u>Shale</u> , variegated to purple with green mottling.	
		30	<u>Limestone</u> , as above, some pyrite.	
6635	6640	10	<u>Sandstone</u> , medium brown, fine grained, slightly calcareous.	
		50	<u>Shale</u> , variegated, slightly calcareous to calcareous.	
		40	<u>Limestone</u> , as above, becoming argillaceous, slightly green and purple.	
6640	6645	30	<u>Shale</u> , variegated.	
		70	<u>Limestone</u> , as above, white to light tan, I/II VFA.	
6645	6650	100	<u>Limestone</u> , white to light tan, I/II VFA, argillaceous to slightly argillaceous.	
6650	6655	30	<u>Shale</u> , variegated, purple, calcareous, slightly sandy.	
		40	<u>Limestone</u> , variegated, purple to green, I VFA.	
		30	<u>Limestone</u> , light tan to light gray, I VFA.	

DITCH SAMPLES

Examined by E.M. Wright 6655 to 6700
_____ to _____Well Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED NOT
6655	6665	50	<u>Shale</u> , purple and green, slightly calcareous to calcareous.	
		50	<u>Limestone</u> , I VFA, argillaceous, purple and green.	
6665	6670	30	<u>Shale</u> , as above.	
		10	<u>Shale</u> , black, noncalcareous.	
		60	<u>Limestone</u> , as above.	
6670	6675	20	<u>Chert</u> , milky to clear, some amber.	
		20	<u>Shale</u> , as above.	
		60	<u>Limestone</u> , as above.	
6675	6680	10	<u>Chert</u> , as above.	
		10	<u>Shale</u> , variegated to medium gray.	
		80	<u>Limestone</u> , I/II VFA, slightly argillaceous.	
6680	6685	10	<u>Chert</u>	
		20	<u>Shale</u> , light to medium gray, micaceous ?.	
		70	<u>Limestone</u> , as above.	
6685	6690	10	<u>Chert</u> , light amber to clear.	
		15	<u>Shale</u> , light to medium gray, noncalcareous.	
		75	<u>Limestone</u> , white to light tan, I/II VFA.	
6690	6695	10	<u>Chert</u> , as above.	
		10	<u>Shale</u> , light gray to medium gray, as above.	
		10	<u>Shale</u> , black, friable, noncalcareous.	
		70	<u>Limestone</u> , as above.	
6695	6700	50	<u>Shale</u> , black, purple, reddish purple, variegated, calcareous to non-calcareous.	
		10	<u>Chert</u> , as above.	
		40	<u>Limestone</u> , as above, some argillaceous, purple.	

DITCH SAMPLES

Examined by E.M. Wright 6700 to 6775
_____ to _____Well Bluff Unit #3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES TAGGED- NOT
6700	6715	15	<u>Chert</u> , as above.	
		60	<u>Shale</u> , variegated, mostly purple and purple with green mottling.	
		25	<u>Limestone</u> , as above.	
6715	6725	30	<u>Limestone</u> , as above.	
		20	<u>Shale</u> , purple to reddish purple, calcareous to non-calcareous.	
		50	<u>Shale</u> , variegated.	
6725	6730	50	<u>Shale</u> , purple to reddish purple.	
		30	<u>Shale</u> , variegated, calcareous to non-calcareous.	
		20	<u>Limestone</u> , white to light tan, I/II VFA, slightly pyritic.	
6730	6735	70	<u>Shale</u> , purple to reddish purple.	
		20	<u>Shale</u> , light gray to medium gray, variegated.	
		10	<u>Limestone</u> , as above, some argillaceous.	
6735	6740	70	<u>Shale</u> , purple to reddish purple, occasional chert.	
		20	<u>Shale</u> , light gray to medium gray, variegated.	
		10	<u>Limestone</u> , as above.	
6740	6745	20	<u>Shale</u> , medium gray to black, slightly calcareous to calcareous.	
		10	<u>Limestone</u> , as above.	
		70	<u>Shale</u> , purple, as above, slightly cherty.	
6745	6755	10	<u>Sandstone</u> , very fine grained, slightly calcareous.	
		10	<u>Chert</u> , milky to light amber.	
		70	<u>Shale</u> , purple, some variegated.	
		10	<u>Limestone</u> , as above.	
6755	6760	80	<u>Limestone</u> , white to light tan, I/II VFA.	
		20	<u>Shale</u> , red to reddish purple.	
6760	6770	100	<u>Limestone</u> , light tan, I VFA, fossiliferous ?.	
6770	6775	100	<u>Limestone</u> , as above, oolitic ? to pseudo-oolitic.	

DITCH SAMPLES

Examined by E.M. Wright 6775 to 6965
 _____ to _____

Well Bluff Unit #3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES /LAGGED NOT LAGGED
6775	6780	100	<u>Limestone</u> , as above, also fractured and recemented, some chert inclusions.	
6780	6785	20	<u>Limestone</u> , white, II VFA.	
		80	<u>Limestone</u> , light tan, as above.	
6785	6800	100	<u>Limestone</u> , light tan, I VFA, oolitic.	
6800	6820	100	<u>Limestone</u> , light tan, oolitic to massive, I VFA.	
6820	6825	50	<u>Limestone</u> , as above.	
		50	<u>Limestone</u> , medium brown, slightly argillaceous, slightly dolomitic, slightly sandy, very fine grained, I VFA.	
6825	6855	100	<u>Dolomite</u> , medium brown, slightly calcareous, I VFA, slightly argillaceous.	
6855	6870	50	<u>Dolomite</u> , medium brown to medium gray, slightly calcareous, I VFA.	
		50	<u>Dolomite</u> , medium brown, as above.	
6870	6875	50	<u>Dolomite</u> , as above.	
		50	<u>Limestone</u> , white to light tan, I VFA.	
6875	6885	100	<u>Limestone</u> , white to light tan, I/II VFA.	
6885	6890	100	<u>Limestone</u> , white, II VFA.	
6890	6920	100	<u>Limestone</u> , as above with some I VFA, fossiliferous.	
6920	6925	50	<u>Limestone</u> , as above.	
		50	<u>Dolomite</u> , medium tan.	
6925	6930	100	<u>Dolomite</u> , as above, I/III VFA + 3B ₁₋₅ :	
6930	6935	100	<u>Dolomite</u> , some light tan color, I/III VFA + 3B ₁₋₅ , <u>3% spotty yellow fluorescence and faint yellow cut fluorescence.</u>	
6935	6950	100	<u>Dolomite</u> , as above, I/III VF-FA 3B-C ₅ + 2D ₁ , <u>35% spotty yellow fluorescence and yellow cut fluorescence.</u>	
6950	6955		No Samples.	
6955	6965	100	<u>Dolomite</u> , white, III F-LA + 5B-C ₁₋₅ + Trace D, slightly calcareous, some anhydrite crystals, <u>30% spotty yellow fluorescence and yellow cut fluorescence + 10% oil staining.</u>	

DITCH SAMPLES

Examined by E.M. Wright 6965 to 7045
 _____ to _____

Well Bluff Unit 3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
6965	6995	100	<u>Dolomite</u> , as above, III F-LA + 10-20B-C ₁₀ + 5D ₅ , <u>60% spotty yellow fluorescence and yellow cut fluorescence + 10% oil staining.</u>	
6995	7000	100	<u>Dolomite</u> , as above, some white dolomite, III F-MA + 5B-C ₁₋₅ + 1D ₁ , with anhydrite crystals, <u>40% spotty yellow fluorescence and yellow cut fluorescence + trace oil staining.</u>	
7000	7010	100	<u>Dolomite</u> , light tan, as above, III F-MA + 5B-C ₁₋₅ + 1D ₁ , occasional anhydrite, <u>40% spotty yellow fluorescence and yellow cut fluorescence + trace oil staining.</u>	
7010	7015	100	<u>Dolomite</u> , white to light tan, some medium brown, III F-MA + 5 B-C ₁₋₅ + 1D ₁ , occasional anhydrite, <u>40% spotty yellow fluorescence and yellow cut fluorescence + trace oil staining.</u>	
7015	7020	100	<u>Dolomite</u> , white to light tan, III VF-FA + 3B-C ₂ , <u>10% spotty yellow fluorescence and yellow cut fluorescence + trace oil staining.</u>	
7020	7025	90	<u>Dolomite</u> , light to medium tan to medium brown, III VF-FA + 3B-C ₂ , <u>10% spotty yellow fluorescence and yellow cut fluorescence + trace oil staining.</u>	
		10	<u>Dolomite</u> , white, III VF-FA + 3B-C ₂ , shows as above.	
7025	7030	90	<u>Dolomite</u> , white to medium brown, III/I VF-FA + 3B-C ₂ , <u>trace spotty yellow fluorescence and yellow cut fluorescence.</u>	
		10	<u>Shale</u> , gray to greenish purple, slightly calcareous.	
7030	7035	90	<u>Dolomite</u> , as above, III/I VF-FA + 1-3B ₂ , <u>trace spotty yellow fluorescence and yellow cut fluorescence.</u>	
		10	<u>Shale</u> , as above, some light gray.	
7035	7045	80	<u>Dolomite</u> , as above, III/I VF-FA + 1-3B ₂ , <u>trace spotty yellow fluorescence and yellow cut fluorescence.</u>	
		20	<u>Shale</u> , light gray to green, medium to dark purple, slightly calcareous to calcareous, well bedded, friable.	

DITCH SAMPLES

Examined by E.M. Wright 7045 to 7140
to _____Well Bluff Unit 3
Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
7045	7057	80	<u>Dolomite</u> , white to medium brown, III/I VF-FA + trace B.	
		20	<u>Shale</u> , variegated to purple, slightly calcareous to calcareous, slightly sandy.	
7057	7075	80	<u>Dolomite</u> , white to medium brown.	
		20	<u>Shale</u> , as above.	
7075	7080	50	<u>Dolomite</u> , as above, anhydrite crystal inclusions.	
		50	<u>Dolomite</u> , light to medium tan, slightly calcareous, I/III VFA.	
7080	7095	100	<u>Dolomite</u> , light to medium tan, slightly calcareous, slightly sandy, I/III VFA.	
7095	7100	100	<u>Dolomite</u> , as above, some white dolomite, III VFA with <u>anhydrite</u> crystals.	
7100	7110	100	<u>Dolomite</u> , light tan, as above, occasionally anhydritic.	
7110	7115	95	<u>Dolomite</u> , light tan to medium brown, I/III VF-FA + 5B ₁ with <u>anhydrite</u> inclusions, <u>5% milky yellow fluorescence and milky cut fluorescence.</u>	
		5	<u>Chert</u> , as above.	
7115	7120	90	<u>Dolomite</u> , as above, I/II VF-FA + 2B ₁ , <u>2% milky yellow fluorescence and milky cut fluorescence.</u>	
		10	<u>Anhydrite</u> , crystalline.	
7120	7125	80	<u>Dolomite</u> , as above, I/II VF-FA + 2B ₁ , <u>2% milky yellow fluorescence and milky cut fluorescence.</u>	
		10	<u>Anhydrite</u> , as above.	
		10	<u>Sandstone</u> , very fine, dolomitic to slightly calcareous, light gray to light tan.	
7125	7130	90	<u>Dolomite</u> , as above, I/III VF-FA + trace B, <u>Trace milky yellow fluorescence and milky cut fluorescence.</u>	
		10	<u>Sandstone</u> , as above, thin stringer?, some pyrite.	
7130	7135	95	<u>Dolomite</u> , light tan to medium brown, I/III VF-FA + trace B, some dolomite with calcite and anhydrite veinlets.	
		5	<u>Sandstone</u> , light tan to light gray, fine grained, slightly dolomitic, pyritic.	
7135	7140	100	<u>Dolomite</u> , as above, also light gray, slightly sandy, slightly calcareous.	

DITCH SAMPLES

Examined by E.M. Wright 7140 to 7156
 to _____

Well Bluff Unit 3
 Field or Area San Juan County, Utah

FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED NOT LAGGED
7140	7145	40	<u>Dolomite</u> , white to light gray, anhydritic, to anhydrite inclusions, I VFA + trace B and trace C.	
		25	<u>Chert</u> , white, anhydritic, dolomitic, clear to slightly milky, tripolitic.	
		30	<u>Anhydrite</u> , white, cherty, dolomitic to slightly dolomitic (dolomite, chert, anhydrite interbedded).	
		5	<u>Sandstone</u> , dolomitic to slightly calcareous, fine grained, green to tan-green.	
7145	7150	40	<u>Dolomite</u> , as above, grading to dolomitic <u>limestone</u> , I VFA.	
		25	<u>Chert</u> , as above.	
		30	<u>Anhydrite</u> , as above, increase of crystalline anhydrite.	
		5	<u>Sandstone</u> , as above (cavings?).	
7150	7156	30	<u>Anhydrite</u> , cherty, dolomitic, white, some clear crystals.	
		20	<u>Chert</u> , white, slightly dolomitic, slightly anhydritic to anhydrite..	
		30	<u>Limestone</u> , light gray, I/III VFA + trace B, slightly sandy, dolomitic?.	
		20	<u>Shale</u> , light to medium gray, some gray-purple, very slightly calcareous.	

May 1, 1956

*Mr. Shepard called
5/14/56 - It is necessary
to sit the well 50' north
of the line and in
Section 4
RD*

Shell Oil Company
33 Richards Street
Salt Lake City, Utah

Attn: E. W. Shepard

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Bluff Unit 3, which is to be located 605 feet from the north line and 760 feet from the west line of Section 4, Township 40 South, Range 23 East, S1EM, San Juan County, Utah.

Please be advised that insofar as the Utah Oil & Gas Conservation Commission is concerned approval to drill said well is hereby granted.

Yours very truly,

UTAH OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
SECRETARY

cc: Phil McGrath, Dist Eng
USGS
Farmington, New Mexico

Land Office Salt Lake City, Utah

(SUBMIT IN TRIPLICATE)

Lease No. 071403-A

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Unit Bluff

X			
	h		

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 RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	X
NOTICE OF INTENTION TO ABANDON WELL.....		

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

May 24, 1956

Well No. Bluff Unit 3 is located 605 ft. from N line and 760 ft. from W line of sec. h

NW/4 NW/4 h 40 S. 23 E. SLER
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

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

The elevation of the derrick floor above sea level is 4746 ft. (approx. grd)

DETAILS OF WORK

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

(Spudded 5-17-56)

5-20,21-56 Ran and cemented 9-5/8", 36#, J-55, casing at 515' with 200 sacks treated cement, 112-119#/cu.ft. slurry. Displaced with 10 bbl. water. Good cement returns at surface. Flanged up and installed blow out equipment. Pressure tested casing and blow out equipment with 700 psi for 15 minutes, O.K.

*2600
30-1-2
5/28/56*

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 33 Richards Street

Salt Lake City 1, Utah

By B. W. Shepard

Title Exploitation Engineer



SHELL OIL COMPANY

DESERET NEWS BUILDING
33 RICHARDS STREET
SALT LAKE CITY 1, UTAH

DAvis 2-0471
TELEPHONE ~~22-0471~~

June 7, 1956

*Noted
CCH
6-11-56*

Oil and Gas Conservation Commission
State of Utah
105 Capitol Building
Salt Lake City, Utah

Gentlemen:

The original location for Bluff Unit 3 was topographically such that it was necessary to place the drilling rig a short distance to the northeast of the surveyed location. The location of the drilling rig has been resurveyed and is as follows:

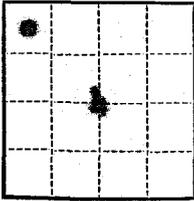
645' from the North line and 698'
from the West line of Sec. 4, T. 40 S.,
R. 23 E., S.L.B. & M., San Juan County,
Utah.

Attached are two plats of the resurveyed location.

Very truly yours,

B. W. Shepard
B. W. Shepard
Exploitation Engineer

Attachments



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City
Lease No. 071103 A
Unit Bluff

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 RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
<u>Notice of Intention to Run Casing and Complete Well</u>			<input checked="" type="checkbox"/>

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

July 20, 1956

Well No. Bluff Unit 3 is located 605 ft. from N line and 760 ft. from W line of sec. 4

34 N 4 (1/4 Sec. and Sec. No.) 103 (Twp.) 23E (Range) S18W (Meridian)
Wildcat (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the ~~construction~~ Kelly Bushing above sea level is 4757 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:

Depth: 7156'
Surface Casings: 9 5/8" at 515'
Hole Size: 7 7/8" from 515' to total depth.

Proposed Work:

1. Place following plugs:
 - a. With open end drill pipe hung at 7000', plug with 50 sacks construction cement (7000-6900')
 - b. With open end drill pipe hung at 6200', plug with 30 sacks construction cement (6200-5300')
 - c. With open end drill pipe hung at 5750', plug with 25 sacks construction cement.

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

Company Shell Oil Company

Address 11 Richards Street
Salt Lake City, Utah

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

2. Clean out to 5700'±.
3. Run and cement ⁵ 1 1/2" casing at 5690'.
4. Clean out to 5650', displace mud with water.
5. Perforate four 1/2" bullet holes per foot gross interval 5600-5636', make production test.
6. Acidize and test if applicable.
7. Set bridge plug 5515'±.
8. Perforate four 1/2" holes per foot gross interval 5400-5400', make production test.
9. Acidize and test if applicable.
10. Install Christmas tree or pump.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City, Ut.
Lease No. 071403A
Unit Bluff

X			
	L		

*Note
C.H.
8-15-56*

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
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 RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING 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 casing and well completion	X

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

AUG 13 1956, 19

Bluff Unit
Well No. 3 is located 605 ft. from N line and 760 ft. from W line of sec. 4
14 1/4 N W/4 4 40 S 23 E S. L. B. M.
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Wildcat San Juan Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~derrick~~ Kelly Bushing floor above sea level is 4757 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: 7156'
Plugged back total depth: 5650'
Surface casing: 9 5/8" at 515'
Production casing: 5 1/2" at 5703'

Completion Work:

- 7-23, 24-56 (a) With open end drill pipe hung at 7080, plugged with 50 sacks cement (7080-6900).
- (b) With open end drill pipe hung at 6215, plugged with 30 sacks cement (6200-6300').
- (c) With open end drill pipe hung at 5735, plugged with 25 sacks cement.

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 33 Richards Street
Salt Lake City, Utah
By R. E. Eddy
R. E. Eddy
Title Senior Exploitation Engineer

(d) Felt for top plug to 5797', no plug. Replugged at 5731' with 50 sacks cement. Found top of cement at 5728'.

Ran and cemented 5 1/2", 17#, J-55, 8 rd, IT&C. casing at 5703' with 200 sacks cement.

7-21-56

Waiting on cement.

Cleaned out to 5650'. Ran Neutron Log with collar locator. Perforated four 1/2" bullets/ft intervals 5600-5609 and 5615-5635. Ran tubing, set packer at 5583'.

7-25, 26-56

Swabbed 8 hrs., recovered 20 bbls. slightly muddy (with slight scum of oil) water. Acidized with 2000 gals. acid. Well flowed by heads initial est. rate of 0.5 bbl/hr fluid increasing to (flowing) 2 bbl/hr oil, cut 9.7% after approx. 2 1/2 hours.

7-27-56

to
8-1-56

Reacidized with 100 gals acid and 4000 gals acid petrofrac (without sand). Packers failed limiting pressure to casing burst pressure of 4000 psi. Overflushed with 35 bbl oil and displaced with 22 bbls of water, began swabbing. Initial rate first 12 hrs. (flowing and swabbing) 8.9 bbl/hr (21% B/D rate) gross, 6.3 bbl/hr (15% B/D rate) clean, cut 30% acid water. Production tested 67 hrs. rate last 5 hrs. (swabbing) 3.8 bbl/hr (9% B/D rate) gross, 3.5 bbl/hr (8% B/D rate) clean, average cut 5.7%, salinity 225,000 ppm(t), pH 5.0, gravity 42° API, gas rate nil.

8-2-56

Reacidized with 50 bbl of oil, 2000 gals acid and 5000 gals acid petrofrac (without sand). Overflushed with 20 bbl of oil and displaced with 21^{bbl} of oil. Initial rate first 2 hrs. (flowed) 66.5 bbl/hr (15% B/D rate) gross, 47.1 bbl/hr (1130 B/D rate) clean, cut 29% acid water.

8-3, 6-56

Production tested. 73 hrs. rate last 13 hrs (flowed) 3.6 bbl/hr (86 B/D rate) gross, 3.2 bbl/hr (77 B/D rate) clean, cut 10.9%, salinity 135,000-147,000 ppm(t), pH 5.0, 3/4" bean, gravity 42° API, gas rate nil.

AUG 15 1956

X			

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office **Salt Lake City, Utah**

Lease No. **071403 A**

Unit **Bluff**

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 RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING 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 Casing and Well Completion	X

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

October 31, 1956

Well No. **Bluff Unit 3** is located **605** ft. from **[N]** line and **760** ft. from **[W]** line of sec. **4**

14 (1/4 Sec. and Sec. No.) **405** (Twp.) **23E** (Range) **S18W** (Meridian)

Wildcat (Field) **San Juan** (County or Subdivision) **Utah** (State or Territory)

The elevation of the **Kelly Dushing** ~~surface~~ **floor** above sea level is **4757** 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)

- 7-23-56 to 8-6-56 Previously reported on August 13, 1956.
- 8-7-56 to 8-20-56 Production tested well, production decreased from 60 B/D (flowing) to 26 B/D, cut 3.5 to 14 water.
- 8-21-56 Pulled tubing.
- 8-22-56 Waited on acid trucks.
- 8-23-56 Acid Treatment #4 (interval 5600-5609 and 5615-5635) injected 300 bbl. crude oil at 18 bbl./min. with 0 psi followed by 115 bbl. crude oil at 30 bbl./min. with 4500 psi. Injected 9000 gal. acid retrofree mixed with 1 1/2 gal. sand at 4500 psi, average

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

Company **Shell Oil Company**

Address **33 Richards Street**

Salt Lake City, Utah

By **B. W. Shepard**

Title **Exploitation Engineer**

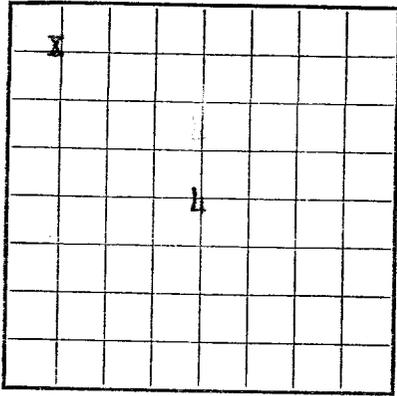
injection rate 3.2 bbl./min. Flushed with 260 bbl. crude oil. Overall treating rate 3.2 bbl./min. Overall flush rate 2.9 bbl./min. Minimum and initial flush rate 1.3 bbl./min. Maximum and final flush rate 6.0 bbl./min. Total load used 765 bbl. crude oil and 215 bbl. water.

- 8-24-56 to 8-26-56 Opened well, located paraffin with swab at 3500, cleaned out. Swabbed 107 bbl. oil and water, stuck swab.
- 8-27-56 to Pulled tubing, located fracture sand at 5600'.
- 8-28-56 to 9-6-56 Waited on Cavins bailer and bailed to bottom.
- 9-7-56 to 9-20-56 Swabbed a total of 1036 bbl. oil and 35 bbl. acid water.
- 9-21-56 to 9-23-56 Set aluminum bridge plug at 5582', dump bailed 1 1/2 sacks cement on plug. Perforated four 1/2" jet holes/ft. interval 5470-5495. Treated formation with 2000 gal. 12% acid. Maximum pressure 5300 psi broke to 4300 psi when acid entered formation. Injection rate 4.3 bbl./min. Displaced acid with 25 bbl. oil. Final pressure 3700 psi. Shut in. Opened well after 50 min. (1700 psi) flowed by heads for forty hours 19% B/D rate decreasing to 57 B/D rate, cut 4-46%.
- 9-24-56 to 9-25-56 Swabbed 3 1/2 hours, recovered 119 bbl. gross, cut 20-37% (watery rotary mud).
- 9-26-56 to 10-1-56 Strung in sinker bar, found fill in casing at 5483. Bailed fluid (mud and formation cuttings). Ran tubing, swabbed 28 hrs., recovered 96 bbl. gross, cut 50% muddy water. Pulled tubing.
- 10-2-56 Set bridge plug at 5427, shot four 1/2" bullet holes at 5420, set retainer at 5412. Ran tubing. Attempted formation break down with 6500 psi, bled to 3500 psi in 30 minutes, no break down. Pressured up to 6000 psi, no break down.
- 10-4-56 to 10-11-56 Drilled and pushed retainer and plug to 5574.
- 10-12-56 to 10-15-56 Attempted to acidize, valves and packer leaked. Reran new packer and injected 4500 gal. petrofrac, no break down, pump injection pressure (final) 3100 psi. Injected 200 gal. fix-a-frac to 4500', waited 15 minutes, displaced fix-a-frac into formation. Injected 4500 gal. petrofrac, pump pressure (final) 4200 psi. Average injection rate 5 gal./min. Displaced with 170 bbl. crude oil.
- 10-16-56 to 10-23-56 Opened well and started flowing, average 480 B/D rate. Initial Rate, Upper Herosona Zone, 5470-5495 (after recovery of load oil) flowing 168 B/D gross, 138 B/D clean, cut 18%, 32/64" been, TP 40 psi, gravity 38.1° API. Final Swab Test, Paradox Zone, 5600-5609 and 5615-5635. Swabbed 114 B/D gross, 135 B/D oil, cut 6%, fluid level 5000'. Gravity 40.7° API.

OFFICIALLY COMPLETED 10-18-56.

MID WIR

U. S. LAND OFFICE Salt Lake City,
SERIAL NUMBER 071403-A
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 33 Richards Street, Salt Lake City, Utah
Lessor or Tract Federal Land Field Bluff Area State Utah
Well No. Unit 3 Sec. 4 T. 40S R. 23E Meridian S. L. B. M. County San Juan
Location 605 ft. {N.} of N. Line and 760 ft. {E.} of W. Line of Section 4 Elevation 4757 K.F.
(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.

Signed B. W. Shepard
Title Exploitation Engineer

Date November 14, 1956

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

Commenced drilling May 17, 1956 Finished drilling July 18, 1956

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5600 to 5635 No. 4, from _____ to _____
No. 2, from 5470 to 5495 No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from none noted 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—	
<u>9 5/8"</u>	<u>36</u>	<u>8</u>	<u>---</u>	<u>515</u>	<u>Baker</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>Surface Production</u>
<u>5 1/2"</u>	<u>17</u>	<u>8</u>	<u>---</u>	<u>5703</u>	<u>Baker</u>	<u>---</u>	<u>5600</u>	<u>5609</u>	
							<u>5615</u>	<u>5635</u>	
							<u>5470</u>	<u>5495</u>	

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>9 5/8"</u>	<u>515</u>	<u>200</u>	<u>displacement</u>	<u>---</u>	<u>---</u>
<u>5 1/2"</u>	<u>5703</u>	<u>200</u>	<u>displacement</u>	<u>---</u>	<u>---</u>

PLUGS AND ADAPTERS

Heaving plug—Material Cement Length --- Depth set 5650
Adapters—Material _____ Size _____

FOLD MARK

NOV 20 1955

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
5500	5700	200	Paradox Member
5700	6480?	780	Salt
6480?	6590	110	Lower Hermosa
6590	6730	140	Molas
6730	6900	170	Leadville
6900			Miss. Dolomite

FROM— TO— LOCAL AREA FORMATION

FORMATION RECORD

Blank section for handwritten notes and data.

LOGS USED

SHOULDER RECORD

I			

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City, Utah

Lease No. BL 071103A

Unit Bluff

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 RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF RE-DRILLING 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>Remove Bridge Plug</u>	<u>X</u>		

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

..... September 12, 1958

Bluff Unit
Well No. 3 is located 605 ft. from {N} line and 760 ft. from {E} line of sec. 4

NW 4
(¼ Sec. and Sec. No.)

108
(Twp.)

23E
(Range)

SLJM
(Meridian)

Bluff
(Field)

San Juan
(County or Subdivision)

Utah
(State or Territory)

The elevation of the Kelly Bushing above sea level is 4757 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)

Current Status: Pumped off-no fluid entry from above bridge plug.
Total Depth-7156' cement plug 5650', bridge plug 5502'.
Casing-5 1/2" @ 5703'
Perforations: 5470-95' (Bluff Zone), 5600-5809, 5615-35' (Desert Creek Zone)

Proposed Work:

1. Pull rods and tubing
2. Drill out bridge plug at 5502'.
3. Clean out to 5650'. Run rods and pump, 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 705 West Municipal Drive

Farmington, New Mexico

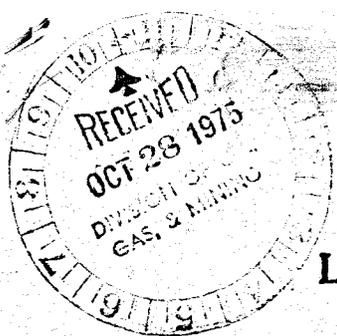
By Original signed by
E. W. SHEPARD

Title E. W. Shepard
Exploitation Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form approved.
Budget Bureau No. 42-R355.5.

LAND OFFICE
LEASE NUMBER SL 071403-A
UNIT



LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County San Juan Field BLUFF

The following is a correct report of operations and production (including drilling and producing wells) for the month of September, 1975, Hickman

Agent's address 1860 Lincoln Street Company CONSOLIDATED OIL & GAS, INC.

Denver, Colorado 80203 Signed Rosalind Bergano

Phone (303) 255-1751 Agent's title Asst. Production Accountant

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)	
Sec. 5 SE SW	40S	23E	24-5	30	300	40.4	880	0	0	P	
Sec. 5 SE SE	40S	23E	44-5	30	375	40.4	588	0	0	P	
Sec. 4 NW NW	40S	23E	3	30	300	40.4	535	0	0	P	
Sec. 4 NW SE	40S	23E	33	0	0	--	0	--	0	TA	
TOTALS					<u>975</u>		<u>2,003</u>		<u>0</u>		
GAS: (MCF)		OIL or CONDENSATE: (Barrels)		WATER: (Barrels)							
Sold		2,003		Sold		1,332		Disposition			—
Vented/Flared		0		Used		0		Pit			0
Used On Lease		0		Unavoidably Lost		0		Injected			0
Lost		0		Reason		—		Other			0
Reason		—									

NOTE.—There were 1,331.93 runs or sales of oil; 2,003 M cu. ft. of gas sold; runs or sales of gasoline during the month. (Write "no" where applicable.)

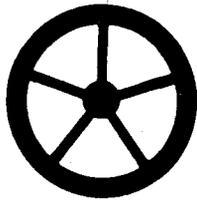
NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

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FEB - 3 1986

DIVISION OF OIL
GAS & MININGCONSOLIDATED OIL & GAS, INC. - SAN JUAN COUNTY, UTAH WELLS

<u>WELL NAME</u>	<u>LOCATION</u>	<u>COUNTY</u>	<u>LEASE NO.</u>
AKAH 1	NE/4 33-42S-22E	SJ	14-20-603-236
BLUFF 3 <i>WATER WELL</i>	NW/NW/4 4-40S-23E	SJ	SL 071403A
BLUFF 13-4	"	SJ	"
BLUFF 24-5	"	SJ	"
BLUFF 42-5	"	SJ	"
BLUFF 44-5	"	SJ	"
DESERT CREEK 2	SE/4 35-41S-23E	SJ	14-20-603-248
RECAPTURE CREEK 1	SE/SW/4 21-40S-23E	SJ	U 01890
RECAPTURE CREEK 2	SW/4 21-40S-23E	SJ	"
RECAPTURE CREEK 3	SE/4 21-40S-23E	SJ	"
TOHONADLA 1	SE/4 35-41S-21E	SJ	14-20-603-229
TOHONADLA 23-35	SW/4 35-41S-21E	SJ	"
TOHONADLA 32-35	NE/4 35-41S-21E	SJ	"
TOHONADLA 36-1	SW/4 36-41S-21E	SJ	"
TOHONADLA 41-25	NE/4 25-41S-21E	SJ	"
TOHONADLA 41-35	NE/4 35 41S-21E	SJ	"
TOHONADLA 43-35	SE/4 35-41S-21E	SJ	"
TOHONADLA TRACT 23-1	NE/4 02-42S-21E	SJ	14-20-603-270



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FEB - 3 1986

DIVISION OF OIL
GAS & MINING

Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

January 29, 1986

State of Utah
Division of Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, Utah

RE: Name Change of Principal
from Consolidated Oil & Gas, Inc.
to Columbus Energy Corporation

Gentlemen:

Consolidated Oil & Gas, Inc. requests a name change of principal to Columbus Energy Corporation. This name change will include all Federal, Indian, State and Fee wells operated by Consolidated Oil & Gas, Inc. in Utah. The attached list contains well names, lease numbers and locations for all Federal and Indian leases operated in Utah.

Well signs have been changed to Columbus Energy Corp. and the required oil & gas bonds have been filed.

Please contact our Farmington office if you need any additional information.

Thank you,

Dale Richardson
Dale Richardson

Production & Drilling Sup't.

Attach.

NOTICE OF TRANSFER OF OWNERSHIP

Present operator: CONSOLIDATED OIL & GAS, INC. Telephone: (505)632-8056

Address: P.O. BOX 2038

City: FARMINGTON State: N.M. Zip: 87499

Well no.: 3 Field or Unit name: BLUFF

Sec.: 4 Twp.: 40S Rng.: 20E County: San Juan Lease no. SL 071403A

Effective date of transfer: December 1, 1985

[Handwritten Signature]

Signature of present operator

April 7, 1986

Date

New operator: COLUMBUS ENERGY CORPORATION

Address: P.O. BOX 2038

City: FARMINGTON State: N.M. Zip: 87499

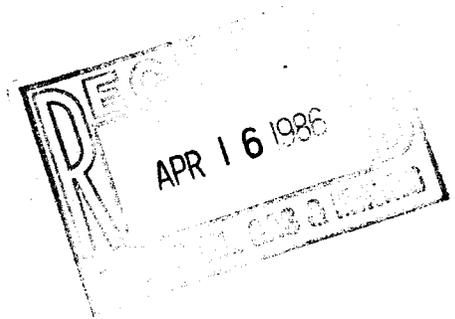
[Handwritten Signature]

Signature of new operator

April 7, 1986

Date

(This space for DOGM approval)



Approved by: _____ Title: _____ Date: _____

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

3. LEASE DESIGNATION & SERIAL NO.
*

INDIAN ALLOTTEE OR TRIBE NAME

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.)

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SEP 24 1990

1. OIL WELL GAS WELL OTHER

4. UNIT AGREEMENT NAME
1990

2. NAME OF OPERATOR
Columbus Energy Corp.

5. FARM OR LEASE NAME
*

3. ADDRESS OF OPERATOR
1860 Lincoln Street, Suite 1100, Denver, CO 80295

6. WELL NO.
*

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

10. FIELD AND POOL, OR WILDCAT
*

*See attached exhibit

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

14. API NO.

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

12. COUNTY

13. STATE

San Juan

Utah

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF PULL OR ALTER CASING
FRACTURE TREAT MULTIPLE COMPLETE
SHOOT OR ACIDIZE ABANDON
REPAIR WELL CHANGE PLANS
(Other)

WATER SHUT-OFF REPAIRING WELL
FRACTURE TREATMENT ALTERING CASING
SHOOTING OR ACIDIZING ABANDONMENT*
(Other) _____
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

To resign as operator

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.)

9/21/90

* Must be accompanied by a cement verification report.

Gentlemen:

Effective 12:01 A.M. October 1, 1990, Columbus Energy Corp. will resign as operator of the wells listed on the attached Exhibit. Sterling Energy Corporation, the record title owner, will become the successor operator.

OIL AND GAS	
DN	RJF
JH	GH
PS	SLS
MICROFILM	
FILE	

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

SIGNED Gary M. Ahlfenger TITLE Land Manager

DATE 9/21/90

(This space for Federal or State office use)

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

See Instructions On Reverse Side

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

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DESTINATION & 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.)

DIVISION OF INDIAN, ALLOTTEE OR TRIBE NAME
OIL, GAS & MINING *

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR Sterling Energy Corporation		8. FARM OR LEASE NAME	
3. ADDRESS OF OPERATOR 1801 Broadway, Suite 600, Denver, CO 80202		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	
*See attached exhibit		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

18. 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"/>
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)			

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)			

Change of Operator

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

New Operator

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.)

9/21/90

* Must be accompanied by a cement verification report.

Gentlemen:

Effective October 1, 1990, Sterling Energy Corporation will become operator of the wells listed on the attached schedule. Columbus Energy Corp. is the current operator of record. Sterling has been record title owner since August of 1989.

OIL AND GAS	
DFN	RJF
JFB	GLH
DIS	SLS
<i>lib</i> <i>1-1-ER</i>	
MICROFILM	
FILE	

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

SIGNED Jerry D. Smothermon TITLE Engineer DATE 9/21/90 ✓

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

Exhibit to Sundry Notice
 State of Utah
 Sterling Energy Corporation
 (owner of record)

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 SEP 24 1990

Well Name =====	1/4/14 =====	Sec. =====	Twn. =====	Rge. =====	Field =====	County	State
Bluff(Unit)##3*	NWNW	4	40S	23E	Bluff 43-037-15864	San Juan	Utah
Bluff(Unit)##24-5	SESW	5	40S	23E	Bluff 43-037-15865	San Juan	Utah
Bluff(Unit)##44-5	SESE	5	40S	23E	Bluff 43-037-15867	San Juan	Utah
Bluff # 42-5	SENE	5	40S	23E	Bluff 43-037-30866	San Juan	Utah
Bluff # 13-4	NWSW	4	40S	23E	Bluff 43-037-30726	San Juan	Utah
Desert Creek # 2	SESE	35	41S	23E	Desert Ck.	San Juan	Utah
Recapture Creek # 1	SESW	21	40S	23E	Recapture Ck.	San Juan	Utah
Recapture Creek # 2	NWSW	21	40S	23E	Recapture Ck.	San Juan	Utah
Recapture Creek # 3	NWSE	21	40S	23E	Recapture Ck.	San Juan	Utah
Tohonadla # 1	SWSE	35	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 41-25	NENE	25	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 23-35	NESW	35	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 36-1	SWSW	36	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 41-35	NENE	35	41S	21E	Tohonadla	San Juan	Utah
Navajo Tr. #23-1	NENE	2	42S	21E	Tohonadla	San Juan	Utah

Desert Creek #2 — 43-037-15868

Recapture Creek #1 - 43-037-15871

Recapture Creek #2 - 43-037-20727

Recapture Creek #3 - 43-037-30926

Tohonadla #1 — 42-037-15872

Tohonadla #41-25 - 43-037-15876

Tohonadla #22-25 - 43-037-15874

Tohonadla #36-1 — 43-037-30854

Tohonadla #41-35 - 43-037-15877

Navajo Tr. #23-1 — 43-037-15540

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SEP 24 1990

DESIGNATION OF AGENT OR OPERATOR - FORM 5

The undersigned is, on record, the holder of oil and gas lease

LEASE NAME: See attached exhibit

LEASE NUMBER: See attached exhibit

and hereby designates

NAME: Trinity Petroleum Management, Inc.

ADDRESS: 1801 Broadway, Suite 600, Denver, CO 80202

as his agent/operator, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing compliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah with respect to (describe acreage to which this designation is applicable):

See attached exhibit

** 901205 per "Sub-Operating Agreement" for the bluff unit, Sterling Energy has to do the reporting for these wells, and cannot designate Trinity Petro. as Agent to report for them. JCB*

OIL AND GAS	
DFN	RJF
JFB	GIH
DIS	SLS
<i>JCB</i>	
1-CCR	
MICROFILM	
FILE	

It is understood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

The lessee agrees promptly to notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation 10/1/90 By: *J. Samuel Butler*
 Company Sterling Energy Corporation Title: President (signature) J. Samuel Butler
 Address 1801 Broadway, Suite 600
Denver, CO 80202 Phone: 303-296-1908

Exhibit to Sundry Notice
 State of Utah
 Sterling Energy Corporation
 (owner of record)

RECEIVED

SEP 24 1990

Well Name	1/4/14	Sec.	Twn.	Rge.	Field	County	State
=====	=====	=====	=====	=====	=====	=====	=====
Bluff(Unit) # 3	NWNW	4	40S	23E	Bluff 43-037-15864	San Juan	Utah
Bluff(Unit) # 24-5	SESW	5	40S	23E	Bluff 43-037-15865	San Juan	Utah
Bluff(Unit) # 44-5	SESE	5	40S	23E	Bluff 43-037-15867	San Juan	Utah
Bluff # 42-5	SENE	5	40S	23E	Bluff 43-037-30866	San Juan	Utah
Bluff # 13-4	NWSW	4	40S	23E	Bluff 43-037-30726	San Juan	Utah
Desert Creek # 2	SESE	35	41S	23E	Desert Ck.	San Juan	Utah
Recapture Creek # 1	SESW	21	40S	23E	Recapture Ck.	San Juan	Utah
Recapture Creek # 2	NWSW	21	40S	23E	Recapture Ck.	San Juan	Utah
Recapture Creek # 3	NWSE	21	40S	23E	Recapture Ck.	San Juan	Utah
Tohonadla # 1	SWSE	35	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 41-25	NENE	25	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 23-35	NESW	35	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 36-1	SWSW	36	41S	21E	Tohonadla	San Juan	Utah
Tohonadla # 41-35	NENE	35	41S	21E	Tohonadla	San Juan	Utah
Navajo Tr. #23-1	NENE	2	42S	21E	Tohonadla	San Juan	Utah

DIVISION OF
 OIL, GAS & MINING

Desert Creek #2 — 43-037-15868
 Recapture Creek #1 — 43-037-15871
 Recapture Creek #2 — 43-037-30727
 Recapture Creek #3 — 43-037-30926
 Tohonadla #1 — 43-037-15872
 Tohonadla #41-25 — 43-037-15876
 Tohonadla #23-35 — 43-037-15874
 Tohonadla #36-1 — 43-037-30854
 Tohonadla #41-35 — 43-037-15877
 Navajo Tr. #23-1 — 43-037-15540

Routing:

1- LCR	<input checked="" type="checkbox"/>
2- DTS	<input checked="" type="checkbox"/>
3- VLC	<input checked="" type="checkbox"/>
4- RJF	<input checked="" type="checkbox"/>
5- RWM	<input checked="" type="checkbox"/>
6- LCR	<input checked="" type="checkbox"/>

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: 10-1-90)

TO (new operator)	<u>STERLING ENERGY CORPORATION</u>	FROM (former operator)	<u>COLUMBUS ENERGY CORP.</u>
(address)	<u>1801 BROADWAY, SUITE 600</u>	(address)	<u>1860 LINCOLN ST., #1100</u>
	<u>DENVER, CO 80202</u>		<u>DENVER, CO 80295</u>
	<u>phone (303) 296-1908</u>		<u>phone (303) 861-5252</u>
	<u>account no. N 5945</u>		<u>account no. N0255</u>

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

Name: <u>BLUFF #42-5/DSCR</u>	API: <u>4303730866</u>	Entity: <u>6245</u>	Sec <u>5</u>	Twp <u>40S</u>	Rng <u>23E</u>	Lease Type: <u>U0714003</u>
Name: <u>BLUFF #3/DSCR</u>	API: <u>4303715864</u>	Entity: <u>6250</u>	Sec <u>4</u>	Twp <u>40S</u>	Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>BLUFF #24-5/PRDX</u>	API: <u>4303715865</u>	Entity: <u>6250</u>	Sec <u>5</u>	Twp <u>40S</u>	Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>BLUFF #44-5/PRDX</u>	API: <u>4303715867</u>	Entity: <u>6250</u>	Sec <u>5</u>	Twp <u>40S</u>	Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>BLUFF #13-4/DSCR</u>	API: <u>4303730726</u>	Entity: <u>6250</u>	Sec <u>4</u>	Twp <u>40S</u>	Rng <u>23E</u>	Lease Type: <u>"</u>
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____

OPERATOR CHANGE DOCUMENTATION

- See 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form).
- See 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form).
- See 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 yes If yes, show company file number: # 141334 (10-1-90)
- See 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.
- See 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (12-17-90)
- See 6. Cardex file has been updated for each well listed above.
- See 7. Well file labels have been updated for each well listed above.
- See 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission.
- See 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) yes (If entity assignments were changed, attach copies of Form 5, 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) _____. Today's date _____ 19____. 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 _____ 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.
- 2. Copies of documents have been sent to State Lands for changes involving State leases.

INDEXING

- 1. All attachments to this form have been microfilmed. Date: December 19 1990.

INDEXING

- 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.

REMARKS

901205 Btm/moab Approved eff. 10-1-90. "See Sub-Operating Agreement - Bluff Unit"

November 25, 1990

Sterling Energy Corp
1801 Broadway, Suite 600
Denver, Colorado 80202

Re: ~~Sub-Operating Agreement, Bluff Unit,~~
Hermosa PA, San Juan County, Utah
8920007820

~~-----~~
~~-----~~
~~-----~~
~~-----~~
~~-----~~
Gentlemen:

We have received a copy of "Sub-Operating Agreement" executed by Dugan Production Corporation, unit operator of the Bluff Unit Agreement, San Juan County, Utah, and by Sterling Energy Corp., dated October 1, 1990. ~~The agreement makes Sterling Energy Corp. the sub-operator as to the Desert Creek Formation for the lands described therein.~~

Inasmuch as it appears that operations conducted under the terms of this sub-operating agreement will be conducted subject to the terms of the Bluff Unit and unit operating agreements, the sub-operating agreement is accepted for the record and is being distributed to the appropriate Federal offices. However, it is expressly understood and agreed that nothing in the sub-operating agreement shall be construed or shall operate to relieve Dugan Production as unit operator from its obligations and responsibilities under the Bluff Unit Agreement. To the extent that the "Sub-Operating Agreement" is inconsistent with terms and conditions of the Bluff Unit Agreement, such terms and conditions of said unit agreement shall prevail.

The sub-operating agreement shall remain in effect so long as the sub-operating zone remains part of the unit area or it is terminated in accordance with Section 9 of the said agreement. In such case, it is expressly understood that the agreement is effective until notification of its termination is received by this office.

Pursuant to regulations issued and effective June 17, 1988, all operations within the "sub-operating zone" will be covered by your nationwide oil and gas bond No. 000944.

Sincerely,

(Orig. Sgd.) R. A. Henricks

Robert A. Henricks
Chief, Branch of Fluid Minerals

Enclosure

cc: Dugan Production Corp. w/enclosure

~~bcc: M. Neab. w/enclosure~~
Bluff Unit File w/enclosure
Agr. Sec. Chron.
Fluid Chron

MCoulthard:jw:11/23/90
0128V

cc: SJR
AKS

Howe 11/23/90

OPERATOR STERLING ENERGY CORPORATION

OPERATOR ACCT. NO. N 5945

ADDRESS 1801 BROADWAY, SUITE 600

DENVER, CO 80202

(303)296-1908

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	6245	11146	43-037-30866	BLUFF #42-5	SENE	5	40S	23E	SAN JUAN	8-11-83	10-1-90
WELL 1 COMMENTS: **OPERATOR CHANGE FROM COLUMBUS ENERGY CORP. **BLUFF UNIT/HRMS PA (PER UIC/DAN DSCR IS A MEMBER OF THE PRDX PZ, AND THE PRDX PZ IS A MEMBER OF THE HERMOSA GROUP)											
D	6250	11146	43-037-15864	BLUFF #3	NWNW	4	40S	23E	SAN JUAN	5-17-56	10-1-90
WELL 2 COMMENTS:											
D	6250	11146	43-037-15865	BLUFF #24-5	SESW	5	40S	23E	SAN JUAN	12-27-57	10-1-90
WELL 3 COMMENTS:											
D	6250	11146	43-037-15867	BLUFF #44-5	SESE	5	40S	23E	SAN JUAN	5-30-59	10-1-90
WELL 4 COMMENTS:											
D	6250	11146	43-037-30726	BLUFF #13-4	NWSW	4	40S	23E	SAN JUAN	8-14-82	10-1-90
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

L. ROMERO (DOGM)

Signature

ADMIN. ANALYST

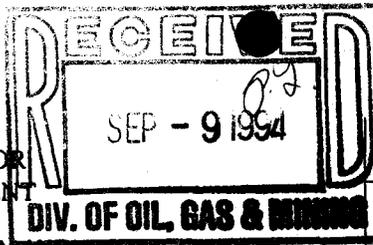
12-17-90

Title

Date

Phone No. ()

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



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

5. Lease Designation and Serial No.

892000 7820

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

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

Sterling Energy Corporation

3. Address and Telephone No.

1801 Broadway, Suite 600, Denver, CO 80202 (303) 296-1908

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

NW NW, (605' FNL x 760' FWL) Sec. 4, T40S, R23E

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
Bluff Unit 3

9. API Well No.
43-037-15864

10. Field and Pool, or Exploratory Area

11. Country or Parish, State

San Juan, Utah

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" 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 type="checkbox"/> Other _____
	<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.)*

1. Pull sucker rods and pump.
2. Establish injection rate down tubing.
3. Free-point tubing and determine stuck point.
4. Cut tubing just above stuck point and pull out of hole with free tubing. (+2500')
5. Run in hole with a cement retainer on tubing and set it just above cut of tubing stub. Pressure test retainer and casing to 500 psi.
6. Pump 100 sacks Class "G" cement down tubing to cover and squeeze perforations. Pull out of retainer with 95 sacks cement through retainer and spot 5 sacks of cement on top of retainer. If a squeeze takes place, pull out of retainer and reverse out excess cement.
7. Spot a 35 sack cement plug from 670' to 355'. (Surface casing shoe at 515')
8. Spot a 10 sack cement surface plug. (0' to 90')
9. Pump 115 sacks cement down 9-5/8" x 5-1/2" annulus.
10. Cut of well head and restore surface area in accordance with BLM specifications.

Note: Wellbore schematics of current and plugged configurations are attached.

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

Signed

Richard A. Ferris

Title

Chief Operations Engineer

Date

9/7/94

(This space for Federal or State office use)

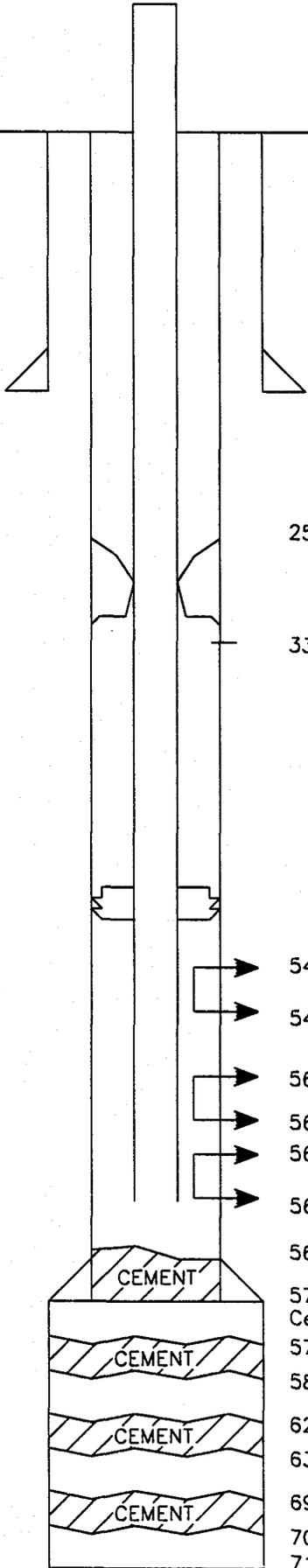
Approved by _____

Title _____

Date _____

Conditions of approval, if any:

ELEVATIONS: 4746' GL
4755' KB



515' - 9-5/8" 36# J-55 Cemented with 200 sacks.

2500' - Suspected casing problem - Tubing Stuck

3341' - Calculated top of primary cement

TUBING DETAIL:

KB	11'	
174 Jts 2-3/8" 4.7# J-55 tubing	5411'	11'
Anchor-Catcher	3'	5422'
5 Jts Tubing	156'	5425'
Seating Nipple	1'	5581'
1 Perforated Sub	3'	5582'
1 Mud Anchor Jt. (bull plugged)	31'	<u>5585</u>
		Tubing Landed at 5616'

5470' Lower Ismay

5495'

5600' Desert Creek

5609'

5615'

Desert Creek

5635'

5650' PBD

5703' 5-1/2" 17# J Cemented with 200 sx.

5735' 25 SACKS

5800'

6200' 30 SACKS

6300'

6900' 50 SACKS

7080'

7156' TD

(CURRENT)

Well Bore Schematic

STERLING ENERGY CORPORATION

Well BLUFF UNIT NO. 3

Lease No. UNIT NO. 892000 7820

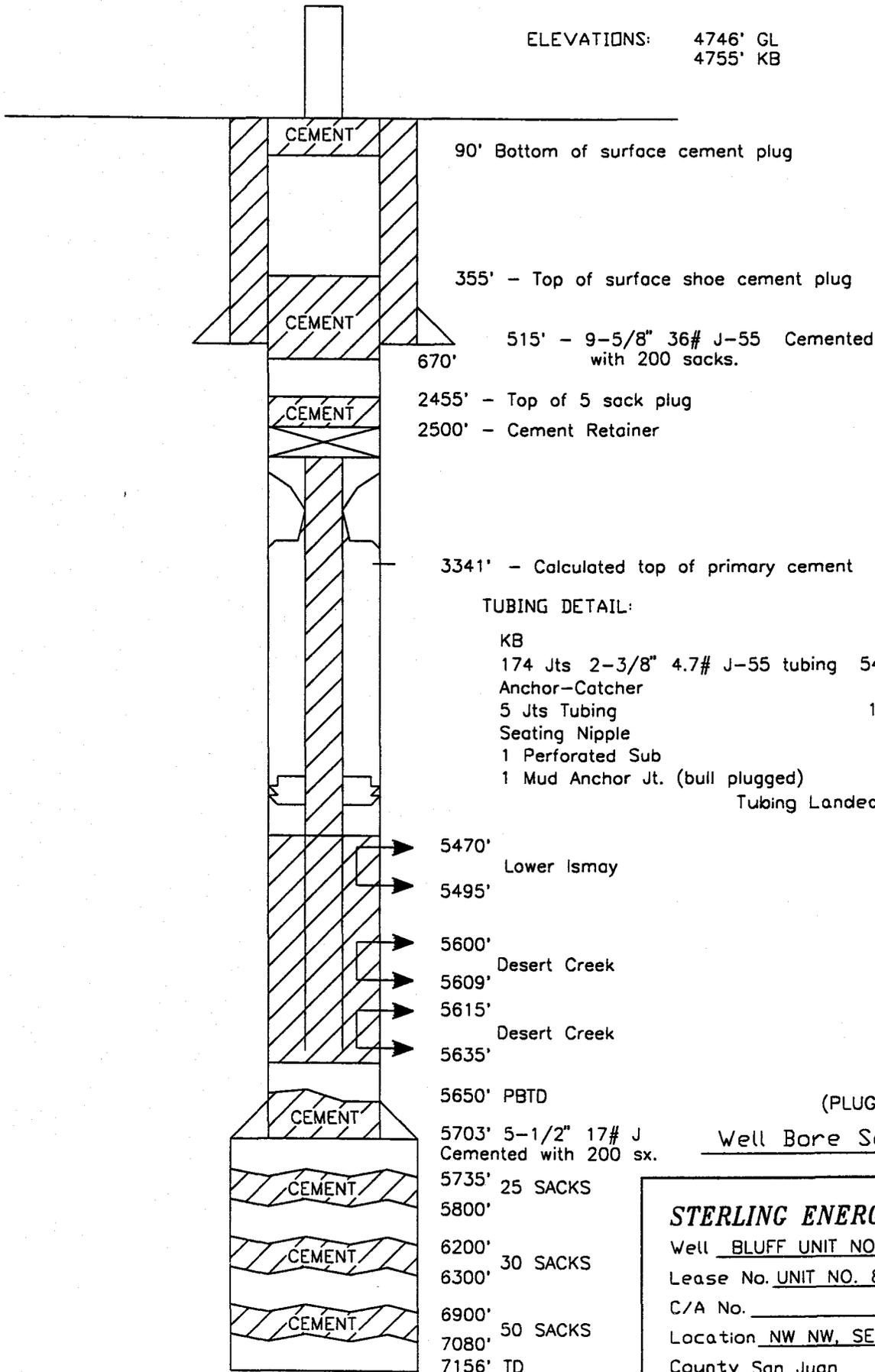
C/A No. _____

Location NW NW, SEC. 4, T40S, R23E

County San Juan State Utah

bluff3.dwg raf 9-2-94

ELEVATIONS: 4746' GL
4755' KB



90' Bottom of surface cement plug

355' - Top of surface shoe cement plug

670' 515' - 9-5/8" 36# J-55 Cemented with 200 sacks.

2455' - Top of 5 sack plug

2500' - Cement Retainer

3341' - Calculated top of primary cement

TUBING DETAIL:

KB	11'	
174 Jts 2-3/8" 4.7# J-55 tubing	5411'	11'
Anchor-Catcher	3'	5422'
5 Jts Tubing	156'	5425'
Seating Nipple	1'	5581'
1 Perforated Sub	3'	5582'
1 Mud Anchor Jt. (bull plugged)	31'	5585'
		Tubing Landed at 5616'

5470' Lower Ismay

5495'

5600' Desert Creek

5609'

5615' Desert Creek

5635'

5650' PBD

(PLUGGED)

5703' 5-1/2" 17# J Cemented with 200 sx.

Well Bore Schematic

5735' 25 SACKS

5800'

6200' 30 SACKS

6300'

6900' 50 SACKS

7080'

7156' TD

STERLING ENERGY CORPORATION

Well BLUFF UNIT NO. 3

Lease No. UNIT NO. 892000 7820

C/A No. _____

Location NW NW, SEC. 4, T40S, R23E

County San Juan State Utah

bluff3pa.dwg raf 9-2-94

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

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

STERLING ENERGY CORP
 1801 BROADWAY STE 600
 DENVER CO 80202

UTAH ACCOUNT NUMBER: N5945

REPORT PERIOD (MONTH/YEAR): 10 / 94

AMENDED REPORT (Highlight Changes)

Well Name API Number Entity Location	Producing Zone	Well Status	Days Oper	Production Volumes		
				OIL(BBL)	GAS(MCF)	WATER(BBL)
RECAPTURE CREEK 1 4303715871 06265 40S 23E 21	IS-DC			U-01890	Recapture Creek Unit	
BLUFF #3 4303715864 11146 40S 23E 4	DSCR			SL071403A	Bluff Unit	
BLUFF #24-5 4303715865 11146 40S 23E 5	PRDX			"	"	
BLUFF 44-5 4303715867 11146 40S 23E 5	PRDX			"	"	
BLUFF #13-4 4303730726 11146 40S 23E 4	DSCR			"	"	
BLUFF #42-5 4303730866 11146 40S 23E 5	DSCR			"	"	
Recapture Creek 2 43-037-30727 06255 40S 23E 21	IS-DC			U-01890	Non-Unit Well	
Recapture Creek 3 43-037-30926 08450 40S 23E 21	DSCR			U-01890	Non-Unit Well	
TOTALS						

COMMENTS: _____

I hereby certify that this report is true and complete to the best of my knowledge. Date: _____
 Name and Signature: _____ Telephone Number: _____

Basin Operating Company

370 17th Street, Suite 1800

Denver, CO 80202

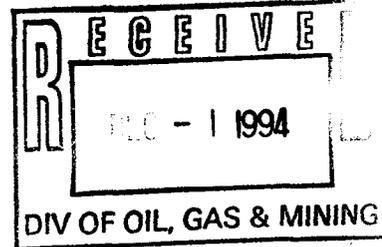
Office 303/685-8000

Fax 303/685-8010



November 30, 1994

Ms. Lisha Cordova
State of Utah Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203



Re: **Sterling Energy Corporation Merger
and Change of Name**

Dear Ms. Cordova:

On November 22, 1994, Basin Energy, Inc., a Colorado corporation, merged into Sterling Energy Corporation, a Colorado corporation, and became Basin Sterling, Inc., a wholly owned subsidiary of Basin Exploration, Inc. Immediately thereafter, Basin Sterling, Inc. merged into its parent corporation, Basin Exploration, Inc., a Delaware corporation.

Sterling Energy Corporation is now, for all purposes, Basin Exploration, Inc. Attached are copies of Certificates of Merger from the states of Colorado and Delaware, evidencing the corporate mergers described above.

The address of Basin Exploration, Inc. is 370 17th Street, Suite 1800, Denver, Colorado. Please change all Sterling Energy Corporation records to reflect the new name and address.

Basin Operating Company (the wholly owned operating subsidiary of Basin Exploration, Inc.) will, by operation of law, become the operator of the properties on December 1, 1994. Sundry notices (Form 9) and exhibits for the properties are enclosed.

Please contact me if you have any additional questions regarding this merger.

Yours very truly,

BASIN OPERATING COMPANY


Judi Roys
Production

Enclosure

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"BASIN STERLING, INC.", A COLORADO CORPORATION, WITH AND INTO "BASIN EXPLORATION, INC." UNDER THE NAME OF "BASIN EXPLORATION, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, WAS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-SECOND DAY OF NOVEMBER, A.D. 1994, AT 4:30 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CORPORATION SHALL BE GOVERNED BY THE LAWS OF THE STATE OF DELAWARE.



Edward J. Freel

Edward J. Freel, Secretary of State

2289801 8330

944226741

AUTHENTICATION:

7312955

DATE:

11-23-94

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

7. Unit Agreement Name:

1. Type of Well: OIL GAS OTHER:

8. Well Name and Number:

2. Name of Operator: **BASIN OPERATING COMPANY**

9. API Well Number:

3. Address and Telephone Number: **370 17TH STREET, SUITE 1800, DENVER, CO 80202
(303) 685-8500**

10. Field and Pool, or Wildcat:

4. Location of Well

Footages: **SEE ATTACHED**

County: **SAN JUAN**

OO, Sec., T., R., M.:

State: **UTAH**

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

NOTICE OF INTENT
(Submit in Duplicates)

SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandon | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair Casing | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recomplete |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Reperforate |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

- | | |
|---|---|
| <input type="checkbox"/> Abandon | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair Casing | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Reperforate |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other <u>Change name of operator due to corporate merger.</u> | |

Approximate date work will start _____

Date of work completion December 1, 1994
(effective date)

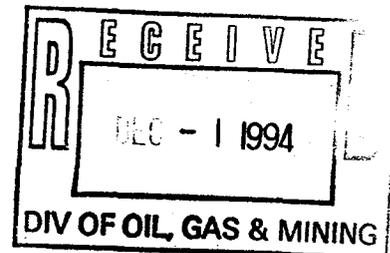
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

FORMER NAME OF OPERATOR:

**Sterling Energy Corporation
% Trinity Petro Mgt Inc.
1801 Broadway, Suite 600
Denver, CO 80202**



13.

Name & Signature: *David M. Blawie*

Title: V.P. & CHIEF OPERATING OFFICER 11/30/94

(This space for State use only)

ARTICLES OF MERGER FOR THE MERGER OF
BASIN ENERGY, INC.,
a Colorado corporation, into
STERLING ENERGY CORPORATION,
a Colorado corporation

RECEIVED
1994 NOV 22 PM 3:30
SECRETARY OF STATE
STATE OF COLORADO

Pursuant to the provisions of Section 7-111-101 of the Colorado Business Corporation Act, the undersigned corporation has caused an officer to execute these Articles of Merger for the purpose of filing with the Secretary of State of the State of Colorado.

Article I

The "Agreement and Plan of Merger" attached hereto as Exhibit A and incorporated herein by reference has been approved and adopted by the directors and the shareholders of Basin Energy, Inc., a Colorado corporation ("Basin"), in the manner provided by the laws of the State of Colorado and by the directors and the shareholders of Sterling Energy Corporation, a Colorado corporation ("Sterling"), in the manner provided by the laws of the State of Colorado. Sterling is the surviving corporation, however, the name of the surviving entity shall be Basin Sterling, Inc. ("BSI").

Article II

As to Basin, the number of shares cast for the Agreement and Plan of Merger by each voting group entitled to vote separately thereon was sufficient for approval thereof.

As to Sterling, the number of shares cast for the Agreement and Plan of Merger by each voting group entitled to vote separately thereon was sufficient for approval thereof.

Article III

The Merger is to be effective on and as of the date upon which these Articles of Merger are filed with the Secretary of State of the State of Colorado.

Article IV

BSI agrees that it will promptly pay to any dissenting shareholders the amount, if any, to which they may be entitled under the provisions of the Colorado Business Corporation Act with respect to the rights of dissenting shareholders.

Article V

BSI agrees that it may be served with process in any proceeding for the enforcement of any obligation of Basin and in any proceeding for the enforcement of the rights of a dissenting shareholder against BSI.

Such service of process, if any, shall be sent by registered or certified mail to its principal office at:

Basin Sterling, Inc.
c/o Basin Exploration, Inc.
370 Seventeenth Street, Suite 1800
Denver, Colorado 80202

Attention: Howard L. Boigon
Vice President - General
Counsel and Secretary

Executed this 22nd day of November, 1994

STERLING ENERGY CORPORATION,
a Colorado corporation

By 

J. Samuel Butler, President

BASIN ENERGY, INC.,
a Colorado corporation

By 

Michael S. Smith, President

FIELD	WELL NAME	API #	COUNTY	ST	SEC	TWN	RGE	1/4 1/4	LEASE #
-------	-----------	-------	--------	----	-----	-----	-----	---------	---------

(entity#)

✓ BLUFF	BLUFF 13- 4	430373072600	SAN JUAN	UT	4	40S	23E	NWSW	11146 -
✓ BLUFF	BLUFF 24-5	430371586500	SAN JUAN	UT	5	40S	23E	SESW	-
✓ BLUFF	BLUFF 3	430371586400	SAN JUAN	UT	4	40S	23E	NWNW	
✓ BLUFF	BLUFF 42- 5	430373086600	SAN JUAN	UT	5	40S	23E	SENE	-
✓ BLUFF	BLUFF 44-5	430371586700	SAN JUAN	UT	5	40S	23E	SESE	-
DESERT CREEK	DESERT CREEK 2	430371586800	SAN JUAN	UT	35	41S	23E	SESE	06270
✓ RECAP . CREEK	RECAPTURE CREEK 1	430371587100	SAN JUAN	UT	21	40S	23E	SESW	06265 -
✓ RECAP . CREEK	RECAPTURE CREEK 2	430373072700	SAN JUAN	UT	21	40S	23E	NWSW	06255 -
✓ RECAP . CREEK	RECAPTURE CREEK 3	430373092600	SAN JUAN	UT	21	40S	23E	NWSE	08450 -
TOHONADLA	NAVAJO TR #23-1	430371056500	SAN JUAN	UT	2	42S	21E	NENE	06230
TOHONADLA	TOHONADLA 1	430371587200	SAN JUAN	UT	35	41S	21E	SWSE	11202
TOHONADLA	TOHONADLA 1 23-35	430371587400	SAN JUAN	UT	35	41S	21E	SWSE	
TOHONADLA	TOHONADLA 1 41-25	430371587600	SAN JUAN	UT	35	41S	21E	SWSE	
TOHONADLA	TOHONADLA 1 2-35	31568 430371587200	SAN JUAN	UT	35	41S	21E	SWSE	
TOHONADLA	TOHONADLA 1 36-1	30854 430371587200	SAN JUAN	UT	35	41S	21E	SWSE	6/2/00

ARTICLES OF MERGER FOR THE MERGER OF
BASIN STERLING, INC.,
a Colorado corporation, into
BASIN EXPLORATION, INC.,
a Delaware corporation

RECEIVED
1994 NOV 22 PM 3:35
SECRETARY OF STATE
STATE OF COLORADO

Pursuant to the provisions of Sections 7-111-107 and 7-111-104 of the Colorado Business Corporation Act, the undersigned corporation has caused an officer to execute these Articles of Merger for the purpose of filing with the Secretary of State of the State of Colorado.

Article I

The "Plan of Merger" attached hereto as Exhibit A and incorporated herein by reference has been approved and adopted by the directors of Basin Exploration, Inc., a Delaware corporation ("Basin"), in the manner provided by the laws of the states of Delaware and Colorado.

Article II

Basin owns 100% of each class of the issued and outstanding capital stock of BSI.

ARTICLE III

As to BSI, no shareholder approval was required for the merger.

As to Basin, no stockholder approval was required for the merger.

Article IV

The Merger is to be effective on and as of the date upon which these Articles of Merger are filed with the Secretary of State of the State of Colorado.

Article V

Basin agrees that it may be served with process in any proceeding for the enforcement of any obligation of BSI.

Such service of process, if any, shall be sent by registered or certified mail to its principal office at:

Basin Exploration, Inc.
Suite 1800
370 17th Street
Denver, Colorado 80202
Attention: Howard L. Boigon, Vice President -
General Counsel and Secretary

Executed this 22nd day of November, 1994

Basin Exploration, Inc.,
a Delaware corporation

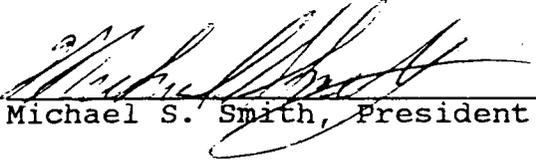
By 
Michael S. Smith, President

Exhibit A
PLAN OF MERGER

THIS PLAN OF MERGER, dated as of November 22, 1994, is to provide for the merger of Basin Sterling, Inc., a Colorado corporation ("BSI"), into Basin Exploration, Inc., a Delaware corporation ("Basin"). BSI and Basin are sometimes hereafter together referred to as the "Constituent Corporations."

WHEREAS, BSI is a corporation duly organized and existing under the laws of the State of Colorado, having an authorized capital stock of 10,000 shares of Common Stock, \$.01 par value (the "BSI Common Stock");

WHEREAS, 1,000 shares of BSI Common Stock are issued and outstanding and owned by Basin, and are the only shares of capital stock of BSI issued and outstanding;

WHEREAS, the board of directors of Basin has determined that it is advisable and in the best interests of such corporations that BSI merge with and into Basin as authorized by the statutes of the states of Colorado and Delaware and upon the terms and subject to the conditions of this Agreement; and

WHEREAS, the board of directors of Basin has, by resolutions duly adopted, approved this Plan and, pursuant to the statutes of the states of Colorado and Delaware, no shareholder or stockholder approval was required.

NOW, THEREFORE, it is resolved as follows:

1. **Merger.** Upon the terms and subject to the conditions set forth in this Plan, BSI shall be merged with and into Basin (the "Merger"), and Basin shall be the surviving corporation (sometimes hereafter referred to as the "Surviving Corporation"). The name of the Surviving Corporation shall be Basin Exploration, Inc. The Merger shall become effective (the "Effective Time") upon the time and date of filing of such documents as required under applicable law.

2. **Governing Documents.** The certificate of incorporation of Basin, as in effect immediately prior to the Effective Time, shall be the certificate of incorporation of the Surviving Corporation without change or amendment until thereafter amended in accordance with applicable law. The bylaws of Basin, as in effect immediately prior to the Effective Time, shall be the bylaws of the Surviving Corporation without change or amendment until thereafter amended in accordance with applicable law. References to "the corporation" in Article 6 of the bylaws of Basin shall include BSI, in addition to Basin, so that any person who was a director or officer of BSI or is or was serving at the request of BSI as a director, employee, or agent

of another corporation, partnership, joint venture, trust, association, or other entity shall stand in the same position under the provisions of said Article 6 with respect to Basin as he would if he had served Basin in the same capacity or is or was so serving such other entity at the request of Basin, as the case may be.

3. **Succession; Officers and Directors.** At the Effective Time, the separate corporate existence of BSI shall cease, and Basin as the Surviving Corporation shall possess all the rights, privileges, powers and franchises of a public and private nature and be subject to all the restrictions, disabilities and duties of BSI; and all rights, privileges, powers and franchises of BSI, and all property, real, personal and mixed, and all debts due to BSI on whatever account, as well as for share subscriptions and all other things in action belonging to BSI, shall be vested in the Surviving Corporation; and all property, rights, privileges, powers and franchises, and all and every other interest shall be thereafter as effectively the property of the Surviving Corporation as they were of BSI, and the title to any real estate vested by deed or otherwise in BSI, shall not revert or be in any way impaired by reason of the Merger; but all rights of creditors and all liens upon any property of BSI shall be preserved unimpaired, and all debts, liabilities and duties of BSI shall thenceforth attach to the Surviving Corporation and may be enforced against it to the same extent as if such debts, liabilities and duties had been incurred or contracted by the Surviving Corporation. All corporate acts, plans, policies, agreements, arrangements, approvals and authorizations of BSI, its shareholders, Board of Directors and committees thereof, officers and agents which were valid and effective immediately prior to the Effective Time, shall be taken for all purposes as the acts, plans, policies, agreements, arrangements, approvals and authorizations of Basin and shall be as effective and binding thereon as the same were with respect to BSI.

At the Effective Time, except as provided elsewhere in this Plan, the officers of Basin shall become the officers of the Surviving Corporation to hold the positions in the Surviving Corporation to which they have been elected as officers of Basin and to serve in accordance with the bylaws of the Surviving Corporation.

At the Effective Time, the following persons shall become and constitute the board of directors, and the members thereof, of the Surviving Corporation until their respective successors shall have been duly elected and qualified, or until their earlier death, resignation or removal: Michael S. Smith, Arthur L. Angeli, David M. Blandford, J. Paul Hellstrom, Melvin O. Glerup, Larry D. Unruh, and Michael A. Nicolais.

4. **Further Assurances.** From time to time, as and when required by Basin, or by its successors and assigns, there

shall be executed and delivered on behalf of BSI such deeds and other instruments, and there shall be taken or caused to be taken by it all such further and other action, as shall be appropriate or necessary in order to vest, perfect or confirm, of record or otherwise, in Basin the title to and possession of all property, interests, assets, rights, privileges, immunities, powers, franchises and authority of BSI, and otherwise to carry out the purposes of this Plan, and the officers and directors of Basin are fully authorized in the name and on behalf of BSI or otherwise, to take any and all such action and to execute and deliver any and all such deeds and other instruments.

5. **Cancellation of Common Stock.** The 1,000 shares of BSI Common Stock presently issued in the name of Basin shall be cancelled and retired and no shares or other security shall be issued in respect thereof.

6. **Amendment.** Subject to applicable law, this Plan may be amended, modified or supplemented by the board of directors of Basin at any time prior to the Effective Time.

7. **Abandonment.** At any time prior to the Effective Time, this Plan may be terminated and the Merger may be abandoned by the board of directors of Basin, if circumstances arise which, in the opinion of the board of directors of Basin, make the Merger inadvisable.

8. **Service of Process.** The Surviving Corporation, from and after the Effective Time, agrees that it may be sued and served with process in the State of Colorado at 370 17th Street, Suite 1800, Denver, Colorado 80202, to the attention of Howard L. Boigon, Vice-President - General Counsel and Secretary, in any proceeding for the enforcement of any obligation of BSI.

9. **Governing Law.** This Plan shall be governed by and construed in accordance with the laws of the State of Delaware.

IN WITNESS WHEREOF, Basin has caused this Plan to be signed by its duly authorized officers as of the date first above written.

ATTEST:

BASIN EXPLORATION, INC., a
Delaware corporation

By Howard L. Boigon
Howard L. Boigon, Secretary

By Michael S. Smith
Michael S. Smith, President

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3100
SL-067691A et al
(UT-923)

MAY 15 1995

NOTICE

Basin Exploration, Inc. : Oil and Gas
370 17th Street, Suite 1800 : SL-067691A et al
Denver, Colorado 80202 :

Name Change Recognized Mergers Recognized

Acceptable evidence has been filed in this office concerning the merger of Basin Energy, Inc., into Sterling Energy Corporation, which became Basin Sterling, Inc. Basin Sterling, Inc. then merged into Basin Exploration, Inc. with Basin Exploration, Inc. being the surviving entity.

For our purposes, the merger of Basin Sterling, Inc. into Basin Exploration, Inc. is recognized effective November 23, 1994.

The following lease files have been noted to reflect the above changes.

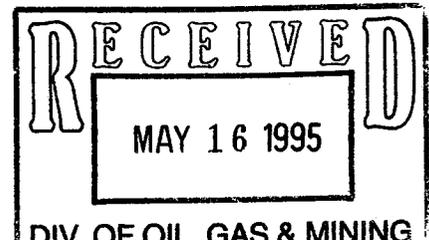
SL-067691A	U-01058
SL-067700A	<u>U-01890</u> <i>Recapture Creek Unit</i>
SL-067706A	U-23147
SL-067710A	U-37841
<u>SL-071403A</u> <i>Bull Unit</i>	UTU-68666
SL-071404A	UTU-68667

A rider has been issued for Sterling Energy Corporation, Inc. Nationwide Bond No. 7525071 (BLM Bond No. CO0944) changing the name of the Principal to Basin Exploration, Inc., and Basin Operating Company.

/s/ Robert Lopez

Chief, Branch of Mineral
Leasing Adjudication

bc: Moab District Office
MMS-Data Management Division, MS 3113, P.O. Box 5860, Denver, CO 80217
State of Utah, Attn: Lisha Cordova, Division of Oil, Gas, and Mining,
3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1204
UT-920 (Teresa Thompson)



Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

1- UFG
2- LWP 7-PL ✓
3- DOS 8-SJV ✓
4- VLG 9-FILE ✓
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: 11-22-94)

TO (new operator)	<u>BASIN EXPLORATION INC</u>	FROM (former operator)	<u>STERLING ENERGY CORP</u>
(address)	<u>370 17TH ST STE 1800</u>	(address)	<u>1801 BROADWAY STE 600</u>
	<u>DENVER CO 80202</u>		<u>DENVER CO 80202</u>
	<u>JUDI ROYS</u>		
	phone (<u>303</u>) <u>685-8000</u>		phone (<u>303</u>) <u>296-1908</u>
	account no. <u>N5070 (4-26-95)</u>		account no. <u>N5945</u>

Well(s) (attach additional page if needed):
 *RECAPTURE CREEK UNIT
 *BLUFF UNIT

Name: **SEE ATTACHED**	API: <u>037-15864</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

- See 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). *(Rec'd 12-1-94 / Articles of Merger)*
- See 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). *(Rec'd 12-1-94)*
- See 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: #171609. *(12-7-94) (cf. 1/3/95)*
- See 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.
- See 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. *(5-22-95)*
- See 6. Cardex file has been updated for each well listed above. *5-22-95*
- See 7. Well file labels have been updated for each well listed above. *5-22-95*
- See 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. *(5-22-95)*
- See 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

- Yes 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).
- N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

- N/A 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
- Yes
- ___ 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.
- 8/23/95
- 4/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: May 26 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

950519 Basin Expl. Inc. / Judy Roys - Oper. of wells Basin Expl. Inc. Not Basin Oper. Co.
(Corrects letter dated 11-30-94).

* Indian lease wells, separate chg.

* 950522 Sterling address updated to Sterling % Basin Expl. Inc. from Sterling % Trinity Petro. until final appr.

FORM 3160-5
(June 1990)

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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
892000 7820

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA, Agreement Designation
N/A

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

8. Well Name and No.
Bluff Unit 3

9. API Well No.
43-037-15864

2. Name of Operator
Basin Exploration Incorporated

3. Address and Telephone No.
370 17th St., Suite 1800 - Denver, Colorado 80202

10. Field and Pool, or Exploratory Area

4. Location of Well (Range, Sec., T., R., m., or Survey Description)
**NW NW Section 4-T40S-R23E
605' FNL & 760' FWL**

11. County or Parish, State
San Juan Co., Utah

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 Plug & Abandon
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

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

The above mentioned well was Plugged & Abandoned on 1/20/97. Procedure is as follows:

- Plug #1 (4490-5635') - Cut tubing @ 4320' (2-3/8" J-55). TIH w/5-1/2" cmt retainer set @ 4490'. Mixed & pumped 130 sxs cmt, spotting 125 sxs below retainer & 5 sxs above.
- Plug #2 (2300-2600') - Perf'd @ 2600'. RIH w/retainer set @ 2350'. Could not establish rate below retainer. Spotted 50 sx plug above retainer.
- Plug #3 (1350-1650') - Perf'd @ 1650'. RIH w/retainer set @ 1400'. Mixed & pumped 122 sxs cmt, spotting 116 sxs below retainer & 6 sxs above.
- Plug #4 (565' - Surface) - Perf'd @ 565'. Established rate out bradenhead. Mixed & pumped 256 sxs down 5-1/2" casing. Circulated good cmt out bradenhead. Cement dropped about 300'. Filled backside & 5-1/2" csg (128 sxs).

14. I hereby certify that the foregoing is true and correct
Signed Ferry L. Hoffman Title Engineering Technician Date 3/6/97
(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any: _____

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

*See Instruction on Reverse Side

**Bluff Unit #3
Cement Data for P&A Operation
1-24-97**

BLM Representative on location (Jeff Brown)

Plug #1 (4490'-5635')

Cut tubing @ 4520'. TIH w/5-1/2" cement retainer set @ 4490'.
Mix and pump 130 sx cement spotting 125 sx below retainer & 5 sx
above.

Plug #2 (2300'-2600')

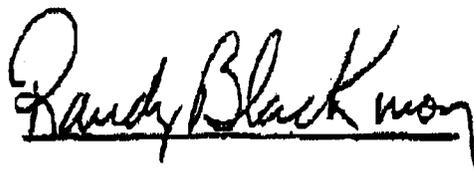
Perf @ 2600'. RIH w/retainer set @ 2350'. Could not establish
rate below retainer. Spot 50 sx pug above retainer.

Plug #3 (1350'-1650')

Perf @ 1650'. RIH w/retainer set @ 1400'. Mix and pump 122 sx
cement spotting 116 sx below retainer & 6 sx above.

Plug #4 (565'-Surface)

Perf @ 565'. Establish rate out bradenhead. Mix and pump 256
sx down 5-1/2" casing. Circulate good cement out bradenhead.
Cement dropped about 300'. Fill backside & 5-1/2" (128 sx).



**Randy Blackmon
P&A Supervisor
Big A Well Service**

Basin Exploration, Inc.

370 17th Street, Suite 3400

Denver, CO 80202

Office 303/685-8000

Fax 303/685-8020



FAX Transmittal

To: State of Utah
Company

FAX No.: 801 - 359 - 3940

Attn: Christen Risback
Individual

From: Jerry Hoffmann

Number of pages including cover: 3

Date: 3-6-97 Original by mail Y N

Comments/ Instructions: Thanks

If there is a problem with this transmission phone _____ at 303/685-8000.
Name

Confidentiality Note: The information contained in this FAX transmission is privileged and confidential and intended only for the use of the addressee named above. If the reader of this message is not the intended recipient, you are hereby notified that any retention, distribution or copying of this facsimile is strictly prohibited. If you receive this facsimile in error, please notify the sender immediately by collect phone call at the above phone number and destroy the erroneous transmission.
Thank you for your attention.

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 a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
892000 7820

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA, Agreement Designation
N/A

8. Well Name and No.
Bluff Unit 3

9. API Well No.
43-037-15864

10. Field and Pool, or Exploratory Area
-

11. County or Parish, State
San Juan Co., Utah

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

Basin Exploration Incorporated

3. Address and Telephone No.

370 17th St., Suite 1800 - Denver, Colorado 80202

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

**NW NW Section 4-T40S-R23E
605' FNL & 760' FWL**

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 Plug & Abandon
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

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

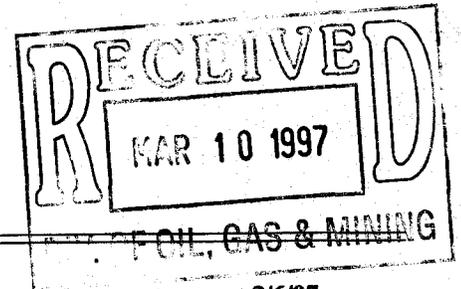
The above mentioned well was Plugged & Abandoned on 1/20/97. Procedure is as follows:

Plug #1 (4490-5635') - Cut tubing @ 4520' (2-3/8" J-55). TIH w/5-1/2" cmt retainer set @ 4490'. Mixed & pumped 130 sxs cmt, spotting 125 sxs below retainer & 5 sxs above.

Plug #2 (2300-2600') - Perf'd @ 2600'. RIH w/retainer set @ 2350'. Could not establish rate below retainer. Spotted 50 sx plug above retainer.

Plug #3 (1350-1650') - Perf'd @ 1650'. RIH w/retainer set @ 1400'. Mixed & pumped 122 sxs cmt, spotting 116 sxs below retainer & 6 sxs above.

Plug #4 (565' - Surface) - Perf'd @ 565'. Established rate out bradenhead. Mixed & pumped 256 sxs down 5-1/2" casing. Circulated good cmt out bradenhead. Cement dropped about 300'. Filled backside & 5-1/2" csg (128 sxs).



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

Signed *Ferry L. Hoffman* Title **Engineering Technician**

Date **3/6/97**

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

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

***See Instruction on Reverse Side**

**Bluff Unit #3
Cement Data for P&A Operation
1-24-97
BLM Representative on location (Jeff Brown)**

Plug #1 (4490'-5635')

Cut tubing @ 4520'. TIH w/5-1/2" cement retainer set @ 4490'.
Mix and pump 130 sx cement spotting 125 sx below retainer & 5 sx
above.

Plug #2 (2300'-2600')

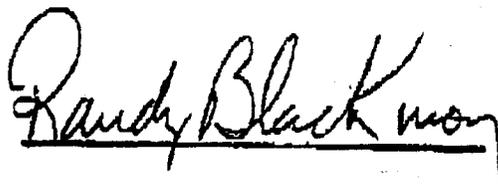
Perf @ 2600'. RIH w/retainer set @ 2350'. Could not establish
rate below retainer. Spot 50 sx pug above retainer.

Plug #3 (1350'-1650')

Perf @ 1650'. RIH w/retainer set @ 1400'. Mix and pump 122 sx
cement spotting 116 sx below retainer & 6 sx above.

Plug #4 (565'-Surface)

Perf @ 565'. Establish rate out bradenhead. Mix and pump 256
sx down 5-1/2" casing. Circulate good cement out bradenhead.
Cement dropped about 300'. Fill backside & 5-1/2" (128 sx).



**Randy Blackmon
P&A Supervisor
Big A Well Service**



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

In Reply Refer To:
3100
SL-067701 et al
(UT-932)

MAR 23 2001

NOTICE

Stone Energy, L.L.C.
1670 Broadway, #2800
Denver, CO 80202

Oil and Gas Leases

Name Change Recognized

Acceptable evidence has been received in this office concerning the change of name of Basin Exploration, Inc. to Stone Energy, L.L.C. on Federal oil and gas leases.

The oil and gas lease files identified on the enclosed exhibit have been noted as to the name change. The exhibit was compiled from a list of leases obtained from our automated records system. We have not abstracted the lease files to determine if the entity affected by the name change holds an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the name change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

Due to the name change, the name of the principal on oil and gas bond WY3181 is required to be changed from Basin Exploration, Inc. to Stone Energy, L.L.C. You may accomplish this change either by consent of the surety on the original bond or by a rider to the original bond. The rider should be submitted to the Wyoming State Office.

ROBERT LOPEZ

Robert Lopez
Chief, Branch of
Minerals Adjudication

Enclosure
Exhibit of Leases

RECEIVED

MAR 27 2001

DIVISION OF
OIL, GAS AND MINING

EXHIBIT A
LEASES AFFECTED BY NAME CHANGE

SL-067701
U-01058
U-23147
UTU-73064
UTU-75000
UTU-75501
UTU-76304
UTU-76957
UTU-77299
UTU-77536
UTU-78227
UTU-78522
UTU-79007
UTU-79131
UTU-79148

SL-067710A
U-01890
U-37841
UTU-73734
UTU-75013
UTU-76062
UTU-76728
UTU-77288
UTU-77528
UTU-78027
UTU-78230
UTU-78730
UTU-79008
UTU-79182
U-63011X (Bluff Unit)

SL-071403A
U-056794
UTU-72671
UTU-74461
UTU-75140
UTU-76303
UTU-76865
UTU-77289
UTU-77529
UTU-78226
UTU-78441
UTU-79006
UTU-79009
UTU-79183
U-63020X (Recapture Creek)

5. If NO, the operator was contacted contacted on: _____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **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: 03/23/2001

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 03/23/2001

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

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

DATA ENTRY:

1. Changes entered in the Oil and Gas Database on: _____ 06/27/2003

2. Changes have been entered on the Monthly Operator Change Spread Sheet on: _____ 06/27/2003

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: RLB0002054

INDIAN WELL(S) BOND VERIFICATION:

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

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: _____

COMMENTS:

Results of query for operator **BASIN EXPL**

API Number	Operator	Well Name	Well Status	Lease or CA Number	Inspection Item	Township	Range	Section	Quarter/Q
4303715327	BASIN EXPLORATION INCORPORATED	9 BLUFF UNIT ✓	POW	UTSL067701*DUG	892000782A	39S	23E	30	SWSE
4303715328	BASIN EXPLORATION INCORPORATED	10 BLUFF UNIT ✓	TA	UTSL067701*DUG	UTSL067701*DUG	39S	23E	30	SWSW
* 4303715540	BASIN EXPLORATION INC	23-1 NAVAJO TRACT	POW	1420603270	1420603270	42S	21E	2	NENE
4303715864	BASIN EXPLORATION INCORPORATED	3 BLUFF UNIT	^B ABD _{OK}	UTSL071403A	8920007820	40S	23E	4	NWNW
4303715865	BASIN EXPLORATION INCORPORATED	24-5 BLUFF UNIT	^B ABD _{OK}	UTSL071403A	8920007820	40S	23E	5	SESW
4303715867	BASIN EXPLORATION INCORPORATED	44-5 BLUFF UNIT ✓	OSI	UTSL071403A	8920007820	40S	23E	5	SESE
4303715868	BASIN EXPLORATION INC	2 DESERT CREEK ✓	POW	1420603248*BEI	1420603248*BEI	41S	23E	35	SESE
4303715871	BASIN EXPLORATION INCORPORATED	1 RECAPTURE CRK ✓	POW	UTU01890	8910029170	40S	23E	21	SESW