

**FILE NOTATIONS**

Entered in NID File ..... ✓  
Location Map Pinned ..... ✓  
Card Indexed ..... ✓

Checked by Chief *JMB* .....  
Approval Letter *B-3-70* .....  
Disapproval Letter .....

**COMPLETION DATA:**

Date Well Completed *1-24-71* .....

Location Inspected .....

OW..... WW..... TA.....

Bond released

GW..... OS..... PA.....

State or Fee Land .....

**LOGS FILED**

Driller's Log *3-26-71* .....

Electric Logs (No.) .....

E..... I..... Dual I Lat..... GR-N..... Micro.....

BHC Sonic GR..... Lat..... MI-L..... Sonic.....

CBLog..... CCLog..... Others.....

Sec. 3 SW $\frac{1}{4}$ NE $\frac{1}{4}$ 1468' FNL 1503' FEL	2S	4W	1-03-B4	4,686	0	0	31	Brotherson Lease Production estimated at 1 head Fee Land
Sec. 11 N $\frac{1}{2}$ S $\frac{1}{2}$ NE $\frac{1}{4}$ 1520' FNL	2S	4W	1-11-B4	-	-	-	-	Brotherson Lease Drilling Depth 10,812' Fee Land

2

PA



BROTHERSON  
4301330048

03

W040

S020

013

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL & GAS

5. Lease Designation and Serial No.

Patented

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL

DEEPEN

PLUG BACK

b. Type of Well

Oil Well

Gas Well

Other

Single Zone

Multiple Zone

2. Name of Operator

Shell Oil Company (Rocky Mountain Division Production)

3. Address of Operator

1700 Broadway, Denver, Colorado 80202

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface

1468' FNL and 1503' FEL and 266' from center of NE/4 Section 3.

At proposed prod. zone

NE SW NE

7. Unit Agreement Name

Brotherson et al (Unit)

8. Farm or Lease Name

W. N. Brotherson, Jr.

9. Well No.

1-3

10. Field and Pool, or Wildcat

Altamont

11. Sec., T., R., M., or Blk. and Survey or Area

NW/4 NE/4 Section 3-T2S-RAW

14. Distance in miles and direction from nearest town or post office\*

approx. 2 miles SW of Altamont

12. County or Parrish

Duchesne

13. State

Utah

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

1468 (FNL)

16. No. of acres in lease

90 acres\*

17. No. of acres assigned to this well

680

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft.

0

19. Proposed depth

14,000 ✓

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

est. 6305 GL ✓

22. Approx. date work will start\*

August 10, 1970 ✓

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement

As per attached drilling prognosis and survey plat.\*\*

Note: Location exceeds 220' tolerance as specified in the spacing order for the Altamont Field. Exception required because of irrigation ditch on the east side of the NW/4 NE/4 Section 3. Location layout as shown on attached plat requires that this 220' tolerance limitation be exceeded by 46' in order to secure proper location layout for rig. Request Administrative approval for planned location due to topographical reasons.

\* 50.31 acre portion of base lease to be included in 680 acres spacing unit plan for well. Spacing will be all of Section 3-T2S-RAW.

\*\* Official survey plat will follow. ✓

cc: United States Geological Survey w/attachments

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed Jack W. Moore for Title Division Petroleum Engineer Date July 31, 1970

(This space for Federal or State office use)

Permit No. 43-013-30048 Approval Date

Approved by..... Title..... Date.....

Conditions of approval, if any:

DRILLING WELL PROGNOSIS

WELL NAME SHELL-TENNECO  
 TYPE WELL BROTHERSON et al UNIT 1-3  
 FIELD/AREA DEVELOPMENT  
ALTAMONT

APPROX. LOCATION (SUBJECT TO SURVEY) 1500' FNL 1450' FEL SEC 3-T2S-R4W DUCHESNE CO  
UTAH

EST. G.L. ELEVATION 6305' PROJECTED TO 14,000' OBJECTIVE GREEN RIVER - WASATCH

HOLE SIZE	CASING PROGRAM	LOGGING PROGRAMS	MAX DEV.	DEPTHS AND FORMATION TOPS	SPECIAL INSTRUCTIONS
	26" —	CONDUCTOR		40' ±	SAMPLES: 30' FROM SFC. TO 5000' 10' FROM 5000' TO T.O.  CORES: 3-60' CORES BETWEEN 8000' AND 14,000'  DST'S: 6 DST'S BETWEEN 6000' AND 14,000'  DEVIATION CONTROL DOGLEG SEVERITY NOT TO EXCEED 1/2" / 100' INTERVAL  CEMENT SEE "DRILLING PROGNOSIS" FOR DETAILS  MUD SEE "DRILLING PROGNOSIS" FOR DETAILS  GENERAL SFC - 5500' WATER 5500' - 11,300' LOW SOLIDS 11,300' - TD WEIGHTED MUD
24"	20" —	IF NECESSARY		200' ±	
17 1/2"	13 3/8"		2°	1100' ±	
		IES, INT-GR-BHC-SONIC, FDC, PROX-ML, DIPMETER, 2 MAN MUD LOGGING UNIT  BOREHOLE TELEVIEWER  RATE OF BUILDUP 10/1000' MAXIMUM (BOTTOM HOLE TARGET 220' FROM CENTER OF NE/4)		GREEN RIVER ZONE 1 5617 (706)  ZONE 2 8294 (-1971)  ZONE 3 9705 (-3382)  TRANS. GR-WASATCH 11,280' (-4957) 11,300' ±	
12 1/4"	9 5/8"				
8 3/8"	7"			14,000'	

ORIGINATOR DES DATE 7/6/70

ENGINEERING APPROVAL: \_\_\_\_\_  
 EXPLOITATION 7/27/70

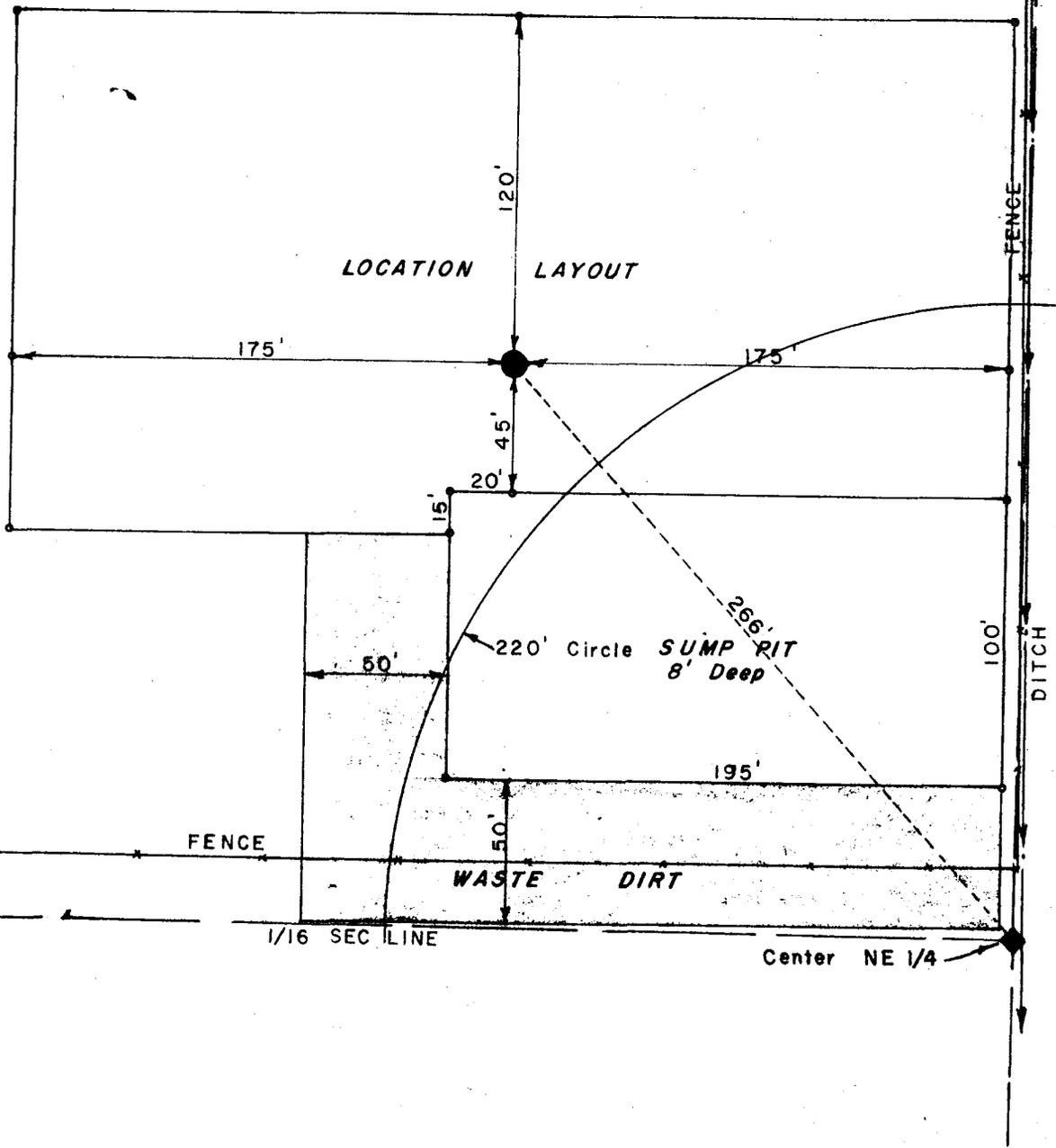
OPERATIONS APPROVAL: N. M. ...

**SHELL - TENNECO - BROTHERSON Etal #1-3**

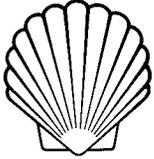
LOCATION WILL HAVE TO BE APPROX 1468' FNL & 1503' FEL.  
266' FROM CENTER OF NE 1/4

CERTIFIED AS CORRECT

*N. S. Anderson*  
Division Drilling Superintendent



12



# SHELL OIL COMPANY

1700 BROADWAY  
DENVER, COLORADO 80202

August 5, 1970

Subject: Official Survey Plat  
Altamont Field  
Brotherson et al Unit  
Brotherson 1-3  
NW/4 NE/4 Section 3-T2S-R4W, USB&B  
Duchesne County, Utah

Utah Oil and Gas Conservation Commission  
1588 West North Temple  
Salt Lake City, Utah 84116

Attention Mr. Cleon Feight

Gentlemen:

Pursuant to our request for permit to drill dated July 31, 1970, please find attached copies of official survey plat.

Yours very truly,

For: R. A. Flohr  
Division Production Manager  
Rocky Mountain Division

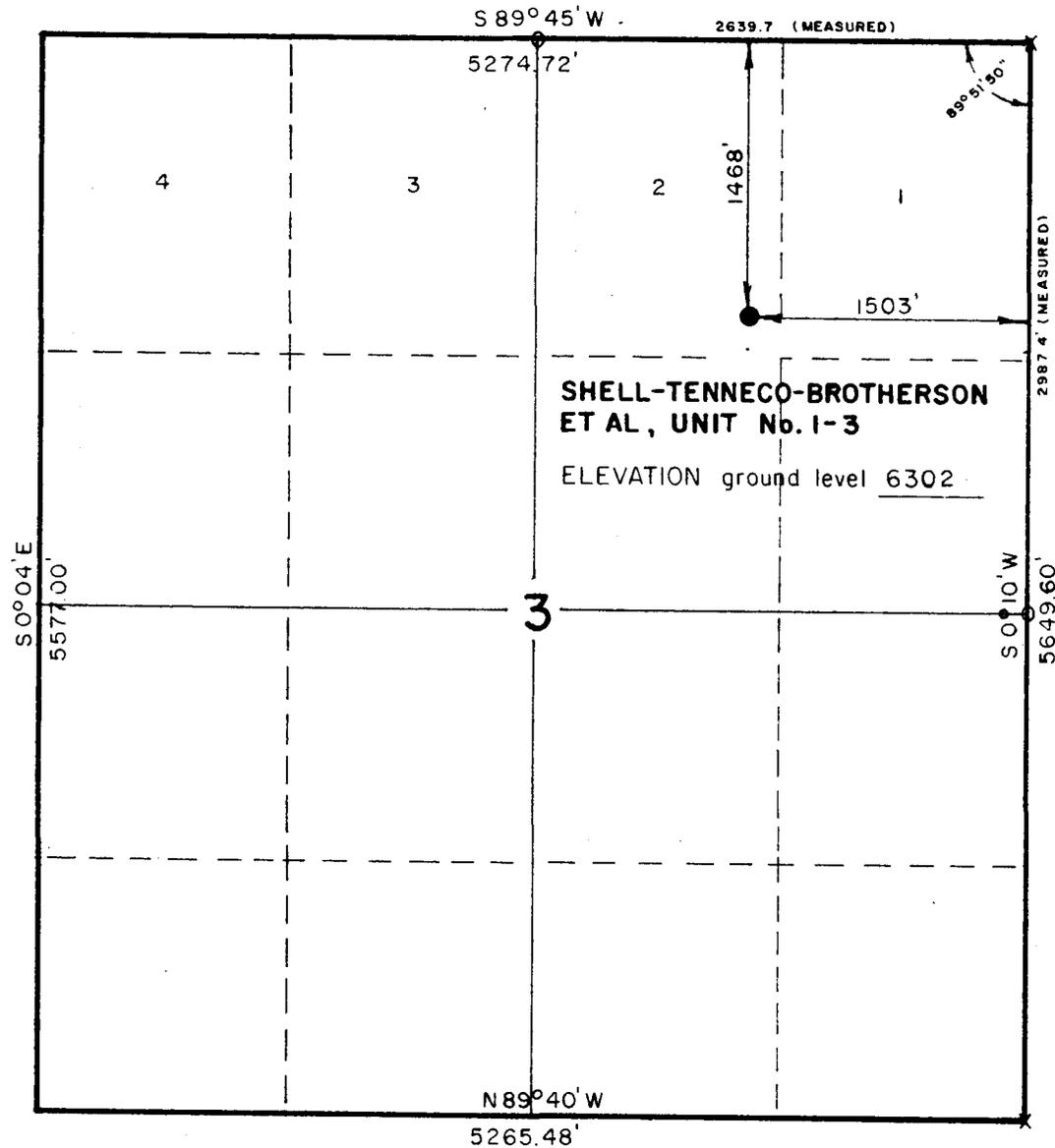
Attachments

cc: United States Geological Survey (w/attachments)

# T 2 S, R 4 W, USB & M

PROJECT

**SHELL OIL COMPANY**  
 WELL LOCATION AS SHOWN IN THE NE 1/4,  
 SECTION 3, T 2 S, R 4 W, USB & M.  
 DUCHESNE COUNTY, UTAH.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OR 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.

*Gene Stewart*  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO 3154  
 STATE OF UTAH

<b>UINTAH ENGINEERING &amp; LAND SURVEYING</b> P. O. BOX Q - 110 EAST - FIRST SOUTH VERNAL, UTAH - 84078	
SCALE 1" = 1000'	DATE 20 July, 1970
PARTY GS - MS - RK	REFERENCES GLO Township Plat
WEATHER Overcast & Hot	FILE SHELL OIL CO.

X = Corners Located (Stone)  
 O = Corners Re-established

Sec. 3 SW $\frac{1}{4}$ NE $\frac{1}{4}$ 1468' FNL 1503' FEL	2S	4W	1-03-B4	-	-	-	-	-	-	Brotherson Lease Drilling - Depth 11,753' Fee Land
Sec. 11 N $\frac{1}{2}$ S $\frac{1}{2}$ NE $\frac{1}{4}$ 1520' FNL 1320' FEL	2S	4W	1-11-B4	-	-	-	-	-	-	Brotherson Lease Drilling - Depth 6,510' Fee Land
Sec. 14 SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ 2100' FNL 750' FEL	2S	4W	1-14-B4	-	-	-	-	-	-	Brotherson Lease Drilling - Depth 9,270' Fee Land

Note: There were 31,190 runs or sales of oil; 0 M cu. ft. of gas sold; 0 runs or sales of gasoline during the month.

NOTE: Report on this form as provided for in Rule C-22. (See back of form.)

FILE IN DUPLICATE

\*STATUS: F-Flowing P-Pumping GL-Gas Lift  
SI-Shut In D-Dead  
GI-Gas Injection TA-Temp. Aban.  
WI-Water Injection

6

Sec. 3  
SW $\frac{1}{4}$ NE $\frac{1}{4}$   
1468' FNL  
1503' FEL

2S

4W

1-03-B4

-

-

-

-

Brotherson Lease  
Drilling - Depth 6,794'  
Fee Land

Note: There were 20,765 runs or sales of oil; 0 M cu. ft. of  
gas sold; \_\_\_\_\_ runs or sales of gasoline during the month.

NOTE: Report on this form as provided  
for in Rule C-22. (See back of form.)

FILE IN DUPLICATE

\*STATUS: F-Flowing P-Pumping GL-Gas Lift  
SI-Shut In D-Dead  
GI-Gas Injection TA-Temp. Aban.  
WI-Water Injection

August 4, 1970

Shell Oil Company  
1700 Broadway  
Denver, Colorado 80202

Re: Shell-Tenneco-Brotherson Etal  
Unit #1-3  
Sec. 3, T. 2 S, R. 4 W, USM  
Duchesne County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above mentioned well is hereby granted in accordance with the Order issued in Cause No. 139-1.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL-Chief Petroleum Engineer  
HOME: 277-2890

Or

CLEON B. FEIGHT, Director  
HOME: 466-4455  
OFFICE: 328-5771

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

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

The API number assigned to this well is 43-013-30048.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sd  
cc: U.S. Geological Survey

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

714

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

5. LEASE DESIGNATION AND SERIAL NO.  
Patented

b. TYPE OF COMPLETION:  
NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

2. NAME OF OPERATOR Shell Oil Company (Rocky Mtn Div. Production)  
Tenneco Oil Company

7. UNIT AGREEMENT NAME

3. ADDRESS OF OPERATOR  
1700 Broadway, Denver, Colorado 80202

8. FARM OR LEASE NAME

W. H. Brotherson, Jr.

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1468' FNL and 1503' FEL Sec 3

9. WELL NO.

1-3B4

At top prod. interval reported below  
At total depth

10. FIELD AND POOL, OR WILDCAT

Altamont

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

NW/4 NE/4 Section 3-  
T 2S-R 4W

12. COUNTY OR PARISH  
Duchesne

13. STATE  
Utah

14. PERMIT NO. 139-1 DATE ISSUED 8-4-70

15. DATE SPUDDED 9-6-70 16. DATE T.D. REACHED 1-15-71 17. DATE COMPL. (Ready to prod.) 1-24-71 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 6302 GL, 6321 KB 19. ELEV. CASINGHEAD 19.32'

20. TOTAL DEPTH, MD & TVD 12,850 21. PLUG, BACK T.D., MD & TVD OH 22. IF MULTIPLE COMPL., HOW MANY\* → 23. INTERVALS DRILLED BY → ROTARY TOOLS Total CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
Wasatch OH 12,400-12,850'

25. WAS DIRECTIONAL SURVEY MADE  
No

26. TYPE ELECTRIC AND OTHER LOGS RUN DIL/SP, Int BHCS/GR/Cal, PL/ML/Cal, SNP/GR/Cal, FDG/GR/Cal, Variable Density, and Shear Amplitude

27. WAS WELL CORED  
Yes

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54.5#	1,108'	17 1/2"	950 SX	0
9 5/8"	40 & 47#	10,600'	12 1/4"	500 SX	0
5 1/2"	14#	3,995.87'	(Heat String)	Not cmt'd but hanging	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
7 5/8"	10,086	12,398.23	300	

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

As per attachments

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
1-24-71	Flowing	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
2-15-71	24	1"	→	1414	1210	0	855

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
400	1400	→	1414	1210	0	43.7°

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS  
Well Log and History and Csg & Cmtg Detail

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

SIGNED [Signature] For: J. C. Howell  
TITLE Division Petroleum Engr. DATE Feb. 24, 1971

SHELL OIL COMPANY

LEASER SHELL-TENNECO-BROTHERSON WELL NO.

1-3B4

DIVISION ROCKY MOUNTAIN

ELEV

6321 KB

FROM: 8-27-70 - 2-17-71

COUNTY DUCHESNE

STATE

UTAH

UTAHALTAMONT

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

"FR" Rigging up.  
Located 1468' FNL & 1503' FEL, Section 3-T2S-R4W, Duchesne  
County, Utah

Elev: 6302 GL

14,000' Green River - Wasatch Test

Shell Working Interest - 64.329%

Drilling Contractor - Brinkerhoff Drilling Company

Brotherson et al No. 1-3 initiates development of the  
Green River reservoirs in Altamont Field. The Brotherson

et al No. 1-3 is approximately one mile southwest of the

Shell, Miles No. 1 discovery well of Altamont Field. **AUG 27 1970**RURT. **AUG 28 1970**

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

Rigging up.

**AUG 31 1970**

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

RURT. **SEP 1 1970**

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

RURT. Will test gas line today. **SEP 2 1970**

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

RURT. **SEP 3 1970**

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

4

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

RURT. SEP 4 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

502/116/2/502. Drilling.  
Dev 1° @ 76', 1½° @ 148', 1° @ 178', ½° @ 247' & 336'.  
Spudded 2 a.m. 9/6/70. SEP 8 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

1108/116/3/606. Making up 17½" hole opener. Dev ½° @ 645',  
864', & 1108'. SEP 9 1970  
Mud: 9.3 x 43 (gel and wtr).

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

1108/116/4/0. Opening 12½" hole to 17½".  
Mud: 9.0 x 41 (gel and water). SEP 10 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

1108/116/5/0. Circ and cond mud. Waiting on 13 3/8" tong.  
SEP 11 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

1490/116/8/382. Drilling. Dev ½° @ 1402'.  
Ran and cmt 36 jts (1100') 13 3/8" 54.5# K-55 csg w/Bkr shoe to  
1108' w/750 sx 1:1 poz, 4% gel, 2% CaCl<sub>2</sub>, followed by 200 sx  
Class "G" Neat cmt, 2% CaCl<sub>2</sub>. Bkr float collar at 1074'.  
Bumped top rubber plug w/166 bbls wtr to 1500 psi. Had good  
cmt returns to sfc. Cmt in place 8:20 p.m. 9/11/70. After  
2 hrs, cmt dropped in annulus 9 ft. Recemented by hand. Cmt  
in place 2 a.m. 9/12/70. WOC and nipples up. Tested all chk  
lines and kill lines and BOP's with 1500 psi ok.  
Mud: Water. SEP 14 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

2050/116/9/560. Drilling. Dev: 0° at 1686. Bit No. 7 out  
at 1686. 578' in 16½ hrs. Bit condition - T5-B6-I  
Mud: Water. SEP 15 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

2700/116/10/650. Drilling. Dev 0° @ 2134.  
Bit #8 12¼" Smith out @ 2134'. 448' in 16 hrs.  
Bit condition - T4-B5-I. SEP 16 1970  
Mud: Water.

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

2335/116/11/635. Drlg. Dev: 1/2° @ 2833. Bit No. 9 12 1/4"  
Hughes out @ 2833' - 701' in 18 1/2 hrs. Bit condition -  
T6-B8. SEP 17 1970  
Mud: Native

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

3925/116/12/1590. Pulling Bit #11. Dev ½° @ 3470'.  
Bit #10 12¼", shoe out @ 3470. 637' in 17 hrs. T4-B6.  
Mud: Native. SEP 18 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

5075/116/15/1150. Drilling. Dev: 0° @ 4685.  
Bit #13 12¼" out at 4685. Bit condition - T-8, B-5, I.  
Mud: 9.2 x 37 x 10.1 (sal 495) (gel 0.6) (plastic vis 11)  
(yield point 3).  
(Changed from wtr to low solid mud at 4790'.) SEP 21 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

5260/116/16/185. Drilling.  
Dev: ½° at 5115. Bit #14 Hughes 12¼" X1G out at 5115.  
430' in 22½ hrs. T-6, B-1 SEP 22 1970  
Mud: 9.3 x 33 x 10.4 (sal 495) (gel 0 and 4) (yield point 4)

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

5417/116/17/157. Drilling.  
Bit #15 measured out of hole. SEP 23 1970  
Mud: 8.9 x 36 x 11.2 (sal 500)

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

5567/116/18/150. Drilling.  
Mud: 9.0 x 36 x 11.4 (sal 425) (LCM 0) (Oil 0) (gel 0&4).  
SEP 24 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

5785/116/19/218. Drilling.  
Mud: 9.0 x 34 x 10.8 (sal 400) (LCM 0) (Oil 0) SEP 25 1970  
(gel 0 & 4) (plastic vis 11) (yield point 3).

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

6309/116/22/524. Drilling.  
Bit #17 12¼" Smith 4-JS out @ 6200'. 370' in 40½ hrs. Out  
of gauge ¼". Reamed 80' w/bit #18. Lost approx 250 bbls  
mud in past 24 hrs.  
Mud: 8.9 x 35 x 9.6 (sal 165) (LCM 0) (Oil 0) (gel 0&5)  
(plastic vis 9) (yield point 2). SEP 28 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

6464/116/23/155. Drilling. Dev: 1¼° @ 6200'.  
Spent 5½ hrs jacking up rig.  
Mud: 8.8 x 39 x 9.5 (sal 198) (LCM 0) (Oil 0) (gel 0 & 7)  
(plastic vis 11) (yield point 3). SEP 29 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

6664/116/24/200. Pulling Bit #18.  
1 3/4 hrs circ samples at 6664.  
Mud: 8.9 x 36 x 9.9 (sal 199) (LCM 0) (Oil 0) (gel 0 & 5)  
(plastic vis 10) (yield point 3). SEP 30 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

6794/116/25/130. Drilling. Dev: 1¼° @ 6664'.  
Bit #18 12¼" Hughes X-55R out at 6664'. 464' in 51½ hrs.  
Condition of bit - 2 seals out. Gauge out ¼. Reamed 84'  
w/Bit #19.  
Mud: 8.9 x 35 x 9.5 (sal 165) (LCM 0) (Oil 0) (gel 0&4)  
(plastic vis 8) (yield point 2). OCT 1 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

7000/116/26/206. Drilling.  
Mud: 8.9 x 37 x 8.6 (sal 960) (plastic vis 11) (yield point 3).  
OCT 2 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

7296/116/29/296. Drilling.  
Stuck pipe at 6070 while on trip for new bit.  
Spotted 75 bbls diesel mixed with three drums Milchem  
Petrokote - soaked 2½ hrs and jarred fish loose w/sfc jars.  
Magna-fluxed all DC's and found three defective pins and two  
defective boxes.  
Mud: 8.9 x 37 x 7.6 (sal 165) (LCM 0) (Oil 0) (gel 0&3)  
(plastic vis 8). OCT 5 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

7468/116/30/172. Drilling.  
Bit No. 20 12¼" Smith 4-JS out at 7345. 335' in 38½ hrs.  
One seal failure and locked. Out of gauge 1/8".  
Reamed w/Bit No. 21 from 6238-6310, & 7270-7345.  
Mud: 9.0 x 36 x 7.8 (sal 165). OCT 6 1970

Shell-Tenneco 7684/116/31/216. Drilling.  
Brotherson et al Mud: 9.1 x 35 x 7.5 (sal 198) (gel 0&5) (plastic vis 9)  
No. 1-3B4 (yield point 2). OCT 7 1970  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

Shell-Tenneco 7900/116/32/216. Drilling.  
Brotherson et al Mud: 9.1 x 38 x 8.2 (sal 248) (LCM 0) (Oil 0) OCT 8 1970  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test

Shell-Tenneco 7985/116/33/85. Drilling. Dev: 1 3/4° @ 7926.  
Brotherson et al Bit #21 12¼" Smith 4JS out at 7926'. 581' in 63½ hrs, 1  
No. 1-3B4 seal failure.  
(D) Brinkerhoff Washed and reamed w/Bit #22 from 7853-7926'.  
14,000' Green River- Mud: 9.0 x 37 x 8.7 (sal 248). OCT 9 1970  
Wasatch Test

Shell-Tenneco- 8405/116/36/420. Drilling. Dev: 2½° @ 8352.  
Brotherson et al Bit #22 12¼" Smith out at 8352. Made 426' in 64¼ hrs. Bit  
No. 1-3B4 condition - 3 seals out and out of gauge 1". Reamed 93' to btm  
(D) Brinkerhoff w/Bit #22.  
14,000' Green River- Mud: 9.0 x 36 x 8.3 (sal 198) (LCM 0) (Oil 1%) (gel 0 & 3)  
Wasatch Test (plastic vis 12) (yield point 2). OCT 12 1970

Shell-Tenneco 8501/116/37/96. Drilling.  
Brotherson et al Bit #23 12¼" Hughes X55R out at 8430'. 78' in 16¼ hrs.  
No. 1-3B4 Condition of bit good.  
(D) Brinkerhoff Mud: 9 x 46 x 8.5 (sal 198) (LCM 0) (Oil 1%) (gel 0 & 4)  
14,000' Green River- (plastic vis 12) (yield point 3). OCT 13 1970  
Wasatch Test

Shell-Tenneco 8714/116/38/213. Drilling.  
Brotherson et al Mud: 9.0 x 39 x 8.2 (sal 182) (LCM 0) (Oil 1½%) (gel 0 & 4)  
No. 1-3B4 (plastic vis 11) (yield point 3). OCT 14 1970  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

Shell-Tenneco- 8846/116/39/132. Making trip. Dev: 4° @ 8846.  
Brotherson et al Bit #24 12¼" Smith 4JS out at 8846. Made 416' in 53½ hrs.  
No. 1-3B4 Out of gauge 1/8".  
(D) Brinkerhoff Mud: 9.0 x 39 x 8.2 (sal 198) (LCM 0) (Oil 1.4%) OCT 15 1970  
14,000' Green River- (gel 0 & 4) (plastic vis 11) (yield point 3).  
Wasatch Test

Shell-Tenneco- 9000/116/40/154. Drilling. Dev: 4° @ 8846. OCT 16 1970  
Brotherson et al Mud: 9 x 36 x 7 (sal 198) (plastic vis 11) (yield point 3).  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

9428/116/43/428. Making up Hal test tools.  
Mud: 9.0 x 35 x 8.2 (sal 182) (gel 0 & 3) (plastic vis 11)  
(yield point 3). OCT 19 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

9488/116/44/60. Drilling. Dev: 3 3/4° @ 9428.  
Hal DST tools stuck at 9392'; jarred loose and pulled. Went  
back in hole w/Bit #27 and washed and reamed from 9210-9428.  
Mud: 9.1 x 47 x 7.2 (sal 198) (gel 0&5) (plastic vis 16)  
(yield point 5). OCT 20 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test

9675/116/45/187. Drilling.  
Mud: 9.1 x 44 x 7.8 (sal 198) (LCM 0) (Oil 0) (gel 0&4)  
(plastic vis 15) (yield point 5). OCT 21 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

9860/116/46/185. Drilling.  
Mud: 9.1 x 42 x 8.2 (sal 198) (gel 0&3) (plastic vis 14)  
(yield point 4). OCT 22 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,024/116/47/164. Drilling.  
Mud: 9.1 x 40 x 8.8 (sal 198) (gel 0&3) (plastic vis 14)  
(yield point 4). OCT 23 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,552/116/50/528. Drilling. Dev: 3 3/4° @ 10,024.  
Bit #27 12 1/4" Smith 4JS out at 10,024'. 596' in 77 hrs. Cond  
of bit - 3 seals out.  
Mud: 9.2 x 68 x 8.6 (sal 198) (gel 1&9) (plastic vis 24)  
(yield point 7). OCT 26 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,600/116/51/48. Drilling. Dev: 4° @ 10,580.  
Bit #28 12 1/4" Smith 4JS out at 10,580. 556' in 68 3/4 hrs.  
3 seals out. Magna-fluxed all DC's - no defective DC's.  
Mud: 9.3 x 43 x 7.9 (sal 198) (gel 0&4) (plastic vis 15)  
(yield point 4). OCT 27 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/52/45. Building mud weight.  
Well started to flow. Put well on choke 4 p.m. Building mud  
weight to 9.6#. Lost approximately 50 bbls of mud to  
formation.  
Mud: 9.6 x 75 x 3 (sal 160) (Oil 18%). OCT 28 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/53/0. Well SI; mixing mud. Mixed and pumped through choke 1,050 bbls 9.7# mud, and 1,050 bbls 9.8# mud. Returns are approx 60% oil. OCT 29 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/54/0. Well SI; mixing mud. Mixed 1,000 bbls 9.8# mud. Pumped in hole w/well on choke. Returns approx 75% oil. Mixed 1,000 bbls 9.9# mud. Pumped in hole w/well on chk. Returns approx 10% oil, 6% LCM in mud. OCT 30 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/57/0. Running logs (Schl)  
Killed well, circ, and build mud weight. Cond mud for logs; lost 350 bbls mud while cond. NOV 2 1970  
Mud: 10 x 47 x 7.8 (sal 165) (LCM 10%) (gel 1&5).

Shell-Tenneco -  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test

10,645/116/58/0 Running logs.  
Mud: 10 x 52 x 7.6 (sal 148) (LCM 10%) (Oil 3%)  
(gel 0 & 4) NOV 3 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/59/0. Making clean out run w/bit.  
NOV 4 1970

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/60/0. Logging. Made a bit run between logs - pulled and logging. Schl lost some iron in hole.  
Mud: 10+ x 52 x 8.4 (sal 165) (LCM 10%) (Oil 2½%)  
(gel 1&6) (plastic vis 16) (yield point 6). NOV 5 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/61/0. Drlg on Schl iron. Ran logs as follows: DIL/SP, Int BHCS/GR/Cal, PL/ML/Cal, SNP/GR/Cal, FDC/GR/Cal and Variable Density.  
Ran bit #30 12¼" Hughes WD7. Pushed Schl fish from 10,610-10,645. Drlg on same. NOV 6 1970  
Mud: 10+ x 44 x 9.4.

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/64/0. WOC; nipples up.  
Ran and cmt 258 jts (10,610') 9 5/8" csg consisting of  
(129 jts S-95 47# ST&C, 111 jts S-95 40# ST&C, and 18 jts  
S-95 40# LT&C) at 10,600' KB w/300 sx 1:1 poz, 2% gel,  
15% salt, and .2% D-13, followed by 200 sx Class "G"  
neat cmt, 15% salt, and .5% D-13 (Dow). Bkr float collar  
Model "G" at 10,515' and Bkr guide shoe at 10,609'. CHF-  
KB - 19.32'. Plug down 8:53 a.m. 11/8/70 w/1950 psi.  
Float held. Full circ throughout.  
Mud: 10.1 x 49 x 9.4 (LCM 10%) (gel 0&4) (plastic vis 15)  
(yield point 5). NOV 9 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,645/116/65/0. Drilling on rubber plugs.  
Nipped up BOP's. Tested BOP's and csg to 2,000 psi, ok.  
12' of cmt above plugs.  
Mud: 10.1 x 42 x 7.5 (gel 0&4) (plastic vis 13)  
(yield point 4) (ph 8.5) (solids 7%). NOV 10 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,650/116/66/5. Circulating w/core bbl on bottom;  
prep to cut Core No. 1.  
Mud: 10.2 x 44 x 6.5 (gel 0&4) (plastic vis 15)  
(yield point 5). NOV 11 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,710/116/67/60. Tripping.  
Core No. 1 10,650-10,710. Cut and rec'd 60'.  
Details later.  
Spent 13 3/4 hrs coring.  
Mud: 10.3 x 43 x 6.2 (1238 ppm) (gel 0&1) (plastic vis 15)  
(yield point 4). NOV 12 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,770/116/68/60. Pulling Core No. 2 10,710-10,770.  
Core No. 1 10,650-10,710. Cut and rec 60'.  
10,650-10,663 Ls to dolo, very shaley, hd, blk,  
spty natural yellow fluor, bright yellow  
nat fluor on fracture faces, spotty cut  
fluor.

10,663-10,665 A.a, gry to blk

10,665-10,676 A.a, blk

10,676-10,683 A.a, w/blk laminations

10,683-10,686 A.a, gry to blk

10,686-10,692 A.a, blk

10,692-10,696 A.a, gry to blk

10,696-10,699 A.a, blk

10,699-10,704 A.a, gry to blk

10,704-10,710 Ls to dolo, very shaley, hd, gry.

No shows (may have been flushed during 1.5  
hr circ following coring and prior to  
tripping out with core.

NOV 13 1970

(Cont'd)

(Cont'd)

Fractures: (Abundant throughout. Oil bleeding from all fractures except 10,704-10,710.)

10,650-10,670 Horizontal to 35° from horizontal  
10,670-10,678 Vert to 40° from vertical  
10,678-10,683 Mostly horizontal  
10,683-10,685 Vertical  
10,685-10,704 Horizontal to 30° from horizontal  
10,704-10,710 Vert fractures less frequent but greater in length.

Mud: 10.3 x 50 x 5.6 (sal 1205) (Oil 3.4%) (gel 0&1)  
(plastic vis 17) (yield point 6) (ph 10) NOV 13 1970.

Shell-Tenneco  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

10,895/116/71/125. Drilling.

Core No. 2 10,710-10,770. Cut and rec 60'.

10,710-10,738 Ls to dolo, very shaley, hd, gry,  
minor intermittent fractures.

10,738-10,740 A. a., blk

10,740-10,770 A. a., gry (67-70 possible nat vert fracs)  
Oil on sfc of core but no evidence indicating it was coming from core.

Reamed from 10,650-10,770. Circ and cond mud for DST #2.  
DST #2 10,600 (bottom of csg)-10,770

Bottom of pkr in csg @ 10,562

37' of anchor below pkr ¼" cnk in test tool on bottom.

Water cushion: 1,565' (24 bbls) Rw=12 @ 70°F

Hook load before setting pkr: 174,000#

Pit mud: Rm=2.29 @ 83°F (1287 ppm Cl-)

Op 10 min. Op w/weak blow (1" H<sub>2</sub>O), inc. to strong blow in 3 min, cont'd to increase for remaining 7 min. No GTS.

SI 90 min.

Op 68 min. Op w/strong blow immed. GTS, immed. rate in 65 min = 35 MCFPD, WCTS in 68 min.

SI 212 min.

Recovery: Reversed out following flow period:

24 bbls WC (Rw-12 @ 69°F)

154 bbls HGCO (32.5° API)

Sample Chamber: 55.6 cu. ft. gas @ 4900 psig

1900 cc total fluid

1805 cc oil (32.5° API @ 60°F)

95 cc mud

No water.

Pressures: Bottom Inside Recorder @ 10,543 (Field Readings)

IHP 5686

IFP 4142

ISIP 5580

FFP 4866

FSIP 5472

FHP 5996 (Inc mud wt prior to tripping out)

Max Temp: 199°F.

Mud: 10.4 x 47 x 5 (1215 ppm) (Oil 7%) (gels 0&1) (plastic vis 17) (yield point 5). NOV 16 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

11,034/116/72/139. Drilling.  
Mud: 10.5 x 47 x 6 (chlorides 11,055 ppm) (Oil 5.8%)  
(gels 0&1) (plastic vis 18) (yield point 5) (ph 9.5). NOV 17 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

11,136/116/73/102 Tripping.  
Mud: 10.5 x 48 x 6 (1155 ppm chlorides)  
(Oil 5.8%) (gels 0 & 1) (plastic visc 18)  
(yield point 5) (ph 4.5) NOV 18 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test

11,169/116/74/33. Drilling. Dev: 6° @ 11,136.  
Mud: 10.6 x 44 x 6.2 (chlorides 1106) (Oil 5.5%)  
(gels 0&1) (plastic vis 16) (yield point 7). NOV 19 1970

Shell-Tenneco-  
Brotherson et al  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test

11,224/116/75/55. Drilling.  
Pmpd 54 strokes - 6" liners; 18" stroke, 2,000# press.  
Jets (1) 13, and (2) 14's. Bit weight 45,000#, 44 RPM.  
Bit #34 8 5/8" S-88 in hole at 11,136.  
Mud: 10.6 x 46 x 6.2 (chlorides 1056) (Oil 5%)  
(gels 0&2) (plastic vis 17) (yield point 6) (ph 9.5). NOV 20 1970

Shell-Brotherson  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

11,340/116/78/116. Drilling. Dev: 6¼° @ 11,228, and  
6° @ 11,340.  
SLM 11,228 = 11,229.69 (no correction).  
On 11/21/70. Pump 54 strokes 6", 18" stroke 2,000#.  
Bit nozzles 1-13 and 2-14's. Bit weight 40,000#, 42 RPM.  
Bit #34 8 5/8" S-88 in at 11,136, and out @ 11,228.  
92' in 39½ hrs. T-8, B-8. Cut noses from three cones.  
Bit #35 8 5/8" 4JS in at 11,228.  
On 11/22/70. Pump 54 strokes 6", 18" stroke 2,000#.  
Jets 1-13, 2-14's. Bit weight 45,000#, 42 RPM.  
Bit #35 8 5/8" 4JS in at 11,228, out at 11,325.  
95' in 28 3/4 hrs. T-7, B-8, I.  
Bit #36 YHGJ in at 11,325. Lost slip handle on trip.  
Ran basket and tooth type bit.  
Pump 54 strokes, 6" 18" stroke 2,000# press.  
2-14's and 1-15. 40,000# bit weight. 42 RPM.  
Bit #36 8 5/8" YHGJ in at 11,325, out at 11,340. Made 15'  
in 5 hrs. T-4, B-3, I. Bit #37 8 5/8" 3JS in @ 11,340.  
Rec'd some iron in junk basket.  
Mud: 10.9 x 47 x 5.8 (sal 870 ppm) (ph 9) (gels 0&1)  
(plastic vis 19) (yield point 4). NOV 23 1970

Shell-Brotherson  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Cretaceous Test  
11,448/116/79/108. Drilling.  
Pump 54 strokes, 6" liners, 18" stroke 2,000#.  
Jets 2 - 14's, 1 - 15. 40,000# on bit. 42 RPM. NOV 24 1970  
Bit #37 8 5/8" 3JS - drlg.  
Mud: 11 x 46 x 5.8 (chl 8074) (Oil 4%) (gels 0&1)  
(plastic vis 19) (yield point 4) (cake 2/32") (ph 9).

Shell-Brotherson  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,493/116/80/45. Drilling. NOV 25 1970  
Mud: 10.9 x 45 x 5.4 (sal 858) (Oil 3½%).

Shell-Brotherson  
No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,753/116/85/260. Drilling. Dev: 4° @ 11,446.  
Mud: 12.6 x 48 x 5.4 (sal 825). NOV 30 1970

Shell-Tenneco-  
Brotherson No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,828/116/86/75. Drilling. DEC 1 1970  
Mud: 13.3 x 50 x 5.0 (sal 900) (LCM 6%) (Oil 3%)

Shell-Tenneco-  
Brotherson No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,885/116/87/57. Drilling. DEC 2 1970  
2½ hrs circ at 11,852, 1 hr circ at 11,884.  
Lost approx 70 bbls mud.  
Mud: 14.3 x 57 x 4.8 (sal 950) (LCM 7%) (Oil 3%)

Shell-Tenneco-  
Brotherson No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,888/116/88/3. Circ; prep to drill. DEC 3 1970  
Ran logs as follows: DIL/SP, Int BHCS/GR/Cal.  
Pulled Bit #40 8 5/8" Smith 4JS out 11,888.  
Made 136' in 46 hrs. T-4, B-3, I.  
Mud: 14.4 x 60 x 5.8 (sal 594) (LCM 8%) (Oil 2½%)

Shell-Tenneco-  
Brotherson No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,898/116/89/10. Pulling DST No. 3.  
Set pkrs for DST No. 3; would not hold.  
Mud: 14.2+ x 57 x 5.6 (sal 610) DEC 4 1970

Shell-Tenneco-  
Brotherson No. 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,975/116/92/77. Prep to pull Bit #41.  
DST #4 Johnston Hockwall. Test failed. Pkrs @ 11,638 &  
11,635. DEC 7 1970  
Mud: 13.5 x 47 x 5.9 (sal 726) (LCM 5%) (Oil 2%)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
11,997/116/93/22. Drilling. Dev: 4° at 11,975.  
Bit #41 rerun Smith 4JS out at 11,975. Made 77'  
in 25 3/4 hrs. Condition of bit - one seal out.  
Reamed tight hole w/Bit #42 from 11,287-11,400.  
Mud: 13.4 x 42 x 6 (sal 676) (Oil 2%) DEC 8 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,020/116/94/23. Going in hole w/core bbl to cut Core #3.  
Mud: 13.6 x 53 x 6 (sal 676) (LCM 5%) (Oil 2%) DEC 9 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,050/116/95/30. Coring on Core No. 4.  
Core No. 3 12,020-12,039. Cut and rec'd 19'. Bbl jammed.  
12,020-12,021 Silt, red-brn, shaley, sli calc, N.S.  
12,021-12,022 A.a., w/gry-grn limey inclusions  
12,022-12,023 Sh, silty, red-brn, very calc  
12,023-12,029 Silt, red-brn, shaley, calc, N.S.  
12,029-12,031 Ls, Lt gry, very shaley, N.S.  
12,031-12,032 Silt, red-brn, shaley, sli calc, N.S.  
12,032-12,039 Sh, red-brn, very silty

Note: Core completely intact. No evidence of natural fractures. No increase in gas while coring.

Magnafluxed DC's and BHA; no rejects.

Mud: 13.7 x 56 x 6 (676 ppm chl) (oil 2%) (gels 0 & 2)  
(plastic vis 32) (yield point 4) DEC 10 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,097/116/96/47. Drilling.  
Core No. 4 12,039-12,064. Cut & rec'd 25'. (Core intact)

12,039-12,040 Sh, red brn, v silty, calc  
12,040-12,041 Ls, gry, v shaley  
12,041-12,042 Sh, red brn, v silty, calc  
12,042-12,043 Dolo, gry, sh  
12,043-12,044 Silt, gry, calc  
12,044-12,047 Ss, wh-lt gry, v calc, tight, vf gr, N.S.  
12,047-12,050 Ss, a.a., wh  
12,050-12,051 Ss, a.a., gry, sli calc  
12,051-12,052 Ss, a.a., dk gry, sli calc  
12,052-12,053 Silt, dk gry, sh, sli calc  
12,053-12,056 Sh, red brn, sli calc, silty  
12,056-12,064 Sh, a.a., v calc

Bit #45 8 5/8" Smith 3JS 2 - 15's and 1 - 16 nozzle.  
8 1/2 hrs - 34'.

Mud: 13.7 x 47 x 5.9 (cake 2/32") (ph 9) (Sd Trc)  
(plastic vis 25) (yield point 3) (solids 21) (oil 1 3/4%)  
(salt 660) (gels 1 & 1) DEC 11 1970

Shell-Tenneco-  
 Brotherson 1-3B4  
 (D) Brinkerhoff  
 14,000' Green River-  
 Wasatch Test  
 9 5/8" csg at 10,600'

12,297/116/103/5. Going in hole w/DST No. 6.  
 Core No. 6 12,236-12,292. Cut and rec'd 56'.  
 12,236-12,243 Sh, sdy and silty to ss, shaley, red and  
 grn-gry interbedded, v poor sorting, calc,  
 grain size ranges from silt to coarse  
 12,243-12,246 Ss, med gry-grn, lvf-lf, occ siltstone,  
 v calc, mod sort spty yellow-grn fluor,  
 numerous 20° partially healed fractures  
 12,246-12,247 Siltstone, red and grn-gry mottled, v  
 shaley, bored and churned  
 12,247-12,255.5 Ss, lt tan-gry, v calc, dull grn fluor  
 throughout, bleeding gas, x-bedded,  
 numerous vert part open fractures w/yellow-  
 grn oil, small calcite crystals, grain size  
 sorting, and est por as follows:  
 12,247-12,248 lf, well, tite  
 12,248-12,249 lf, well, 2-4%  
 12,249-12,250 uf, mod, 5-7%  
 12,250-12,251 lf, mod 4-5%  
 12,251-12,252 uf, mod-poor, 2-3%  
 12,252-12,253 uf-cs, v poor, 2%  
 12,253-12,254 lm, mod, 1-2%  
 12,254-12,255.5 lm-lf, mod-poor, tite  
 12,255.5-12,258 Sh, (claystone), sdy, grn-gry, v poor sorting,  
 sli calc, tite  
 12,258-12,259 Interbedded red and grn-gry sdy sh, a.a.,  
 grain size, vf-coarse  
 12,259-12,261 Ss, lt gry, lvf, and silt, dk gry-grn, shaley,  
 interbedded, ss has qtz appearance crossbedded,  
 tite, numerous 70° tite fractures, N.S.  
 12,261-12,270 Sh, (claystone) red and grn-gry interbedded,  
 frequent silt and sd stringers, calc, bored  
 and churned  
 12,270-12,280 Ss, lt gry, frequent dk gry shaley stringers,  
 top 6' bored and churned, lower 4' cross-  
 bedded up to 30°, tite, N.S.  
 (Sh stringers micaceous)  
 12,280-12,287 Sh, gry-grn to blk, occ ss stringers, uvf,  
 bored and churned, occ 70° fractures in sd.  
 12,287-12,292 Dolo, claystone, med gry, chalky on fresh  
 breaks, bleeding gas slightly, open calcite  
 crystal lined fracture last 3". yellow brn  
 oil on fractures DEC 16 1970

(Cont'd)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,215/116/99/119. Drilling.  
DST No. 5 12,031-12,114.  
1/4" choke in test tool on bottom 5100 feet water  
cushion Rw = 3.82 @ 64°F  
Pit Mud = 0.52 @ 53°F  
Op 10 min Open w/very weak blow. Incr to strong blow  
in 2 min. Con't strong throughout. No GTS.  
SI 90 min  
Op 90 min Open w/weak blow. Incr to strong blow in  
1 min. No GTS.  
SI 270 min (GTS 5 min into shut in)  
Recovery: Based on final flow pressure:  
36 Bbls G&OC Mud  
Est max 10% of dark brown gas cut oil  
Sample chamber contents will be reported later.  
Pressures: IHP 8822, IFP 3487, ISIP 6010 (Inc.),  
FFP 3433, FSIP 5162 (Inc.), FHP 8822.  
Max temp - 210°F. DEC 14 1970  
Mud: 13.8 x 52 x 5.8 (sal 627) (LCM 5%) (oil 1 3/4%)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,235/116/100/20. Tripping in for Core No. 6  
SLM 12,220 = 12,225 (5' correction)  
Core No. 5 12,225-12,236. Cut and rec'd 11'  
12,225-12,227.5 Ss, f-m gr, gry, mod sorting, v calc,  
tite, 1% dk minerals, partially healed  
fractures, 20° from vertical, N.S.  
12,227.5-12,234.5 Interbedded red and gry-grn sh, sli  
calc, bored and churned in grn sh  
12,234.5-12,236 Ss, gry-grn, f-m gr, mod sorting,  
calc, est 2-3% por, partially healed  
fractures, 20° from vertical, blue-  
grn spty nat fluor, slow strmg cut.  
Addition to DST No. 5  
Sample chamber contained: 70.56 CF gas at 2075 psi.  
No fluid.  
Mud: 13.8 x 55 x 5.8 (sal 627) (LCM 5%) (oil 1 3/4%)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,281/116/101/46. Coring.  
Mud: 13.9 x 58 x 5.7 (sal 627) (oil 1 3/4%) DEC 16 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,292/116/102/11. Pulling Core #6.  
Made short trip 1 hr off bottom. Mud weight cut  
from 14 to 13.8#.  
Mud: 14.3 x 58 x 5.7 (sal 627) (oil 1 3/4%) DEC 17 1970

(Cont'd)

Core No. 7 12,292-12,297. Cut and rec'd 5'.

Details later.

Sidewall core slices obtained on first logging run are described as follows:

7828-7831 Full recovery.

Oil shale, lt brn, finely laminated, indurated, dolomitic, kerogen finely distributed in laminae, some pure kerogen zones up to 1/16", silty and pyritic, interbedded silt stringers up to 1/4" thick w/silica cmt, very hard, micaceous, minor vertical hair line fractures in silt, oil staining in silt.

8300-8303 Full recovery.

Oil shale, a.a. w/silt and vf sand stringers up to 2" thick, vertical fractures, bleeding oil.

9378-9381 Recovered 2 feet.

Limestone (mudstone), chalky, lt brn-lt gry, irregularly bedded, slightly silty, pyritic, fossiliferous, 1/16" vertical fractures partially to completely healed with calcite

9408-9411 Full recovery (fractured and broken).

Limestone (mudstone), chalky, lt brn-lt gry, irregularly bedded, very fossiliferous in many intervals, few well developed stylolites (some near vertical), vertical fractures (hairline to 1/10") partially to completely healed w/calcite

9818-9821 Full recovery.

Limestone a.a., w/many hairline vertical fractures (more appear to be healed), good cut fluor, good blotchy porosity

DEC 18 1970

Mud: 14.4 x 58 x 5.6 (sal 625) (oil 1 3/4%)

Shell-Tenneco-

Brotherson 1-3B4

(D) Brinkerhoff

14,000' Green River-

Wasatch Test

9 5/8" csg at 10,600'

12,336/116/106/39. Drilling.

DST No. 6 12,200-12,297. Misrun.

Core No. 7 12,292-12,297. Cut and rec'd 5'.

12,292-12,297 Ss, lt tan-gry, v calc, ranges from lvf to u med, mod-poor sort, est 1-3% por, slt fluor, weak cut fluor, some tite vert frac traces.

Hole took 80 bbls mud on trip out w/DST. Lost 300 bbls mud while reaming core hole from 12,225-12,247. Pulled bit up into csg. Spent 21 hrs mixing 4 pits mud. Circ'd at 10,500'. Lost 50 bbls. Tripped in at 11,300. Circ'd w/no mud lost. Spent 10 1/2 hrs drlg on bridges from 11,400-11,620 and then ran bit to bottom. Reamed core hole and commenced drlg. No mud lost.

Mud: 14.3 x 52 x 7.6 (LCM 14%) (oil .9%)

DEC 21 1970

(Cont'd)

Core No. 7 12,292-12,297. Cut and rec'd 5'.

Details later.

Sidewall core slices obtained on first logging run are described as follows:

7828-7831 Full recovery.

Oil shale, lt brn, finely laminated, indurated, dolomitic, kerogen finely distributed in laminae, some pure kerogen zones up to 1/16", silty and pyritic, interbedded silt stringers up to 1/2" thick w/silica cmt, very hard, micaceous, minor vertical hair line fractures in silt, oil staining in silt.

8300-8303 Full recovery.

Oil shale, a.a. w/silt and vf sand stringers up to 2" thick, vertical fractures, bleeding oil.

9378-9381 Recovered 2 feet.

Limestone (mudstone), chalky, lt brn-lt gry, irregularly bedded, slightly silty, pyritic, fossiliferous, 1/16" vertical fractures partially to completely healed with calcite

9408-9411 Full recovery (fractured and broken).

Limestone (mudstone), chalky, lt brn-lt gry, irregularly bedded, very fossiliferous in many intervals, few well developed stylolites (some near vertical), vertical fractures (hairline to 1/10") partially to completely healed w/calcite

9818-9821 Full recovery.

Limestone a.a., w/many hairline vertical fractures (more appear to be healed), good cut fluor, good blotchy porosity

DEC 18 1970

Mud: 14.4 x 58 x 5.6 (sal 625) (oil 1 3/4%)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,336/116/106/39. Drilling.

DST No. 6 12,200-12,297. Misrun.

Core No. 7 12,292-12,297. Cut and rec'd 5'.

12,292-12,297 Ss, lt tan-gry, v calc, ranges from lvf to u med, mod-poor sort, est 1-3% por, slt fluor, weak cut fluor, some tite vert frac traces.

Hole took 80 bbls mud on trip out w/DST. Lost 300 bbls mud while reaming core hole from 12,225-12,247. Pulled bit up into csg. Spent 21 hrs mixing 4 pits mud. Circ'd at 10,500'. Lost 50 bbls. Tripped in at 11,300. Circ'd w/no mud lost. Spent 10 1/2 hrs drlg on bridges from 11,400-11,620 and then ran bit to bottom. Reamed core hole and commenced drlg. No mud lost.

Mud: 14.3 x 52 x 7.6 (LCM 14%) (oil .9%) DEC 21 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,400/116/107/64. Circ'g and short tripping; cond hole  
for logs.  
Circ'd 1½ hrs short trip into csg. Hole dragged out and in.  
Mud: 14.3 x 56 x 6 (LCM 14.5%) (Oil .8%) DEC 22 1970

Shell-Tenneco  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
9 5/8" csg at 10,600'

12,400/116/108/0. Circ and cond hole for logs.  
Logs would not go below 10,777; tool was stuck briefly  
at 10,713.  
Mud: 14.3 x 57 x 6.6 (LCM 14%) (Oil .8%) DEC 23 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

12,400/116/109/0. Attempting to fish DP wiper rubber  
out of csg at 5000'. While logging, logging tool became  
stuck at 12,175. Worked tool loose. While running bit to  
cond hole, wiper rubber pulled into csg. DEC 24 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

12,400/116/113/0. Going in hole to run DST No. 7.  
Could not fish DP wiper rubber but tore up same.  
Cond hole for logs. Logging tool went to bottom ok  
but hung up during logging. Ran logs as follows: DIL/SP,  
Int BHCS/GR/Cal, PL/ML, and FDC/GR/Cal. Cond hole for DST.  
Mud: 14.3 x 56 x 4.2 DEC 28 1970

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

12,400/116/114/0. Going in to cond hole for running  
7 5/8" liner.  
DST No. 7 12,244-12,349 (Lynes Pkr)  
Op 13 min w/very weak blow (½" wtr) and continuing  
throughout. SI 90 min.  
Op 60 min w/very weak blow (½-1" wtr) and continuing  
throughout. SI 210 min. No GTS.  
Ran 6997' WC. R(WC) in 10+ (140 ppm Cl)  
R(WC) out same

Recovery: 190' sli GCM (Rev. out 1.23 at 65°)  
(1100 ppm Cl)

Sample Chamber contained: 5 CF gas at 1650 psig  
1500 cc's sli GCM w/trc oil

Rm (pit mud) 2.5 at 65° (610 ppm Cl)

Rm (chamber) 1.87 at 65° (1250 ppm Cl)

Inside Recorder at 12,209

IHP 9181, FHP 9116, IFP 3617-3621, ISIP 8288, FFP 3534-  
3589, FSIP 8339. DEC 29 1970  
BHT - 1890

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

12,400/116/115/0. Circ and cond mud for 7 5/8" liner.  
Lost approx 75 bbls mud. DEC 30 1970  
Mud: 14.2 x 50 x 4.2 (sal 825 ppm) (LCM 8%) (oil 1/2%)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test

12,400/116/116/0. Circ and cond mud waiting on  
7 5/8" liner equipment. DEC 31 1970  
Had tight hole at 11,338 and made short trip to shoe.  
Mud: 14.1 x 58 x 4.4 (sal 848) (LCM 8%) (oil 1/2%)

Shell-Tenneco  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test

12,400/116/120/0. Working on draw works.  
Ran and cmt 54 jts (2312') 33.4# 7 5/8" hyd FJ liner.  
Bkr float shoe at 12,398, float collar at 12,313, top  
of Burns hanger at 10,086. Cmt'd w/25 sx 1:1 poz, 275 sx  
Class "G" neat treated w/4#/sx B-82 and .3% D-8R, and  
.25% D-65. Bumped plugs w/271 bbls mud to 1500 psi. Had  
good circ throughout job. Cmt in place 4:15 p.m. 1/1/71.  
Had 390' stringers and soft cmt in 9 5/8" csg, 21' hard  
cmt above top of liner. JAN 4 1971  
Mud: 14.1 x 63 x 5.9 (sal 678)

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400

12,400/116/121/0. Going in hole with bit to drill.  
Ran 7 5/8" Bkr scraper. Drilled out float collar at  
12,312' & CO hd cmt to shoe at 12,398'. Tested liner  
and 9 5/8" csg with 450 psi at sfc for 15 min, held ok.  
Had 7 hrs repairs. JAN 5 1971  
Mud: 13.8 x 78 x 6.0 (sal 860).

Shell-Tenneco  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
7 5/8" Liner at 12,400'

12,438/116/122/38. Tripping.  
Bit #47 Security 6 1/2" F-88 - 38' in 19 hrs.  
Mud: 13.8 x 63 x 5.4 (sal 1237) (sd trc). JAN 6 1971

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
7 5/8" Liner at 12,400'

12,501/116/123/63. Drilling. JAN 7 1971  
Mud: 13.8 x 56 x 5.6 (salt 1370)

Shell-Tenneco- 12,571/116/124/70. Drilling.  
Brotherson 1-3B4 Mud: 14.0 x 52 x 5.8 (sal 1353) (Oil trc) JAN 8 1971  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

Shell-Tenneco- 12,735/116/127/164. Drilling.  
Brotherson 1-3B4 Well kicked at 12,718. Put well on chk; circ through  
(D) Brinkerhoff chk and killed well. Break down - 11½ hrs drlg,  
14,000' Green River 11 3/4 hrs killing well and building mud wt. 3/4 hrs  
Wasatch Test made wiper run to shoe off 7 5/8.  
7 5/8" Liner at 12,400' Mud gradient .759 psi/ft.  
Mud: 14.6 x 59 x 5.6 (chlorides 800) (sal 1320)  
(LCM trc) (Oil trc). JAN 11 1971

Shell-Tenneco 12,771/116/128/36. Drilling.  
Brotherson 1-3B4 Bit #48 6½" Christensen diamond 297' in 98½ hrs.  
(D) Brinkerhoff Condition - reamed out. 11 hrs drlg, 9½ hrs trip,  
14,000' Green River 1 hr cut drilling line, 2½ hrs circulating bottoms up.  
Wasatch Test Mud gradient psi/ft .7566  
7 5/8" Liner at 12,400' Mud: 14.5 x 57 x 5.6 (ch 830) (sal 1370) (LCM trc)  
(Oil trc). JAN 12 1971

Shell-Tenneco- 12,779/116/129/8. Running DST #8 12,680-12,779.  
Brotherson 1-3B4 2 hrs drlg, 11¼ hrs tripping, 6 3/4 hrs circ and bldg  
(D) Brinkerhoff mud weight, 2½ hrs making up test tools, and 1½ hrs testing.  
14,000' Green River Mud gradient - .7566  
Wasatch Test Mud: 14.7 x 55 x 5.5 (chl 800) (salt 1320) (LCM trc)  
7 5/8" Liner at 12,400' (Oil trc). JAN 13 1971

Shell-Tenneco 12,779/116/130/0. Going in hole w/diamond bit.  
Brotherson 1-3B4 DST No. 8 - 12,680-12,779. (5,500' WC) (3/4" btm hole chk)  
(D) Brinkerhoff Op 5 min. Op'd w/weak blow, inc to strong blow in 2 min,  
14,000' Green River- continued to increase throughout. No GTS.  
Wasatch Test SI 115 min, Op 48 min. Op'd w/strong blow. GTS in 37 min.  
7 5/8" Liner at 12,400' WCTS (gassy) in 47 min.  
SI 233 min.  
Recovery: 124 bbls very gassy oil  
2 bbls gas-cut mud  
Pressures: IHP 9,906, IFP 2,922, ISIP 9,804, FFP 4,351  
FSIP 9,578, FHP 9,808.  
Chamber information later.  
Circ through test tools to kill well. Had three hrs  
breaking down tools, 5 hrs trip, 5¼ hrs testing, 3 3/4 hrs  
reversing out, and 6 3/4 hrs circ and kill well.  
Mud: 14.7 JAN 14 1971

Shell-Tenneco- 12,812/116/131/33. Drilling.  
Brotherson 1-3B4 Reamed and CO 108' intermittent bridges and fill;  
(D) Brinkerhoff had tight hole. 7½ hrs reaming, 12½ hrs drilling,  
14,000' Green River 4 hrs trip. JAN 15 1971  
Wasatch Test Mud gradient 0.78  
7 5/8" Liner at 12,400' Mud: 15.0 x 59 x 5.1 (salt 1285) (LCM 0) (Oil 1%)

Shell-Tenneco- 12,850/116/134/38. Tripping.  
Brotherson 1-3B4 (Addition to DST reported 1/14/71)  
(D) Brinkerhoff Sample chamber contained: (2240 cc's total volume)  
14,000' Green River- 3700 psi  
Wasatch Test 1400 cc's oil (Oil Gv 37.8° API @ 60°F)  
7 5/8" liner at 12,400' Ran logs as follows: DIL/SP, Int BHCS/GR/Cal, SNP/GR/Cal,  
FDC/GR/Cal, PL/ML, Shear Amplitude, and Borehole  
Televiwer attempted (negative results)  
Spent 7½ hrs logging, 5¼ hrs tripping, 10¼ hrs circ  
and cond mud for Bkr Model "D" prod pkr and 1 hr cutting  
drlg line. JAN 18 1971  
Mud gradient - 0.78  
Mud: 15 x 60 x 5.2 (salt 1370) (Oil 3/4%)

Shell-Tenneco- TD 12,850/116/135/0. Laying down DP.  
Brotherson 1-3B4 Tripped out of hole. RU McC tools. Set Bkr 7" Model  
(D) Brinkerhoff "D" pkr w/flapper valve attached at 12,275 (top of  
14,000' Green River- pkr) (WL meas). Btm of pkr 18' above top of 7" float  
Wasatch Test collar. RD McC. Tripped in w/open ended DP. Circ  
7 5/8" liner at 12,400' to cond mud at 12,200'. JAN 19 1971  
Mud: 15 (no other details available)

Shell-Tenneco- 12,850/116/136/0. Changing BOP stacks.  
Brotherson 1-3B4 Laid down DP. Racked, drifted and tallied 5½" csg heat  
(D) Brinkerhoff string. Installed 5½" rams and BOP's. Ran (belled and  
14,000' Green River- openended) 125 jts (3976.55') 5½" 14# J-55 Rg-2 smls  
Wasatch Test stl ST&C csg and landed on Cameron donut at 3995.87'.  
7 5/8" liner at 12,400' Set Bkr ret BP in 5½ string at 45'. JAN 20 1971

Shell-Tenneco- TD 12,850/116/137/0. Going in hole w/2 7/8" tbg.  
Brotherson 1-3B4 Installed Cameron tbg hanger. Tested bottom of hanger  
(D) Brinkerhoff and 5½" donut installation to 5000 psi. Installed 6"  
14,000' Green River- (Series 1500) double gate BOP w/6" GK (Series 1500) hydril  
Wasatch Test on top. Hooked up kill line and pump line. Installed  
7 5/8" liner at 12,400' drlg nipple. Checked BOP operations, ok. Pulled Bkr 5½"  
BP from 45'. Picked up Bkr prod tube latch in seal JAN 21 1971  
assembly. Tbg on and off tool w/blanking plug in place.

Shell-Tenneco-  
 Brotherson 1-3B4  
 (D) Brinkerhoff  
 14,000' Green River-  
 Wasatch Test  
 7 5/8" liner at  
 12,400'

TD 12,850/116/138/0. Displacing hole w/inhibited water. Installed Cameron tbg hanger. Test 5½" donut lower tbg spool pack off to 5000 psi, ok. Installed 6" Series 1500 hydraulic BOP w/6" Series GK hydril on top. Installed kill line, flow off line and drlg nipple. Checked BOP operation, ok. Pulled Bkr ret BP from 45' and picked up Bkr 5' prod tube. Latched in seal assembly 2 7/8" tbg on off seal connector assembly with bypass blanking plug in place on 2 7/8" N-80 tbg. Ran in 388 joints tbg, stung through and latched into Model "D" pkr. Set down 20,000# and pulled 20,000# over tbg wt to check latch, ok. Press test tbg and plug to 5000 psi 10 min, ok. Unlatched from on off seal connector. Pulled 2 jts 2 7/8" tbg. Removed drilling nipple and sub and put on tbg donut. With donut just above hydril BOP's, displaced mud in reverse as follows: all fresh wtr preheated to 100°F. Pumped 250 bbls fresh wtr down 5½-9 5/8" annulus. Pumped 150 bbls fresh wtr down 2 7/8-5½" annulus. Mixed 40 bbls fresh wtr w/gel to 40 viscosity. Pumped down 5½-9 5/8" annulus 460 bbls fresh wtr - total of 900. The returns est 99% wtr. Pumped 460 bbls fresh wtr - 1360 bbls total. Return samples clean.  
 JAN 22 1971

Shell-Tenneco-  
 Brotherson 1-3B4  
 (D) Brinkerhoff  
 14,000' Green River  
 Wasatch Test  
 7 5/8" Liner at 12,400'

TD 12,850/116/141/0. Prep to reopen to pit. Circ'd out mud. Circ w/fresh water containing 85 gals Nalco 163 and 94# Nalco 19. Latched onto seal sleeve. Tested tbg and sleeve to 5,000 psi, held ok. Unlatched from sleeve. Installed back pressure valve in tbg hanger. Removed landed tbg on donut w/tbg off-on tool latched onto sleeve. Installed Cameron 10,000 psi Xmas tree. Tested tbg hanger spool to 10,000 psi, ok. Removed back press valve from tbg hanger. RU Marshall WL Tool Co. to retrieve blanking plug from seal assembly. Press'd tbg to 3500 psi. Retrieved equalizing trong. TP rose to 3700 psi. Fished and retrieved blanking plug hull. Press dropped to 2700 psi while fishing for hull; slowly rose to 4,000 psi. Blew well to pit to clean up at 9:05 a.m., SITP 4,000 psi. Began flowing to pit at 9:10 a.m. as follows:

<u>Time</u>	<u>Chk</u>	<u>FTP</u>	<u>Remarks</u>
9:10 a.m.	15/64"	2700	
9:15 a.m.	15/64"	1000	
9:30 a.m.	15/64"	1000	
10:00 a.m.	15/64"	1200	
10:15 a.m.	15/64"	1100	
10:30 a.m.	15/64"	2000	Mud to sfc JAN 25 1971
11:00 a.m.	15/64"	1500	Oil-cut mud
11:25 a.m.	15/64"	2000	Clean oil to sfc

(Cont'd)

Shell-Tenneco  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/144/0. Flowing to tank battery; preparing to install line heater. In 21 hrs, on 3/64" - 11/64" chks, flowed 547 BO and 0 BW. Down two hrs to change gas back press valve on heater treater. Down one hr to hot water gas line from treater to burn pit. Avg rate last six hrs - 18.2 BO/H, no wtr on a 6/64" chk, 4550 FTP, and 1650 SICP. JAN 28 1971

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/145/0. Press testing in-line heater. Reopened well through heater and gas separator. Flowed total of 18 hrs. Down 6 hrs repairing brass components. Last 7 hrs, avg'd 21 BO/H on 8/64" chk, 4500 FTP, static CP 1500. Total oil produced in 58 hrs - 1330 bbls. Total water produced in 58 hrs - 40 bbls. JAN 29 1971

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/148/0. Flowing into battery on 15/64" chk. From 7 a.m. 1/29 to 7 a.m. 1/30/71, well flowed 911 bbls in 22 hrs. Last 14 hrs, flowed 708 BO, no wtr, and no gas meas on 14/64" chk. FTP 3,000. Hourly rate - 50.5 BO/H. Trouble w/heater treater and burners plugging. Difficulty flowing due to low flowing temperatures, line heater and gas trap. Total oil flowed in 80 hrs - 2274 bbls. From 7 a.m. 1/30 to 7 a.m. 1/31/71, on 24-hr test, well flowed 1181 bbls oil, no water, or gas measurement on 14/64" chk, 2950 FTP. Hourly avg - 49 BO/H. Last 4 hrs avg - 48 BO/H. Total oil flowed in 104 hrs - 3455 bbls oil and 40 BLW. Flowed continuously on 14/64" chk for 38 hrs. From 7 a.m. 1-31 to 7 a.m. 2/1/71, flowed on 14/64" chk w/2800 FTP for five hrs. Shut well in 1 p.m. 1/31/71 to pump 40 bbls 200°F fresh wtr down tbg. MI&RU Hal. Pumped 1 BW/M down tbg. Max press - 6,000 psi. CO burner tubes on heater treater and installed gas scrubber on gas liquid separator. Opened well at 2:45 p.m. Opened well gradually to 14/64" chk at 6 p.m. Had trouble w/chk trying to plug off until 9 p.m. Placed rig steam hose on chk at 8:30 p.m. Opened chk to 15/64" at 11 p.m. Well flowed 894 BO and 19 BW in 22½ hrs. Down 1 3/4 hrs hot watering tbg. Last 8 hrs, flowed 381 BO, no wtr, and avg gas rate of 1.3 MMCF/D w/FTP from 2500-2700 on 15/64" chk. Avg rate last 8 hrs - 47.6 BO/H, no wtr, & 1.3 MMCF/D (GOR 1140). Total flowed to battery 7 a.m. 2/1/71 - 4349 BO and 59 BW in 126 hrs. FEB 1 1971

Shell-Tenneco  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/149/0. Flowing well; cleaning mud pits. Flowed 19 hrs on 15/64" chk and 5 hrs on 15.5/64" chk. Total oil flowed in 24 hrs - 1156 BO, 0 BW, and 1010 MCF (GOR 874). Avg rate - 48 BO/H. Last five hrs flowed on 15.5/64" chk at rate of 50 BO/H, 2250 FTP, SICP 1655. Total flowed in 150 hrs - 5505 bbls oil and 59 BW. Washed up mud pits and salvaged approx 700 bbls 15# mud into lined earthen pit and 300 bbls tank. Remainder of pit volume was shale and cuttings. FEB 2 1971

(Cont'd)

JAN 2 5 1971

SI 15 min - TP to 5500 psi. Choke washed out. Replaced stem and seat in chk and turned to system. Gas back press valve on treater sticking. Cleaned valve. Opened to system through gas trap. Gas trap not separating sufficiently - dumping oil to burn pit and to treater. Shut well in when heat from burn pit became hazardous to drlg rig and installations. Due to short flow period and gas trap action, unable to get flowing TP below 3,000 psi. Dug new burn pit. Extended all lines to new pit and covered old pit. Installed heat line from gas trap to wellhead to preheat flowline.

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/142/0. SI; having difficulty w/Xmas tree. Attempted to flow well. TP 5650, CP 1600. Rechecked csg and bled to 0; building back 100 psi every minute. Attempted to run FSG blanking plug; unable to get through Xmas tree. Hung on metal and tree; had to seal off and retrieve w/fishing tools. Attempted to run gauge ring; would not go. Pulled out and checked operation of Xmas tree valve; apparently operating ok. JAN 2 6 1971

Shell-Tenneco  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River-  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/143/0. Flowing to battery. Determined USI high-low master valve defective. Replaced master valve w/reg 10,000# Cameron inset valve. Ran gauge ring through tree numerous times to 75'; no obstruction. RD Hal and Marshall WL Service. Opened well to pit. Blew LW to pit and turned to installation at 2:30 p.m. on 9/64" chk. Rates are as follows:

<u>Time</u>	<u>BO</u>	<u>BW</u>	<u>FTP</u>	<u>Chk</u>
3-4 p.m.	12	11	4100	9/64"
4-5 p.m.	10.33	28	4200	10/64"
5-6 p.m.	23.0	0	3400	9/64"
6-7 p.m.	25.84	0	4300	6/64"
7-8 p.m.	44.23	0	4400	4/64"
8-9 p.m.	34.85	0	4300	4/64"
9-10 p.m.	14.19	0	4500	3/64"
10-11 p.m.	46.47	0	4400	2/64"
11-12 p.m.	15.49	0	4500	2/64"
12-1 a.m.	23.18	0	4500	8/64"
1-2 a.m.	23.14	0	4200	9/64"
2-3 a.m.	15.43	0	4300	8/64"
3-4 a.m.	23.14	0	4500	8/64"
4-5 a.m.	33.43	0	4350	8/64"
5-6 a.m.	23.15	0	4400	8/64"
6-7 a.m.	25.17	0	4400	8/64"

Remarks:

4-5 p.m. Installed new stem and seat in choke  
6-7 p.m. Chk cutting out  
12-1 a.m. Installed new trim and seat in chk  
2-3 a.m. SI; working on heater treater and back press valve  
Totals in 16 hrs - 396.83 BO and 39 BW with hrly avg of  
24.61 B/H. CP as of 7 a.m. 1650 psi. JAN 2 7 1971

Shell-Tenneco-  
Brotherson 1-3B4  
(D) Brinkerhoff  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850/116/150/0. Flowing.  
From 7 a.m. 2/2 to 2/3/71, flowed total of 1140 BO and 0 BW  
in 24 hrs. 24 hr avg - 47.5 B/H, no wtr. Total flowed in  
174 hrs - 6645 BO and 59 BW.  
From 7 a.m. - 8 a.m. 2/2/71, well flowed 51 BO/H, no wtr  
on 15.5/64" chk at 2250 FTP. SICP 1675.  
At 1 a.m. 2/3/71, flowed 53 BO/H, no wtr, on 16/64" chk  
w/2200 FTP.  
At 2 a.m. 2/3/71, changed to 12/64" chk because of temperatures  
and at 3 a.m. flowed 46 BO/H, no wtr on 12/64" chk w/2950 FTP.  
At 7 a.m. 2/3/71, changed to 11/64" chk and flowed 36 BO/H,  
no wtr w/FTP 3250, SICP 1675. Avg gas rate - 931 MCF/D  
(GOR 816). FEB 3 1971

Shell-Tenneco  
Brotherson 1-3B4  
(D)  
14,000' Green River  
Wasatch Test  
7 5/8" Liner @ 12,400'

TD 12,850. Flowing. In 24 hrs, flowed total of 952 BO,  
no wtr, and 179.4 MCF (GOR 824). Avg rate - 39 B/H. At  
8 a.m. 2/3/71, on 11/64" chk at 3300 FTP. SICP 1675.  
Flowed on various chks up to 17/64". Pinched back choke  
from 17/64" at 5 p.m. 2/3/71 to 11/64" at 7 a.m. 2/4/71.  
FTP 3250, SICP 1700 psi. Total produced in 198 hrs -  
7596 BO and 59 BW. Released rig 12 noon 2/2/71. FEB 4 1971

Shell-Tenneco  
Brotherson 1-3B4  
(D)  
14,000' Green River-  
Wasatch Test

TD 12,850. Flowing well to battery. FTP at 8 a.m. 2/4/71  
3250, SICP 1700, 11/64" chk. At 7 a.m. 2/5/71, well flowed  
625 BO, 765 MCF (GOR 1192), and 33 bbls load wtr in 20 hrs,  
12/64" chk, FTP 3500, SICP 1700. Hourly rate - 31 B/H.  
Total produced in 218 hrs - 8220 BO and 92 BW. Shut well  
in 1 p.m. 2/4/71. Pumped 30 bbls 275°F fresh wtr down tbg  
(Hal). Max press - 5750 at rate of 1 B/M. RD Hal. Began  
to backflow wtr. Flowed approx 10-15 bbls cutting gas  
supply off, filling all gas lines w/oil. Down total of  
four hrs and resumed operation. FEB 5 1971

Shell-Tenneco-  
Brotherson 1-3B4  
(D)  
14,000' Green River  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850. SI; Moving out rotary tools. Will install  
permanent equip before well is reopened. On 6-hr test  
2/6/71, flowed 218 BO, and no wtr. (Total produced in  
244 hrs - 8,438 BO and 92 BLW). FEB 8 1971  
(Rept disc until well is reopened).

Shell-Tenneco  
Brotherson 1-3B4  
(D)  
14,000' Green River-  
Wasatch Test  
7 5/8" Liner at 12,400'

TD 12,850. OIL WELL COMPLETE.

On 24-hr test 2/15/71, well flowed 1414 BO, 0 BW, and 1210 MCF gas (GOR 855) from the Wasatch OH interval 12,400-12,850'. Avg 24-hr rate - 58.92BO/H. (Total in 315½ hrs-14,082 BO, 92 BLW and 36 bbls' diesel load). Oil Gv-43.7° @ 60° API. Chk 1". FTP 400. CP 1400. Test date 2/15/71. Completion date 1/24/71.  
Elev: 6321 KB

Log Tops:

TGR<sub>1</sub> 5660 (+661)

TGR<sub>2</sub> 8237 (-1916)

TGR<sub>3</sub> 9634 (-3313)

Brotherson 1-3B4 is a southwest 640-acre offset to the Miles No. 1 discovery well in the Altamont field. This well encountered lower Green River and Wasatch intervals about 200' structurally high to the Miles No. 1. The productive Wasatch interval in this well is stratigraphically slightly below the productive interval in the Miles No. 1. This well initiates production in the unit comprising all of Section 3-T2S-R4W, Duchesne County, Utah.  
FINAL REPORT. FEB 17 1971

Branch of Oil and Gas Operations  
8416 Federal Building  
Salt Lake City, Utah 84111

March 5, 1971

Shell Oil Company  
P. O. Box 1200  
Farmington, New Mexico 87401

Re: Ute Tribal land lease  
14-20-H62-1774, Altamont  
field, Duchesne Co., Utah

Gentlemen:

Our records show Shell Oil Company is the lessee of record of the referenced lease which includes land in sections 34 and 35 of T. 1 S., R. 4 W., U.S.M., and section 2 of T. 2 S., R. 4 W., U.S.M. Our records also show that the land in section 35 in this lease is committed to a communitization agreement for all of section 35, T. 1 S., R. 4 W.

On January 24, 1971, Shell Oil Company completed well No. 1-3B4 Brotherson located in Lot 2 (NE~~1/4~~NE~~1/4~~) section 3, T. 2 S., R. 4 W., for oil production in the Lower Green River-Wasatch Transition zone. The area is subject to an order dated June 17, 1970, Cause 139-1, by the Board of Oil and Gas Conservation of the State of Utah establishing 640-acre spacing for the Green River and Green River-Wasatch Transition zones.

The portions of the referenced lease located in sec. 34, T. 1 S., R. 4 W., and sec. 2, T. 2 S., R. 4 W., are now subject to drainage by the well located in sec. 3, T. 2 S., R. 4 W. Please advise this office what your plans are to protect the lease from drainage.

In view of the length of time required to drill and complete wells in the Altamont field, this office will recommend compensatory royalty be assessed on the referenced lease unless protective wells are commenced within a reasonable time in accordance with the spacing rules now in effect.

Sincerely yours,

Gerald R. Daniels

Gerald R. Daniels,  
District Engineer

cc: Utah Div. O&G Cons. ✓

April 6, 1971

Shell Oil Company  
1700 Broadway  
Denver, Colorado 80200

Re: Shell-Tenneco-Brotherson et al  
#1-384  
Sec. 3, T. 2 S, R. 4 W,  
Duchesne County, Utah

Gentlemen:

*This letter is to advise you that the electric and/or radioactivity logs for the above referred to well are due this office and as yet have not been filed.*

*It would be appreciated if the above logs were forwarded to this Division as soon as possible.*

*Thank you for your prompt attention to the above request.*

*Very truly yours,*

DIVISION OF OIL & GAS CONSERVATION

SCHEREE DeROSE  
SUPERVISING STENOGRAPHER

:sd

October 1, 1971

Shell Oil Company  
1700 Broadway  
Denver, Colorado

Re: Shell-Tenneco-Brotherson et al  
#1-3B4  
Sec. 3, T. 2 S, R. 4 W, USM  
Duchesne County, Utah

Gentlemen:

*It would be appreciated if you would forward a copy of the Synergetic Log which was run on the above referred to well.*

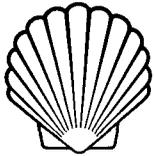
*Thank you for your cooperation with regard to the above.*

*Very truly yours,*

DIVISION OF OIL & GAS CONSERVATION

SCHEREE DeROSE  
SUPERVISING STENOGRAPHER

:sd



# SHELL OIL COMPANY

1700 BROADWAY  
DENVER, COLORADO 80202

October 15, 1971

Utah Oil & Gas Conservation Commission  
1588 West North Temple  
Salt Lake City, Utah 84116

Gentlemen:

Enclosed is the Synergetic Log for the Shell Brotherson 1-3B4,  
Altamont Field, Duchesne County, Utah, Section 3-T2S-R4W, per your  
request of October 1, 1971.

Very truly yours,

R. A. Flohr  
Division Production Manager  
Rocky Mountain Division

ARP:jrg

Enclosure

THE STATE OF UTAH  
DIVISION OF OIL AND GAS CONSERVATION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

P. 10

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Patented
2. NAME OF OPERATOR Shell Oil Company (Rocky Mountain Div. Production) Tenneco Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL and 1503' FEL Sec 3		8. FARM OR LEASE NAME W. H. Brotherson, Jr.
14. PERMIT NO.		8. WELL NO. 1-3B4
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6302 GL, 6321 KB		10. FIELD AND POOL, OR WILDCAT Altamont
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T 2S-R 4W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
Clean Out <input checked="" type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
<del>NEW WATER AND/OR</del> <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
REPAIR WELL <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	
(Other) Run 5 1/2" Liner <input checked="" type="checkbox"/>			

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.)\*

As per attached prognosis

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

DATE 3/13/72  
BY Clayton B. Feigh

18. I hereby certify that the foregoing is true and correct  
SIGNED J. C. Howell TITLE Division Operations Engineer DATE March 10, 1972  
(This space for Federal or State office use)

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

CASING AND CEMENTING

Field: Altamont

Well: Brotherson 1-3B4

KB-CHF 19.32'

Shoe joint started in hole at 8:30 a.m. 1/1/71.

Ran 54 jts 7 5/8" smls, HFJ casing liner to 12,398.23'.

<u>Jts.</u>	<u>Wt.</u>	<u>Grade</u>	ST&C <u>LT&amp;C</u>	<u>New</u>	<u>Feet</u>	<u>From</u>	<u>To</u>
		Burns 9 5/8" x 7 5/8"	liner hanger		2.00'	10,086.00	10,088.00
52	33.4	P-110	HSFJ		2,223.76'		12,311.76
		Baker float collar			1.18'		12,312.94
2	33.4	P-110	HSFJ		83.85'		12,396.79
		Baker float shoe			1.44'		12,398.23
			Total feet		<u>2,312.23'</u>		

54 Jts. Total

Baker float collar at 12,311.76 (Top)

Baker float shoe at 12,396.79 (Top)

No. Make & Type:

2 B&W centralizers spaced at 12,393' and 12,349'.

Cementing:

Broke circulation at 2:00 p.m. w/1,000 psi. Reciprocated and circulated 45 min. Cemented through shoe at 12,398' with 25 sx 1:1 poz, and 275 sx Class "G" Neat cement, treated w/4# per sx D-82, .3% D-8R, and .25% D-65. Wt. 15.8 - 14#/gal. Mixing complete in 20 min. Pressure: Max 0; min 0; avg 0. Plug down 4:15 p.m. 1/1/71. Pressure: Max 1100; min 0. Pressure to 1500 psi in 60 min. Bled back 3/4 bbls. Good returns throughout job.

REMEDIAL PROGNOSIS  
SHELL ET AL BROTHERRSON 1-3B4  
SECTION 3-T2S-R4W  
DUCHESNE COUNTY, UTAH

PERTINENT DATA:

ELEV: 6321 KB  
KB-GL = 19.0'  
TD = 12,850

Anticipated bottom hole pressure 6900 psi  $\pm$  12,850'. Casing and tubing volume to packer @ 12,275' = 800 bbl; hole volume from packer to TD @ 12,850' = 105 bbl. Displacement of tubing and 5½" heat string = 30 bbl.

CURRENT STATUS: Flowing - 41 B/D oil, no water on 11/64" chk w/300 psi FTP on 1/13/72.

PROPOSED WORK: Clean out and restore production capabilities. Control well, pull production equipment, squeeze 7 5/8" x 9 5/8" liner top, clean out to TD @ 12,850', run 5½" cemented liner and rerun production equipment in preparation to recomplete existing producing interval.

PROCEDURE:

1. NOTE: Prior to running WL tools in tubing, USI "Manumatic" pneumatic valve operator on upper tree master valve should be manually opened with handwheel and nitrogen supply to the operator disconnected. With gauge tubing tools, clean out and cut paraffin if necessary to as deep as indicated. With 1½" OD sinker bars and jars, run tools as deep as possible, to determine PBTD and/or if tubing is restricted above tailpipe at 12,283'.
  - a. If warranted, attempt tubing cleanout with wireline tools.
2. In the event (1a) is not attempted or is unsuccessful, mix and condition 1300 bbl of 10.8 ppg mud (1300 bbl will provide approximately 350 bbl excess mud over the hole volume to TD).
3. Thru choke and with water, displace 2 7/8" x 5 1/2" and 5 1/2" x 9 5/8" annuli of glycol - water mixture and save. (2 7/8" x 5 1/2" and 5 1/2" x 9 5/8" annuli volume is approx 250 bbl).
4. Nipple up in preparation to pump mud down tubing. If possible, pump 75 bbl 10.8 ppg mud down tubing. Do not exceed 8,000 psi sfc press without press backup on 2 7/8" x 9 5/8" annulus.
5. MI&RU tubing jet perforator with collar locator. Shoot two (2) holes in 2 7/8" OD 6.5#/ft N-80 EUE tubing at 12,260' or approximately midway between packer and first tubing collar up the hole. Holes should be phased 180° and at least one (1) foot apart. POOH.
6. Thru choke and by conventional circulation, displace all annuli of water with 10.8 ppg mud. If unable to circulate, shoot holes higher. Circulate and condition until mud is of uniform 10.8 ppg weight and returns are not oil and/or gas cut. Close well in and observe to insure 10.8 ppg mud has well controlled. If sfc pressure is observed, raise mud weight and circulate and condition until well is controlled.
7. Install 2 7/8" Cameron Type "H" backpressure valve in tubing hanger. Remove Christmas tree and install 6" - 5,000 psi double BOP w/2 7/8" OD pipe ram inserts and blind rams. Install 6" 5,000 psi annular preventer. Remove backpressure valve and install test plug. Pressure test BOPE.

8. Install 2 7/8" OD 8rd EUE N-80 pickup sub with kill valve in place. Unlock 2 7/8" tubing hanger and pick up tubing.
9. Attempt to rotate out of Model "D" packer @ 12,275'. If successful, circulate & condition mud, pull tubing laying down. If unable to sting out of packer, MI&RU tubing chemical cutter with collar locator. Cut tubing off between collars and above the holes in tubing through which mud was circulated in Step 6. Circulate and condition mud. Pull tubing laying down.
10. Install 5 1/2" Cameron type "H" backpressure valve in 5 1/2" casing hanger. Remove 6" 5,000 BOPE and 10" 5,000 x 7 1/16" 10,000 psi tubing spool. Install 10" 5,000 psi double BOP w/5 1/2" OD pipe ram inserts and blind rams. Install 10" 5,000 psi annular preventer. Remove backpressure valve and install test plug. Test BOPE.
11. Unlock 5 1/2" casing hanger and pull 5 1/2" 14#/ft K-55 8rd ST&C casing laying down.
12. Change 5 1/2" OD pipe ram inserts to 3 1/2" OD drill pipe work string inserts. Depending on results in Step 9, either:
  - a. Run packer mill on drill pipe and retrieve Model "D", or,
  - b. Run washpipe and washover fish to packer. POOH. Run fishing tools on drill pipe and retrieve tubing fish with anchor-tubing seal assembly and production tube. POOH. Run packer mill on D.P. and retrieve Model "D".
13. Set 7 5/8" drillable bridge plug at approximately 10,200'.
14. Set 9 5/8" drillable cement retainer at approx 10,000'. Prep to sqz 7 5/8" liner top at 10,086'.
15. Sting into retainer and breakdown.
16. Sqz 7 5/8" liner top with 200 sx API Class "G", 10% NaCl, with 1% CFR-2 and 0.3% HR-4.
17. Sting out and reverse out excess cement. WOC.
18. Drill out 9 5/8" retainer and cement. Pressure test 7 5/8" liner lap to 1500 psi surface pressure on 10.8 ppg mud. Resqueeze if necessary and test as above.
19. Drill out 7 5/8" BP and CO to TD at 12,850'. Condition mud and prepare to run 5 1/2" liner. Run open hole caliper log.
20. Run 5 1/2" 20# N-80 SFJ-P liner assembly as follows:
  - a. Plain guide shoe
  - b. One joint 5 1/2" 20# N-80 SFJ-P liner
  - c. Float collar
  - d. 436' 5 1/2" 20# N-80 SFJ-P liner
  - e. Hanger
21. Run liner to TD at 12,850. Pick up approx 5', establish circulation and hang liner with top at approx 12,363.
22. Cmt 5 1/2" liner w/minimum 150 sx or 50% excess, depending on caliper, of API Class "G", 10% NaCl, 1% CFR-2 and 0.4% HR-4. WOC 24 hrs. CO to top of 5 1/2" liner & test to 1,000 psi on 10.8 ppg mud. Resqz if necessary & test as above.
23. CO 5 1/2" liner to 12,845. Pressure test to 1,000 psi.
24. Displace 10.8 ppg mud with inhibited fresh water to PBSD 12,845'.
25. On electric line, run and set 7 5/8" Baker Model "D" pkr with flapper at approx 12,200'. Install 5 1/2" pipe ram inserts.
26. Run approximately 4,000' 5 1/2" 14# K-55 heat string, land and packoff. Install BP valve. Remove 10" BOPE. Install tubing spool and 6" BOPE with 2 7/8" ram inserts. Remove BP valve, install test plug and test BOPE.
27. Run production equipment as follows:
  - a. Baker Model "C" plug receptacle with Model "B" knockout plug in place, shop tested to 9,000 psi differential both ways.
  - b. 10' long x 2 7/8" OD nonperforated production tube.
  - c. Baker anchor-tubing seal assembly with two seal units.
  - d. Baker Model "FL" on-off seal connector with 2.250" plug receptacle without plug.
  - e. Approximately 12,200' 2 7/8" OD N-80 EUE tubing, tested on way in to 7500 psi.

- 28. Sting into packer, space out for landing with 0 to 5,000 lbs weight on pkr. - land and lock in. Remove BOPE, install and nipple up 10,000 psi WP Xmas tree. Test tree and tubing to 7,500 psi.
- 29. MOCR.

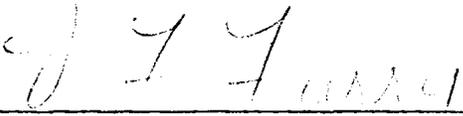
NOTE: A prognosis for perforating and stimulating will be issued later.



GPD:ch  
1/24/72

DIV. O.E. JCH

DIV. P.E. SDS 2/4/72




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Division Drilling Superintendent

Drilling Foreman

Attachments: Drawing Z16-1545-A  
Wellhead Drawing  
Memorandum: Inhibition of  
water in well annuli.

Z16-1545-A

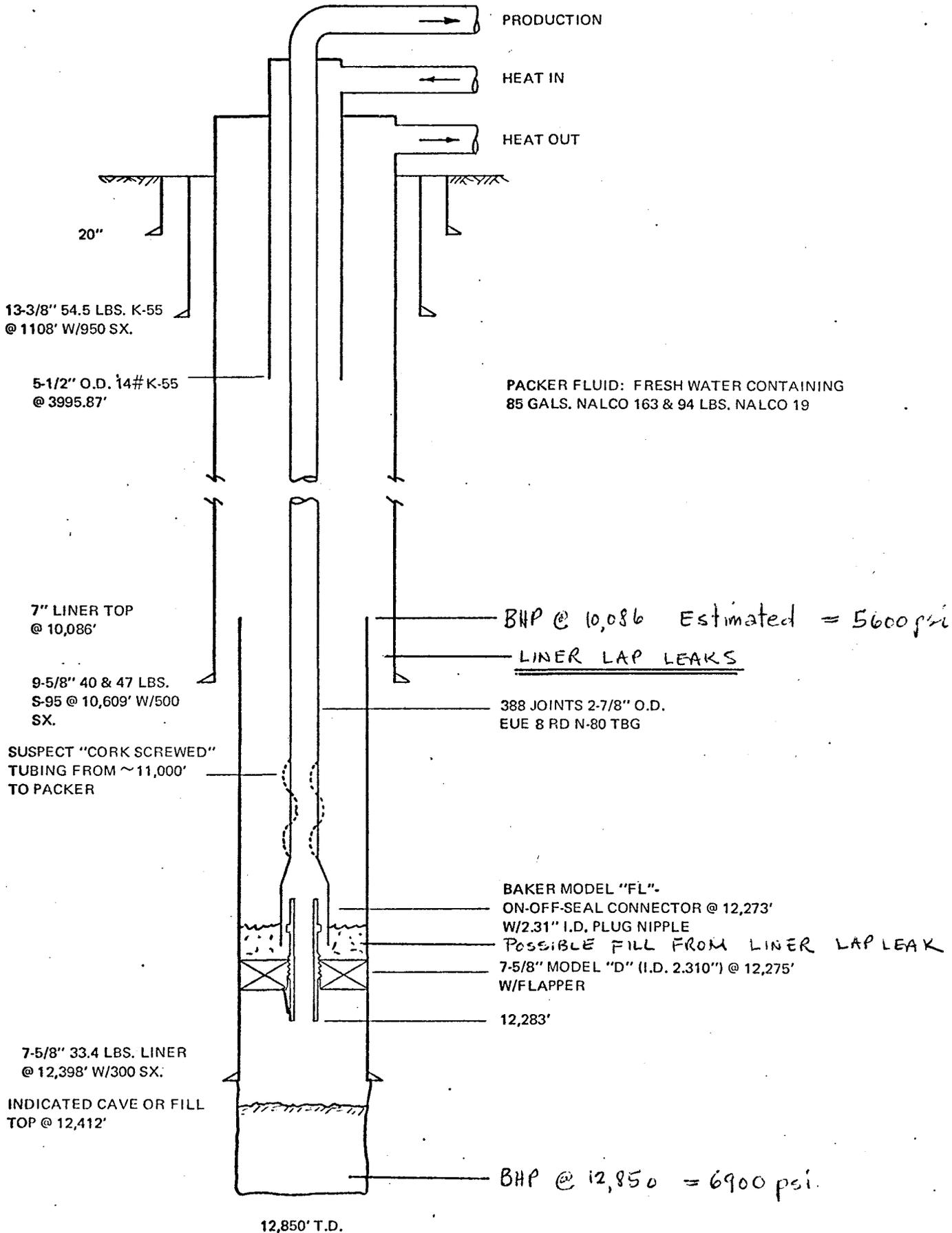


FIGURE 2

USI "MANUMATIC  
VALVE OPERATOR

CIW 10,000 PSI WP BLOCK  
2 9/16" Vertical Bore  
1 13/16" WING

7 1/16" -10,000  
7 1/16" -10,000

WATER-GLYCOL IN  
1 13/16" 10,000 "F" Gate  
(To 2 2/8" x 5 1/2")

10" 5000  
10" -5000

WATER-GLYCOL OUT  
1 13/16" 5000 "F" GATE  
(To 5 1/2" x 9 5/8")

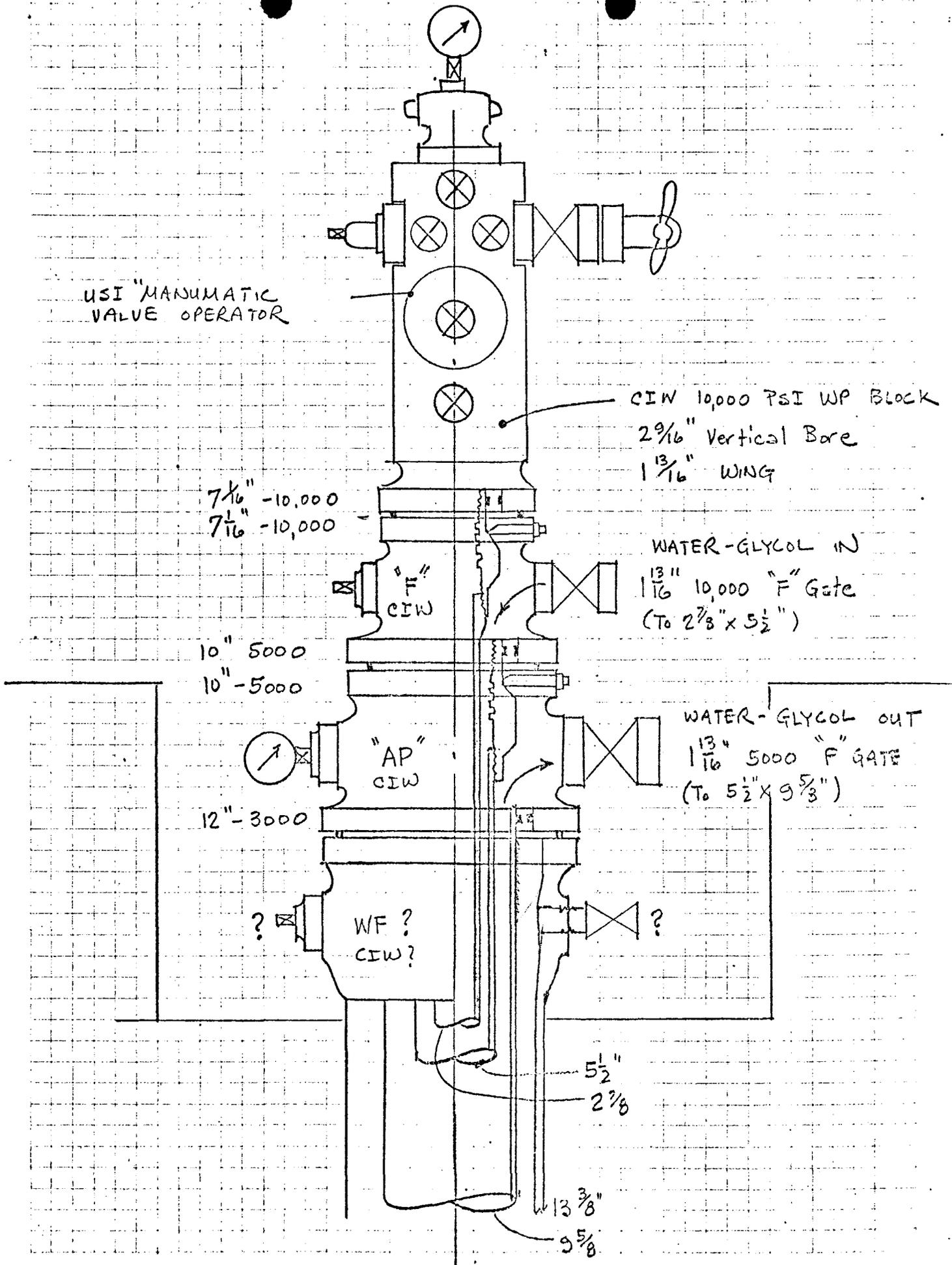
"AP"  
CIW

12" -3000

WF ?  
CIW ?

5 1/2"  
2 7/8"

13 3/8"  
9 5/8"



SM.32 (Rev. 2-64)  
**DRAFT**

**SHELL OIL COMPANY**

TO ALL FIELD FOREMEN

DATE SEPTEMBER 17, 1971

FROM DIVISION PRODUCTION SUPERINTENDENT  
ROCKY MOUNTAIN DIVISION

SUBJECT INHIBITION OF WATER  
IN WELL ANNULI

Water permanently loaded in the tubing-casing annular space of wells is treated to remove oxygen and minimize corrosion with Tretolite and Visco chemicals. Normally, fresh water is used, but sodium chloride brine is occasionally more readily available. We are therefore restating below the recommended quantities of oxygen scavenger and corrosion inhibitor chemical to be used with either fresh or salt water.

<u>COMPANY</u>	<u>CHEMICAL</u>	<u>PURPOSE</u>	<u>FRESH WATER</u>	<u>SATURATED BRINE (10.1 PPG NaCl WATER)</u>
<u>Tretolite</u>	K-700	Inhibitor	13 qt/50 bbl	13 qt/50 bbl
	K-470	Scavenger	20#/200 bbl	10#/200 bbl
<u>Visco</u>	M-15-C	Inhibitor	13 qt/50 bbl	13 qt/50 bbl
	3601 Pulverized	Scavenger	20#/200 bbl	10#/200 bbl

The Visco chemicals are the same as used in the past. The names, however, have been changed from Nalco 163 and Nalco 19. Either scavenger chemical is available in 100# containers and each may be used with the other company's inhibitor if necessary.

C. L. Creager

C. A. Wischoff

TAS/kl

cc: I. B. Boaz  
J. C. Howell  
D. W. Solmonson

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cc: I. B. Boaz  
J. C. Howell  
D. W. Solmonson

THE STATE OF UTAH  
DIVISION OF OIL AND GAS CONSERVATION

SUBMIT IN TRIPPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<p>1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>2. NAME OF OPERATOR Shell Oil Company (Rocky Mountain Division Production)</p> <p>3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL and 1503' FEL and 266' from center of NE/4 Section 3</p>		<p>5. LEASE DESIGNATION AND SERIAL NO. Patented</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME Brotherson et al (Unit)</p> <p>8. FARM OR LEASE NAME W. N. Brotherson, Jr.</p> <p>9. WELL NO. 1-3B4</p> <p>10. FIELD AND POOL, OR WILDCAT Altamont</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T2S-R4W</p> <p>12. COUNTY OR PARISH Duchesne</p> <p>13. STATE Utah</p>
<p>14. PERMIT NO.</p>	<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6302 GL, 6321 KB</p>	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) Clean out and run 5 1/2" liner <input checked="" type="checkbox"/>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

Cleaned out to TD 12,850'. Repaired 7-5/8" liner hung at 12,400' and ran 5-1/2" liner to 12,850" with top of liner at 12,359'. Liner not cemented.

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

SIGNED *R. R. Jordan* TITLE Division Operations Engr. DATE June 16, 1972

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:

*pw*

FROM: 4-12 - 6-7-72

LEASE SHELL-TENNECO-BROTHERSON  
DIVISION ROCKY MOUNTAIN  
COUNTY DUCHESNEWELL NO. 1-3B4  
ELEV 6321 KB  
STATE MONTANA

JUN 14 1972

UTAHALTAMONT FIELD

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

"FR" TD 12,850. RU Ford Rig. AFE #58108 provides funds to run and cmt 5-1/2" liner, repair 7-5/8" liner, clean out to 12,850' and recomplate existing productive interval. APR 11 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. RU and heating wtr in 9-5/8" x 5-1/2" csg annulus. Displaced glycol wtr in 9-5/8" x 5-1/2" csg annulus w/fresh wtr. Cleaned mud pits. APR 12 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. Installing BOP's. RU Wireline paraffin scraper. Cleaned 2-1/2" tbg to 6900' while circ 5-1/2" x 9-5/8" csg annulus w/hot wtr. Ran chem cutter. Cut 2-1/2" tbg @ 12,226'. Unable to break circ. Ran 2-1/8" jet gun. Perf'd 2-1/2" tbg w/3 holes @ 12,056'. Gun stuck. Killed well w/11 ppg mud. Worked gun loose, pulling same.  
Mud: 11.0 x 37 APR 13 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. Running blank tbg to lay running plug. Finished installing BOP's and tested to 4500 psi, held OK. Circ mud. Took hold of 2 1/2" tbg - found tbg free. Pulled and measured out 12,229' of tbg. Laid down cut-off jt and jt w/3 jet holes.  
Mud: 11 x 37 APR 14 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850.  
4/15: Testing BOP's. Finished running tbg to 10,779'. Mixed and pumped 50 cu ft Class "G" (15.8# slurry). CIP @ 9:34 AM. Pulled above 7-5/8" liner. Reverse circ while curing cmt. Top of cmt @ 10,648. Press tested csg - taking fluid @ 400 psi. Circ 9-5/8" x 5-1/2" csg annulus. Removed BOP's and tbg head. Reinstalled BOP's on 5-1/2" csg hd and started testing.  
Mud: 11 x 36

4/16: Cond mud. Finished testing BOP's to 4500 psi, held OK. Singled down 5 1/2" heat string. Changed pipe rams from 5 1/2" to 2 1/2". WO BOP repairs for 8 hrs. Rigged up and ran 8 1/2" bit and scraper on two 4-3/4" DC's to top of 7-5/8" liner.

4/17: Nippling up BOP stack. Pulled bit and ran pkr to 9980'. Tested top of 7-5/8" liner hanger to 3500 psi - held OK. Tested annulus to 1500 psi - held OK. Pulled work string and raised BOP's. Installed spacer spool. APR 17 1972

D.W.

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. Prep to drill out cmt plug. Tested BOP's to 4500 psi and Hydril to 3000 psi for 10 min, held OK. Tagged cmt plug @ 10,645'. Increased mud wt to 11.2 ppg.  
Mud: 11.2 x 43      APR 1 8 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. Repairing rig. Raised mud wt from 10.8 to 11.3 ppg. Drld cmt stringers from 10,527-10,635, and hd cmt from 10,635-10,663. Lost key out of main sprocket on drum shaft. Rig down 13 hrs for repair.  
Mud: 11.3 x 35-45.      APR 1 9 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. Repairing rig. Repaired drum shaft and drld 10' cmt to 10,673. Power source on power swivel broke. WO replacement.      APR 2 0 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and restore  
prod capabilities)

TD 12,850. Scraping wall of csg @ 12,226. Drld firm cmt from 10,673-10,812 - fell into hole.  
Mud: 11.5 x 45      APR 2 1 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850.  
4/22: Washing over fish. Ran 6½" bit to top of tbg fish @ 12,229'. Cond mud, pulled bit and measured out. Ran 2 jts 6-3/8" wash pipe and four 4-3/4" DC's.  
Mud: 11.5 x 45  
4/23: Pulling fish. Washed over tbg-pkr fish @ 12,281. Cond mud. Ran socket, jars, bumper sub and four 4-3/4" DC's. Circ mud up from btm. Jarred tbg-pkr fish twice and freed same. Started pulling fish.  
Mud: (gradient .615) 11.8 x 44 x 14  
4/24: Pulling wash pipe. Finished pulling socket, rec 44 jts 2-1/2" tbg w/Baker on-off tool. Ran 6-3/8" TC shoe on 2 jts 6-3/8" wash pipe and four 4-3/4" DC's. Washed over Baker Model "D" pkr. Pumped pkr 25' up hole while circ in revers. Lost 50 bbls mud last 24 hrs.  
Mud: (gradient .625) 11.8 x 38 x 14      APR 2 4 1972  
Correction of status on 4/21 report: Scraping wall of csg @ 10,882 (top of fish @ 12,226)

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Running wash pipe. Model "D" pkr @ 12,250'. Finished pulling wash pipe. Ran socket, bumper sub, jars and four 4-3/4" DC's. Took hold of pkr fish, worked and jarred same. After 3 hrs, tools pulled free. Rec'd 6-3/4" of on-off mandrel. Started running 6-3/4" wash pipe w/tungsten carbide washover shoe.  
Mud: (gradient .625) 11.8 x 35 x 14      APR 2 5 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Tripping out of hole. Finished running wash pipe w/TC shoe. Washed over pkr-fish, working and milling on fish from 12,250-12,291. Pulled wash pipe and ran socket, bumper sub, jars and DC's. Circ mud in reverse from btm to top of pkr fish. Lost 60 bbls mud last 24 hrs.  
Mud: (gradient .625) 11.8 x 38 x 14 APR 26 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Cond mud. Finished reverse circ from btm. Rec'd Model "D" pkr and accessories. Laid down wash pipe and fishing tools. Checked BOP's. Removed stripper and installed rotating head. Ran 6½" bit on ten 4-3/4" DC's to 12,150'.  
Mud: (gradient .625) 11.8 x 40 x 12 APR 27 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Pulling bit. Finished cond mud. Ran in from 12,150 to fill and jk from pkr @ 12,223 and cleaned out to 12,403. Rec'd approx 5# jk while reverse circ. Lost approx 50 bbls mud last 24 hrs.  
Mud: (gradient .612) 11.7 x 45 x 6 APR 28 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850.  
4/29: Repairing power swivel. Ran new bit and cleaned out from 12,403-12,452. Power swivel failed. Repaired same, ran 1 hr and swivel failed again. Changed out and started up when hose on swivel failed. Lost 20 bbls mud.  
Mud: (gradient .625) 11.8 x 42 x 12.5  
4/30: Cleaning out open hole and circ in reverse. Finished repairing power swivel. Cleaned out bridges from 12,452-12,465. Gas show @ 12,465. Cleaned out to 12,499 and circ out gas. Cleaned out to 12,532, circ gas out. Changed stripper rubber. Cleaned out from 12,532-12,564. Had strong gas show @ 12,564. Lost approx 100 bbls mud  
Mud: (gradient .625) 11.8 x 42 x 12.5  
5/1: Increasing mud wt. Cleaned out from 12,564-12,595, circ in reverse. Cleaned out from 12,595-12,625, circ in reverse. Cleaned out from 12,625-12,657. Gas in mud increased. Raised mud wt from 11.8 to 12.1 ppg. Cleaned out from 12,657-12,688. Gas in mud increased. Raised mud wt to 12.5 ppg.  
Mud: (gradient .675) 12.6 x 48 x 7.8 (2% oil) MAY 1 1972

pw

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Tripping in hole w/bit. Finished raising mud wt to 12.5 ppg. Cleaned out from 12,719-12,750. Reverse circ hole clean. Cleaned out from 12,750-12,781. Reverse circ hole clean. Cleaned out from 12,781-12,812 (hard bridge). Reverse circ hole clean. Cleaned out from 12,812-12,850. Reverse circ hole clean. Cond mud and reverse circ 3 hrs. RU and ran caliper log. Now running in w/bit and stabilizer.  
Mud: (gradient .655) 12.6 x 49 x 8 (2% oil) MAY 2 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Running liner. Finished running 6½" bit and stabilizer. Broke circ @ shoe. Circ and cond mud from 12,850. Pulled bit and made up 5½" N-80 SFJ-P liner w/Burns hanger.  
Mud: (gradient .655) 12.6 x 46 x 8.6 (2% oil) MAY 3 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'

TD 12,850. Cond mud prior to hanging liner. Ran 482' of 5½" N-80 20# SFJP liner. Ran and hung Baker Oil Tools differential fill shoe and collar w/6.20' plain type Burns liner hanger - no packing - w/12,362' 2-7/8" 8rd EUE tbg. Liner top @ 12,362 (tie back). Collar 126.09' above shoe. Lap between 5-1/2" and 7-5/8" liner = 36'. Tagged btm, picked up 3' and circ btms up. Cut mud from 12.7 to 6.0 ppg, then raised mud wt to 13.0. MAY 4 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Cond mud and prep to perf. Tagged btm w/liner and stacked out 10,000#, setting liner. Picked up two 4-1/8" x 2" DC's, top sub and 4-1/2" washover shoe. Drld out FC. Work string plugged. Circ. Cut mud to 11.1.  
Mud: 13.0 (11.1) x 50 x 7.0 MAY 5 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850.

5/6: Perforating. Tripped out w/work string. Ran collar locator and BHCS/GR from 12,850-12000 (logger's depth 12,853). Found 5½" liner top @ 12,366'.

Mud: 13.0 x 50 x 7

5/7: Prep to run 5½" heat string. Perf'd interval 12,412-12,842 using 3-1/8" gun, 10 gr charges w/4 shots/ft w/select perfs as follows: 12,412-415, 12,417-422, 12,428-430, 12,439-441, 12,442-444, 12,446-448, 12,452-457, 12,467-472, 12,476-481, 12,484-486, 12,502-504, 12,512-514, 12,522-524, 12,526-529, 12,530-532, 12,535-536, 12,539-541, 12,555-561, 12,559-561, 12,582-584, 12,629-633, 12,658-663, 12,692-695, 12,710-712, 12,713-715, 12,731-732, 12,734-736, 12,747-749, 12,751-754, 12,757-759, 12,773-775, 12,776-778, 12,795-797, 12,803-806, 12,822-830, 12,832-838, 12,840-842. Set Baker Model "D" pkr w/flapper @ 10,040. Ran tbg to 7500'. Circ mud to break out gas.

5/8: Running prod tbg. Ran 123 jts 5-1/2" 14# K-55 ST&C csg to 3981. Installed backpress valve. Removed BOP's and installed tbg spool. Installed BOP's. Laid down 80 jts 2-7/8" tbg.

Mud: 13.0 x 50 x 7 MAY 8 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Removing rig from well. Finished running prod string. Tested to 7500 psi. Displaced mud w/inhibited wtr. Landed tbg w/4000# wt. Installed and tested Xmas tree w/7500 psi. Prod string detail: 1.50' exp plug holder, 10' prod tbg, 3.55' seal assembly, 2.24' on-off tool, 5.10' 2-7/8" tbg pup, 324 jts N-80 (10,035.83') 2-7/8" 8rd EUE tbg, 19' derrick floor. Total string: 10,077.22'. Three centralizers above on-off tool on tbg. MAY 9 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Released rig @ 2:30 PM 5/9/72. Finished RD, stacking rig and eqmt at end of well location. RDUFA. MAY 10 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. (RRD 5/10/72) Prep to flow to battery. SITP 2950 psi. Cleaned up location. Hooked up flowlines and prep battery for oil. RU Marshall WL. Press tested tbg to 2500 psi. Knocked out plug @ 10,052' and pulled out of hole. Opened well to pit. Flowed 125± bbls wtr and mud on various chks and press's, then started flowing oil and gas. MAY 11 1972

pu

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. SITP 2950 psi. Flowed est 10 BO to pit. Hooked well to battery. On 12-hr test, well flowed 203 BO on 16/64" chk w/1700 psi FTP. MAY 1 2 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850.  
5/13: SI for BHP. SITP 4050. Flowed well at various chks and press w/incre in oil, gas and TP after flowing total of 25 hrs. Press went from 450 psi on 30/64" chk to 3700 psi on 12/64" chk and flowed 500 BO w/est 1 MMCF gas in 15½ hrs. RU Cable and ran BHP, setting tools @ 12,000'. Flowed well 1 hr and SI. SITP 4800 psi. Pmpd 36 bbls diesel @ 1 B/M w/6500 psi to back down well. SI for 72-hr build-up.

5/14: SI for BHP. SITP 4050 psi. MAY 1 5 1972

5/15: SI for BHP. SITP 4200 psi.

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Well SI. Installing new treating facilities. Pulled bombs. SITP 4200 psi. MAY 1 6 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. SI 24 hrs for battery installation.  
MAY 1 7 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr test, flowed 749 BO and no wtr on 24/64" chk w/1650 psi FTP and zero CP. Gas too great to measure w/present orifice plate.  
MAY 1 8 1972

plw

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr test, flowed 1955 BO and no wtr w/2246 MCF gas on 28/64" chk w/1300 psi FTP and zero CP. Correction and addition to yesterday's report: On 10-hr test, flowed 749 BO plus 150 BO to fill treater and no wtr on 24/64" chk w/1650 psi FTP and zero CP.

MAY 1 9 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr tests, flowed as follows:

Date	BO	BW	MCF Gas	Chk	FTP	CP
5/20	1816	0	2454	28/64"	1150	0
5/21	1231	0	1147	12/64"	3000	0
5/22	454	0	377	6/64"	3900	0

MAY 2 2 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr test, flowed 256 BO and no wtr w/323 MCF gas on 6/64" chk w/3700 psi FTP and zero CP. MAY 2 3 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr test, flowed 615 BO and no wtr w/1234 MCF gas on 16/64" chk w/2250 psi FTP and zero CP. MAY 2 4 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr test, flowed 1225 BO and no wtr w/1354 MCF gas on 16/64" chk w/2250 psi FTP and zero CP. MAY 2 5 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Clean out and run  
5½" liner)  
7-5/8" liner @ 12,400'  
5-1/2" liner @ 12,850'

TD 12,850. Flowing. On 24-hr test, flowed 704 BO and no wtr w/364 MCF gas on 6/64" chk w/2700 psi FTP. MAY 2 6 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(CO & run 5½"  
liner)

TD 12,850. SI due to oil curtailment. Rates are as follows:

Date	BO	BW	MCF	Choke	FTP	CP	
5/26	253	0	333	6/64"	2675	0	
5/27	585	0	644	8/64"	3450	0	
5/28	143	0	240	8/64"	SI2200 (3900 SIP)		
5/29	SI due to oil curtailment					MAY 3 0 1972	

pu

Shell-Tenneco-  
Brotherson 1-3B4  
(CO & run 5½" liner)

TD 12,850. SI 24 hrs. MAY 31 1972

Shell-Tenneco  
Brotherson 1-3B4  
(CO & run 5½" liner)

TD 12,850. Shut in. JUN 1 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(CO & run 5½" liner)

TD 12,850. SI. SITP 4000. JUN 2 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(CO & run 5½" liner)

TD 12,850.  
6/3: SI  
6/4: On 18-hr test, flowed 595 BO, 0 BW, and 630 MCF on  
12/64" chk w/2950 FTP and 0 CP. JUN 5 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(CO & run 5½" liner)

TD 12,850. SI. On 12-hr test, well flowed 365 BO and  
no wtr w/506 MCF gas on 12/64" chk w/3750 psi SITP.  
JUN 6 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(CO & run 5½" liner)

TD 12,850. CLEANING OUT TO TD AND RUNNING OF 5½" LINER  
COMPLETE. On 24-hr test 4/9/72 prior to remedial opera-  
tions, well flowed 348 BO on 11/64" chk w/75 psi FTP and  
525 psi CP from 12,400-12,850'. On 24-hr test ending  
6/5/72, well flowed 884 BO and no wtr w/1013 MCF gas on  
12/64" chk w/2900 psi FTP from following perms in uncmtd  
liner: 12,412-415, 12,417-422, 12,428-430, 12,439-441,  
12,442-444, 12,446-448, 12,452-457, 12,467-472, 12,476-481,  
12,484-486, 12,502-504, 12,512-514, 12,522-524, 12,526-529,  
12,530-532, 12,535-536, 12,539-541, 12,555-561, 12,559-561,  
12,582-584, 12,629-633, 12,658-663, 12,692-695, 12,710-712,  
12,713-715, 12,731-732, 12,734-736, 12,747-749, 12,751-754,  
12,757-759, 12,773-775, 12,776-778, 12,795-797, 12,803-806,  
12,822-830, 12,832-838 and 12,840-842.  
FINAL REPORT. JUN 7 1972

**CASING OR LINER CEMENT JOB**

Lease Brotherson Well 1-3 B 4 Date 5-9-72  
 Size Casing 5 1/2" - 20# Setting Depth 12847' Top (liner hanger) 12359'  
 Hole Size 6 1/2" Mud Gradient 13# Viscosity 45

**Casing Equipment**

Baker self fill up float shoe, Float Collar float located 126' feet  
 above shoe, \_\_\_\_\_ DV collars located at \_\_\_\_\_ feet  
 and \_\_\_\_\_ feet.  
 \_\_\_\_\_ centralizers located 12' above shoe - and every  
100' to shoe of 7 5/8" csq.  
 \_\_\_\_\_ scratchers located \_\_\_\_\_

Liner hanger and pack off (describe) Burns plain hanger w/cmt. grooves and  
2- 1/2" holes . 2- B&W blade centralizers on 5 1/2" csq  
 Miscellaneous (baskets, etc.) in lap of 7 5/8" csq-

Cement (around shoe) Did not cement-

	<u>No.</u> <u>Sacks</u>	<u>Brand</u>	<u>Type</u>	<u>Additives</u>	<u>Slurry</u> <u>Weight</u>	<u>Slurry</u> <u>Volume</u>
(1)	_____	_____	_____	_____	_____	_____
(2)	_____	_____	_____	_____	_____	_____

Cement through DV Collar at \_\_\_\_\_ feet

	<u>No.</u> <u>Sacks</u>	<u>Brand</u>	<u>Type</u>	<u>Additives</u>	<u>Slurry</u> <u>Weight</u>	<u>Slurry</u> <u>Volume</u>
(3)	_____	_____	_____	_____	_____	_____
(4)	_____	_____	_____	_____	_____	_____

*pw*

THE STATE OF UTAH  
DIVISION OF OIL AND GAS CONSERVATION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Patented
2. NAME OF OPERATOR Shell Oil Company (Rocky Mountain Division Production)		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202		7. UNIT AGREEMENT NAME Brotherson et al (Unit)
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL and 1503' FEL and 266' from center of NE/4 Sec 3		8. FARM OR LEASE NAME W. N. Brotherson, Jr.
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, OR, etc.) 6302 GL, 6321 KB	9. WELL NO. 1-3B4
		10. FIELD AND POOL, OR WILDCAT Altamont
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T 2S-R 4W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

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

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

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

As per attached report

18. I hereby certify that the foregoing is true and correct  
SIGNED K. R. Jander TITLE Division Operations Engr. DATE Sept. 19, 1972

(This space for Federal or State office use)

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

SHELL OIL COMPANY-TENNECO

LEASE

BROTHERSON

WELL NO.

1-3B4

DIVISION

ROCKY MOUNTAIN

ELEV

6321 KB

FROM: 6-21 - 7-11-72

COUNTY

DUCHESNE

STATE

UTAH

UTAHALTAMONT

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

"FR" TD 12,850. Prep to fish setting tool on WL. AFE No. 583647 provides funds to repair tbg leak. On 6/11/72, MI&RU Newsco and hot oiler, prep to clean paraffin from 2-7/8" tbg. Ran 3/4" continuous tbg to 4000' while circ 1/4 B/M 250° 10/8 ppg SW. Packoff for tbg started leaking. RD&MO Newsco. Pmpd 20 bbls 250° 10.8 ppg SW down tbg. MI&RU Marshall WL and ran 2-5/16" OD cutter to 8000' - no paraffin. Pulled out of hole and ran overshot - could not get in well due to paraffin. Pmpd 65 bbls 250° FW down 5 1/2" heat string. Ran overshot, engaged fish and started jarring, shearing pin in fishing tool. Replaced shear pin and ran back in hole, engaging fish. Started jarring and again sheared pin in overshot. Pulled out of hole.

JUN 12 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. MI workover rig. Bled off csg as required to keep SICP below 1500 psi. Pmpd 65 BFW (275°F) down 2-7/8" x 5-1/2" annulus. Ran overshot on .092" WL and engaged fish. Jarred approx 1 hr and sheared pin in overshot. Pulled out of hole. Ran back in and jarred for 2 hrs and intentionally sheared off fish. Changed wire spacing on sheaves and put on hyd jar. Ran back in hole and jarred on fish 2 hrs. RD&MO Marshall WL.

JUN 13 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Prep to resume jarring. MI&RU Ford Tool rig. MI&RU OWP. Pmpd 60 bbls (275°) FW down 5 1/2" heat string. Press tested lubricators to 3500 psi. Ran in w/overshot, larger hyd jars and add'l wt and jarred on setting tools 1 1/2 hrs. Jars appeared to be weakening. Sheared pin in overshot and pulled out of hole.

JUN 14 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. WO availability of mud. Ran back in w/overshot and jars, jarring on fish 4 hrs. Sheared pin in overshot. RD&MO OWP and Ford. RDUFA.

JUN 15 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. (RRD 6/15/72). WO workover rig. MI&RU hot oiler and pmpd 80 bbls 250°F FW down 5 1/2" heat string. MI&RU OWP and perf 4 holes in tbg @ 10,017-10,024. SITP dropped from 2400 to 2100 psi when holes perf'd. CP incr from 500 to 550 psi. Pulled out of hole and RD&MO OWP and hot oiler. MI&RU Hal. Displaced hole to 10,017 by pmpg 700 bbls 16 ppg mud down tbg and hot annuli. Max press 2000 psi. ISIP on tbg and annuli zero. RD&MO Hal. RDUFA.

JUN 19 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. (RFD 6/19/72). Laying down tbg. MISRU Ford pulling unit 6/21. Circ 30 bbls 16 ppg mud down tbg and up 5½" csg and 20 bbls 16 ppg mud down tbg and up 9-5/8" csg. Installed 2½" BP valve, removed tree, installed and press tested 10" 5000 psi BOP's. Removed BP valve, unlatched from Model "D" pkr and started laying down tbg. JUN 22 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Prep to pull 5½" heat string. Finished pulling tbg and seal assembly. Found no-go ring on setting tool lodged in seal bore of "F" nipple. No-go ring not properly sized for 2.25" "F" nipple. Started running tbg w/new prod tube, anchor seal assembly and on-off tool w/expendable plug holder on btm of prod tube w/plug in place. Ran tbg, filling every 10 jts w/FW. Press tested every 30 jts to 7500 psi w/pump truck. Ran 30 jts tbg and filled tbg w/FW when on-off tool blew apart @ 5800 psi while attempting to press test. Pulled out of hole and picked up 2-7/8" tbg, standing back in dbls. JUN 23 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850.  
6/24: Pulling tbg and fish. Pulled and laid down 5½" heat string. Ran in w/7-1/8" OD overshot on 2-7/8" tbg. Fished on-off tool hanger. Latched onto fish and rotated stinger out of Model "D" after 3 attempts. Pulled very jerkily for first jt off btm. Pulled 10 stds.  
6/25: Finished pulling tbg and fish. Skirt on overshot looked OK and stinger indicated on seals that it had been in pkr bore. Picked up and ran back in w/4000' 5½" csg heat string. Installed BP valve, removed BOP's, installed tbg spool, installed and tested BOP's w/2-7/8" pkr.  
6/26: Prep to land tbg and flange up WH. Ran 2-7/8" EUE N-80 tbg w/Baker expendable plug holder on btm w/plug in place, 5' 2-7/8" N-80 10rd non-upset perf'd prod tube, anchor seal assembly w/2 seal units, Baker on-off tool connector, 328 jts 2-7/8" EUE N-80 tbg and latched into Model "D" pkr. Spaced out w/3 pts wt on pkr. Set down 20,000# and pulled 20,000# to test latch-in. Press tested tbg and plug to 7500 psi while running in hole. Press tested tbg, plug and pkr to 7500 psi for 15 min, held OK. Unlatched from on-off connector, pulled up 10', circ 16 ppg mud out of hole w/900 bbls 80° F FW and circ w/add'l 700 bbls FW containing 13 qts Visco M-15-C w/50 bbls FW and 20# Nalco 3601 per 200 bbls FW. JUN 26 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing to battery. Landed tbg on donut, locking in same. Installed BP valve, removed BOP's and installed tree. Tested tree to 10,000 psi. Removed BP valve. Tested tbg, pkr and tree to 7500 psi for 10 min, held OK. Press tested csg to 2000 psi for 10 min, held OK. RD Ford. Released rig 2 PM, 6/26/72. Hooked up all service lines. RU Marshall WL and press'd tbg to 2500 psi, knocking out expendable plug @ 10,047', gaining 200 psi press when plug knocked out. Pulled out of hole. On 14-hr test, well flowed 784 BO and 96 BW w/ 1540 MCF gas on 38/64" chk w/550 psi FTP and zero CP.  
JUN 27 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr test, flowed 1275 BO and 4 BW w/1735 MCF gas on 38/64" chk w/550 psi FTP and zero CP. JUN 28 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr test, flowed 1542 BO and no wtr w/1674 MCF gas on 40/64" chk w/500 psi FTP and zero CP. JUN 29 1972

Shell-Tenneco-  
Brotherson 1-3B4  
(Repair csg leak)

TD 12,850. Flowing. On 24-hr test, flowed 832 BO and no wtr w/576 MCF on 10/64" chk w/3100 psi FTP, 0 CP.

Shell-Tenneco  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr tests, well flowed as follows: JUL 3 1972

Date	BO	BW	MCF Gas	Chk	FTP	CP
7/1	458	0	549	10/64"	3100	0
7/2	410	0	462	10/64"	3150	0
7/3	408	0	509	10/64"	2850	0

Shell-Tenneco  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr tests, well flowed as follows: JUL 5 1972

Date	BO	BW	MCF Gas	Chk	FTP	CP
7/4	456	0	554	10/64"	2750	0
7/5	428	0	541	10/64"	2650	0

Shell-Tenneco  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr test, well flowed 538 BO and no wtr w/549 MCF gas on 10/64" chk w/25 psi FTP and zero CP. JUL 6 1972

Shell-Tenneco-  
Brotherson 1-3E4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr test, flowed 435 BO,  
0 BW, and 563 MCF on 10/64" chk w/2500 FTP, 0 CP.  
(Correction to yesterday's pipe - FTP should have  
been 2500 instead of 25 psi) JUL 7 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. On 24-hr tests, well flowed as  
follows:

<u>Date</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Chk</u>	<u>FTP</u>	<u>CP</u>
7/8	530	0	563	10/64"	2500	0
7/9	459	0	549	10/64"	2350	0
7/10	485	4	536	10/64"	2350	0

Correction to Friday's report: On 24-hr test, well  
flowed 485 BO instead of 435 BO. JUL 10 1972

Shell-Tenneco  
Brotherson 1-3B4  
(Repair tbg leak)

TD 12,850. Flowing. REPAIR OF TUBING LEAK COMPLETE.  
On 24-hr test ending 7 AM, 7/11/72, well flowed 467  
BO and no wtr w/518 MCF gas on 10/64" chk w/2400 psi  
FTP and zero CP from Wasatch OH 12,400-12,850.  
FINAL REPORT. JUL 11 1972

SHELL OIL COMPANY  
 PRODUCTIVE LABORATORY WATER ANALYSIS REPORT  
 DENVER, COLORADO

FROM: - PRODUCTION LABORATORY  
 DENVER, COLORADO

LABORATORY NUMBER 4923-3  
 SAMPLE TAKEN \_\_\_\_\_  
 SAMPLE RECEIVED December 30, 1970  
 RESULTS REPORTED January 7, 1971

TO: \_\_\_\_\_

SAMPLE DESCRIPTION \_\_\_\_\_ FIELD NO. \_\_\_\_\_  
 COMPANY Shell Oil Co. LEASE Brotherman WELL NO. 1-3B-4  
SW NE SEC. 3 TWP. 2S RGE. 4W SUR. \_\_\_\_\_  
 DISTRICT \_\_\_\_\_ FIELD Wildcat COUNTY Duchesne STATE Utah  
 SAMPLE TAKEN FROM \_\_\_\_\_  
 PRODUCING FORMATION Wasatch TOP 12,244 - 12,349 SEC 3-2B-4W  
 REMARKS DST - MFE Sample

SAMPLE TAKEN BY \_\_\_\_\_

CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.009 pH 8.6 RES. 1.08 OHM METERS @ 77°F

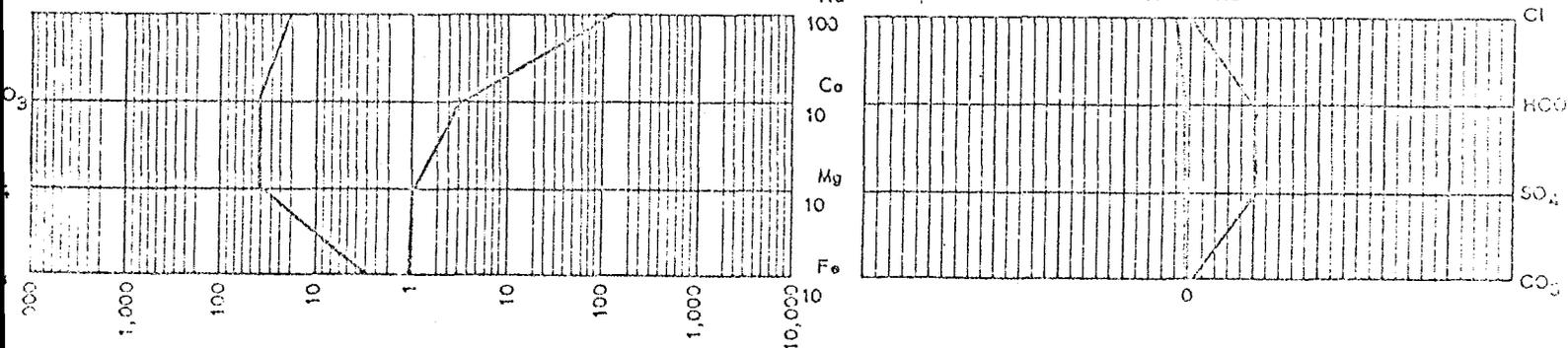
TOTAL HARDNESS Mg/L as CaCO<sub>3</sub> 249 TOTAL ALKALINITY Mg/L as CaCO<sub>3</sub> 2600

CONSTITUENT	MILLIGRAMS PER LITER Mg/L.	MILLEQUIVALENTS PER LITER MEQ/L	REMARKS
CALCIUM - Ca <sup>++</sup>	75	3.74	
MAGNESIUM - Mg <sup>++</sup>	15	1.23	
SODIUM - Na <sup>+</sup>	2683	116.73	
BARIUM (INCL. STRONTIUM) - Ba <sup>++</sup>	0	--	
TOTAL IRON - Fe <sup>++</sup> AND Fe <sup>+++</sup>	--	--	
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	2928	48.02	
CARBONATE - CO <sub>3</sub> <sup>==</sup>	120	4.00	
SULFATE - SO <sub>4</sub> <sup>==</sup>	2333	48.53	
CHLORIDE - CL <sup>-</sup>	750	21.15	
TOTAL DISSOLVED SOLIDS	8904	243.40	

MILLEQUIVALENTS PER LITER

LOGARITHMIC

STANDARD



- AREA OFFICE
- DISTRICT OFFICE
- EXPLORATION MANAGER
- DISTRICT GEOLOGIST
- DIVISION OFFICE
- SHELL DEVELOPMENT - EPR
- DIVISION EXPL. MANAGER

ANALYST R.D. Charna  
 CHECKED C.E. Davis

7 PI

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<p>1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>2. NAME OF OPERATOR Shell Oil Company</p> <p>3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80202</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL and 1503' FEL Section 3</p>		<p>5. LEASE DESIGNATION AND SERIAL NO. Patented</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME W. H. Brotherson, Jr.</p> <p>9. WELL NO. 1-3B4</p> <p>10. FIELD AND POOL, OR WILDCAT Altamont</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T2S-R4W</p> <p>12. COUNTY OR PARISH Duchesne</p> <p>13. STATE Utah</p>
<p>14. PERMIT NO. 43-013-30048</p>	<p>15. ELEVATIONS (Show whether DF, RT, OR, etc.) 6302 GL, 6321 KB</p>	

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

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

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

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

As per attached prognosis

cc: USGS - W/attachment (for information)

APPROVED BY DIVISION OF OIL & GAS CONSERVATION

DATE NOV 27 1974  
BY C.B. Feigh

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

SIGNED [Signature] TITLE Division Operations Engr. DATE 11/19/74

(This space for Federal or State office use)

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

STIMULATION PROGNOSIS  
BROTHERSON 1-3B4  
SECTION 3, T2S, R4W  
DUCHESNE COUNTY, UTAH

PERTINENT DATA:

ELEV: 6321' KB  
KB-GL: 19'  
TD: 12,850'

AFE:  
AFE AMOUNT: \$12,000  
SHELL'S SHARE: (64.33%) \$7750

CURRENT STATUS:

Flowing from interval 12,412' to 12,842'. On last test 11/14/74, well flowed 185 BO + 12 BW + 170 MCF gas with a FTP of 150 psi. The well produces through an uncemented liner.

PROPOSED WORK:

Cleanout with 15% foamed acid and pump 2100 gals 15% HCl into formation.

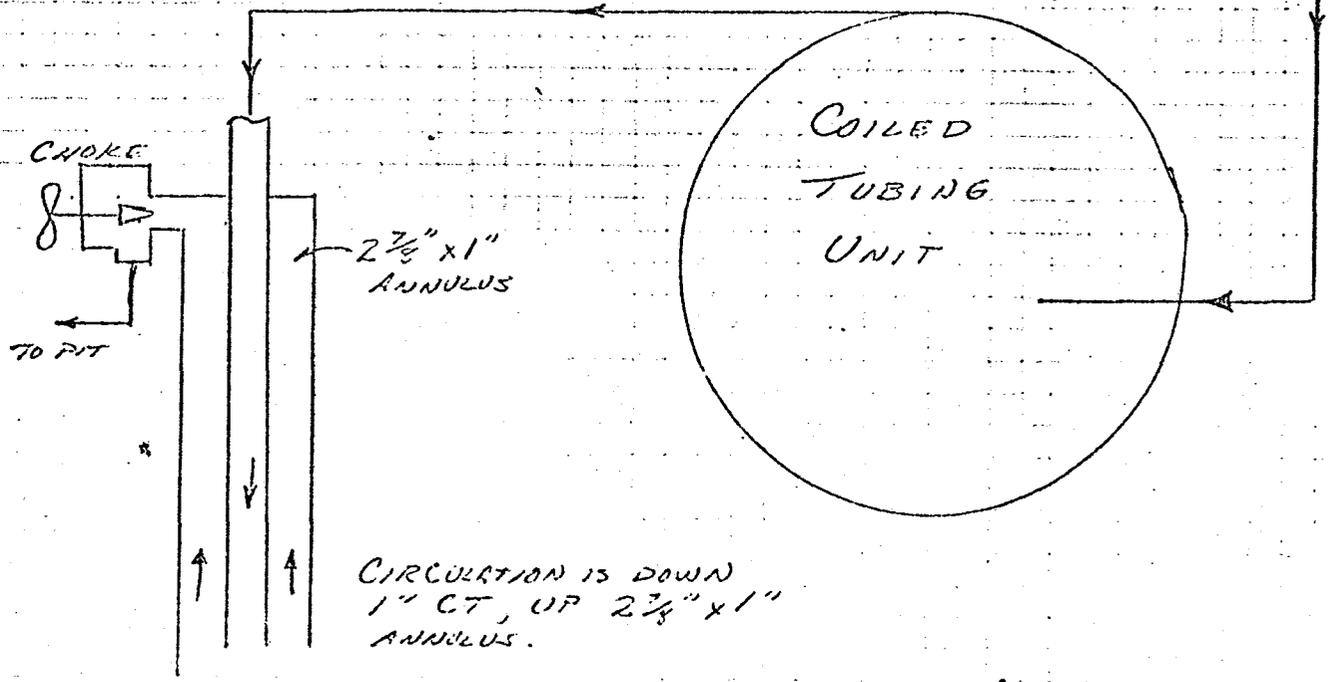
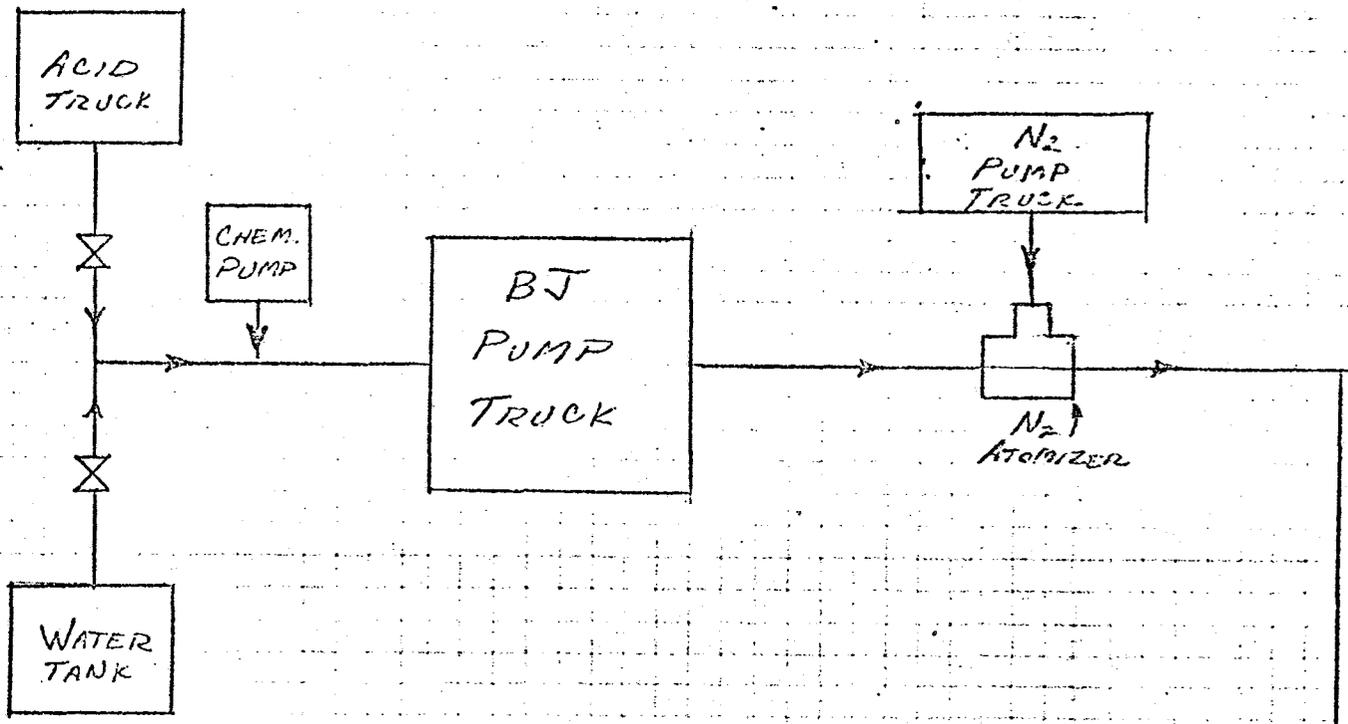
PROCEDURE:

1. Cut wax
2. MI and RU Newsco Coiled Tubing Unit (CTU), Newsco Nitrogen pumper, and BJ pumper w/chemical pump piped to both lease produced water and acid.
3. While circulating non-heated lease produced water (1/4 to 1/2 BPM) run CT to 12,400±'.
4. With tubing at 12,400' begin pumping the following mixture at a rate of 1 BPM:

To each 1000 gal of 15% HCl add 4½ gal of Treatolite WF-17 foaming agent and add Nitrogen gas through Newsco Atomizer at the rate of 400 scf/bbl. Nitrogen to be heated to ±80°F.

5. Begin lowering CT at 5 FPM while maintaining a rate of 1 BPM. Lower tubing to 12,842±'. When depth is reached circulate an additional 20 bbl of the foamed acid. (Total volume of foamed acid will be about 100 bbl.)
6. With tubing at 12,842' begin pumping 15% HCl without foaming agent and without Nitrogen. Pump 1092 gal (26 bbl) 15% HCl, SI for 1 hour and pump an additional 1008 gal (24 bbl) 15% HCl w/2 7/8" x 1" annulus shut in. Flush w/1100 gal (26 + bbl) lease produced water.
7. Open well slowly on choke to pit and start pumping foamed water (to each barrel of lease produced water add .2 gal WF-17 and 400 scf/bbl Nitrogen) at rate of 1 BPM. Pump 9 bbl: foamed water, cut rate to 1/4 BPM and start POOH. Pump foamed water until out of hole.

EQUIPMENT LAYOUT SCHEMATIC



STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<b>1.</b> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> Patented				
<b>2. NAME OF OPERATOR</b> Shell Oil Company		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b>				
<b>3. ADDRESS OF OPERATOR</b> 1700 Broadway, Denver, Colorado 80202		<b>7. UNIT AGREEMENT NAME</b>				
<b>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)</b> At surface 1468' FNL and 1503' FEL Section 3		<b>8. FARM OR LEASE NAME</b> W. H. Brotherson, Jr.				
<b>14. PERMIT NO.</b> 43-013-30048		<b>9. WELL NO.</b> 1-3B4				
<b>15. ELEVATIONS (Show whether DF, RT, OR, etc.)</b> 6302 GL, 6321 KB		<b>10. FIELD AND POOL, OR WILDCAT</b> Altamont				
<b>16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data</b>		<b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> NW/4 NE/4 Section 3-T2S-R4W				
<table border="0" style="width:100%;"> <tr> <td style="width:50%;"> <b>NOTICE OF INTENTION TO:</b>                  TEST WATER SHUT-OFF <input type="checkbox"/>                  FRACTURE TREAT <input type="checkbox"/>                  SHOOT OR ACIDIZE <input type="checkbox"/>                  REPAIR WELL <input type="checkbox"/>                  (Other) <input type="checkbox"/> </td> <td style="width:50%;">                 PULL OR ALTER CASING <input type="checkbox"/>                  MULTIPLE COMPLETE <input type="checkbox"/>                  ABANDON* <input type="checkbox"/>                  CHANGE PLANS <input type="checkbox"/> </td> </tr> </table>	<b>NOTICE OF INTENTION TO:</b> TEST WATER SHUT-OFF <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> SHOOT OR ACIDIZE <input type="checkbox"/> REPAIR WELL <input type="checkbox"/> (Other) <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/> ABANDON* <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/>	<table border="0" style="width:100%;"> <tr> <td style="width:50%;"> <b>SUBSEQUENT REPORT OF:</b>                  WATER SHUT-OFF <input type="checkbox"/>                  FRACTURE TREATMENT <input type="checkbox"/>  <del>SHOOT OR ACIDIZE</del> <input checked="" type="checkbox"/>                  (Other) <input type="checkbox"/> </td> <td style="width:50%;">                 REPAIRING WELL <input type="checkbox"/>                  ALTERING CASING <input type="checkbox"/>                  ABANDONMENT* <input type="checkbox"/> </td> </tr> </table>	<b>SUBSEQUENT REPORT OF:</b> WATER SHUT-OFF <input type="checkbox"/> FRACTURE TREATMENT <input type="checkbox"/> <del>SHOOT OR ACIDIZE</del> <input checked="" type="checkbox"/> (Other) <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> ABANDONMENT* <input type="checkbox"/>	<b>12. COUNTY OR PARISH</b> Duchesne <b>13. STATE</b> Utah
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<b>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.)*</b>						

As per attached report.

cc: USGS - w/Attachment (for information)

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

SIGNED T.S. Mize TITLE Division Operations Engr. DATE 12/31/74

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:

cc: Tenneco

\*See Instructions on Reverse Side

SHELL OIL COMPANY

LEASE BROTHERSON WELL NO. 1-3B4  
 DIVISION WESTERN LEV 6321 KB  
 COUNTY DUCHESNE STATE UTAH  
 LOCATION NW/4 NE/4 SECTION 3-T2S-R4W

12/20/74 - 12/30/74

UTAH  
ALTAMONT

Shell-Tenneco-  
Brotherson 1-3B4  
(CO)

"FR" TD 12,850. Prep to flow to pit to CO. AFE #412987 provides funds to CO with foamed acid. MI&RU Nowsco coil tbg unit, nitrogen pump truck and BJ pump truck. Started in hole w/coil tbg at 7:30 AM 12/19/74. Pumped 1/4 BPM lease produced wtr through coil tbg while running to 12,400 w/coil tbg unit. Started pumping 15% HCl acid containing 4-1/2 gal Tretolite WF-17 per 1000 gal acid and 400 cu.ft. nitrogen per bbl acid. Ran coil tbg to 12,807 while pumping above mixture at 1/4 - 1/2 BPM at 5000 psi surface pressure. Did not go below 12,807. Worked tbg for 30 min at 12,807. Started pumping straight 15% HCl. With 14 bbls HCl in coil tbg, worked tbg for one hour. Pumped additional 3 bbls acid while working tbg. Worked tbg to 12,812 and could not go deeper. Pulled tbg to 12,806 and pumped additional 9 bbls acid at 3/4 BPM at 5000 psi surface press. SI well for 30 min. Pumped 24 bbls 15% acid and flushed w/26 bbls clean formation wtr. Pumped acid and flush at 3/4 - 1 BPM at 5000 psi surface press. Opened well to pit and started pumping clean formation wtr containing .2 gal WF-17 and 400 cu.ft. nitrogen/bbl at 1/2 BPM at 5000 psi surface press. Pumped 9 bbls at 1/2 BPM rate. Cut rate to 1/4 BPM. POOE. Well dead. SI overnight. Job complete 8:30 PM 12/19/74.

DEC 20 1974

Shell-Tenneco-  
Brotherson 1-3B4  
(CO)

TD 12,850. No report.

DEC 23 1974

Shell-Tenneco-  
Brotherson et al 1-3B4  
(CO)

TD 12,850. Flowing. (Report for 12/21-23 to be reported later.) On 24-hr tests, well flwd to tank battery as follows:

<u>Rpt Date</u>	<u>BO</u>	<u>BW</u>	<u>MCF gas</u>	<u>Chk</u>	<u>FTP</u>
12/22	82	32	67	30/64"	100
12/23	62	36	18	30/64"	100
12/24	67	30	11	30/64"	100

DEC 24 1974

Shell-Tenneco-  
Brotherson et al 1-3B4  
(CO)

TD 12,850. Flowing. On 24-hr tests, flwd as follows:

<u>Rpt Date</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Chk</u>	<u>FTP</u>
12/25	119	49	103	22/64"	200
12/26	133	40	120	22/64"	500

DEC 26 1974

Shell-Tenneco-  
Brotherson 1-3B4  
(CO)

TD 12,850.

12/21: Flwd well to pit 3 hrs to clean up and switched to treater.

12/27: Flowing. On 24-hr test, flwd 114 BO, 26 BW and 68 MCF gas through 22/64" chk w/250 psi FTP.

(Reports discontinued until test established.)

DEC 27 1974

Shell-Tenneco-  
Brotherson 1-3B4  
(CO)

TD 12,850. CLEANING HOLE WITH FOAMED ACID COMPLETE.

On 24-hr test 12/18/74, prior to work, flwd 197 BO, 13 BW and 180 MCF gas through 22/64" chk w/200 psi

FTP from Wasatch perfs 12,412-12,842. On 24-hr test

12/28/74, after work, flwd 103 BO, 18 BW and 68 MCF gas

through 22/64" chk w/250 psi FTP from Wasatch perfs 12,412-12,842.

DEC 30 1974

FINAL REPORT.

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Patented
2. NAME OF OPERATOR Shell Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80290		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL & 1503' FEL Section 3		8. FARM OR LEASE NAME W. H. Brotherson, Jr.
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, OR, etc.) 6321 KB	9. WELL NO. 1-3B4
		10. FIELD AND POOL, OR WILDCAT Altamont
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T2S-R4W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

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

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

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

See attachment

APPROVED BY THE DIVISION OF  
OIL, GAS, AND MINING  
DATE: 5-6-77  
BY: *Clean D. Light*

18. I hereby certify that the foregoing is true and correct  
SIGNED *R. Plautz* TITLE Div. Opers. Engr. DATE 5/2/77  
(This space for Federal or State office use)

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

cc: Utah USGS w/attachment

PERF & ACID TREAT

ALTAMONT

SHELL-TENNECO

LEASE BROTHERSON

WELL NO. 1-3B4

DIVISION WESTERN

ELEV 6321 KB

COUNTY DUCHESNE

STATE UTAH

FROM: 2/28 - 4/28/77

UTAH

ALTAMONT

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

"FR" TD 12,850. PB 12,847. AFE #525607 provides funds to pull tbg & heat strng, CO to top of liner, perf & AT. MI&RU WOW #17. Installed 10" BOP, unstung from pkr & removed 10,000# tree.

FEB 28 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Unlatched from Md1 D pkr. Pulled tbg & latch-in seal assy. MI&RU csg crew & pulled 4000' 5-1/2 csg heat strng. RD&MO csg crew. RIH w/9-5/8 pkr picker. SD for night.

MAR 01 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. RIH w/6 3-1/2 DC's & Xover & latched into pkr w/picker. Milled 9-5/8 Md1 D in 4 hrs. Circ'd out about 200 BO. Pulled 40 stds 2-7/8 tbg & SD for night.

MAR 02 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. POOH & LD DC's, pkr picker & remains of pkr. RIH w/6-1/2" mill & Bkr csg scraper. PU 2300' 2-7/8 to run mill to top of 5-1/2 liner @ 12,360. Pulled 10 stds & SI for night.

MAR 03 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. POOH & LD mill & csg scraper. RIH w/4-5/8 mill; could not get into 5-1/2 liner. RU power swivel & milled & circ'd down 4 jts. Circ'd in reverse, CO & fell thru. Rotated, pushed & milled junk down to 12,830 (17' off btm). PU 1 jt & circ'd clean. SD for night.

MAR 04 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. 3/4 AW perfs w/750 gals 15% HCl & let set 1 hr. Est reverse circ & milled 3-1/2 hrs; made 6'. Plug'd mill or tbg; POOH. Mill plug'd. Rec'd 1 set wax cut'g tools, 1/2 of another set & considerable amt WL. 3/5 PU Bkr 7-5/8 full-bore pkr & RIH on 2-7/8 tbg w/gas lift valve & mandrels. Set pkr @ 12,240. Landed tbg on donut w/15,000# tension. Installed tree & SI well.

MAR 07 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. No report.

MAR 08 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Inj'g gas lift gas @ 1160 psi CP. Appears to be lifting off btm; will investigate fluid entry.

MAR 09 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Prod 20 BO & 6 BW; gas lift gas  
press was down.

MAR 10 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Had 0 prod w/1340 psi CP on gas  
lift.

MAR 11 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. No prod data.

MAR 14 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Attempting to get gas going into  
the csg.

MAR 15 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Prod total of 30 bbls fluid; well  
pmp'd off.

MAR 16 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Prod 11 BO, 70 BW & 467 MCF gas.

MAR 17 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Chk'd PBTD & found obstruction @  
12,300. Attempting to determine what is in hole.

MAR 18 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. No report.

MAR 21 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. SI.

MAR 22 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Located piano wire fill @ 5-1/2  
liner top. Rec'd approx 20'. Plan to MI rig & pull tbg.

MAR 23 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Attempted to run bomb in hole;  
unable to get by 12,370. Ran impress blk & got impress  
of wire & junk on top of liner. Made several runs  
w/wire spear & rec'd wire. Unable to clean hole w/WL  
due to too much wire & junk on liner. RD. MI&RU WOW  
#12. Bled off tbg & csg. Pmp'd 40 bbls hot prod wtr  
down tbg & 60 bbls down csg; both on vac. Installed  
BPV, removed tree, installed & tested BOP's & removed  
BPV. PU tbg & released full bore pkr.

MAR 24 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. RIH w/long WL grapple, sinker bars & jars on slickline. Engaged WL fish on top of liner hanger & POOH. Rec'd 50-100' WL ball filled w/set-up oil (no solids, but wax). Reran grapple to liner top. POOH; no rec. Reran grapple to 200' below liner top & did not touch anything. POOH & removed grapple. RIH w/sinker bars & jars to 12,827. POOH SI well for night.

MAR 25 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. 3/25 RIH w/Bkr 7-5/8 full bore pkr & tbg w/gas lift valves & mandrels. Set pkr @ 12,240 w/15,000# tension w/tbg on donut. Removed BOP & installed tree. Released rig 3/25 & turned over to prod. 3/26 Opened well; dead. Started gas inj. From 5 p.m. to 7:45 a.m. prod 324 BW & 25 BO. 3/27 Well prod'g 23 BW/H & 1.5 BO/H. Well leading every 20 mins & stay'g dead in the 20-min interval, but is inj gas @ all times & get'g full gas returns. Total gas inj since startup 3/26/77 is 2731 MCF gas.

MAR 28 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. SI well 8 a.m. 3/28. RIH w/press bomb to record BHP.  
(Report discontinued until further activity)

MAR 29 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. (RRD 3/29/77) 3/31 Pulled bomb & left well SI. 4/1 MI&RU WOW #19. Moved BOPE & rig equip. Bled down well. 4/2 Prep to pull prod tbg & mandrels. Fin'd bleeding off well. Pmp'd 10 bbls prod wtr down tbg to kill well. Ran bomb for BHPS.

APR 04 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Prep to run logs. Bled well down; SIP was 3000#. Removed tree & installed BOPE. Released pkr @ 12,300 & POOH. SI for night.

APR 05 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. RU OWP & ran GR, CL & CBL logs. Hit FL @ 7000'. Ran logs from 12,360-9600'. RD OWP. RIH w/ret BP & Md1 C full bore pkr (both 7-7/8) & 100 stds 2-7/8 N-80 prod tbg. SD for night.

APR 06 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Set ret BP @ 12,350 & Md1 C full bore pkr @ 11,000. Removed BOPE & installed 10,000# tree. Ran SV & press tested tbg to 6500 psi & annulus to 3000 psi. Fished SV & tested BP to 4000 psi. OWP perf'd 19 holes (12,345-12,199). No press indications. RU Hal & cap'd BP w/1 sx 20-40 sd. Bullheaded 8 bbls gelled db1-inh'd wt'd 15% HCl down tbg. Displ'd w/108 bbls prod wtr. Max press 4800 psi, avg 4800. Max rate 2 B/M. ISIP 4500 psi, 15 mins 4500. SI overnight.

APR 07 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

APR 11 1977

TD 12,850. PB 12,847. 4/8: perfs 12199, 12206, 12213, 12217, 12226, 12248, 12251, 12257, 12270, 12274, 12277, 12284, 12293, 12297, 12311, 12316, 12333, 12339, 12345. Tested lines to 10,000 psi, pumped 200 bbls 15% HCl down tbg. Displaced w/120 bbl prod wtr containing 3 gal G-10 per 1000 gal. Pumped 8 bbls HCl, dropped 1 (7/8) ball sealer throughout job. All acid cont. 3 gal C-15, 3 gal J-22, 3 gal C-10 per 1000 gal. Fluids 80 degrees to 100 degree F. Max 9000 psi, 8.3 BPM, avg 8000 psi, 7.0 BPM, min 6100 psi, 2.0 BPM. ISIP 500 psi, 5 min 4800, 10 min 4750 and 15 min 4700. Balled out after 84 bbl flush, SI 5 min, psi dropped to 4800 psi. On various tests, gas lifted:

<u>Rept Date</u>	<u>Hrs</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Inj Press</u>
4/8	24	1314	345	1785	1400
4/9	24	1054	235	1745	1400

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. (Corr to rept of 4/11: well is flw'g) On 24-hr test, prod 451 BO, 41 BW, 1250 MCF gas w/400 psi.  
APR 12 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 1223 BO, 320 BW, 2300 MCF gas w/250 psi.  
APR 13 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 990 BO, 321 BW, 1280 MCF gas w/250 psi.  
APR 14 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 1077 BO, 292 BW, 1340 MCF gas w/400 psi.  
APR 15 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 942 BO, 302 BW, 1131 MCF gas w/200 psi.  
APR 18 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On various tests, prod:

<u>Rept Date</u>	<u>Hrs</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Press</u>
4/15	24	791	459	1229	200
4/16	24	901	409	1235	250
4/17	24	698	378	990	200

APR 19 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 641 BO, 445 BW, 950 MCF gas w/150 psi.  
APR 20 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 667 BO, 404 BW, 910 MCF gas w/200 psi.  
APR 21 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 493 BO, 439 BW, 785 MCF gas w/200 psi.  
APR 22 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 649 BO, 358  
BW, 1030 MCF gas w/200 psi.

APR 25 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On various tests, prod:  

<u>Rept Date</u>	<u>Hrs</u>	<u>BO</u>	<u>BW</u>	<u>MCF Gas</u>	<u>Press</u>
4/22	24	646	425	1021	250
4/23	24	722	322	937	200
4/24	24	427	294	730	200

APR 26 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. On 24-hr test, prod 745 BO, 312  
BW, 735 MCF gas w/200 psi.

APR 27 1977

Shell-Tenneco-  
Brotherson 1-3B4  
(Perf & AT)

TD 12,850. PB 12,847. Prior to work, well was dead.  
On 24-hr test 4/26/77 prod 612 BO, 291 BW, 800 MCF  
gas w/200 psi.  
FINAL REPORT

APR 28 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

WD 12,847. PB 12,830. This well was put on prod 10/20 in  
a flw'g status. It has flwd as much as 1150 BO in 24 hrs,  
but has declined to the present status of dead. Slickline  
has been run into hole to 10,000' w/no tbg plug. This well  
is now SI & will not bld press; WO future remedial work to  
install gas lift.

NOV 18 1977

FINAL REPORT

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<p>1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR Shell Oil Company</p> <p>3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80290</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL &amp; 1503' FEL Section 3</p>		<p>5. LEASE DESIGNATION AND SERIAL NO. Patented</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME W. H. Brotherson, Jr.</p> <p>9. WELL NO. 1-3B4</p> <p>10. FIELD AND POOL, OR WILDCAT Altamont</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T2S-R4W</p> <p>12. COUNTY OR PARISH Duchesne</p> <p>13. STATE Utah</p>
<p>14. PERMIT NO.</p>	<p>15. ELEVATIONS (Show whether DF, RT, OR, etc.) 6321 KB</p>	

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

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

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

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

See attachment

APPROVED BY THE DIVISION OF  
OIL, GAS, AND MINING  
DATE June 30, 1977  
P. H. Marshall

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

SIGNED P. P. Plaudy TITLE Div. Oper. Engr. DATE 6/24/77

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:

cc: Utah USGS w/attachment

INSTALL ARTIFICIAL LIFT

ALTAMONT

SHELL-TENNECO

LEASE BROTHERSON ET AL  
 DIVISION WESTERN  
 COUNTY DUCHESNE

WELL NO. 1-3B4  
 ELEV 6321 KB  
 STATE UTAH

FROM: 5/31 - 6/14/77

UTAH  
ALTAMONT

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

"FR" TD 12,847. PB 12,830. AFE provides funds to install artificial lift. 5/26 MI&RU CWS #55. Pmp'd 50 BW down tbg. Installed BOP's. Released pkr & pulled 40 jts 2-7/8 tbg. 5/27 Pmp'd 50 BW down tbg & pulled remaining 2-7/8 tbg. Pmp'd 150 BW & pulled pkr. Ran redressed 7-5/8 full bore pkr, unloader, SN, 40 jts tbg, mandrel w/valve @ 10,903, 11 jts tbg, mandrel w/valve @ 10,555 & 5 jts tbg. 5/28 Ran 16 jts tbg, mandrel @ 9603 w/valve, 21 jts tbg, mandrel w/valve @ 8954, 24 jts tbg, mandrel w/valve @ 8215, 38 jts tbg, mandrel w/valve @ 7053, 58 jts tbg, mandrel w/valve @ 5310, 80 jts tbg, mandrel w/valve @ 2886 & 93 jts tbg. Set pkr @ 12,130. Pulled tbg to 10,000# tension & landed on donut. Set BPV, removed BOP's & installed tree. Connected lines & turned over to prod. Released rig 5/28.

MAY 31 1977

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

TD 12,847. PB 12,830. On 21-hr test 5/30, gas lifted 242 BO, 810 BW, 825 MCF gas w/1380 psi inj press.

JUN 01 1977

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 816 BO, 622 BW, 1620 MCF gas w/1380 psi inj press.

JUN 02 1977

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 756 BO, 515 BW, 1550 MCF gas w/1380 psi inj press.

JUN 03 1977

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 454 BO, 462 BW, 1000 MCF gas w/1370 psi inj press.

JUN 06 1977

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

TD 12,847. PB 12,830. On various tests, gas lifted:

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
6/3	24	812	449	940	1370
6/4	19	540	404	825	1400
6/5	24	597	337	680	1400

JUN 07 1977

Shell-Tenneco-  
 Brotherson et al 1-3B4  
 (Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 592 BO, 578 BW, 1225 MCF gas w/1400 psi inj press.

JUN 08 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 543 BO,  
528 BW, 1075 MCF gas w/1360 psi inj press.

JUN 09 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 450 BO,  
504 BW, 1125 MCF gas w/1400 psi inj press.

JUN 10 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Install artif lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 468 BO,  
487 BW, 1310 MCF gas w/1400 psi inj press.

JUN 13 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Install artif lift)

TD 12,847. PB 12,830. On 24-hr test before work, well  
avg'd 0 BO, 0 BW & 0 MCF gas. On 24-hr test after work,  
well avg'd 454 BO, 462 BW & 466 MCF gas.  
FINAL REPORT

JUN 14 1977

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. LEASE DESIGNATION AND SERIAL NO. Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME W. H. Brotherson, Jr.

9. WELL NO. 1-3B4

10. FIELD AND POOL, OR WILDCAT Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T2S-R4W

12. COUNTY OR PARISH Duchesne 18. STATE Utah

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR Shell Oil Company

3. ADDRESS OF OPERATOR 1700 Broadway, Denver, Colorado 80290

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
1468' FNL & 1503' FEL Section 3

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6321 KB

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

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

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

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

See attachment



18. I hereby certify that the foregoing is true and correct  
SIGNED R. Plautz TITLE Div. Opers. Engr. DATE 12/7/77

(This space for Federal or State office use)

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

cc: USGS w/attachment

\*See Instructions on Reverse Side

RECOMPLETE

ALTAMONT

SHELL-TENNECO

LEASE \_\_\_\_\_ BROTHERSON \_\_\_\_\_

WELL NO. 1-3B4

DIVISION \_\_\_\_\_ WESTERN \_\_\_\_\_

ELEV 6321 KB

FROM: 10/11 - 11/18/77

COUNTY \_\_\_\_\_ DUCHESNE \_\_\_\_\_

STATE UTAH

UTAHALTAMONT

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

"FR" TD 12,847. PB 12,830. AFE #570567 provides funds to recomp. MI&RU WOW #17 & bled well down. Removed tree & tbg hd spool. Installed 10" BOP. Circ'd hole full of prod wtr. Released 7-5/8" Bkr full bore pkr & SD for night.

OCT 11 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. Prep to perf. Ran 7-5/8 pkr to 12,340. Spt'd 1200 gals prod wtr containing 4 gals J22. POOH & LD gas mndrls. RU OWP & ran 3-1/8 OD dump bailer. Dumped 1 sx 20-40 mesh sd on BP @ 12,340'. Installed perf'g flange on 10" BOP.

OCT 12 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. RU OWP & perf'd as per prog w/257 bbls 15% HCl interval 12,163-11,749 (23 holes) w/4" OD, 19 grm chrgs (2 runs) gun. No sfc press after perf'g. RD OWP. RIH w/Bkr 7-5/8" OD full bore pkr & set @ 11,697 w/20,000# tension. Drop'd SV & tested tbg to 7500#, ok. Retrieved SV & installed 10,000# tree. Bullheaded 1200 gals 15% HCl wt'd, inh'd, gelled acid. Max press 2500# & 0 w/acid displ'd. Foll'd acid w/2900 gals prod wtr.

OCT 13 1977

Shell-Tenneco-  
Brotherson et at 1-3B4  
(Recomp)

TD 12,847. PB 12,830. RU BJ & AT perms 11,749-12,340 (23 new & 19 old) w/257 bbls 15% HCl as per prog. Used 54 ball sealers. Flushed trtmt w/4200 gals containing 3 gals G10/1000 gals. Total load 357 bbls. Max TP 8400 psi, min 5400, avg 7300. Max rate 11 B/M, min 8, avg 10. ISI 0 psi, 5/10/15 & 2 hrs 0. Removed tree & unseated pkr. Installed 10" BOP. POOH w/7-5/8 pkr. Ran Bkr ret'g head & 9200' tbg.

OCT 14 1977

Shell-Tenneco-  
Brotherson et at 1-3B4  
(Recomp)

TD 12,847. PB 12,830. Fin'd kill'g well. Ran Bkr ret'g hd to 12,350. Washed over Bkr ret BP, worked loose & pulled to 11,700' & set. Press tested BP; would not hold press. Pulled 20 stds tbg & SI well. Prep to circ & kill well.

OCT 17 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. Killed well & POOH w/Bkr ret BP. Set new 7-5/8 ret BP @ 11,690. Circ'd out gas & tested BP & 9-5/8 csg to 2500#, ok. Spt'd 2 sx 20-40 mesh sd on top of BP. Spt'd 1300 gals clean prod wtr containing 4 gals J22 from BP to 11,000'. Pulled & LD 23 jts 2-7/8 tbg.

OCT 18 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. OWP per d w/4" OD csg gun w/19  
grm chrgs as per prog 11,676-11,035 (53 holes) in 4 runs.  
9-5/8" press'd to 500# on last run. Bled press & ran 7-5/8  
ret pkr & ret'g hd to 6100'. SD for night.

OCT 19 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. Set pkr @ 10,977 w/25,000# set down.  
Press'd tbg to 7500#, ok. Pulled SV, removed BOP &  
installed 10,000# tree. Spt'd 1300 gals 15% HCl containing  
50# G26, 8 gals C15, 25 gals Z5 & 3 gals J22. Foll'd acid  
w/3000 gals prod wtr containing 9 gals J22. Max press  
bullheading acid to btm 4000#. RU BJ & press tested sfc  
lines & tree to 10,000#, ok. AT perfs 11,035-11,676 (53  
holes) w/286 bbls 15% HCl as per prog. Max TP 8400 psi,  
min 6500, avg 7900. Max rate 12.2 B/M, min 6, avg 11.  
ISIP 4300 psi, 5 mins 4000, 10 mins 3900, 15 mins 3800.  
Flushed trtmt w/4300 gals prod wtr containing 6 gals G10  
per 1000 gals wtr. Total load in trtmt 390 bbls. Total  
balls used 75. SI well for night.

OCT 20 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. Flwd well to pit 2 hrs thru 24/64  
chk w/600 psi TP. Well cleaned up making drk brn oil.  
Turned well to bty thru 46/64 chk w/350# FTP. Prod 1145  
BO, 44 BW & 412,000 MCF gas in 21 hrs.

OCT 21 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 1025 BO, 44 BW  
& 330 MCF gas on 45/64 chk w/350 psi.

OCT 24 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On various tests, prod:

Rept Date	Hrs	BO	BW	MCF Gas	Press
10/21	24	1025	44	330	350
10/22	24	973	1	334	350
10/23	24	808	0	338	350

OCT 25 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 620 BO, 0 BW,  
278 MCF gas w/350 psi.

OCT 26 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 672 BO, 0 BW,  
264 MCF gas w/350 psi.

OCT 27 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 778 BO, 3 BW,  
403 MCF gas w/600 psi.

OCT 28 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 192 BO, 4 BW,  
278 MCF gas w/400 psi.

OCT 31 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 426 BO, 2 BW,  
273 MCF gas w/400 psi.

NOV 01 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 371 BO, 0 BW,  
273 MCF gas w/400 psi.

NOV 02 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On various tests, prod:  

Rept Date	Hrs	BO	BW	MCF Gas	Press
10/30	24	393	5	138	400
10/31	24	615	0	138	400
11/1	24	321	1	534	350

NOV 03 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24 hr test well prod 262 BO, 0  
BW, 137 MCF gas w/325 psi. 11/4/77

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 313 BO, 0 BW,  
137 MCF gas w/300 psi.

NOV 07 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On various tests, prod:  

Rept Date	Hrs	BO	BW	MCF Gas	Press
11/4	24	255	1	143	50
11/5	24	258	1	135	250
11/6	24	218	0	215	250

NOV 08 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 254 BO, 0 BW,  
135 MCF gas w/350 psi.

NOV 09 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 136 BO, 1 BW,  
137 MCF gas w/350 psi.

NOV 10 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 241 BO, 0 BW,  
139 MCF gas w/250 psi.

NOV 11 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. 11/10 MI&RU Geotex for fluid entry  
survey. Completed fluid density & temp survey. Tools  
stuck in well @ 11,000 while attempting to run oil soluble  
tracer log. Rec'd tools & obtained needed info w/o oil  
tracer. Survey indicated oil entering well @ 11,108'  
perfs. RD&MO Geotex.

NOV 14 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 215 BO, 0 BW,  
141 MCF gas w/250 psi.

NOV 15 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On 24-hr test, prod 167 BO, 0 BW,  
139 MCF gas w/350 psi.

NOV 16 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

TD 12,847. PB 12,830. On various tests, prod:  

Rept Date	Hrs	BO	BW	MCF Gas	Press
11/13	24	159	1	141	150
11/14	24	0	0	69	50
11/15	24	1	0	43	50

NOV 17 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Recomp)

D 12,847. PE 12,830. This well was put on prod 10/20 in  
a flw'g status. It has flwd as much as 1150 BO in 24 hrs,  
but has declined to the present status of dead. Slickline  
has been run into hole to 10,000' w/no tbg plug. This well  
is now SI & will not bld press; WO future remedial work to  
install gas lift.

NOV 18 1977

FINAL REPORT

*Prod*

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <u>Patented</u>
2. NAME OF OPERATOR <u>Shell Oil Company</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR <u>1700 Broadway, Denver, Colorado 80290</u>		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <u>1468' FNL &amp; 1503' FEL Section 3</u>		8. FARM OR LEASE NAME <u>W. H. Brotherson, Jr.</u>
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) <u>6321 KB</u>	9. WELL NO. <u>1-3B4</u>
		10. FIELD AND POOL, OR WILDCAT <u>Altamont</u>
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <u>NW/4 NE/4 Section 3-T2S-R4W</u>
		12. COUNTY OR PARISH <u>Duchesne</u>
		13. STATE <u>Utah</u>

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

NOTICE OF INTENTION TO:

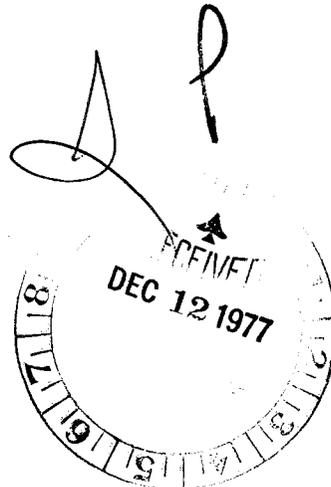
SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	

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

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See attachment



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

SIGNED

*R. Plautz*

TITLE

Div. Opers. Engr.

DATE

12/7/77

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS w/attachment

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Patented																				
2. NAME OF OPERATOR Shell Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME																				
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4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL & 1503' FEL Section 3		8. FARM OR LEASE NAME W. H. Brotherson, Jr.																				
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6321 KB	9. WELL NO. 1-3B4																				
16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data		10. FIELD AND POOL, OR WILDCAT Altamont																				
<table border="0"> <tr> <td colspan="2">NOTICE OF INTENTION TO:</td> <td colspan="2">SUBSEQUENT REPORT OF:</td> </tr> <tr> <td>TEST WATER SHUT-OFF <input type="checkbox"/></td> <td>PULL OR ALTER CASING <input type="checkbox"/></td> <td>WATER SHUT-OFF <input type="checkbox"/></td> <td>REPAIRING WELL <input type="checkbox"/></td> </tr> <tr> <td>FRACTURE TREAT <input type="checkbox"/></td> <td>MULTIPLE COMPLETE <input type="checkbox"/></td> <td>FRACTURE TREATMENT <input type="checkbox"/></td> <td>ALTERING CASING <input type="checkbox"/></td> </tr> <tr> <td>SHOOT OR ACIDIZE <input type="checkbox"/></td> <td>ABANDON* <input type="checkbox"/></td> <td>SHOOTING OR ACIDIZING <input type="checkbox"/></td> <td>ABANDONMENT* <input type="checkbox"/></td> </tr> <tr> <td>REPAIR WELL <input type="checkbox"/></td> <td>CHANGE PLANS <input type="checkbox"/></td> <td>(Other) <u>Gas Lift</u></td> <td><input checked="" type="checkbox"/></td> </tr> </table>		NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:		TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>	FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>	SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>	REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Gas Lift</u>	<input checked="" type="checkbox"/>	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/4 NE/4 Section 3-T2S-R4W
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		12. COUNTY OR PARISH Duchesne																				
		13. STATE Utah																				

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

See attachment

APPROVED BY THE DIVISION OF  
OIL, GAS, AND MINING  
DATE: Feb. 16, 1978  
BY: P. L. McCall



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

SIGNED P. Plautz TITLE Div. Opers. Engr. DATE FEB 08 1978

(This space for Federal or State office use)

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

cc: Utah USGS w/attachment

\*See Instructions on Reverse Side

CONVERT TO GAS LIFT

ALTAMONT

SHELL-TENNECO

LEASE BROTHERSON ET AL

WELL NO. 1-3B4

DIVISION WESTERN

ELEV 6321 KB

FROM: 12/5/77 - 12/30/77

COUNTY DUCHESNE

STATE UTAH

UTAH

ALTAMONT

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

DEC 05 1977

"FR" TD 12,847. PB 12,830. AFE #570567. 12/1 MI&RU Shebester #180. Pmp'd 20 BW down tbg & installed BPV. Removed 10,000 psi WH & installed 10" BOP. Released Bkr ret pkr & rev circ'd 100 BW. 12/2 POOH w/pkr. MI&RU slick line trk. RIH w/wire grapple to 11,680 w/o hit'g any obstruction. POOH & RD slick line. RIH w/Bkr ret'g head. Tag'd sd @ 11,682. Rev circ'd 500 BW; rec'd frac balls & some sd. Released BP; well went on vac. Pulled tbg above 7-5/8 liner top & SD for night. 12/3 POOH w/BP. RIH w/7-5/8 Mdl C full bore pkr & gas mndrls w/valves.

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. No report.

DEC 06 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. TP 500 psi. Circ'd approx 100 BO to mud tank. Circ'd approx 500 BW; well died. Set Bkr Mdl C full bore pkr @ 10,999 w/15,000# tension, +45 above pkr & gas mndrls set @ foll'g depths: 10,950, 10,455, 9939, 9441, 8943, 8449, 7891, 6846, 5255 & 2718. Installed 10,000# WH & turned well over to prod. 12/6 Released rig.  
DEC 07 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. On 16-hr test, gas lifted 488 BO, 32 BW, 1425 MCF gas w/1100 psi inj press.  
DEC 08 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. On 22-hr test, gas lifted 874 BO, 1 BW, 1547 MCF gas w/1100 psi inj press.

DEC 09 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 1078 BO, 5 BW, 2145 MCF gas w/1100 psi inj press.  
DEC 12 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 732 BO, 0 BW, 1822 MCF gas w/1100 psi inj press.

DEC 13 1977

Shell-Tenneco-  
Brotherson et al 1-3B4  
(Gas Lift)

TD 12,847. PB 12,830. On 24-hr test, gas lifted 943 BO, 11 BW, 1401 MCF gas w/1100 psi inj press.

DEC 14 1977

Shell-Tenneco- TD 12,847. PB 12,830. On various tests, gas lifted:  
 Brotherson et al 1-3B4  
 (Gas Lift)

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
12/11	24	926	99	2200	1100
12/12	24	781	12	1651	1300
12/13	24	1026	9	1626	1300

DEC 15 1977

Shell-Tenneco- TD 12,847. PB 12,830. On 24-hr test, gas lifted 941 BO,  
 Brotherson et al 1-3B4 0 BW, 1501 MCF gas w/1300 psi inj press. DEC 15 1977  
 (Gas Lift)

Shell-Tenneco- TD 12,847. PB 12,830. On 24-hr test, gas lifted 19 BO,  
 Brotherson et al 1-3B4 0 BW, 57 MCF gas w/1100 psi inj press. DEC 19 1977  
 (Gas Lift)

Shell-Tenneco- TD 12,847. PB 12,830. On various tests, gas lifted:  
 Brotherson et al 1-3B4  
 (Gas Lift)

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
12/16	24	805	0	1445	1300
12/17	24	782	10	1544	1300
12/18	24	634	1	1653	1300

DEC 20 1977

Shell-Tenneco- TD 12,847. PB 12,830. On 24-hr test, gas lifted 582 BO,  
 Brotherson et al 1-3B4 0 BW, 2540 MCF gas w/1300 psi inj press. DEC 21 1977  
 (Gas Lift)

Shell-Tenneco- TD 12,847. PB 12,830. On 24-hr test, gas lifted 947 BO,  
 Brotherson et al 1-3B4 14 BW, 625 MCF gas w/1300 psi inj press. DEC 22 1977  
 (Gas Lift)

Shell-Tenneco- TD 12,847. PB 12,830. On 20-hr test, gas lifted 571 BO,  
 Brotherson et al 1-3B4 48 BW, 1653 MCF gas w/1300 psi inj press. DEC 27 1977  
 (Gas Lift)

Shell-Tenneco- TD 12,847. PB 12,830. On various tests well gas lifted:  
 Brotherson et al 1-3B4  
 (Gas Lift) DEC 29 1977

Rept Date	Hrs	BO	BW	MCF Gas	Inj Press
12/22	24	1022	50	1203	1300
12/23	24	800	39	670	1300
12/24	24	832	48	1305	1300
12/25	24	887	73	1651	1300
12/26	24	766	62	2100	1300

Shell-Tenneco- TD 12,847. PB 12,830. On 24 hr test well gas lifted  
 Brotherson et al 1-3B4 759 BO, 24 BW, 1501 MCF gas w/1300 psi inj press. DEC 29 1977  
 (Gas Lift)

Shell-Tenneco- TD 12,847. PB 12,830. CONVERSION TO GAS LIFT COMPLETE.  
 Brotherson et al 1-3B4 Well dead prior to job. On test 12/29/77 gas lifted  
 (Gas Lift) 742 BO, 4 BW, 874 MCFD gas inj. DEC 30 1977  
 FINAL REPORT

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

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<p>1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR <u>Shell Oil Company</u></p> <p>3. ADDRESS OF OPERATOR <u>P.O. Box 831 Houston, TX 77001 ATTN: P.G. GELLING Rm #6459 WCK</u></p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <u>1468' FNL + 1503' FEL Sec. 3</u></p>		<p>5. LEASE DESIGNATION AND SERIAL NO. <u>PATENTED</u></p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME <u>BROTHERSON</u></p> <p>9. WELL NO. <u>1-3BH</u></p> <p>10. FIELD AND POOL, OR WILDCAT <u>ALTAMONT</u></p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <u>NW1/4 NE1/4 T2S R4W</u></p> <p>12. COUNTY OR PARISH <u>Duchesne</u></p> <p>13. STATE <u>Utah</u></p>
<p>14. PERMIT NO.</p>	<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) <u>6321' KB</u></p>	

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

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

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

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

SEE ATTACHED

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

DATE: 6/30/82  
BY: [Signature]

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

SIGNED [Signature] TITLE DIVISION TRDD. ENGINEER DATE 6-16-82  
W. F. N. KELDORF

(This space for Federal or State office use)

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

REMEDIAL PROGNOSIS  
BROTHERSON 1-3B4  
SECTION 3, T2S, R4W  
DUCHESNE COUNTY, UTAH  
ALTAMONT FIELD

Pertinent Data:

Shell's share 64.33%

Elevation (KB): 6321'  
Elevation (GL): 6302'  
TD: 12,850'  
PBSD: 12,847'  
Casing: 13-3/8", 54.5 lbs, K-55 to 1108'.  
9-5/8", 40 and 47 bls, S-95 to 10,609'.  
Liner: 7-5/8", 33.4 lbs, from 10,086' to 12,390'.  
5-1/2", 20 lbs, 'N-80 from 12,359' to 12,847'.  
Tubing: 2-7/8", EUE 8RD to 10,991'.  
Packer: Baker Model "C" full bore at 10,999'.

Perforations: 11,035'/12,345' (95 holes); Shop perfs  
12,412'/12,842' (520 holes)

Objective: Clean out and stimulate perforations

Procedure:

1. MIRU. Load hole with clean produced water containing 5 gal/100 bbl Tretolite Xcide 102 Biocide. Remove tree. Install and test BOPE as per Attachment I.
2. Pull tubing and 7-5/8" fullbore packer.
3. RIH with 4-1/4" bit or mill and 7-5/8" scraper and clean out 7-5/8" liner. Pull out and run 4-1/8" mill or bit and 5-1/2" scraper and clean out 5-1/2" liner to PBSD (12846).
4. RIH with tubing and 7-5/8" fullbore packer. Set at 11,000'±.
5. Acid treat perf's (11,035'-12,842', 428 holes) with 16,000 gallons 15% HCl as follows:
  - A. Pump 1000 gallons of acid to establish injection rate.
  - B. Pump 3000 gallons acid, dropping one ball sealer (7/8" RCH with 1.2 S.G.) every 27 gallons.
  - C. Pump 1000 gallons acid containing 1000# benzoic acid flakes.
  - D. Repeat Step (B) three more times and Step (C) two more times for a total of four stages acid and three of diverting material (total 16,000 gallons acid and 120 ball sealers).

- E. Flush with 110 bbls of clean produced water containing five gallons Tretolite Xcide 102 Biocide.

- NOTES:
1. All acid and flush to contain five lbs J-120/1000 gallons HCl or equivalent for  $\pm 60\%$  friction reduction and 1.0# 20-40 mesh RA sand per 1000 gallons (no RA sand inflush).
  2. All acid to contain sufficient corrosion inhibitor for four hours exposure at 210°F and the necessary surfactant (tested for compatibility with formation fluids).
  3. Maintain 2500 psi surface casing pressure during treatment if possible.
  4. Pumping rates: pump at maximum possible without exceeding 6500 psi differential pressure between tubing and annulus.
  5. Increase amount of diverting material if necessary to obtain a gradual increase in treating pressure and/or decrease in rate.
  6. Record ISIP and shut-in pressure decline for at least 20 minutes.
6. Run RA log from PBTD to 11,050'.
7. POOH with tubing and packer. RIH with packer, mandrels, and valves with Baker model "C" fullbore packer and set packer at 11,000'±. Return well to production.

Recommended: BAK 4-8-82

Approved: \_\_\_\_\_

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

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

SUBMIT IN TRIPPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>PATENTED</b>
2. NAME OF OPERATOR <b>SHELL OIL COMPANY</b>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR <b>P.O. Box 831 HOUSTON, TX 77001 ATTN: P.G. GELING RM. # 6459 WCK</b>		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <b>1468' FNL &amp; 1503' FEL SEC. 3</b>		8. FARM OR LEASE NAME <b>BROTHERSON</b>
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>6321' KB</b>	9. WELL NO. <b>1-384</b>
16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data		10. FIELD AND POOL, OR WILDCAT <b>ALTAMONT</b>
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>NW/4 NEH T2S R4W</b>
		12. COUNTY OR PARISH <b>Duchesne</b>
		13. STATE <b>Utah</b>

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

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

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

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

SEE ATTACHED

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

SIGNED W.F.N. KellDore TITLE DIVISION PROD. ENGINEER DATE 7-26-82

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 383  
ISSUED 07/12/82

WELL: BROTHERSON 1-384  
 LABEL: FIRST REPORT  
 AFE: AFE 570697  
 FOREMAN: KENT RUST  
 RIG: WDW 22  
 OBJECTIVE: CO. AND STIMULATE.  
 AUTH. AMNT: 61000  
 DAILY COST: 3600  
 CUM COST: 3600

DATE: 5-26 AND 5-27-82

ACTIVITY: 5-26-82 ACTIVITY : AFE 570697 PROVIDES FUNDS OF  
 \*02\* 61000 TO CLEAN OUT AND STIMULATE THE WASATCH. MTRU  
 \*03\* BLEED DOWN BACKSIDE. PUMPED 50 BRLS. WTR. DOWN TBG.  
 \*04\* AND 50 BRLS. WTR. DOWN CSG. REMOVE WELLHEAD. DID  
 \*05\* NOT HAVE CORRECT SPOOL TO FLANGE UP FROM CSG. HEAD  
 \*06\* TO BUP. WAIT FOR CHANGE OVER SPOOL S.D.U.N.  
 \*07\* 5-27-82 STATUS: POOH. RIM W/6 1/8 INCH MILL AND  
 \*08\* 7 5/8 INCH SCRAPER.

LABEL: -----  
 DAILY COST: 3000  
 CUM COST: 6600

DATE: 5-27 AND 5-28-82

ACTIVITY: 5-27-82 ACTIVITY: PUMP 50 BRLS WTR. DOWN TBG.  
 \*02\* PUT ON BOP RELEASE PKR. AND POOH. W/10 CAMCU  
 \*03\* MANDRELS PKR. AND TBG. LAID DOWN MANDRELS WHILE  
 \*04\* COMING OUT OF HOLE. RIM W/ 6 5/8 INC H MILL AND 7  
 \*05\* 5/8 INCH CSG. SCRAPER. PICKED UP 45 JTS. 2 7/8  
 \*06\* INCH TBG. OFF PIPE RACKS. TAGGED UP AT 12360 FT.  
 \*07\* LINER TOP. BUMPED A COUPLE PLACES OF SCALE WHILE GOING  
 \*08\* THRU 7 5/8 INCH LINER. START OUT OF HOLE W/6 5/8  
 \*09\* INCH MILL AND 7 5/8 INCH CSG. SCRAPER 30 STDS.  
 \*10\* S.D.U.N.  
 \*11\* 5-28-82 CO 5 1/2 INCH LINER.

LABEL: -----  
 DAILY COST: 4000  
 CUM COST: 14000

DATE: 5-28 AND 5-29 AND 6-1-82

ACTIVITY: 5-28-82 DAILY COST 3400 CUM. COST 10000.

\*02\* 5-28-82 ACTIVITY: FINISH POOH RIM W/4 5/8 INCH

ALIAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 383  
ISSUED 07/12/82

\*03\* MILL. C.O. 5 1/2 LINER TO 12820 FT. POOH AND LAY  
 \*04\* 90 JTS. TBG. POOH W/100 STANDS TBG. S.D.O.N.  
 \*05\* 5-29-82 COSTS GIVEN IN HEADING. STATUS: GET READY  
 \*06\* TO ACIDIZE TUESDAY. ACTIVITY: FINISH POOH RIH  
 \*07\* W/MIN STATES 7 5/8 INCH 33.7 LBS 32 A PKR AND UNLOADER  
 \*08\* SET AT 10989 FT. W/20000 LBS TENSION. TEST  
 \*09\* BACKSIDE TO 2500 PSI AND GET WELL READY TO ACIDIZE  
 \*10\* ON TUESDAY. S.D. FOR W.E.  
 \*11\* 6-1-82 STATUS: ACIDIZE WELL.

LABEL: -----  
 DAILY COST: 38902  
 CUM COST: 52902  
 DATE: 6-1 AND 6-2-82  
 ACTIVITY: 6-1-82 ACTIVITY: R.U. NOWSCO. ACIDIZE AS PER  
 \*02\* PROG: MAX PSI 8800 LBS MAX RATE 16 BBL/MIN  
 \*03\* AVG PSI 7000 LBS AVG. RATE 14.5 BBL/MIN  
 \*04\* MIN RATE 5000 LBS. MIN RATE 10 BBL/MIN 450 BALLS  
 \*05\* 3500 LBS BAF CSG 2500 LBS ISIP 0 5 10 15 20 MIN  
 \*06\* ALL ZERO. ACID 384 BBL. FLUSH 110 BBL TOTAL  
 \*07\* FLUID 494 BBL. R.D. NOWSCO. R.U. OWP RUN R A LOG  
 \*08\* FROM 10800 FT. THRU 12820 FT. LOG SHOWS GOOD  
 \*09\* TREATMENT. R.D. OWP. REMOVE 10000 LBS TREE AND PUT  
 \*10\* ON BOP. RELEASE PKR. AND START OUT OF HOLE. 20 STD.  
 \*11\* S.D.O.N.  
 \*12\* 6-2-82 STATUS: RIH W/PROD. EQUIP.

LABEL: -----  
 DAILY COST: 5900  
 CUM COST: 58802  
 DATE: 6-2-82  
 ACTIVITY: 6-2-82 ACTIVITY: FINISH COMING OUT OF HOLE W/  
 \*02\* PKR. AND TBG. RIH W/ 7 5/8 INCH GUIBERSON PKR W/  
 \*03\* UNLOADER AND 8 GAS LIFT MANDRELS AND TBG. SET  
 \*04\* PKR. AT 11002 FT. SET MANDRELS AS  
 \*05\* PER PROG. REMOVE BOP AND PUT ON WELLHEAD. R.D.  
 \*06\* S.D.O.N. THIS WILL BE THE FINAL RIG REPORT BUT  
 \*07\* THERE WILL BE TEST DATA INPUT.

LABEL: FINAL REPORT  
 CUM COST: 58802  
 DATE: 6-5 THRU 6-11-82

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 383  
ISSUED 07/12/82

ACTIVITY: THE RIG MOVED OFF THIS WELL ON 6-2-82. THE FOLLOWING  
\*02\* TEST DATA IS FOR 24 HRS. UNLESS STATED OTHERWISE.  
\*03\* 6-5-82 271 OIL 99 WTR 730 MCF GAS 509 INJ. 200 TBG.  
\*04\* PSI. 16 INJ. CHOKE. 64/64 TBG CHOKE. 1100 CSG PSI.  
\*05\* 6-6-82 208 OIL 195 WTR 600 MCF 539 INJ. 50 TBG PSI  
\*06\* INJ. 6/64 TBG. 1100 CSG PSI. 6-7-82 188 OIL 222 WTR.  
\*07\* 600 MCF 529 INJ. 50 TBG PSI 6 INJ/64 TBG CHOKES 1100 CSG  
\*08\* PSI. 6-8-82 125 OIL 167 WTR 9 8 5 MCF 817 INJ. 200  
\*09\* TBG. PSI 6 INJ/40 TBG CHOKE. 1100 CSG PSI 6-9-82  
\*10\* 122 OIL 158 WTR 540 MCF 407 INJ 50 TBG PSI 6/40  
\*11\* CHOKES 1100 CSG PSI. 6-10-82 162 OIL 210 WTR 610  
\*12\* MCF 540 INJ. 50 TBG PSI 6 INJ/46 TBG  
\*13\* CHOKE. 6-11-82 125 OIL 203 WTR 515 MCF 394 INJ  
\*14\* 50 TBG PSI 6 INJ/40 TBG CHOKE.

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

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5. LEASE DESIGNATION AND SERIAL NO.	Patented
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME	
8. FARM OR LEASE NAME	Brotherson
9. WELL NO.	1-3B4
10. FIELD AND POOL, OR WILDCAT	Altamont
11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA	Sec. 3 T2S R4W NW/4 NE/4
12. COUNTY OR PARISH	Duchesne
13. STATE	Utah

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Shell Oil Company ATTN: B. T. Ellison 6486 WCK.

3. ADDRESS OF OPERATOR  
P. O. Box 831 Houston, Tx. 77001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
1468' FNL & 1503' FEL Sec. 3

14. PERMIT NO. \_\_\_\_\_ 15. ELEVATIONS (Show whether OF, RT, GR, etc.)  
KB 6321'

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

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

(Other) Identify possible casing damage \_\_\_\_\_

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

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

Current Status: Currently producing 1 BOPD and 53 BWPD from the Wasatch (11,035'-12,842').

Proposed Work: Run casing caliper log and pressure test the casing to identify possible damage. The casing will then be repaired if required.

**RECEIVED**  
MAY 05 1983

DIVISION OF  
OIL, GAS & MINING

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

SIGNED B. T. Ellison TITLE Div. Prod. Engr. DATE 4/28/83

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<p>1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR Shell Oil Company ATTN: B. T. Ellison 6486 WCK.</p> <p>3. ADDRESS OF OPERATOR P. O. Box 831 Houston, Tx. 77001</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1468' FNL &amp; 1503' FEL Sec. 3</p>		<p>5. LEASE DESIGNATION AND SERIAL NO. Patented</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME Brotherson</p> <p>9. WELL NO. 1-3B4</p> <p>10. FIELD AND POOL, OR WILDCAT Altamont</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 3 T2S R4W NW/4 NE/4</p> <p>12. COUNTY OR PARISH 18. STATE Duchesne Utah</p>
<p>14. PERMIT NO.</p>	<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6321'</p>	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Identified csq. damage</u>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

COMPLETED OPERATIONS  
(5/17-6/20/83)

Identified casing leak at 3545' and 3850', Cement squeezed casing leaks with 800 sacks class G cement. Returned well to production.

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

SIGNED J. Locke JA OBTELLISON TITLE Div. Prod. Engr. DATE 6/28/83

(This space for Federal or State office use)

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

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
ISSUED 06/27/83

WELL: BROTHERSON 1-3B4  
 LABEL: FIRST REPORT  
 AFE: 588237  
 FOREMAN: B J THOMPSON  
 RIG: WOW 17  
 OBJECTIVE: IDENTIFY CASING DAMAGE  
 AUTH. AMNT: 20000  
 DAILY COST: 1765  
 CUM COST: 1765  
 DATE: 5-17-83  
 ACTIVITY: WO NO. 588237 PROVIDES FUNDS OF 20000 TO IDENTIFY  
 \*02\* CASING DAMAGE ON BROTHERSON 1-3B4.  
 \*03\* 6-7 AM TRAVEL TO LOCATION. FINISH RIGGING DOWN  
 \*04\* EQUIP. LOAD OUT AND MOVE TO 1-3B4. REMOVE FLOW-  
 \*05\* LINE. VALVE ON CSG. WOULD NOT CLOSE ALL THE WAY.  
 \*06\* GAS PRESS. ESCAPING THROUGH FLANGE. FINALLY GOT  
 \*07\* OFF WELLHEAD W/ GAS LIFT. RIG UP CELLAR BASE AND  
 \*08\* RIG. SET IN OTHER EQUIP. HAD WELDER REPAIR FLOOR.  
 \*09\* BROKEN LAST JOB. START BLEEDING OFF PRESS ON  
 \*10\* WELL. SDON. 7-8 PM TRAVEL HOME.

LABEL: -----  
 DAILY COST: 2630  
 CUM COST: 4395  
 DATE: 5-18-83  
 ACTIVITY: 6-7 AM TRAVEL TO LOCATION. CONT. BLEEDING WELL  
 \*02\* OFF. PUMP DOWN TBG. AND CSG. TRY TO RELEASE  
 \*03\* 7 5/8 IN. GUIBERSON UNI V1 PKR. COULDN'T. TRY  
 \*04\* PUMPING DOWN WELL SOME MORE. RIG UP SWIVEL ROTATE  
 \*05\* AND TRY TO RELEASE PKR. FINALLY RELEASED. BUT  
 \*06\* DRAGGING 20000 LB. EXCESS WT. POOH TALLING. CLOSE  
 \*07\* WELL IN FOR NIGHT. 7-8 PM TRAVEL HOME. COST 2480.  
 \*08\* TOTAL 4245.40

LABEL: -----  
 DAILY COST: 4101  
 CUM COST: 8496  
 DATE: 5-19-83  
 ACTIVITY: DAILY AVG. FOR APRIL 0 OIL 0 WTR.  
 \*02\* 6-7 AM TRAVEL TO LOCATION. CHECK WELL FOR PRESS.  
 \*03\* CONT. PULLING OUT OF HOLE TALLYING. PKR WOULD  
 \*04\* NOT COME THRU 7 1/16 IN. SPOOL. STRIP OFF 7 1/16  
 \*05\* BY 10 IN. SPOOL AND 6 IN. BOP. LAY DOWN 7 5/8 IN  
 \*06\* GUIBERSON PKR. CHG. OUT STACKS. INSTALL AND TEST  
 \*07\* 10 IN. 5000 LB. BOP AND SPACER SPOOLS. RIG UP  
 \*08\* DIA-LOG. LOG 9 5/8 IN CSG FROM 7 5/8 IN LINER  
 \*09\* TOP TO SURFACE. COULDN'T GET BELOW 1020 FT. W/  
 \*10\* SURVEY TOOL OR CSG CALIPER TOOL. RIG DOWN DIA-

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
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\*11\* LOG. MADE UP 8 IN. O.D. IMP BLOCK. RIH TO 1100 FT  
\*12\* POOH NO IMP. OF ANYTHING. CLOSE WELL IN FOR NIGHT  
\*13\* 8 30 TO 9 30 PM TRAVEL HOME. COST 2250.90  
\*14\* RIG TOTAL 6496.30

LABEL: -----  
DAILY COST: 5615  
CUM COST: 14111  
DATE: 5-20-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. HIGH COUNTRY HOT OILER  
\*02\* PUMPING HOT WTR. DOWN WELL. RIG UP DIA LOG RUN  
\*03\* 9 5/8 IN. CSG SURVEY. RIG DOWN DIA- LOG. WAIT ON  
\*04\* MT. STATES 7 5/8 IN R.B.P. AND 9 5/8 IN. PKR.  
\*05\* MADE UP TOOLS AND RIH TRY TO PRESS TEST AT 1000 FT  
\*06\* AND 2000 FT. COULDNT GET PKR TO HOLD. CONT. RUNNING  
\*07\* IN HOLE. CLOSE WELL IN FOR NIGHT. 6-7 PM TRAVEL  
\*08\* HOME. COST 1938.40 RIG TOTAL 8434.70  
\*09\* 5-21-83 DAILY COST 2238 CUM COST 16349  
\*10\* CHECK WELL FOR PRESS. CONT. RIH W/9 5/8 IN PKR AND  
\*11\* 7 5/8 IN. RET. B.P. MT. STATES. SET RET. B.P. IN  
\*12\* 7 5/8 IN. CSG SET PKR. IN 9 5/8 IN. CSG TRY TO  
\*13\* TEST LINER TOP. PUMPING INTO FORMATION AND CIRC.  
\*14\* WELL AT 400 PSI. CLOSE TBG IN AND TRY TESTING  
\*15\* HOLE. COULDNT GET ANY PRESS. RIG UP HOT OIL TRUCK  
\*16\* AND PUMP HOT WTR DOWN TBG. TO CLEAN OUT. RELEASE  
\*17\* PKR. RELEASE B.P. AND SET 240 FT. INTO 7 5/8 IN.  
\*18\* LINER. POOH W/ TBG. AND 9 5/8 IN PKR. CLOSE WELL  
\*19\* IN FOR NIGHT. 3000 FT TBG. STILL IN HOLE.  
\*20\* COST 2088.40 RIG TOTAL 10523.10

LABEL: -----  
DAILY COST: 2588  
CUM COST: 18937  
DATE: 5-23-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. FINISH PULLING OUT OF  
\*02\* HOLE. LAY DOWN 9 5/8 IN. HD PKR. AND RET. HEAD  
\*03\* FOR B.P. MADE UP 9 5/8 IN. GUIBERSON UNI V1 PKR  
\*04\* AND NEW PLUS .45 S.N. RIH TO 2450 FT. COULDNT GET  
\*05\* PKR. SET. TEST TBG. TO 5000 FT. WAIT ON GUIBERSON  
\*06\* CONT. TRYING TO SET PKR. GOT PKR. SET. TEST 9 5/8  
\*07\* IN. CSG TO 2000 LB. OK. COULDNT RELEASE PKR.  
\*08\* WAIT ON DIA-LOG. RIG UP DIA-LOG. RIH TO CUT OFF  
\*09\* TBG. RIG DOWN DIA-LOG. COULDNT GET BELOW 380 FT.  
\*10\* SET DOWN ON PKR. AND OPEN UNLOADER. PUMP DOWN CSG  
\*11\* CLOSE WELL IN FOR NIGHT. COST 2438.40 RIG TOTAL  
\*12\* 12961.50

LABEL: -----  
DAILY COST: 4785

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
ISSUED 06/27/83

CUM COST: 23772  
DATE: 5-24-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. HOT OIL SERVICE TRUCK  
PUMPING DOWN CSG. RIG UP DELSCO AND TRY TO FISH  
\*02\* STD. VALVE OUT OF TBG. RIG DOWN DELSCO. HOOK UP  
\*03\* TO TBG. AND PUMP 75 BBLs. 300 DEGREE WTR. DOWN  
\*04\* TBG. RIG DOWN HOT OIL TRUCK. TRY RELEASING PKR.  
\*05\* AGAIN. RIG UP DIA-LOG. CUT OFF TBG. RIG DOWN DIA  
\*06\* LOG POOH W/TBG. MADE UP FISHING TOOLS W/4 1/2 IN.  
\*07\* GRAPEL. RIH LATCH ONTO FISH. TRY TO RELEASE PKR.  
\*08\* POOH NO RECOVERY. WAIT ON 4 3/8 IN GRAPELS. MADE  
\*09\* UP NEW TOOLS. RIH TRY TO LATCH ONTO FISH. GOT HOLD  
\*10\* OF PKR. TRY TO ROTATE LOOSE. WOULD NOT RELEASE.  
\*11\* TRY RELEASING GRAPEL. COULDNT. PULL UP 20000 LB.  
\*12\* OVER STRING WT. CLOSE WELL IN FOR NIGHT. 7-8 PM  
\*13\* TRAVEL HOME. COST 2905.65 RIG TOTAL 15867.15  
\*14\*

LABEL: -----  
DAILY COST: 5933  
CUM COST: 29705  
DATE: 5-25-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. CONT. TRYING TO RELEASE  
\*02\* PKR. COULD NOT RELEASE BY ROTATING. HANG BACK  
\*03\* SWIVEL. PUT ON YT SLIP TYPE ELEV. AND TRY TO  
\*04\* SAFETY PKR. CONT. JARRING ON PKR. RIG UP DIA-LOG  
\*05\* RUN STRING SHOT. DIDNT KNOCK LOOSE. TRY CUTTING  
\*06\* OFF W/JET CUTTER TWICE. DIDNT CUT. TRY ANOTHER  
\*07\* STRING SHOT. BROKE SOMETHING LOOSE. RIG DOWN DIA  
\*08\* LOG. POOH W/TBG. AND UNLOADER OFF PKR. BREAK DOWN  
\*09\* FISHING TOOLS. UNLOAD ACME TRUCKS. CLOSE WELL IN  
\*10\* FOR NIGHT. 8-9 PM TRAVEL HOME. COST 2563.40  
\*11\* RIG TOTAL 18430.55

LABEL: -----  
DAILY COST: 2939  
CUM COST: 32644  
DATE: 5-26-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. TALLY TOOLS. MADE UP  
\*02\* 8 1/8 IN. W.F. D.C S AND BHA. RIH RIG UP TO MILL  
\*03\* UP TOP SLIPS ON 9 5/8 IN GUIBERSON PKR. MILL SEEMED  
\*04\* TO GO OVER GAUGE RING AND MADE APPROX. 2 IN. ON  
\*05\* SLIPS. TRY KNOCKING PKR. DOWN HOLE. POOH AND CHG.  
\*06\* OUT MILLING SHOE. RIH W/ D.C. S AND NEW MILLING  
\*07\* EQUIP. 1 STD. TBG. CLOSE WELL IN FOR NIGHT. 8-9  
\*08\* PM TRAVEL HOME. COST 2788.80 RIG TOTAL 21219.35

LABEL: -----  
DAILY COST: 9695  
CUM COST: 42339

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
ISSUED 06/27/83

DATE: 5-27 THUR 5-30-83  
ACTIVITY: ACTIVITY FINISH RUNNING IN HOLE W/NEW MILLING  
\*02\* TOOLS RIG UP SWIVEL AND HYD STRIPPER HEAD  
\*03\* START MILLING ON PKR MILL ON PKR UNTIL 7:00 P.M.  
\*04\* CLOSE WELL IN FOR NIGHT 5-28 ACTIVITY DALIY COST  
\*05\* 2422 CUM COST 44761 RIG BACK UP TO MILL ON PKR  
\*06\* POOH W/MILLING TOOLS NO WEAR ON MILL SHOE  
\*07\* RIH W/8 IN IMP BLOCK POOH W/IMP BLOCK SHOWS  
\*08\* 2 7/8 IN COLLAR LOOKING UP RIH W/MILL STRING SDON  
\*09\* 5-29-83 ACTIVITY SUNDAY 5-30-83 ACTIVITY HOLIDAY

LABEL: -----  
DAILY COST: 2213  
CUM COST: 46974  
DATE: 5-31-83  
ACTIVITY: ACTIVITY UNLOAD ACME TRUCK 4 3/4 IN DCS 3 1/2 IN  
\*02\* DP AND TOOLS ETC TALLY AND MEASURE NEW TOOLS  
\*03\* POOH W/2 7/8 IN TBG MADE UP NEW TOOLS RIH  
\*04\* TRY TO LATCH ONTO FISH COULDNT TRY KNOCKING  
\*05\* DOWN HOLE BEAT FOR 3 HRS PULL UP 1 JT AND SDON

LABEL: -----  
DAILY COST: 2088  
CUM COST: 49062  
DATE: 6-1-83  
ACTIVITY: ACTIVITY MADE JT BACK UP AND CONT BEATING ON PKR  
\*02\* WAIT ON ORDERS FROM SHELL POOH W/3 1/2 IN DP AND TOOLS  
\*03\* NO RECOVERY RU DIA-LOG AND TRY TO LOG INSIDE OF  
\*04\* 9 5/8 IN PKR COULDNT TELL IF IN PKR OR BESIDE RD  
\*05\* DIA-LOG RIH W/SHORT CATCH AND 2 7/8 IN TBG SET DOWN  
\*06\* ON PKR RIG UP DIA-LOG AND TRY AGAIN TO LOG PKR  
\*07\* LOG CSG COLLARS AND PKR RD DIA-LOG POOH W/TBG  
\*08\* SDON

LABEL: -----  
DAILY COST: 3026  
CUM COST: 52088  
DATE: 6-2-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. RIG UP DIA-LOG TRY TO  
\*02\* GET INTO PKR. W/3 IN. TOOLS. WOULDNT GO. TRY  
\*03\* GETTING INTO PKR W/1 5/8 IN. COLLAR LOC. COULDNT.  
\*04\* LOG CSG. COLLARS ABOVE PKR. RIG DOWN DIA-LOG.  
\*05\* MADE UP OVER SHOT AND RIH W/ 3 1/2 IN. D.P. BE-  
\*06\* FORE LATCHING ONTO PKR. RIG UP DIA-LOG AND RUN  
\*07\* 2 1/4 IN. GAUGE THRU PKR. COULD NOT GET THRU D CS  
\*08\* POOH W/ D.P. AND TOOLS. LAY DOWN D.C. RIG UP DIA  
\*09\* LOG AND RUN GAUGE RIH W/ D.P. LATCH ONTO PKR.  
\*10\* PULL UP AND JAR ON PKR. AT 90000 LB. OVER STRING  
\*11\* WT. CAME LOOSE BUT STILL STACKING OUT. POOH - SPLIT

ALTAMONT OPERATIONS  
 DAILY COMPLETIONS AND REMEDIALS REPORT  
 WELL HISTORY FOR WELL 442  
 ISSUED 06/27/83

\*12\* BOWL ON O.S. AND LOST 7 IN. GRAPEL AND CONTROL.  
 \*13\* WAIT ON NEW O.S. MADE UP AND RIH. LATCH ONTO PKR  
 \*14\* RIG UP DIA-LOG. RIH W/ 2 1/8 IN. JET SHOT.  
 \*15\* COULDNT GET INTO BUMPER SUB. POOH W/JET SHOT. MADE  
 \*16\* UP 1 3/4 IN. TOOL AND RIH. MOVING SOMETHING UP  
 \*17\* AND DOWN HOLE. POOH. CLOSE WELL IN FOR NIGHT.  
 \*18\* COST 2875.90 TOTAL RIG COST 32891.45

LABEL: -----  
 DAILY COST: 2776  
 CUM COST: 54864  
 DATE: 6-3 THUR 6-4-83  
 ACTIVITY: ACTIVITY PUMP DOWN DP FOR 15 MIN RU DIA-LOG RUN  
 \*02\* 2 1/2 IN GUAGE IN DP AND THUR TOOLS SEEMED TO HAVE  
 \*03\* SOMETHING FLOATING IN PIPE POOH AND RD DIA-LOG  
 \*04\* RELEASE OFF PKR AND POOH LOST ANOTHER FRAPLE AND  
 \*05\* GUIDE MADE UP 8 3/8 IN MILL SHOE RIH TAGGED GRAPLE  
 \*06\* TRY MILLING DOWN TO PKR MADE APPROX 4 IN BREAK  
 \*07\* SWIVEL OFF DP AND PULL 1 STD SDON 6-4-83  
 \*08\* DAILY COST 2588 CUM COST 57452 ACTIVITY POOH W/DP  
 \*09\* AND MILLING TOOLS CHG OUT MILL AND TOOLS RIH AND CONT MILLING  
 \*10\* ON PKR SLIPS MADE APPROX 1 IN OF HOLE HANG BACK SWIVEL  
 \*11\* AND POOH MILL COMPLETELY WORN OUT BREAK DOWN TOOLS  
 \*12\* SDON

LABEL: -----  
 DAILY COST: 2338  
 CUM COST: 59790  
 DATE: 06-05-83  
 ACTIVITY: ACTIVITY MADE UP NEW 8 3/8 IN MILL SHOE RIH AND MILL  
 \*02\* ON PKR SEEMED TO BE TURNING FREE POOH W/MILLING TOOLS  
 \*03\* BREAK AND LAY DOWN MADE UP 8 3/8 IN OVER SHOT W/7 IN  
 \*04\* GRAPLE RIH TRY TO CATCH PKR LATCH ONTO PKR RUN DOWN HOLE  
 \*05\* AND POOH BREAK DOWN OS W/PKR CLEAN UP AND LOAD  
 \*06\* IN GUIBERSON PICK UP SDON

LABEL: -----  
 DAILY COST: 7918  
 CUM COST: 67708  
 DATE: 6-6-83  
 ACTIVITY: ACTIVITY RIH W/DP AND TOOLS POOH LAYING DOWN RU  
 \*02\* DIA-LOG LOG CSG 2000 FT TO SURFACE RIG DOWN DIA-LOG  
 \*03\* CHG OUT RAMS IN BOPE AND EQUIPT BACK TO 2 7/8 IN  
 \*04\* MADE UP MT STATES 9 5/8 IN 32A PKR AND RIH SET PKR  
 \*05\* 9 5/8 IN MT STATES TYPE A RET BP RIH AND SET  
 \*06\* 1675 FT PRESS TEST AGAIN HELD RUN IN HOLE TO 3400 FT  
 \*07\* TEST AGAIN HELD RIH TO 4620 FT TEST CSG LEAKED  
 \*08\* TEST TBG TO BP HELD RELEASE PKR AND SDON

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
ISSUED 06/27/83

LABEL:	-----
DAILY COST:	2213
CUM COST:	69921
DATE:	6-7-83
ACTIVITY:	ACTIVITY PULL PKR UP HOLE AND CONT TESTING FOR
*02*	LEAK TEST AT 4005 FT 1ST MOVE UP HOLE TO 3702 FT
*03*	TEST AGAIN FINALLY DETERMINED CSG HAS 2 HOLES
*04*	3545 FT AND 3850 FT POOH W/PKR LAY DOWN PKR PICK UP
*05*	9 5/8 IN MT STATES TYPE A RET BP RIH AND SET
*06*	BP AT 4000 FT SPOT 6 SKS SAND ON PKR POOH PICK UP PKR
*07*	AND RIH SET PKR AT 3272 FT PREPARE TO SQUEEZE IN
*08*	A.M. TOMORROW SDON
LABEL:	-----
DAILY COST:	30546
CUM COST:	100467
DATE:	6-8-83
ACTIVITY:	ACTIVITY RIG UP HALLIBURTON RE-TEST CSG GET INJ
*02*	RATE PUMPED 300 SACKS CLASS G CEMENT DID NOT GET
*03*	SQUEEZE PUMPED 500 SACKS 250 SACKS W/2 PER CENT
*04*	CALCIUM CLORIDE 250 SACKS CLASS G GOT PARTIAL SQUEEZE
*05*	AT 4000 PSI REVERSE CIRC HOLE CLEAN PRESSURE UP TO
*06*	4000 PSI AND SDON
LABEL:	-----
DAILY COST:	2672
CUM COST:	103139
DATE:	6-9-83
ACTIVITY:	ACTIVITY CHECK PRESS ON TBG BLEED OFF RELEASE PKR
*02*	9 5/8 IN 32A MT STATES AND POOH LAY DOWN MT STATES
*03*	PKR MADE UP DCS AND BIT AND RIH RIG UP SWIVEL AND
*04*	DRILL OUT CMT GOT ON BTM AT NOON TAGGED CMT AT 3282 FT
*05*	MILL OUT CMT CIRC WELL CONVENTIONAL DRILL
*06*	UNTIL 6 P.M. CIRC HOLE CLEAN PULL UP HOLE 4 JTS
*07*	LAYING DOWN SDON DRILLED TO 3462 FT
LABEL:	-----
DAILY COST:	2631
CUM COST:	105770
DATE:	6-10 THUR 6-12-83
ACTIVITY:	ACTIVITY RUN BACK IN HOLE TO CMT TOP AT 3462 FT
*02*	AND CONT DRILLING OUT CMT HIT VOID AT 3550 FT PRESS
*03*	TEST CSG 1500 PSI HELD CONT DRILLING OUT CMT FELL
*04*	OUT OF CMT AT 3850 FT RIH 1 STD MORE PRESS TEST
*05*	SQUEEZE TO 1700 PSI HELD HANG BACK SWIVEL AND SDON
*06*	6-11-83 DAILY COST 2502 CUM COST 108272 ACTIVITY
*07*	POOH W/TBG AND DCS MADE UP HEAD FOR 9 5/8 IN
*08*	RET B.P. AND RIH REV CIRC SAND OFF BP RELEASE
*09*	BP AND POOH LAY DOWN BP INSTALL PLUS 45 SN ABOVE

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
ISSUED 06/27/83

\*10\* RET HEAD START IN HOLE TO RETRIEVE 7 5/8 IN BP  
\*11\* SDON

LABEL: -----  
DAILY COST: 2543  
CUM COST: 110815  
DATE: 6-13-83  
ACTIVITY: ACTIVITY CONT RUNNING IN HOLE W/RET HEAD FOR 7 5/8 IN  
\*02\* PLUG STOP JUST ABOVE BP AND CIRC HOLE CLEAN STRING  
\*03\* BLOCK BACK TO 4 LINE WHILE CIRC HOLE CLEAN  
\*04\* LATCH ONTO RET BP AND TRY TO RELEASE COULDNT RELEASE  
\*05\* FROM BP AND PULL 1 STD DROP STD VALVE AND PRESS TEST  
\*06\* TBG 6000 LBS HELD START OUT OF HOLE WET SDON

LABEL: -----  
DAILY COST: 15787  
CUM COST: 126602  
DATE: 6-14-83  
ACTIVITY: ACTIVITY RIG UP DELSCO BRAIDED LINE TRUCK TO FISH  
\*02\* STD VALVE COULDNT GET STD VALVE OUT OF HOLE SHEAR OFF  
\*03\* RIG DOWN DELSCO POOH WET W/TBG MADE UP OS AND BUMPER  
\*04\* SUB W/2 3/8 IN GRAPLE RIH W/TBG LATCH ONTO BP TRY  
\*05\* WORKING LOOSE RELEASE OS OFF FROM BP START OUT OF  
\*06\* HOLE SDON  
\*07\* TRAVEL HOME

LABEL: -----  
DAILY COST: 4699  
CUM COST: 131301  
DATE: 6-15-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. CONT. PULLING OUT OF  
\*02\* HOLE. CHG. OUT TOOLS. RIH W/MILL AND HYD. STATIC  
\*03\* BAILER. TRY SUCKING FILL OFF RET. B.P. SUCKED  
\*04\* PLUG UP INTO MILL. FILL HOLE AND TBG. W/ WTR. TRY  
\*05\* GETTING LOOSE. COULDNT. CHECK WITH SHELL SUP.  
\*06\* WAIT ON DIA-LOG. TRY STRING SHOT OUTSIDE OF TBG.  
\*07\* FOR BACK-OFF. GOT ON BOTTOM W/STRING SHOT. WORK-  
\*08\* ING TBG. W/LEFT HAND TORC. SOMETHING CAME LOOSE.  
\*09\* POOH AND RIG DOWN DIA-LOG. BREAK SWIVEL OFF.  
\*10\* SDON. 11-12 MIDNIGHT TRAVEL HOME. COST 3149.24  
\*11\* RI G TOTAL 62000.79

LABEL: -----  
DAILY COST: 2752  
CUM COST: 134053  
DATE: 5-16-83  
ACTIVITY: 6-7 AM TRAVEL TO LOCATION. CONT. PULLING OUT OF  
\*02\* HOLE. LAY DOWN HYRRA-STATIC BAILER AND MILL SHOE.  
\*03\* ALSO HAD 2 STDS. PLUGGED. CHECK WITH SHELL. MADE

ALTAMONT OPERATIONS  
DAILY COMPLETIONS AND REMEDIALS REPORT  
WELL HISTORY FOR WELL 442  
ISSUED 06/27/83

\*04\* UP AND RIH W/RET. HEAD B.S. AND JARS. CIRC. HOLE  
\*05\* BEFORE LATCHING ONTO PLUG. PLUG MOVING DOWN HOLE  
\*06\* BUT CANT PULL. HAD TO BEAT ON PLUG. COULDNT RE-  
\*07\* LEASE RET. HEAD. JAR ON B.P. SOMETHING CAME LOOSE  
\*08\* PULL UP OUT OF 7 5/8 IN. LINER SDON. 7-8 PM  
\*09\* TRAVEL HOME COST 2602.20 RIG TOTAL 64602.99

LABEL: -----  
DAILY COST: 2630  
CUM COST: 136683  
DATE: 6-17 THUR 6-19-83  
ACTIVITY: BLEED PRESS OFF WELL POOH W/TBG ETC HAD SMALL PC  
METAL IN RET HEAD MADE UP OVER-SHOT W/2 3/8 IN  
\*02\* GRAPPLE RIH LATCH ONTO BP BEAT DOWN AND JAR ON  
\*03\* PLUG SOMETHING CAME LOOSE POOH RECOVERED BP SDON  
\*04\* 6-18 DAILY COST 1963 CUM COST 138646  
\*05\* BLEED PRESS OFF WELL LAY DOWN ALL ACME FISHING  
\*06\* TOOLS PREPARE TO RUN GAS LIFT EQUIPT LOAD OUT ACME TRUCK  
\*07\* W/TOOL RIH W/7 5/8 IN LOC-SET PKR AND CAMCOS AS  
\*08\* PER PROG SET TBG IN SLIP W/BOP SDON 6-19-83 SUNDAY  
\*09\*

LABEL: FINAL REPORT  
DAILY COST: 10703  
CUM COST: 149349  
DATE: 06-20-83  
ACTIVITY: ACTIVITY CONT GETTING EQUIPT READY TO MOVE STRIP  
\*02\* OFF BOP AND SPOOLS WAIT ON 6X10 IN SPOOL AND  
\*03\* 5000 LBS TREE COULDNT GET DONUT OUT OF 6X10 IN  
\*04\* SPOOL SET PKR AND INSTALL 6X10 SPOOL ONTO TBG  
\*05\* INSTALL AND TEST 5000 LBS TREE RIG DOWN AND PREPARE  
\*06\* TO MOVE MORE EQUIPT AWAY FROM WELLHEAD GIVE WELL  
\*07\* TO PROD SDON

Shell Oil Company



P.O. Box 831  
Houston, Texas 77001

December 30, 1983

Mr. Norm Stout  
State of Utah  
Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, UT 84114

Dear Mr. Stout:

TRANSFER OF OWNERSHIP AND ASSETS  
FROM SHELL OIL COMPANY TO  
SHELL WESTERN E&P INC.  
STATE OF UTAH

In accordance with our recent conversation, the purpose of this letter is to reduce to writing that Shell Western E&P Inc. ("SWEPI"), a subsidiary of Shell Oil Company, has been formed. Shell Western E&P Inc. is a Delaware corporation with its offices located at 200 North Dairy Ashford Road in Houston, Texas. The mailing address is P. O. Box 831, Houston, TX 77001.

Effective January 1, 1984, Shell Oil Company will transfer portions of its oil and gas operations to Shell Western E&P Inc. and Shell Western E&P Inc. will assume all of the rights, interests, obligations and duties which Shell Oil Company currently has as a result of its exploration, development and production operations in the State of Utah.

As you are aware, Shell Oil Company is currently the holder of various permits and agency authorizations. In view of the fact that Shell Western E&P Inc. will assume all of the liabilities and obligations of Shell Oil Company's exploration and production activities within the state, we respectfully request that you transfer all permits or other authorizations from Shell Oil Company to Shell Western E&P Inc., effective January 1, 1984.

To support this request, a copy of the power of attorney appointing the undersigned as Attorney-in-Fact for Shell Western E&P Inc. is enclosed. On behalf of Shell Western E&P Inc., enclosed are recently issued Bond No. Shell 1835 and Bond No. Shell 1841. The bonds were issued by the Insurance Company of North America. In the near future, I shall request that the existing Shell Oil Company bonds be released.

It is my understanding, pursuant to our prior discussion, that this letter will comply with your requirement regarding the change in the name of the permittee.

Sufficient copies of this letter are being provided to your office so that a copy can be placed in each appropriate file. A listing of active wells is enclosed. Thank you in advance for your cooperation in this matter.

Yours very truly,

*G. M. Jobe*

G. M. Jobe  
Administrator, Regulatory-Permits  
Rocky Mountain Division  
Western E&P Operations

GMJ:beb

Enclosures

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

PRINT IN TRIPLICATE\*  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

<p><b>1. OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/></p> <p><b>2. NAME OF OPERATOR</b> Shell Western E&amp;P Inc. ATTN: C. A. Miller 6494 WCK.</p> <p><b>3. ADDRESS OF OPERATOR</b> P. O. Box 831 Houston, Tx. 77001</p> <p><b>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)</b> At surface  1468' FNL &amp; 1503' FEL Sec. 3</p>		<p><b>5. LEASE DESIGNATION AND SERIAL NO.</b> Patented</p> <p><b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b></p> <p><b>7. UNIT AGREEMENT NAME</b></p> <p><b>8. FARM OR LEASE NAME</b> Brotherson</p> <p><b>9. WELL NO.</b> 1-3B4</p> <p><b>10. FIELD AND POOL, OR WILDCAT</b> Altamont</p> <p><b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> NW/4 NE/4 Sec. 3 T2S R4W</p>
<p><b>14. PERMIT NO.</b></p>	<p><b>15. ELEVATIONS (Show whether OF, RT, GR, etc.)</b> KB 6321'</p>	<p><b>12. COUNTY OR PARISH</b> Duchesne</p> <p><b>13. STATE</b> Utah</p>

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

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

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

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

Current Status: Gas lifting 6 BOPD + 367 BWPD + 573 MCFPD in the Wasatch (11,035'-12,842'). Well was shut-in due to uneconomical production for 28 days during January, 1984.

Proposed Work: Plug back the current Wasatch completion setting CIBP at ± 10,800'. Complete in the Green River (10,193'-698'). Acid treat with 15,000 gallons 7-1/2% HCl. Return well to production.

**RECEIVED**  
FEB 23 1984

**DIVISION OF  
OIL, GAS & MINING**

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

SIGNED C. A. Miller TITLE Div. Oper. Engr. DATE 2/20/84

(This space for Federal or State office use)

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

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

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

7

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.)

RECEIVED

JUN 1 1984

DIVISION OF OIL  
GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.	Patented
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME	
8. FARM OR LEASE NAME	Brotherson
9. WELL NO.	1-3B4
10. FIELD AND POOL, OR WILDCAT	Altamont
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA	Sec. 3 T2S R4W NW/4 NE/4
12. COUNTY OR PARISH	Duchense
13. STATE	Utah

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Shell Western E&P Inc.

3. ADDRESS OF OPERATOR  
P. O. Box 831 Houston, Tx. 77001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface  
1468' FNL & 1503' FEL Sec. 3

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6321'

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

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

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

COMPLETED OPERATIONS  
(3/21-5/15/84)

Cement squeezed casing leak between 5075' and 5136'. Found casing at 3550' and squeezed with 100 sx cement. Found casing leak between 3678' and 3683'. Set internal casing patch over casing leak. Perforated and acid treated Green River (10,698'-10,193') with 15,000 gallons 7-1/2% HCl. Returned well to production.

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

SIGNED [Signature] TITLE Div. Oper. Engr. DATE June 6, 1984

(This space for Federal or State office use)

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

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-384

LABEL: FINAL REPORT  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WGW 17  
AUTH. AMNT: 37500  
DAILY COST: FINAL REPORT  
CUM. COST: 90784.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 5-19 THROUGH 5-25-84  
PRESENT STATUS: 6-5-84 WELL IS ON PRODUCTION.  
LATEST TEST: SEE BELOW

ACTIVITY: THE RIG MOVED OFF THIS LOCATION ON 5-15-84. THE  
\*02\* FOLLOWING DATA IS FOR SEVEN DAYS AND THIS  
\*03\* IS THE FINAL REPORT ON THIS WELL.  
\*04\* 2-15-84 PRODUCTION BEFORE 25 OIL 180 WTR 350 GAS.  
\*05\* THE RIG MOVED BACK ON AND THE  
\*06\* PRODUCTION IS AS FOLLOWS. 5-19-84 125 OIL 31 WTR  
\*07\* 810 MCF GAS 800 GAS INJ. 5-20-84 166 OIL 296 WTR  
\*08\* 575 MCF GAS 570 GAS INJ. 5-21-84 63 OIL 25 WTR  
\*09\* 900 MCF GAS 826 GAS INJ. 5-22-84 21 OIL 281 WTR 850  
\*10\* MCF GAS 799 INJ GAS 5-23-84 31 OIL 19 WTR 801 MCF GAS  
\*11\* 782 GAS INJ. 5-24-84 21 OIL 19 WTR  
\*12\* 900 MCF GAS 800 INJ GAS  
\*13\* 5-25-84 53 OIL 188 WTR 770 MCF GAS 716 INJ GAS TOTALS  
\*14\* 480 OIL 859 WTR 5606 MCF GAS 5293 INJ GAS  
\*15\* AVERAGES 69 OIL 123 WTR 801 MCF GAS 756 INJ GAS.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 12444.80  
CUM. COST: 86924.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 5-14-84  
PRESENT STATUS: START TO PULL TBG.

ACTIVITY: HELP DOWELL RIG UP TO ACIDIZE WELL. ACIDIZE WELL  
\*02\* AS PER PROG. APPROX. HALF WAY THRU JOB STARTED  
\*03\* GETTING COMM. UP CSG. BLEEDING BACK 3 B.P.M. OFF  
\*04\* CSG. RIG DOWN DOWELL. WAIT ON ORDERS FROM SHELL.  
\*05\* CHG. OUT DRILL LINE. STRIP OFF 6 IN X 10 IN.  
\*06\* SPOOL. INSTALL 10 IN. B.O.P.E. OVER TBG. RIG UP  
\*07\* FLOOR TO PULL TBG. RELEASE PKR. START OUT OF HOLE  
\*08\* SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4

LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 3860  
CUM. COST: 90784.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 5-15-84  
PRESENT STATUS: FINAL RIG REPORT

ACTIVITY: CONT. POOH W/ 7 5/8 IN. H.D. PKR. MT. STATES. CHG  
\*02\* OUT PKRS. MADE UP 7 5/8 IN. 32 A MT. STATES PKR.  
\*03\* RIG INSTALLING GAS LIFT MANDRELS AS PER PROG.  
\*04\* STRIP OFF 10 IN. B.O.P.E. STRIP 6 X 10 TBG. SPOOL  
\*05\* OVER TBG. SET PKR. AT 10250 FT. W/ 20000 LBS.  
\*06\* TENSION ON TBG. LAND TBG. INSTALL 5000 LB. X-MAS  
\*07\* TREE. TIGHTEN UP FLANGES. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 4865  
CUM. COST: 69782.80  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 051084  
PRESENT STATUS: RIH

ACTIVITY: 6-7:00 P.M. TRAVEL TO LOCATION - RUN SWEDGE BACK  
\*02\* THEN PATCH - HAD TO BEAT OUT AT 3690 FT AGAIN -  
\*03\* AFTER SWEDGING OUT PATCH - CONTINUE RIH TO 7 5/8 IN  
\*04\* LINER TOP AT 10086 FT. - POOH - LAY DOWN SWEDGE -  
\*05\* MADE UP 5 3/4 IN. OVER SHOT WITH 3 1/8 IN. GRAPEL -  
\*06\* START BACK IN HOLE - CLOSE WELL IN FOR NIGHT. 7-8:00  
\*07\* P.M. TRAVEL HOME.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 2273 & 2423  
CUM. COST: 74479.60  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 5-11 & 5-12  
PRESENT STATUS: GET READY TO ACIDIZE WELL

ACTIVITY: 5-11-84 CONT. RIH W/ O.S. TRY TO CATCH PERF GUN  
\*02\* AT 10800 FT. POOH. TBG. PLUGGED. PULL WET. BREAK  
\*03\* DOWN AND LAY DOWN D.C. S AND O.S. RECOVERED PERF  
\*04\* GUN. LAY DOWN. MADE UP 7 5/8 IN. MT STATES H.D.  
\*05\* PKR. START IN HOLE. SDON.  
\*06\* 5-12-84 CONT. RIH W/ 7 5/8 IN. H.D. PKR. SET  
\*07\* PKR. AT 10170 FT. W/ 30000 LBS. SET ON PKR.  
\*08\* STRIP OFF BOP. STRIP ON 6 IN. X 10 IN. TBG SPOOL  
\*09\* LAND TBG. TRY TO PRESS TEST 9 5/8 IN. CSG TO 500  
\*10\* LBS. HAD TO PUMP 300 BBL.S. WTR TO FILL HOLE AND  
\*11\* TEST. GET EQUIP. READY TO ACIBIZE WELL. CLEAN OUT  
\*12\* CELLAR FLAT TANK ETC. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 1605  
CUM. COST: 60219.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 050984  
PRESENT STATUS: LAYING DOWN SWEDGE

ACTIVITY: 6-7:00 P.M. TRAVEL TO LOCATION. CONTINUE RIH  
\*02\* WITH 6-3/4 IN. SWEDGE. BEAT THROUGH CSG PATCH.  
\*03\* POOH - CHANGE OUT TOOLS TO 8-3/8 IN. SWEDGE. RIH  
\*04\* COULD NOT GET INTO PATCH. TRY BEATING INTO PATCH.  
\*05\* HAVING TROUBLE. PULLING BACK OUT. POOH. LAY DOWN  
\*06\* 8-3/8 IN. SWEDGE. CLOSE WELL IN FOR NIGHT.  
\*07\* 3-4:00 P.M. TRAVEL HOME.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4

LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 4698.40  
CUM. COST: 64917.80  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 5-9-84  
PRESENT STATUS: PULL UP ABOVE PATCH

ACTIVITY: MADE UP 8 1/8 IN. SWEDGE. RIH. TAGGED PATCH AT  
\*02\* 3685 FT. BEAT THRU PATCH. POOH. CHG. TO 8 1/4 IN.  
\*03\* SWEDGE. RIH. TAGGED AT 3670 FT. JUST INSIDE PATCH  
\*04\* SWEDGE OUT TO BELOW PATCH. STILL HAVE TO JAR BACK  
\*05\* OUT OF PATCH AT 3690 FT. PULL UP ABOVE PATCH.  
\*06\* CLOSE WELL IN FOR NIGHT.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WQW 17  
AUTH. AMNT: 37500  
DAILY COST: 8155 & 2268  
CUM. COST: 51136  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 5-4-84 & 5-5-84  
PRESENT STATUS: FISH

ACTIVITY: 5-4-84 RIG UP O.W.P. W/ 1 11/16 IN. COLLAR LOCATOR  
\*02\* TRY TO GET THRU CSG. PATCH. COULDNT. MADE UP 4 IN  
\*03\* IMP. BLOCK. RIH TAGGED FISH. RIG DOWN O.W.P. MADE  
\*04\* UP OVERSHOT W/ 1 7/16 IN. GRAPEL. RIH TRY TO  
\*05\* CATCH FISH. POOH. NO RECOVERY. CHG OUT O.S. MADE  
\*06\* UP O.S. W/ 3 1/8 IN GRAPEL. START IN HOLE. SDON  
\*07\* 5-5-84 CONT. RIH W/ 4 11/16 IN. O.S. W/ 3 1/8 IN  
\*08\* GRAPEL. TRY TO CATCH COLLAR LOCATOR ABOVE 4 IN.  
\*09\* PERF. GUN. MADE APPROX. 5 FT. OF HOLE. POOH CHECK  
\*10\* FOR RECOVERY. PCS OF CSG. PATCH WADED UP IN O.S.  
\*11\* LAY DOWN TOOLS. RIH TO 2000 FT. W/ TBG OPEN END-  
\*12\* ED. CLOSE WELL IN. WAIT ON ORDERS FROM SHELL.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WQW 17  
AUTH. AMNT: 37500  
DAILY COST: 4718.40  
CUM. COST: 55854.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 5-7-84  
PRESENT STATUS: CHG OUT SWEDGE START IN HOLE

ACTIVITY: WAIT ON ORDERS FROM SHELL. POOH W/ KILL STRING.  
\*02\* MADE UP 8 1/2 IN. SWEDGE. COLLARS ETC. RIH. TRY  
\*03\* SWEDGING OUT CSG. PATCH AT 3680 FT. STACKED OUT AT  
\*04\* 3663 FT. COULDNT GET INTO CSG. PATCH W/ 8 1/2 IN.  
\*05\* SWEDGE. POOH. CHG. OUT TO 6 3/4 IN. SWEDGE AND  
\*06\* MORE DC S FOR WEIGHT. START BACK IN HOLE. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 2608.80  
CUM. COST: 36269.57  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 5-2-84  
PRESENT STATUS: CLEAN OUT FILL

ACTIVITY:  
\*02\* CONT. PICKING UP TBG. AND RIH TO CLEAN OUT FILL  
\*03\* TO 10800 FT. C.I.B.P. TAGGED BRIDGE PLUG. CIRC.  
\*04\* HOLE CLEAN. PULL UP OUT OF 7 5/8 IN. LINER. LAY-  
ING DOWN EXCESS TBG. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 4443.40  
CUM. COST: 40712.97  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 5-3-84  
PRESENT STATUS: FISH FOR CSG. PATCH

ACTIVITY:  
\*02\* CONT. POOH W/ PROD. TBG AND MILL. RIG UP OWP. TRY  
\*03\* AGAIN TO PERFORATE WELL. PERF. WELL AS PER PROG.  
\*04\* 10698 FT. TO 10350 FT. 25 SELECTIONS. 75 HOLES.  
\*05\* LOST 4 IN. CSG PERF. GUN. PULLED OFF AT CSG.  
\*06\* PATCH. TRY TO GET THRU PATCH W/ 4 IN. LOGGING  
TOOLS. COULDNT. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 12023.40  
CUM. COST: 24643.20  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 4-30-84  
PRESENT STATUS: 4-30-84

ACTIVITY: 4-30-84 ACTIVITY: UNLOAD AND MADE UP  
\*02\* HOMCO LINER PATCH 9 5/8 INCH X 30 FT. RIH W/TBG. PATCH  
\*03\* SPOT PATCH OVER HOLE IN CSG. 3678 FT. TO 3683 FT.  
\*04\* SET PATCH 3663 FT. 3693 FT. POOH LAY DOWN HOMCO  
\*05\* SETTING TOOLS S.D.O.N.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 2148.40  
CUM. COST: 33660.77  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 5-1-84  
PRESENT STATUS: TALLY AND PICK UP TBG.

ACTIVITY: PRESS. UP ON CSG. TO 1500 LBS. PATCH SEEMS TO BE  
\*02\* HOLDING. GET AHOLD OF PERFORATORS. OWP. HEAD TO  
\*03\* LOCATION. RIG UP O.W.P. PERF. WELL AS PER PRG.  
\*04\* O.W.P. COULDNT GET DOWN. STACK OUT AT 9998 FT.  
\*05\* RIG DOWN O.W.P. MADE UP 6 5/8 IN. MILL - 4-STAR.  
\*06\* RIH W/ TBG. IN DERRICK 7000 FT. CONT. TALLYING  
\*07\* AND PICKING UP TBG. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 3288  
CUM. COST: 8758  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 4-26-84  
PRESENT STATUS: RIH WITH 8 1/2 IN. SWEDGE

ACTIVITY: WAIT ON SHELL TO DECIDE ON NEXT STEP. ARRANGE FOR  
\*02\* 8 3/8 IN. SWEDGE. MADE UP SWEDGE B.S. JARS AND  
\*03\* D CS. RIH WENT THRU BAD SPOT AT 3620 FT. DIDNT  
\*04\* DRAG AT ALL. POOH MADE UP 8 1/2 IN. SWEDGE. RIH  
\*05\* TO 3500 FT. CLOSE WELL IN. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 1793.40  
CUM. COST: 12619.80  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 4-27 AND 4-28-84  
PRESENT STATUS: 4-28-84 RE TEST BAD SPOT IN CSG.

ACTIVITY: 4-27-84 DAILY COST 2068.40 CUM COST 10826.40  
\*02\* SWEDGE 9 5/8 INCH CSG. OUT TO 8 1/2 INCH AT 3628  
\*03\* FT. TO 3640 FT. CONT. RIH TO 7080 FT. W/8 1/2 INCH  
\*04\* SWEDGE. POOH STAND BACK DC ETC. MADE UP 9 5/8  
\*05\* INCH HD MT STATES PKR. CUT DOWN 8.375 RIH TRY TO  
\*06\* ISOLATE LEAK BETWEEN 3678 FT. TO 3683 FT. PULL UP  
\*07\* ABOVE BAD SPOT IN CSG AT 3620 FT. CLOSE WELL  
\*08\* IN FOR NIGHT.  
\*09\* 4-28-84 COSTS ARE GIVEN IN THE HEADING. RUN DOWN  
\*10\* TO 3800 FT. MADE SURE CSG STILL SWEDGED OUT. RE TEST  
\*11\* BAD SPOT IN CSG POOH LAY DOWN MT STATES PKR.  
\*12\* RUN DC IN HOLE BREAK OUT AND LOAD OUT. 4 STAR TOOLS  
\*13\* ETC. CLOSE WELL IN FOR NIGHT.

STATE: UTAH  
FIELD: ALTAMONT  
  
WELL: BROTHERSON 1-3B4  
  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 3288  
CUM. COST: 8758  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
  
DATE(S): 4-26-84  
PRESENT STATUS: RIH WITH 8 1/2 IN. SWEDGE

ACTIVITY: WAIT ON SHELL TO DECIDE ON NEXT STEP. ARRANGE FOR  
\*02\* 8 3/8 IN. SWEDGE. MADE UP SWEDGE B.S. JARS AND  
\*03\* D CSG. RIH WENT THRU BAD SPOT AT 3620 FT. DIDNT  
\*04\* DRAG AT ALL. POOH MADE UP 8 1/2 IN. SWEDGE. RIH  
\*05\* TO 3500 FT. CLOSE WELL IN. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
  
WELL: BROTHERSON 1-3B4  
  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 1793.40  
CUM. COST: 12619.80  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
  
DATE(S): 4-27 AND 4-28-84  
PRESENT STATUS: 4-28-84 RE TEST BAD SPOT IN CSG.

ACTIVITY: 4-27-84 DAILY COST 2068.40 CUM COST 10826.40  
\*02\* SWEDGE 9 5/8 INCH CSG. OUT TO 8 1/2 INCH AT 3628  
\*03\* FT. TO 3640 FT. CONT. RIH TO 7080 FT. W/8 1/2 INCH  
\*04\* SWEDGE. POOH STAND BACK DC ETC. MADE UP 9 5/8  
\*05\* INCH HD MT STATES PKR. CUT DOWN 8.375 RIH TRY TO  
\*06\* ISOLATE LEAK BETWEEN 3678 FT. TO 3683 FT. PULL UP  
\*07\* ABOVE BAD SPOT IN CSG AT 3620 FT. CLOSE WELL  
\*08\* IN FOR NIGHT.  
\*09\* 4-28-84 COSTS ARE GIVEN IN THE HEADING. RUN DOWN  
\*10\* TO 3800 FT. MADE SURE CSG STILL SWEDGED OUT. RE TEST  
\*11\* BAD SPOT IN CSG POOH LAY DOWN MT STATES PKR.  
\*12\* RUN DC IN HOLE BREAK OUT AND LOAD OUT. 4 STAR TOOLS  
\*13\* ETC. CLOSE WELL IN FOR NIGHT.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: ~~511227~~ 512637  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 2110  
CUM. COST: 2110  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 4-24-84  
PRESENT STATUS: NEW AFE ON WELL TO REPAIR CSG. LEAK

ACTIVITY: AFE NO. 512637 IN AMOUNT OF 29500 IS TO REPAIR  
\*02\* CSG ON THE BROTHERSON 1-3B4.  
\*03\* MOVE FROM 2-2B4. RIG UP. PUMP DOWN TBG. 1/2 B.P.M.  
\*04\* AT 1500 LBS. CSG ABOVE PKR. 3318 HELD. RELEASE PKR  
\*05\* AND START TRYING TO FIND HOLE IN CSG. PKR STACKED  
\*06\* OUT AT 3620 FT. PRESS TEST CSG. ABOVE PKR. HELD  
\*07\* 1500 LBS. POOH W/ 9 5/8 IN. PKR. LAY DOWN PKR.  
\*08\* CLOSE WELL IN FOR NIGHT. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WDW 17  
AUTH. AMNT: 37500  
DAILY COST: 3360.44  
CUM. COST: 5470.44  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 4-25-84  
PRESENT STATUS: RUN CSG. LOG

ACTIVITY: MADE UP 8 1/2 IN. O.D. CSG SWEDGE AND BUMPER SUB  
\*02\* RIH TO TIGHT SPOT IN CSG AT 3620 FT. STACKED OUT  
\*03\* W/ SWEDGE. COULDNT BEAT THRU TIGHT SPOT WITHOUT  
\*04\* MORE WEIGHT. POOH LAY DOWN SWEDGE. RIG UP DIA-LOG  
\*05\* LOG CSG. FROM 7000 FT. UP CSG SLIGHTLY COLLAPSED  
\*06\* AT 3600 - 3662 FT APPROX. RIG DOWN DIA-LOG. SDON

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 2261.40  
CUM. COST: 33773.77  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 4-3-84  
PRESENT STATUS: FINAL RIG REPORT

ACTIVITY:

\*02\*  
\*03\*  
\*04\*  
\*05\*  
\*06\*  
\*07\*  
\*08\*  
CHECK WELL FOR PRESS. CONT. RIH W/ 9 5/8 IN. PKR  
SET PKR AT 3318 FT. W/ K.B. PRESS UP ON CSG ABOVE  
PKR. RIG UP SWAB EQUIP. SWAB WELL DOWN TO PKR.  
LET SIT 1 HR. MADE SWAB RUN TO CHECK FOR INFLOW.  
FLUID UP TO 1500 FT. IN TBG. RIG DOWN SWAB EQUIP.  
CLOSE WELL IN W/ T.I.W. VALVE AND LOK-RAMS ON 2  
7/8 IN. TBG. RIG DOWN AND PREPARE TO MOVE.  
FINAL RIG REPORT.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 1818.40 & 2686  
CUM. COST: 29035.17  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 3-30 & 3-31  
PRESENT STATUS: PRESS TEST CSG. TO 1500 LBS.

ACTIVITY: 3-30 - HOOK HALLIBURTON BACK UP TO TBG. RELEASE  
\*02\* PKR. CIRC. WELL W/ HOT WTR. PREPARE HOLE TO SQUEEZE  
\*03\* AGAIN. RE-SET PKR. PRESS TEST BACKSIDE AND GET  
\*04\* INJ. RATE. RELEASE PKR. SPOT CMT. 100 SKS. W/ 2 %  
\*05\* CAL. CHLORIDE. IN TBG. RE-SET PKR. PUMP CMT. INTO  
\*06\* CSG AND HOLE. SHUT DOWN PUMPING AND START SQUEEZE  
\*07\* OPERATION. GOT SQUEEZE 2 1/2 HRS INTO OPERATION.  
\*08\* CIRC. HOLE CLEAN. RE-SET PKR. PRESS UP ON CMT. TO  
\*09\* 1500 LBS. SDON. RIG DOWN HALLIBURTON GET READY  
\*10\* WITH EQUIP TO PULL TBG.  
\*11\* 3-31 BLEED PRESS OFF WELL. RELEASE PKR. POOH LAY  
\*12\* DOWN PKR. MADE UP 8 1/2 IN. BIT AND X-OVER. RIH  
\*13\* TAGGED CMT. AT 3345 FT. RIG UP POWER SWIVEL AND  
\*14\* HYD. STRIPPER. START DRILLING OUT CMT. FELL OUT OF  
\*15\* CMT. AT 3700 FT. CIRC HOLE CLEAN. PRESS TEST CSG.  
\*16\* TO 1500 LBS. NOT PUMPING INTO HOLE. BUT STILL LEAK-  
\*17\* ING. 400 PSI IN 5 MIN. REMOVE DRILLING EQUIP. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WD NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 2477.20  
CUM. COST: 31512.37  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 4-2-84  
PRESENT STATUS: START RIH TALLYING TBG.

ACTIVITY: THAW OUT VALVES. CHECK WELL FOR PRESS. RIH W/  
\*02\* 8 1/2 IN. BIT TO CHECK FOR CMT. TAGGED CMT. AT  
\*03\* 5100 FT. RIG UP SWIVEL. MILL CMT TO 5130 FT. FELL  
\*04\* OUT OF CMT. CONT. RIH TO APPROX. 7000 FT. POOH  
\*05\* LAYING DOWN 2 7/8 IN. TBG. BREAK DOWN 8 1/2 IN.  
\*06\* BIT AND X-OVER. MADE UP 9 5/8 IN. MT STATES 32-A  
\*07\* PKR. START RIH TALLYING TBG. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
  
WELL: BROTHERSON 1-3B4  
  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 1538  
CUM. COST: 21807  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 3-28-84  
PRESENT STATUS: 3-28-84 HANG BACK SWIVEL AND S.O.O.H.

ACTIVITY: 3-28-84 BLEED PSI OFF TBG. AND CMT. RELEASE 9 5/8  
\*02\* INCH 32 A MT STATES PKR POOH LAY DOWN PKR  
\*03\* MADE UP 8 1/2 INCH BIT AND X OVER SUB RIH TAGGED  
\*04\* CMT AT 5060 FT. R.U. DRILLING EQUIP. DRILL OUT CMT  
\*05\* TO 5126 FT. FELL OUT OF CMT TRY TO PSI TEST CSG.  
\*06\* AFTER CIRC. WELL CLEAN STILL LEAKING HANG BACK  
\*07\* SWIVEL AND START POOH CLOSE WELL IN  
\*08\* FOR NIGHT. S.D.O.N.

STATE: UTAH  
FIELD: ALTAMONT  
  
WELL: BROTHERSON 1-3B4  
  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 2723.15  
CUM. COST: 24530.77  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 3-29-84  
PRESENT STATUS: 3-29-84 RE SET PKR. PSI UP ON TBG.

ACTIVITY: 3-29-84 ACTIVITY: START EQUIP. AND PREPARE TO PULL  
\*02\* OUT OF HOLE W/MILLING TOOLS. GO TO SHELL OFFICE FOR  
\*03\* SAFETY METTING. FINISH POOH LAY DOWN 8 1/2 INCH  
\*04\* BIT MADE UP 9 5/8 INCH MT. STATES 32 A PKR. RIH SET  
\*05\* PKR. AT 4830 FT. SQUEEZE HOLDING START MOVING  
\*06\* UP HOLE FOUND LEAK AT 3550 FT. SET PKR. AT 3301 FT.  
\*07\* GOT INJ RATE PREPARE TO SQUEEZE HOLE. SPOT CMT. SET  
\*08\* PKR. PUMP CMT. OUT OF TBG. AND PAST PKR. 3 BBLs.  
\*09\* S.D. PUMPING AND START STAGING CMT. STAGE FOR 4 HRS.  
\*10\* COULD NOT GET SQUEEZE FINISH PUMPING CMT. AWAY AND  
\*11\* OVER DISPLACE BY 20 BBLs. RELEASE PKR. REV. CIRC.  
\*12\* HOLE CLEAN. RESET PKR. PSI UP ON TBG. S.D.O.N.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 4246.40  
CUM. COST: 12741.60  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 3-26-84  
PRESENT STATUS: TRY FOR SQUEEZE

ACTIVITY: MADE UP 9 5/8 IN. MT STATES 32-A PKR AND RET.  
\*02\* B.P. START RIH COULDNT GET BELOW 200 FT. W/ B.P.  
\*03\* POOH LAY DOWN B.P. RIH W/ PKR. AND SET AT 4830 FT  
\*04\* RIG UP HALIBURTON. CHECK FOR INJ. RATE 1 BPM AT  
\*05\* 2000 LBS. SPOT CMT. RE-SET PKR. PUMP CMT. TO CLEAR  
\*06\* PKR. START STAGING. NOT GETTING SQUEEZE. PUMP RE-  
\*07\* MAINING CMT. AWAY. RELEASE PKR. CIRC. HOLE CLEAN  
\*08\* PULL 1 STD. SET PKR. SDON. HELP HALIBURTON DRAIN  
\*09\* UP LINES AND EQUIP.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 7527.62  
CUM. COST: 20269.22  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER  
DATE(S): 3-27-84  
PRESENT STATUS: SQUEEZE WELL

ACTIVITY: HOOK HALLIBURTON BACK UP. RELEASE PRESS. ON CSG.  
\*02\* GOT INJ. RATE. CIRC AROUND PKR. SPOT CMT. IN TBG  
\*03\* RE-SET PKR. PUMP CMT. OUT OF TBG. START STAGING.  
\*04\* STARTED TO SQUEEZE. APPROX. 4 HRS. INTO JOB. CIRC  
\*05\* HOLE CLEAN. RE-SET PKR. AND PRESS. UP ON SQUEEZE  
\*06\* TO 2500 LBS. CLOSE WELL IN. RIG UP DRILLING EQUIP  
\*07\* PREPARE TO DRILL OUT CMT. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: -----  
WG NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 2298 & 2023  
CUM. COST: 8495.20  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 3-23 & 3-24  
PRESENT STATUS: FOUND HOLE IN 9 5/8 IN. CSG.

ACTIVITY:  
\*02\* 3-23-84 CHECK WELL FOR PRESS. HELP O.W.P. RIG UP  
\*03\* TO PERFORATE. PRESS. TEST CSG. AND LUBRICATOR TO  
\*04\* 1500 LBS. PERFORATE AS PER PROG. 10698 TO 10193 FT  
\*05\* 34 SHOTS 102 HOLES. HAD A CSG LEAK W/ 1500 LBS.  
\*06\* RIG DOWN O.W.P. DID NOT PERFORATE. WAIT ON 10 IN.  
\*07\* B.O.P. AND 9 5/8 IN. PKR. CHANGE OUT BOP. MADE UP  
\*08\* 9 5/8 IN 32-A MT STATES PKR. HAD TO RUN EXTREMELY  
\*09\* SLOW SET PKR. AT 4000 FT. PRESS UP BELOW PKR. STILL  
\*10\* LEAKING. HOLDING ABOVE PKR. ON 9 5/8 IN. CSG.  
\*11\* CONT. RIH TO 6000 FT. RE-SET PKR. AND TEST BELOW  
\*12\* PKR. AGAIN. WELL FLOWING OUT OF TBG. SET PKR. AT  
\*13\* 5000 FT. SDON  
\*14\* 3-24 CHECK WELL FOR PRESS. BLEED OFF. PUMP DOWN  
\*15\* TBG. AND OUT CSG. RE-SET PKR AT 5000 FT. TRY TO  
\*16\* TEST CSG. AGAIN. FOUND HOLE IN 9 5/8 IN AT 5075-  
\*17\* 5136 FT. RELEASE PKR AND POOH. MADE UP 9 5/8 IN.  
\*18\* RET. B.P. RIH AND TRIED TO SET PLUG. COULDNT GET  
PLUG TO GO DOWN HOLE. OIL TO THICK. POOH. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4  
LABEL: FIRST REPORT  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 1938.40  
CUM. COST: 1938.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 3-21-84  
PRESENT STATUS: RIG UP EQUIP.

ACTIVITY: CLEAN UP JUNK AT 1-21A3 ON LOCATION. LOAD OUT  
\*02\* EQUIPMENT AND MOVE TO 1 -3B4. RIG UP EQUIP. BLEED  
\*03\* PRESS. OFF TBG. AND CSG. PUMP DOWN WELL. MADE UP  
\*04\* 6 IN. X 10 IN. X-OVER SPOOL ON 6 IN. BOP. CHANGE  
\*05\* BACK TO 2 7/8 IN. EQUIP. LEFT WELL CLOSED IN FOR  
\*06\* NIGHT. SDON.

STATE: UTAH  
FIELD: ALTAMONT  
WELL: BROTHERSON 1-3B4

LABEL: -----  
WO NO.: 511227  
FOREMAN: K.C. LAROSE  
RIG: WOW 17  
AUTH. AMNT: 37500  
DAILY COST: 2235  
CUM. COST: 4173.40  
TYPE OF JOB: REMEDIAL OIL AND GAS  
OBJECTIVE: PLUG BACK WASATCH AND COMPLETE GREEN RIVER

DATE(S): 3-22-84  
PRESENT STATUS: SET PLUG

ACTIVITY: CHECK WELL FOR PRESS. STRIP OFF 6 IN X 10 IN TBG  
\*02\* SPOOL W/ DONUT STUCK IN SPOOL. INSTALL 6 IN. BOP  
\*03\* AND 6 X 10 ADP SPOOL. RELEASE 7 5/8 IN. LOK-SET  
\*04\* PKR. AT 11000 FT. POOH LAYING DOWN CAMCOS AND  
\*05\* EXCESS PROD. TBG. RIG UP OWP. MADE UP AND RIH W/  
\*06\* 7 5/8 IN. C.I.B.P. SET PLUG AT 10800 FT. TOP OF  
\*07\* PLUG W/ 8 FT. SAND ON PLUG. SDON

RD 427805018  
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4241 State Office Building, Salt Lake City, Ut. 84114. • 801-533-5771

OCT 02 1984

MONTHLY OIL AND GAS PRODUCTION REPORT

DICKSON  
DIVISION OF OIL

GAS & MINING

Operator name and address:

UTEX OIL CO.  
% SHELL WESTERN E&P INC. 1040

Utah Account No. N0840

~~Operator name~~  
PO BOX 576  
HOUSTON TX 77001 *change*  
ATTN: ~~Oil ACCT.~~

Report Period (Month/Year) 8 / 84

Amended Report

Well Name	API Number	Entity	Location	Producing Zone	Days Oper	Production Volume	Gas (MSCF)	Water (BBL)
BROTHERSON 1-03B4	4301330018	01525	02S 04W 3	WSTC	23	217	755	442
MORDOCK 1-26B5	4301330049	01530	02S 05W 26	GR-WS	28	1584	2747	6039
BROTHERSON 1-14B4	4301330051	01535	02S 04W 14	GR-WS	31	868	2489	3914
BROTHERSON 1-11B4	4301330052	01540	02S 04W 11	GR-WS	26	1593	3090	9080
CHRISTENSEN 1-35A5	4301330054	01545	01S 05W 33	GR-WS	31	858	70	1060
EVANS UNIT 1-31A4	4301330067	01560	01S 04W 31	GR-WS	31	2431	57	10702
BEEZARD 1-18B4	4301330059	01565	02S 04W 18	WSTC	23	568	581	3422
BROTHERSON 1-02B4	4301330062	01570	02S 04W 2	GR-WS	0	0	0	0
ROSI 1-4B3	4301330063	01575	02S 03W 4	GR-WS	21	567	304	478
OTE UNIT 1-36A4	4301330069	01580	01S 04W 36	WSTC	22	2753	3538	907
OTE UNIT 1-34A4	4301330075	01585	01S 04W 34	GR-WS	22	486	774	182
MUNSEN 1-21A3	4301330082	01590	01S 03W 21	GR-WS	24	648	2264	5926
BROADHEAD 1-21B6	4301330100	01595	02S 06W 21	WSTC	31	1442	1685	4355
TOTAL						14112	17931	57128

JT - 2

Comments (attach separate sheet if necessary)

I have reviewed this report and certify the information to be accurate and complete.

Date Sep 28 1984

Authorized signature

Telephone 801-481-2262

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

PERMIT IN TRIPLICATE  
(Other instructions on reverse side)

010976

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.)

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
*Brotherson*

9. WELL NO.  
*1-3B4*

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
*Sec 3 T3 4w*

12. COUNTY OR PARISH  
*Mucheanne*

13. STATE

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
*ANR Limited Inc.*

3. ADDRESS OF OPERATOR  
*P. O. Box 749, Denver, Colorado 80201-0749*

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

14. PERMIT NO.  
*43-013-30048*

15. ELEVATIONS (Show whether OF, FT, OR, etc.)

RECEIVED  
DEC 31 1986

DIVISION OF OIL GAS & MINING

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

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

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

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

ANR Limited has been elected successor Operator to Utex Oil Company on the oil wells described on the attached Exhibit "A".

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

SIGNED *Don K. Nelson* TITLE *Dist. Land Mgr.* DATE *12/24/86*

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:



UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut  
84180-1203. • (801-538-5340)

## MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

*N0675*

• ANR LIMITED INC./COASTAL  
P O BOX 749  
DENVER CO 80201 0749  
ATTN: RANDY WAHL

Utah Account No. N0235

Report Period (Month/Year) 11 / 87

Amended Report

Well Name	Producing Zone	Days Oper	Production Volume		
API Number    Entity    Location	Zone	Oper	Oil (BBL)	Gas (MSCF)	Water (BBL)
BROTHERSON 1-3B4 4301330048 01525 02S 04W 3	GRRV				
MURDOCK 1-26B5 4301330049 01530 02S 05W 26	GR-WS				
MURDOCK #2-26B5 4301331124 01531 02S 05W 26	WSTC				
BROTHERSON 1-14B4 4301330051 01535 02S 04W 14	GR-WS				
BROTHERSON 1-11B4 4301330052 01540 02S 04W 11	GR-WS				
BROTHERSON #2-11B4 4301331078 01541 02S 04W 11	WSTC				
CHRISTENSEN 1-33A5 4301330054 01545 01S 05W 33	GR-WS				
BLEAZARD 1-18B4 4301330059 01565 02S 04W 18	WSTC				
BLEAZARD #2-18B4 4301331025 01566 02S 04W 18	WSTC				
BROTHERSON 1-02B4 4301330062 01570 02S 04W 2	GR-WS				
RUST 1-4B3 4301330063 01575 02S 03W 4	GR-WS				
RUST #2-36A4 4301331092 01577 01S 04W 36	WSTC				
UTE UNIT 1-36A4 4301330069 01580 01S 04W 36	WSTC				
<b>TOTAL</b>					

Comments (attach separate sheet if necessary) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

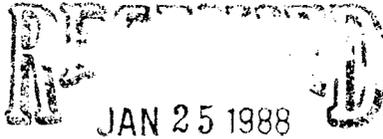
I have reviewed this report and certify the information to be accurate and complete.    Date \_\_\_\_\_

Authorized signature \_\_\_\_\_    Telephone \_\_\_\_\_



**ANR Production Company**  
a subsidiary of The Coastal Corporation

012712



DIVISION OF  
OIL, GAS & MINING

January 19, 1988

Natural Resources  
Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Attention: Ms. Lisha Romero

This letter includes the information you requested on January 12, 1988 concerning the recent merger of ANR Limited, Inc. into ANR Production Company. Effective December 31, 1987 (December, 1987 Production), ANR Limited, Inc. merged into ANR Production Company; and henceforth, will continue operations as ANR Production Company.

ANR Production Company will begin reporting and remitting the Utah Conservation and Occupation Taxes effective December, 1987 production for leases previously reported by ANR Limited, Inc. (Utah Account No. N-7245). ANR Production Company will use the new Utah Account No. N-0675, as assigned by the State of Utah.

Please contact me at (713) 877-6167 if I can answer any questions on this matter.

Very truly yours,

*Roger W. Sparks*  
Roger W. Sparks  
Manager, Crude Revenue Accounting

*The computer shows the ANR Limited wells listed under account no. N0235.  
DTS  
1-26-88*

CC: AWS

CTE:mmw

*Lisha,  
I don't see any problem w/this.  
I gave a copy to Arlene so she could check on the bond situation. She didn't think this would affect their bond as the bond is set up for Coastal and its subsidiaries (ANR, etc.)  
No Entity Number changes are necessary. DTS 1-26-88*

25 4w 3  
 43-013-30048 WSTC 1525 PA (1-03B4) ✓  
 25 3w 4  
 43-013-30337 UNTA 99996 SDW # 2-4B3 ✓  
 25 5w 27  
 43-013-30340 UNTA 99996 SDW # 2-27B5 ✓  
 15 4w 29  
 43-013-30276 WSTC 1831 PA 1-29A4 ✓  
 25 2w 13  
 43-013-30366 WSTC 1905 ~~POW~~ POW 1-13B2 ✓  
 15 3w 25  
 43-013-30370 WSTC 1920 ~~POW~~ POW 1-25A3 ✓ (Cont.)  
 25 4w 23  
 43-013-30038 GR-WS 1970 TA 2-23B4 ✓  
 25 4w 23  
 43-013-30038 GRU 1970 TA 1-23B4 ✓  
 25 5w 18  
 43-013-30058 WSTC 99998 PPA 1-18B5 ✓  
 15 4w 27  
 43-013-30266 UNTA SDW 99996 1-27A4 ✓  
 25 5w 11  
 43-013-30391 UNTA 99996 SDW 2-11B5 ✓  
 25 3w 3  
 43-013-31193 Dr. 99999 2-3-B3 ✓  
 25 4w 1  
 43-013-31197 Dr. — 2-1-B4 ✓  
 15 3w 22  
 43-013-30357 GRU 1885 POW 1-22A3 ✓  
 15 2w 20  
 43-047-30186 GR-WS 1875 POW 1-20B2E ✓

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

SUBMIT TO THE DIVISION OF OIL, GAS, AND MINING

RECEIVED  
AUG 27 1988

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Patented	
2. NAME OF OPERATOR ANR Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME DIVISION OF OIL, GAS, AND MINING N/A	
3. ADDRESS OF OPERATOR P.O. Box 749, Denver, Colorado 80201-0749		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1468' FNL & 1503' FEL		8. FARM OR LEASE NAME Brotherson	
16. PERMIT NO. 43-013-30048		9. WELL NO. 1-3B4	
15. ELEVATIONS (Show whether SP, RT, GR, etc.) 6302' GL		10. FIELD AND POOL, OR WILDCAT Altamont	
		11. SEC., T., R., M., OR B.L. AND SUBST OR AREA Section 3, T2S-R4W	
		12. COUNTY OR PARISH Duchesne	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"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
(Other) Remove CIBP & Run Prod. Log <input checked="" type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

Proposed Procedure:

1. RIH.
2. Drill out CIBP @ 10,800' (between Green River & Wasatch formations).
3. Run casing inspection log.
4. Put well back on line.
5. Run production log. Evaluate for future remedial work.

COPY

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

SIGNED Eileen Danni Dey

TITLE Regulatory Analyst

DATE August 26, 1988

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CURR. NO. OF APPROVAL IF ANY:

TITLE \_\_\_\_\_

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

DATE: 7-1-88  
John R. Bay

\*See Instructions on Reverse Side

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

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug wells to additional reservoirs. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED  
OCT 03 1988

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. Patented
2. NAME OF OPERATOR ANR Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
3. ADDRESS OF OPERATOR P.O. Box 749, Denver, Colorado 80201-0749		7. UNIT AGREEMENT NAME N/A
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1468' FNL & 1503' FEL		8. FARM OR LEASE NAME Brotherson
14. PERMIT NO. 43-013-30048		9. WELL NO. 1-3B4
15. ELEVATIONS (Show whether OF, ST, OR, etc.) 6302' GL		10. FIELD AND POOL, OR WILDCAT Altamont
		11. SEC., T., R., N., OR S.E., AND SURVEY OR AREA Section 3, T2S-R4W
		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

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NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Remove CIBP (Commingle)</u> <input checked="" type="checkbox"/>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion or Well Completion or Recompletion Report and Log (form.)	

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

Procedure: Date of work performed 8/29-9/2/88

- MIRU. NU BOP. POOH w/tbg.
- RIH w/tbg. Tag @ 10,710 (90' from CIBP @ 10,800'). Pushed CIBP to 12,685' (168' from PBD).
- Return well to gas lift production.

18. I hereby certify that the foregoing is true and correct  
SIGNED Eileen Danni Dey TITLE Regulatory Analyst DATE September 29, 1988  
(This space for Federal or State office use)

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

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

5. LEASE DESIGNATION AND SERIAL NO.  
Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Brotherson

9. WELL NO.  
1-3B4

10. FIELD AND POOL, OR WILDCAT  
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR ARDA  
Section 3, T2S-R4W

12. COUNTY OR PARISH  
Duchesne

13. STATE  
Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug or to conduct hydraulic fracturing. Use "APPLICATION FOR PERMIT" for such proposals.)

RECEIVED  
JAN 10 1989

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
ANR Production Company

3. ADDRESS OF OPERATOR  
P.O. Box 749, Denver, Colorado 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface  
1468' FNL & 1503' FEL

14. PERMIT NO.  
43-013-30048

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
6302' GL

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

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

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

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

Proposed Procedure:

- MIRU. Kill well, NU BOPE. Release 7-5/8" pkr & POOH w/2-7/8" tbg & gas lift eqpt.
- RIH w/9-5/8" RBP & retrievamatic pkr. Pressure test & locate leaks in 9-5/8" csg. Cmt squeeze.
- RIH w/7-5/8" drill plug & set @ + 11,930'. RIH w/7-5/8" RTTS pkr. Press test plug. Reset pkr @ + 11,720'. Establish injection rate.
- RIH w/7-5/8" cmt retainer & set @ + 11,720'. Cmt squeeze perms from 11,758-11,919 w/ 100 sx cmt.
- Mill out retainer & cmt to BP (+ 11,930'). TIH w/RTTS pkr & pressure test squeeze. Repeat if necessary. Mill out ret, cmt & BP. CO wellbore to PBSD (12,685').
- Perf Wasatch & Lower Green River w/3 SPF (10,349-12,655') using 3-1/8" csg gun. (See attached list of perforating depths.)
- RIH w/ 7-5/8" RTTS pkr & set @ + 11,930'. Acidize perms from 11,938-12,665' w/ 18,500 gals 15% HCL + additives. Swab back load.
- Kill well. POOH w/pkr. RIH w/7-5/8" RBP w/ball catcher & 7-5/8" RTTS pkr. Set RBP @ + 11,740'. Pressure test. Reset pkr. @ + 10,300.
- Acid stimulate perms from 10,350-11,718' w/12,000 gals 15% HCL & add. Swab back load.
- Kill well. Retrieve BP. POOH. RIH w/tbg & gas lift eqpt. Return well to production.

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

SIGNED Eileen Danni Dey

TITLE Regulatory Analyst

DATE January 17, 1989

(This space for Federal or State office use)

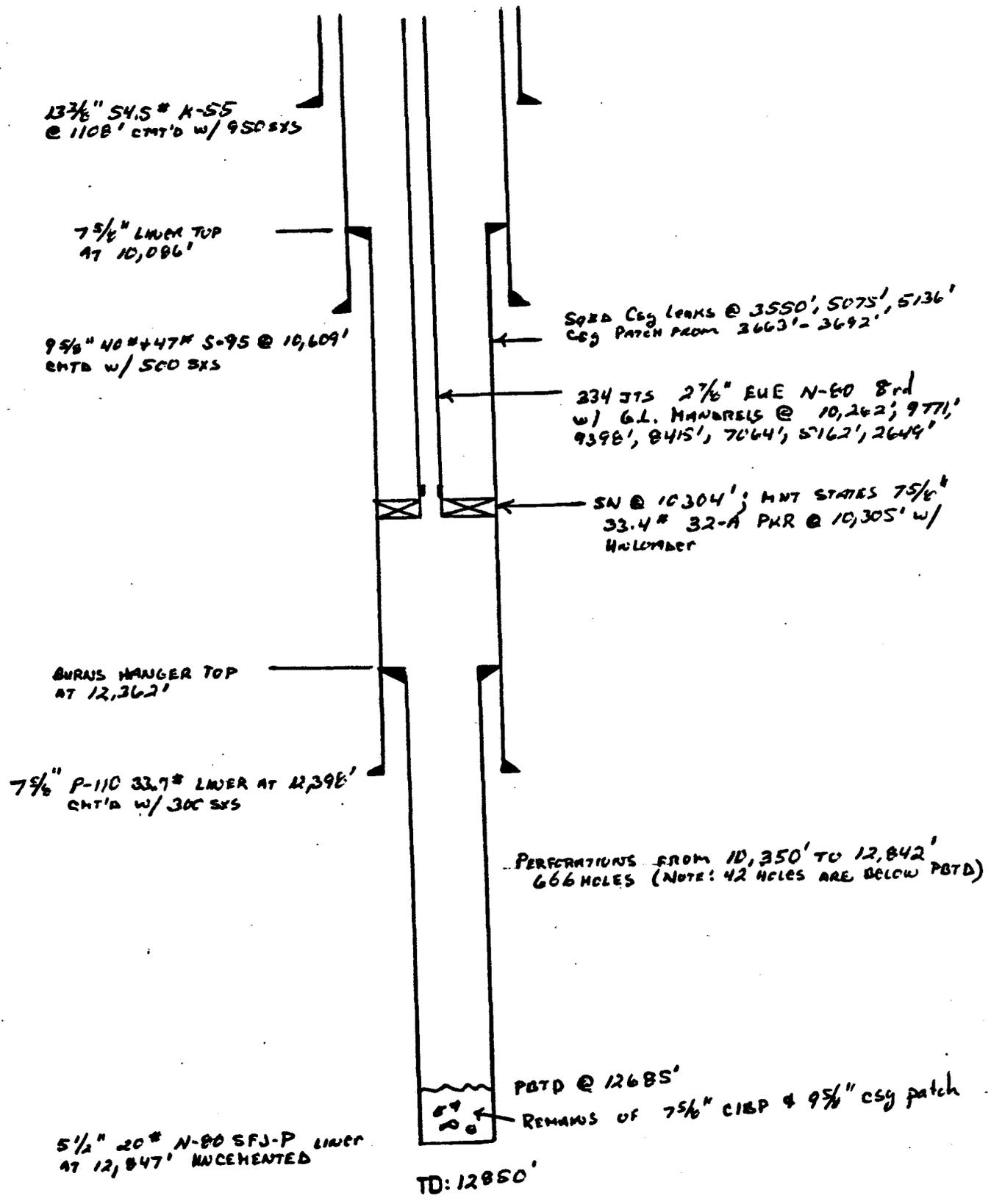
APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

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

DATE: 1-26-89

\*See Instructions on Reverse Side



Perforation Schedule  
 Brotherson #1-3B4  
 NE/4 Section 3, T2S-R4W  
 Duchesne County, Utah

Depth Reference: Schlumberger BHC - SONIC  
Runs #1 (11/3/70), #3 (12/23/70), #4 (1/16/71)

Note: Interval 10,600'-11,888' logged twice, use Run #3 for correlation.

12655	12114*	11630*	11264*	10964	10664*
12583	12103	11612*	11255*	10953	10653*
12498	12089*	11592*	11235	10943	10646*
12490	12085*	11574	11212	10937	10630*
12425	12070	11540	11185	10918	10627*
12389	12066	11526*	11168	10902	10592
12382	12049*	11514*	11161	10894	10578
12375	12042*	11506	11153	10883	10573
12364	12031*	11494	11141	10874	10557*
12355	12013	11489	11124	10869	10529*
12341*	12002	11471	11113	10864	10516
12315*	11989*	11446*	11107*	10859	10506
12294*	11971	11420	11097	10849	10501
12273*	11963*	11398	11093	10840	10497*
12249*	11716	11386	11077	10832	10483*
12225*	11707	11371*	11057*	10829	10431*
12216*	11697	11353*	11037	10814	10422*
12199*	11693	11343*	11017	10751	10417*
12192	11671*	11307*	11007	10718	10409*
12157	11666*	11290	10994	10700*	10379*
12139*	11652*	11283	10983	10684	10369
12130	11646*	11276	10972	10668*	10363
					10357
					10349

\*Reperfs

Interval: 10,349'-12,655'      134 feet, 94 zones

*RLR*  
 RLR  
 9/19/88

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

5. LEASE DESIGNATION AND SERIAL NO.  
Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Brotherson

9. WELL NO.  
1-3B4

10. FIELD AND POOL, OR WILDCAT  
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 3, T2S, R4W

12. COUNTY OR PARISH | 13. STATE  
Duchesne | Utah

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
ANR Production Company

3. ADDRESS OF OPERATOR  
P.O. Box 749, Denver, CO 80201-0749

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface  
1468' FNL & 1503' FEL

14. PERMIT NO.  
43-013-30048

15. ELEVATIONS (Show whether DF, ST, OR, etc.)  
6302' GL

RECEIVED  
JUL 26 1989

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

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

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

See attached chronological report for the procedure performed on the above referenced well.

18. I hereby certify that the foregoing is true and correct  
SIGNED Brenda W. Swank TITLE Regulatory Analyst DATE July 24, 1989  
Brenda W. Swank

(This space for Federal or State office use)

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

THE COASTAL CORPORATION  
PRODUCTION REPORT

BROTHERSON #1-3B4 (SQZ SURF CSG & WTR, PERF & ACDZ)  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH

Page 4

6/30-7/1/89 Attempt to set pkr. RIH w/5-13/16" x 1-5/8" O.S. & BHA on 2-7/8" tbg to 7-5/8" RBP @ 10,086'. Latch RBP. POOH w/RBP. RIH w/6 GL mandrels on 2-7/8" tbg. Unable to set pkr. ND BOPS. Land tbg on hanger.  
DC: \$7,456 TC: \$252,476

7/3/89 Place well on GL prod. Unable to set pkr. ND WH. NU BOPS. POOH w/250' 2-7/8" tbg. Pkr stuck. Unable to free pkr. ND BOP. NU WH. Land tbg w/55,000# compr. RDSU.  
DC: \$5,827 TC: \$258,303

7/5/89 217 BO, 45 BW, 440 MCF, 610 inj/24 hrs.

7/6/89 103 BO, 183 BW, 0 MCF, 559 inj.

7/7/89 145 BO, 59 BW, 81 MCF, 474 inj.

7/8/89 61 BO, 148 BW, 8 MCF, 684 inj.

7/9/89 62 BO, 130 BW, 38 MCF, 578 inj.

7/10/89 72 BO, 229 BW, 10 MCF, 600 inj.

7/11/89 31 BO, 490 BW, 67 MCF, 1006 inj.

7/12/89 72 BO, 428 BW, 123 MCF, 979 inj.

7/13/89 62 BO, 337 BW, 91 MCF, 666 inj.

7/14/89 133 BO, 865 BW, 300 MCF, 2282 inj.

7/15/89 52 BO, 539 BW, 214 MCF, 1055 inj.

7/16/89 93 BO, 658 BW, 168 MCF, 1519 inj.

7/17/89 8 BO, 149 BW, 303 MCF, 305 inj/2 hrs. Prep to convert to rod pmp.

7/18/89 SI. Prep to convert to beam pmp. Final report.

THE COASTAL CORPORATION  
PRODUCTION REPORT

BROTHERSON #1-3B4 (SQZ SURF CSG & WTR, PERF & ACDZ)  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH

Page 3

- 6/12/89 CO 7" csg. CO 7" csg from 10,856' to 11,190'. Circ hole clean. RD for transmission repair.  
DC: \$2,660 TC: \$143,252
- 6/13/89 CO 7" csg. CO 7" csg from 11,190' to 11,658'. Circ hole clean.  
DC: \$2,777 TC: \$146,029
- 6/14/89 CO 7" csg. CO 7" csg from 11,658' to 11,848'. Circ hole clean. Plugged bit w/pieces of csg patch. RU swb equip. Swbd 3 runs. Plug came loose. Circ hole clean. CO 7" csg to 11,900'. Circ hole clean.  
DC: \$3,597 TC: \$149,626
- 6/15/89 Prep to resqz perfs. CO 7" csg from 11,900' to CIBP @ 11,925'. Hole lost 50 BW. Circ hole clean. Est inj rate @ 2 BPM @ 1200#.  
DC: \$1,766 TC: \$151,392
- 6/16-17/89 CO 7" csg. RIH w/6-1/8" bit on 2-7/8" tbg to 11,922'. Rev circ hole. Clean w/100 BW. Spot 100 sxs Cl "G" cmt plug. POOH to 10,902'. Rev out w/90 BW. Tag cmt top @ 11,563'. CO 7" csg to 11,770'. Circ hole clean. Having trouble with metal plugging.  
DC: \$9,585 TC: \$160,977
- 6/19/89 DO CIBP. CO 7-5/8" csg from 11,770' to CIBP @ 11,925'. Circ hole clean. POOH w/6-5/8" bit on 2-7/8" tbg. Start RIH w/6-5/8" x 4-1/2" WO shoe & BHA on 2-7/8" tbg.  
DC: \$2,481 TC: \$163,458
- 6/20/89 TFNB. Fin RIH w/6-5/8" x 4-1/2" WO shoe & BHA on 2-7/8" tbg to CIBP @ 11,925'. Circ hole clean w/875 BW. Milled 10". Could not get deeper. Circ hole clean.  
DC: \$5,361 TC: \$168,879
- 6/21/89 POOH w/WO shoe. PU new WO shoe & TIH. WO CIBP @ 11,925' & pushed plug to 12,362'. POOH to check for plug.  
DC: \$3,039 TC: \$171,918
- 6/22/89 RIH w/flat btm mill. Fill hole w/wtr. RU drlg equip. Mill over plug. TOH w/tbg. LD drlg equip. PU 4-5/8" flat btm mill.  
DC: \$3,185 TC: \$175,103
- 6/23-24/89 POOH w/4-1/8" mill. CO liner to 12,660'. POOH to check mill.  
DC: \$4,524 TC: \$179,627
- 6/26/89 Prep to acdz. Perf per prog w/4" 120° phasing csg gun from 10,349' to 12,655', 134 zones, 402 tot holes @ 3 SPF. Start RIH w/7-5/8" pkr.  
DC: \$20,641 TC: \$200,268
- 6/27/89 Prep to acdz Upper Wasatch. Set 7-5/8" pkr @ 11,925'. Acdz perfs 11,938'-12,665' w/18,500 gals 15% HCl w/add & diverter. Good diversion. Mx press 6200 psi, avg press 5800 psi, mx rate 12.6 BPM, avg rate 11 BPM. ISIP 5200 psi. POOH w/tbg & pkr. RIH w/7-5/8" RBP & pkr.  
DC: \$23,291 TC: \$223,559
- 6/28/89 POOH w/tbg, pkr & RBP. Set RBP @ 11,737'. Set pkr @ 10,286'. Attempt to press up backside unsuccessful. Leak 2.2 BPM @ 400 psi. Acdz perfs 10,350'-11,718' w/12,000 gal 15% HCl & 600 1.1 SG BS. 4788 gal into job backside came around. Mx press 5800 psi, avg press 3200 psi, mx rate 14 BPM, avg rate 8 BPM, ISIP 1090 psi. Press tst tbg on RBP to 2000 psi. Held. Rls RBP & start POOH.  
DC: \$16,806 TC: \$240,365
- 6/29/89 RIH w/overshot. POOH w/7-5/8" pkr & RBP. Pulling hd on RBP backed off & dropped dn hole. Press tst 9-5/8" sqz work from 3663'-5108' to 1800 psi. Held ok. Prep to RIH w/7-5/8" overshot & retr RBP.  
DC: \$4,655 TC: \$245,020

THE COASTAL CORPORATION  
PRODUCTION REPORT

BROTHERSON #1-3B4 (SQZ SURF CSG & WTR, PERF & ACDZ)  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH

Page 2

5/19-20/89 RIH to tag cmt top. RIH w/tbg open ended & set @ 5108'. Spot & displace 200 sxs cmt into leak @ 5077-5108' w/1230 psi. Tag cmt top @ 4735'. Reset tbg @ 3875'. Spot & displace 300 sxs cmt into leaks @ 3663-3693' & 3843-3873'. Prep to RIH to tag cmt top.  
DC: \$14,645 TC: \$76,624

5/22/89 DO cmt. Tag cmt top @ 3496'. Press tst sqz to 2000 psi. PU & RIH w/8-1/2" mill & four 4-3/4" DCs. CO soft cmt to 3655'.  
DC: \$3,345 TC: \$79,969

5/23/89 Mill out cmt. CO soft cmt to 3717'. Press tst to 2000 psi. Lost 200 psi in 8 min. Spot 100 sxs cmt. Sqz leak @ 3663-3693' to 2500 psi. WOC.  
DC: \$4,938 TC: \$84,907

5/24/89 Mill out cmt. Tag cmt top @ 3438'. Mill out soft cmt to 3508'. Tbg prtd. Fish out. Cont milling soft cmt to 3530'.  
DC: \$4,992 TC: \$89,899

5/25/89 CO 9-5/8" csg. CO 9-5/8" csg from 3530' to 3612'. Circ hole clean. TFNB.  
DC: \$2,301 TC: \$92,200

5/26-27/89 Prep to resqz csg leak. CO 9-5/8" csg from 3612' to 3717'. Displaced hole w/400 BW. Circ hole clean. Press tst csg leak @ 3663-93' to 2000#/15 mins. OK. CO 9-5/8" csg from 3717' to 3918'. Circ hole clean. Press test csg leak @ 3843-73' to 2000#. Bled off 800#/10 mins. Est inj rate @ 1/2 BPM.  
DC: \$5,842 TC: \$98,042

5/30/89 CO 9-5/8" csg. Est inj rate @ 1/2 BPM @ 1600#. Spot 100 sxs Class "G" cmt plug across csg leak @ 3843-73'. POOH w/2-7/8" tbg to 3061'. Rev tbg clean w/30 BW. Staged cmt & sqzd to 2000#.  
DC: \$6,166 TC: \$104,208

5/31/89 CO 9-5/8" csg. Bleed off set press. RIH w/8-1/2" mill & tag cmt @ 3853'. CO 9-5/8" csg to 3963'. Circ hole clean. Press tst csg leak sqz to 2000#. Bled off 150#/12 mins. CO 9-5/8" csg to 4843'. Circ hole clean.  
DC: \$2,351 TC: \$106,559

6/1/89 CO 9-5/8" csg. CO 9-5/8" csg from 4843' to 4959'. Circ hole clean.  
DC: \$2,394 TC: \$108,953

6/2-3/89 POOH w/tbg & RBP. CO cmt to 5088', void to 5100'. Mill out cmt to 5199'. Press tst to 2000 psi - held. POOH w/CO tools. Rls RBP @ 10,151'. Start POOH w/RBP.  
DC: \$6,886 TC: \$115,839

6/5/89 Drlg cmt. RIH w/6-5/8" drag bit & DC's. Tag cmt @ 11,369'. RU to drl.  
DC: \$1,777 TC: \$117,616

6/6/89 Cont to drl out. Drl thru cmt bridge @ 11,369' ( $\pm 1'$ ). Pushing part of csg patch ahead of bit. Pushed & drld patch & some green cmt to 11,750'.  
DC: \$3,740 TC: \$121,356

6/7/89 Fin POOH w/tbg & bit. CO wellbore to 11,774'. Bit plugged. Start POOH.  
DC: \$3,650 TC: \$125,006

6/8/89 RU to sqz. 6-5/8" drag bit plugged w/iron from csg patch. PU & RIH w/6-5/8" bladed mill. CO wellbore to 11,774'. RU to sqz.  
DC: \$2,398 TC: \$127,404

6/9-10/89 CO 7" csg. Filled hole w/210 BW. Circ hole clean. Spot 300 sxs C1 "G" cmt plug @ 11,770'. POOH to 10,115'. Rev out 90 BW. POOH w/BHA on 2-7/8" tbg. RIH w/6-5/8" bit on 2-7/8" tbg. Tag cmt @ 10,544'. CO 7" csg to 10,856'.  
DC: \$13,188 TC: \$140,592

THE COASTAL CORPORATION  
PRODUCTION REPORT

BROTHERSON #1-3B4 (SQZ SURF CSG & WTR, PERF & ACDZ)  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH  
WI: 33.8403% ANR AFE: 62617  
TD: 12,850' (WASATCH)  
CSG: 5" LINER @ 12,362'-12,847'  
PERFS: 10,350'-12,842'  
CWC(M\$): \$218.9

Page 1

4/30/89 Rls pkr & POOH w/G.L. prod equip. MIRU. Kill well. Prep to rls prod pkr.  
DC: \$2,258 TC: \$2,258

5/1/89 Fin RIH w/9-5/8" csg scraper. Pmpd 130 BW dwn csg & tbg. Rel pkr. POOH  
w/7-5/8" pkr & 7 G.L. mandrels. Start RIH w/9-5/8" csg scraper.  
DC: \$3,249 TC: \$5,507

5/2/89 POOH w/9-5/8" csg scraper. Fin RIH w/9-5/8" csg scraper to LT @ 10,086'.  
DC: \$1,933 TC: \$7,440

5/3/89 Scrape 7-5/8" csg. SITP 100#. POOH w/9-5/8" csg scraper on 2-7/8" tbg.  
Pulled 20,000# over csg patch @ 3663-93'. Start RIH w/7-5/8" csg scraper  
on 2-7/8" tbg.  
DC: \$1,273 TC: \$8,713

5/4/89 Fin POOH w/7-5/8" csg scraper. CO 7-5/8" csg to liner top @ 12,362'.  
Start POOH w/7-5/8" csg scraper.  
DC: \$2,047 TC: \$10,760

5/5/89 POOH w/7-5/8" pkr. RIH w/7-5/8" CIBP on WL & set @ 11,925'. RIH w/H.D.  
pkr. Tst CIBP. OK. Set pkr @ 11,730'. Inj rate 4 BPM @ 0 psi. Start  
POOH w/pkr.  
DC: \$5,517 TC: \$16,277

5/8/89 Repair rig. SITP 275#. Fin POOH w/7-5/8" pkr on 2-7/8" tbg. RIH w/2-7/8"  
tbg to 9500'. RD for repairs.  
DC: \$1,858 TC: \$18,135

5/9/89 Dwn for rig repairs.

5/10/89 POOH w/pkr & RBP. SITP 225#. Fin RIH w/2-7/8" tbg OE to 11,922'. Spot  
100 sxs cmt plug. Displaced w/22 BW. POOH w/2-7/8" tbg. RIH w/7-5/8" RBP  
& 9-5/8" pkr on 2-7/8" tbg. Pkr will not pass thru csg patch @ 3663'.  
Start POOH.  
DC: \$8,875 TC: \$27,010

5/11/89 Prep to mill out csg patch. POOH w/9-5/8" pkr & 7-5/8" RBP. RIH w/7-5/8"  
RBP on 2-7/8" tbg & set @ 10,151'. POOH.  
DC: \$1,618 TC: \$28,628

5/12-13/89 Milling 13-3/8" surf csg. Dump 3 sxs sd on RBP @ 10,151'. PU & RIH  
w/8-3/8" string mill, BS, jars & 4 - 3/4" DC. Tag csg patch @ 3663'. Mill  
thru patch. POOH.  
DC: \$16,535 TC: \$45,163

5/15/89 Milling on csg patch. PU & RIH w/8.525" string mill, DCs, jars & BS. Mill  
out patch from 3663' to 3676'.  
DC: \$6,362 TC: \$51,525

5/16/89 Isolating hole in csg. Fin mill out patch from 3676'-93'. PU & RIH w/pkr.  
Set pkr @ 3717'. Press tst to 1000 psi. Leaked off to 0 psi in 2 mins.  
DC: \$3,578 TC: \$55,103

5/17/89 RIH w/RBP & pkr. Attempt to isolate leak w/pkr. Unsuccessful. PU & RIH  
w/RBP & pkr.  
DC: \$2,593 TC: \$57,696

5/18/89 RIH w/tbg. Isolate csg leaks @ 5078'-5108', 3843'-3873' & 3663'-3693'. LD  
pkr & RBP.  
DC: \$4,283 TC: \$61,979

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

6. Lease Designation and Serial Number	Patented
7. Indian Allottee or Tribe Name	N/A
8. Unit or Communitization Agreement	N/A
9. Well Name and Number	Brotherson #1-3B4
10. API Well Number	43-013-30048
11. Field and Pool, or Wildcat	Altamont

SUNDRY NOTICES AND REPORTS ON WELLS

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— for such proposals.

1. Type of Well  
 Oil Well     Gas Well     Other (specify)

2. Name of Operator  
ANR Production Company

3. Address of Operator  
P. O. Box 749, Denver, Colorado 80201-0749

4. Telephone Number  
(303) 573-4476

5. Location of Well  
 Footage : 1468' FNL & 1503' FEL  
 QQ. Sec. T., R., M. : SWNE, Section 3, T2S-R4W  
 County : Duchesne  
 State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandonment	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Casing Repair
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Conversion to Injection
<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Fracture Treat
<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Other <u>Emergency Pit</u>	
<input type="checkbox"/> New Construction	<input type="checkbox"/> New Construction
<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Recompletion	<input type="checkbox"/> Shoot or Acidize
<input type="checkbox"/> Shoot or Acidize	<input type="checkbox"/> Vent or Flare
<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Water Shut-Off	

Date of Work Completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.  
 \* Must be accompanied by a cement verification report.

13. 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.)

ANR Production Company requests permission to close the existing emergency pit on the above-referenced location using microbial remediation and install a lined pit. The liner will be seamless, 30 MIL, and 20 year warranted. Any emergency use of this pit will be reported to your office as soon as possible and the pit will be emptied and the liquids disposed of in an approved manner within 48 hours following its use, unless otherwise instructed by your office.

(Please see the attached letter submitted to your office 5/7/91 further describing this project.)

**RECEIVED**

JUL 0 1 1991

14. I hereby certify that the foregoing is true and correct.  
 Name & Signature Danna Bey  
 (State Use Only)

DIVISION OF  
**OIL, GAS & MINING**  
 Title Regulatory Analyst Date 6/27/91

APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS, AND MINING  
 DATE: 7/1/91  
 BY: [Signature]

State of Utah  
May 7, 1991  
Page - 2 -

Our intent is simple. COG will construct an emergency pit immediately adjacent to the existing pits. The new pit's size will be held to a minimum, yet large enough to provide adequate protection. The new pit will be lined using a 30 mil, 20 year warranty, seamless liner. All emergency piping will be removed from the pit to be closed and diverted to the new lined excavation. The old pit will be closed by microbe or other closure technology.

COG feels we are eliminating the potential environmental liability exposure of the past practice of unlined pits. Additionally, the now lined pits afford COG, as a prudent operator, the opportunity to keep the pits clean, remove any liquids as a result of upset conditions within 48 hours and most importantly the pit liner will be inspected on a documented scheduled basis for maximum efficiency. If a problem is noted, corrections will receive priority attention.

The pits listed in your letters to Coastal Oil & Gas Corporation and ANR Production Company Co., Inc. will be the first pits on our state leases to be closed.

To re-confirm our position, COG conducts it's operations in an environmentally sound manner. With the State of Utah's approval for the installation of "lined emergency pits", we will continue with our planned pit closure program. At the same time this program offers future protection to the groundwater and other natural resources in Utah.

Your approval of COG's request to install "lined emergency pits" would be appreciated. Additionally, at your request COG will provide the State of Utah with a copy of our Waste Management Program.

If there are any questions or if additional information is needed, please do not hesitate to call.

Very truly yours,



Michael E. McAllister, Ph.D.

MEM:sc

bcc: R.L. Bartley  
E. Dey  
W.L. Donnelly  
L.P. Streeb



**Coastal**

*The Energy People*

MICHAEL E. McALLISTER, Ph. D.  
DIRECTOR  
ENVIRONMENTAL & SAFETY AFFAIRS  
COASTAL OIL & GAS CORPORATION

May 7, 1991

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

Attention: Dianne R. Nielson, Ph.D.  
Division Director

Dear Ms. Nielson:

Coastal Oil & Gas Corporation and ANR Production Co., Inc., known hereafter as COG welcomes the opportunity to provide the State of Utah with information regarding our emergency pits in the Altamont/Bluebell producing areas.

COG shares your concern for protecting ground water and other natural resources. We recognize our responsibility to conduct our operations lawfully, ethically and in an environmentally responsible manner.

COG acknowledges the potential environmental liabilities with emergency pits. Therefore, we are currently conducting a pilot program using bioremediation technology as the closure technique. It is anticipated that the microbial treatment process will achieve a cost effective closure while eliminating long term waste disposal liabilities associated with conventional closure technologies.

COG is currently 90 days into the pilot program. The selected pits have been inoculated and filled to the desired liquid level. The pit walls and bottoms have been manually turned to achieve maximum microbial contact. To date, we are able to photographically document the success of our efforts. If the program continues to progress as expected, we will use this technology as our plan of action for the remaining pits.

Utilizing microbes or any other type of closure technique will necessitate the need for emergency containment in the event of an operating system upset and/or failure. COG respectfully requests, as part of our plan of action, the State of Utah's approval to utilize lined emergency pits to meet this need.

*Coastal Oil & Gas Corporation*

COASTAL OIL & GAS CORPORATION • P.O. BOX 1000 • SALT LAKE CITY, UT 84110 • TEL: 766-9000 • FAX: 766-0008 • FAX: 713-877-7117

BROTHERSON #1-3B4  
ALTAMONT/BLUEBELL FIELD  
DUCHESNE COUNTY, UTAH

Page #2

- 7/21/91 Broken 1" BOT on btm of 44th 1" Norris 97 1989 @ 1151". Replace 44th & 45th 1" & 8 BOPES above & below.  
TC: \$4,620
- 7/27 - 7/28/91 Prt'd @ 3900' - 7/8" pin break. 34th rod chg 17 X 7/8" rods 26 thru 43.  
TC: \$7,660
- 10/8 - 10/9/91 1" box break @ 325'. POOH w/rods. replace 2 - 1", 2 - 3/4" & 17 - 1" boxes.  
TC: \$5,965
- 4/6 - 4/7/92 Pin break on btm of 41 - 7/8" rod @ 4050' (1987 Norris 97).
- 7/15 - 7/16/92 Broken coupling 2' below polish rod. POOH w/rods.  
TC: \$4,077
- 7/15 - 1/13/93 7/15 - 1/13/93 Coupling break on btm of both rod @ 4100' 1989 Norris 97. Replace ALL 1" couplings w/LTV's. Broke pin on 3/4" rod #18 1988 Norris 97. RIH. Broke pin on 7/8" on #79 @ 4975' & #75 @ 4980'. Replace all 7/8" rods & couplings.  
TC: \$20,293
- 7/20 - 7/21/93 3/4" pin break on 17th rod @ 6575' 1985 Norris 97. Replace top 20 - 3/4" rods and chg rod design.  
TC: \$8,375
- 9/26 - 10/2/93 3/4" pin break on btm of 65th rod 1987 Norris 97. Jumped pin while POOH on top of 25th rod @ 7375' (1987 Norris 97". Strip rods out of hole, replace 3/4" rods.  
TC: \$28,225
- 11/16 - 11/29/93 Attempt to isolate csg leak. POOH w/tbg. Had to back off rods because pump would not unseat. Run 9-5/8" csg scrape to 7-5/8" LN top @ 10,096'. Run 7-5/8" csg scraper to 10,406'. Set RBP @ 10,258' set pkr @ 10,142'. Isolate hole in csg from 5129' to 10,047'. RIH w/9-5/8" pkr. Pump into liner lap 4.4 BPM @ 800. Dump 2 sxs sand on RBP @ 10,042'. Set 7-5/8" RBP @ 10,058' & dump 2 sxs sand on top. Set RBP @ 7600'. Pressure test csg, leaked. Unable to retrieve RBP. Appears there is csg damage. RD.  
TC: \$51,455
- 

Lease: BROTHERSON  
Well #: 1-3B4

Spud Date: 09/06/1970  
KB: 6321  
TD: 12850

Comp Date: 01/24/1971  
ELEV: 6302  
PBD: 0

API #: 43-013-30048-  
Location: Sec 03 Twn 02S Rng 04W  
County: DUCHESNE  
State: UTAH  
Field: ALTAMONT  
Operator: ANR PRODUCTION CO.

	Start End	Size Length	Description
0-	0.0	17.500	Hole: SURFACE
1290-	1108.0	1108.0	
	0.0		Cement: 750SX 1:1POZ+4%GEL+2%CACL TAIL W/200SX CL G+2%CACL
	1108.0	1108.0	
	0.0	13.375	Casing: SURFACE 54.5# K-55
	1108.0	1108.0	
2580-			
3870-	3545.0		Perf: LEAK IN CSG SQUEEZED
	3550.0	5.0	
	3600.0		Perf: NO PERF BAD CASING COLLAPSED
	3662.0	62.0	SWEDGED OUT ONCE
	3663.0		Perf: SET HOMCO LINER PATCH
	3693.0	30.0	
	3850.0		Perf: LEAK IN CSG. SQZ W/800SX
	3851.0	1.0	4000PSI TEST TO 1700PSI HELD OK
5160-	5075.0		Perf: HOLE IN CSG. SQUEEZED
	5136.0	61.0	
6450-			
	7600.0	9.625	Plug: RBP UNABLE TO RETRIEVE
	7606.0	6.0	
	10058.0	9.625	Plug: RBP W/2SX SAND ON TOP
	10066.0	8.0	
7740-	1108.0	12.250	Hole: PRODUCTION
	10600.0	9492.0	
	10350.0		Perf: OWP PERF3 SHOTS PER FT
	10600.0	250.0	
	0.0	9.625	Casing: PRODUCTION 129JTS S-95 47#
	10600.0	10600.0	ST&C & 18JTS S-95 40#
	5500.0		Cement: 300SX 1:1POZ+2%GEL+15%SALT
9030-	10600.0	5100.0	TAIL W/200SX CL G+15%SALT
	10600.0		Perf: 3 SHOTS PER FT LOST 4" GUN IN
	10698.0	98.0	HOLE RECOVERED
	11035.0		Perf: 53 HOLES 4" OD GUN 19 GRAM
	11676.0	641.0	CHARGES perfs squeezed
	11749.0		Perf: 23 HOLES 4" OD 19 GRAM CHARGES
	12163.0	414.0	
10320-	12199.0		Perf: 19 HOLES
	12345.0	146.0	
	12351.0	7.625	Plug: cibp pushed down hole
	12359.0	8.0	
	10349.0		Perf: 3spf
	12398.0	2049.0	
	10086.0	7.625	Liner: 54JTS 33.4# HYDRIL FJ CMT TOP
	12398.0	2312.0	OF LINER TOC10648 BEFORE DRLG OUT
	12359.0		Perf: 3spf
	12655.0	296.0	
	12412.0		Perf: 4JSPF W/3 1/8" GUN
	12842.0	430.0	
	12359.0	5.500	Liner: NOT CEMENTED
	12847.0	488.0	
11610-	10600.0	8.625	Hole: LINER
	12850.0	2250.0	

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

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.

APR 1 1994

1. Type of Well: OIL  GAS  OTHER:

2. Name of Operator:  
ANR Production Company

3. Address and Telephone Number:  
P.O. Box 749, Denver, CO 80201-0749 (303) 573-4476

4. Location of Well  
Footages: 1468' FNL & 1503' FEL  
QQ, Sec., T., R., M.: SWNE Section 3-T2S-R4W

5. Lease Designation and Serial Number:

Patented

6. If Indian, Allottee or Tribe Name:

N/A

7. Unit Agreement Name:

N/A

8. Well Name and Number:

Brotherson #1-3B4

9. API Well Number:

43-013-30048

10. Field and Pool, or Wildcat:

Altamont

County: Duchesne

State: Utah

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

**NOTICE OF INTENT**  
(Submit in Duplicate)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Abandonment  | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Approximate date work will start 4/30/94

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment *           | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Date of work completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION 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.)

Please see the attached P&A Procedure for the subject well.

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

4-7-94  
*J.R. Matthews*

13.

Name & Signature: *Joe Adamski*

Joe Adamski  
Environmental Coord.

Title:

Date: 3/30/94

(This space for State use only)

## PLUG AND ABANDONMENT PROCEDURE

### Brotherson 1-3B4

Altamont Field  
Duchesne County, Utah  
March 25, 1994

#### WELL DATA

Location: 1468' FNL & 1503' FEL (SW/NE) Sec 3-T2S-R4W  
 Elevation: 6302' GL, 6321' KB  
 WI: 57.89614% NRI: 50.65911% (ANRPC)  
 Spud Date: 9/6/70  
 Completion Date: 1/24/71  
 Total Depth: 12,850' PBSD: 12,663' RBP @ 10,058', RBP @ 6,803'  
 Casing: 13-3/8", 54.5# K-55 @ 1108', cmtd w/950 sx (circ)  
 9-5/8", 40-47#, S-95 LT&C, ST&C set @ 10,609', cmtd w/500 sx (full returns)  
 7-5/8", 33.7#, S-95 FJ set @ 10,086-12,398', cmtd w/300 sx, (good circ).  
 5-1/2", 20#, N-80 SFJP set @ 12,362-12,847'(uncemented).  
 Tubing: 2-7/8" N-80 6.5# EUE @ 5010'.

#### TUBULAR DATA

<u>Description</u>	<u>Interval</u>	<u>I.D.</u>	<u>Drift</u>	<u>(BPF)</u> <u>Capacity</u>	<u>(psi)</u> <u>Burst</u>	<u>(psi)</u> <u>Collapse</u>
9-5/8" 40# S-95 L&ST&C	0-5,304'	8.835"	8.679"	.0758	6,820	4,230
9-5/8" 47# S-95 ST&C	5,304-10,609'	8.681"	8.525"	.0732	8,150	7,100
7-5/8" 33.7# P-110 SFJP	10,086-12,398'	6.765"	6.640"	.0444	10,860	7,870
5-1/2" 20# N-80 SFJP	11,443-14,098'	4.778"	4.653"	.0221	10,910	10,630
2-7/8" 6.5# N-80 EUE	0-5,010'	2.441"	2.347"	.00579	10,570	11,160

Current Production: SI -- casing leak.

Cement Squeezes: Csg leaks: 3545-3850' w/800 sx (6/83).  
 Csg leaks: 3550'w/300 sx, 5075'-5136'w/100 sx. Install csg patch 3663-93'(5/84).  
 Csg leaks: 3663-3873' w/500 sx, 5077-5108' w/200 sx (4/89).  
 Wasatch perms 11,758-11,919' w/100 sx (4/89).

Existing Perfs: Wasatch 10,350-12,842', 1068 holes.

Cumulative Production: 921,094 BO, 1,262,796 MCF, and 1,212,562 BW (12/93)

WELL HISTORY-Wasatch

- January 1971 Initial completion: IPF 550 BOPD, 500 MCFD on 6/64 " ck , from open hole Wasatch interval 12,400-12,850'.
- April 1972 Install liner 12,362-12,847', uncemented, perforated 12,412-12,842', 4 spf, 520 holes. Oil increased from 34 to 335 BOPD.
- December 1974 Foamed acid wash w/coiled tbq, 2100 gal HCl. Oil dropped (170 to 70 BOPD).
- April 1975 Remove wax plug in tubing. Oil increased from 0 to 123 BOPD.
- April 1977 Perforate Wasatch 12,195-12,340' & Acidize w/8,400 gal 15%. Oil production increased from 0 to 1000 BOPD.
- May 1977 Install gas lift. Oil production increased from 0 to 454 BOPD.
- October 1977 Perf 11,749-12,163', 1 spf, 23 holes. Acidize perms from 11,749-12,340' w/10,800 gal 15% HCl. Perf 11,035-11,676', 1 spf, 53 holes. Acidize perms w/ 12,000 gal 15% HCl. Oil increased from 374 to 742 BOPD.
- June 1982 Clean out and acidize Wasatch w/16,000 gal 15% HCl. Oil production increased from 16 to 125 BOPD.
- June 1983 Sqz csg leaks @ 3545' & 3850' w/800 sx. Oil production increased from 0 to 28 BOPD.
- May 1984 Sqz csg leaks @ 3550', 5075', 5136'. Install csg patch from 3663-3693'. Perforate L. Green River 10,350-10,698', 3 spf, 51 holes. Acidize L. Green River w/ 15,000 gal 7-1/2% HCl. Oil production increased from 6 to 69 BOPD.
- November 1988 Remove BP between L.Green River & Wasatch. Oil production increased from 0 to 7 BOPD.
- April 1989 Mill out casing patch. Sqz csg leak @ 5077-5108' w/200 sx. Sqz csg leaks from 3663-3693' and 3843-3873' w/500 sx. Cmt sqz wasatch perforations 11,758-11,919', 13 holes w/100 sx. Perforate from 10,349-12,655' 3 spf, 402 holes. Acidize Wasatch perforations 11,398-12,665'(615 holes) w/18,500 gal 15% HCl. Acidize Wasatch perforations 10,350-11,718'(398 holes) w/12,000 gal 15% HCl. Oil production increased from 0 to 145 BOPD.
- July 1989 Install beam pump. Oil production increased from 52 to 83 BOPD.

Note: Prior to commencing work, notify Utah Division of Oil, Gas & Mining 24-hours in advance. The UDOGM will have an inspector on location to witness plugging operations (if possible).

PROPOSED PROCEDURE

1. MIRU workover rig. Kill well. ND WH, NU BOP, TOH w/tbg. PU 8-5/8 " mill & TIH to +/-6750'. POH & LD mill.
2. PU CICR on 2-7/8 " tbg & TIH. Set retainer @ 6,750'. Sting out of CICR and circulate wellbore w/9.0 ppg mud.
3. RU cementers, sting into CICR & pump 400 sx Class "G" cmt (1.15 ft<sup>3</sup>/sx). Pump 300 sx below retainer. Sting out of CICR and leave 100 sx (270 feet) inside 9-5/8 " casing. POH w/tbg.
4. TIH w/tbg open ended to 5140'. Spot 590 sk Class "G" balanced plug from 5140-<sup>3300</sup>3530' (cover previously squeezed csg leaks. POH w/tbg. *Tag Plug!*)
5. ~~PU CICR on 2-7/8 " tbg & TIH to 3450'. Set CICR. Spot 100 sx Class "G" on top to 3180'. POH.~~
6. RU wireline & ~~perforate 4 squeeze holes w/4 " csg gun @ 1158'. Set CICR @ 1125'. RD wireline.~~ *do not perforate csg*
5. RU cementers & pump 200 sx Class "G" cmt (1.15 ft<sup>3</sup>/sx). Pump 100 sx below cmt retainer (TOC in 13-3/8 " X 9-5/8 " csg annulus approx 880'). Sting out of CICR and leave 100 sx (270 feet) inside 9-5/8 " casing (TOC @ 888'). POH w/tbg to 300'. ND BOP.
6. RU cementers & pump 115 sx Class "G" cmt (1.15 ft<sup>3</sup>/sx) surface plug. Circulate cmt to surface. POH w/tbg.
7. Attempt to pump into 13-3/8 " X 9-5/8 " casing annulus. If an injection rate is achieved, pump 100 sx Class "G" down the annulus.
8. Cut off well head, weld on plate/dry hole marker with the following information:  

ANR Production Company  
Brotherson 1-3B4  
SWNE section 3-T2S-R4W  
Altamont Field  
Duchesne County, Utah
9. RDMO workover rig.

PROPOSED

PLUG & ABANDONED

WELLBORE

WELLBORE SCHEMATIC

BROTHERSON #1-324

GL 6303'

KB 6321'

SWNE Section 3-T2S-R4W

DOUGHERTY COUNTY, UTAH

300' Surface Plug

13 3/8" x 9 5/8" 100 SK TOP JOB  
(If necessary)

TOC above cut size  
(unknown)

Csg LEAKS FROM  
3545' TO 3873' SQZ'D w/  
TOTAL OF 1600 SXS CNT

Possible Csg Damage  
@ 6790'

Calculated TOC for  
9 5/8" csg @ 8630'

RBP w/ 2 SXS OF  
SAND ON TOP @ 10,056'

13 3/8" 54# K-55 @ 1108'  
CNT'D w/ 950 SXS (CIRC)

CIRC @ 3450'

Csg LEAKS FROM 5075' TO 5136'  
CNT'D w/ TOTAL 300 SXS

CIRC @ 6750'

RBP @ 6803' (STUCK)

9 5/8" LN TOP @ 10,086'

9 5/8" 40# 447# S-95 @ 10,609'  
CNT'D w/ 500 SXS (full returns)

Top Perf @ 10,350'

5 1/2" LN TOP @ 12,362'

7 5/8" P-110 33.7# LN @ 12,398'  
CNT'D w/ 300 SXS (good CIRC)

PERFORATED INTERVAL

10,350' TO 12,842'

1066 TOT HOLES

Note: 42 HOLES BELOW PBTD &  
13 HOLES SQZ'D OFF FROM  
11,758' TO 11,919'

PBTD @ 12,660' (6/24/89)

5 1/2" 20# N-60 SFJ-P @ 12,847'  
(UNCEMENTED)

TD: 12,850'

Geologic Tops

T6R3 @ 9640'

M1 10,835'

Top Red Beds 11,270'

Bottom Red Beds 11,490'

2/8/94

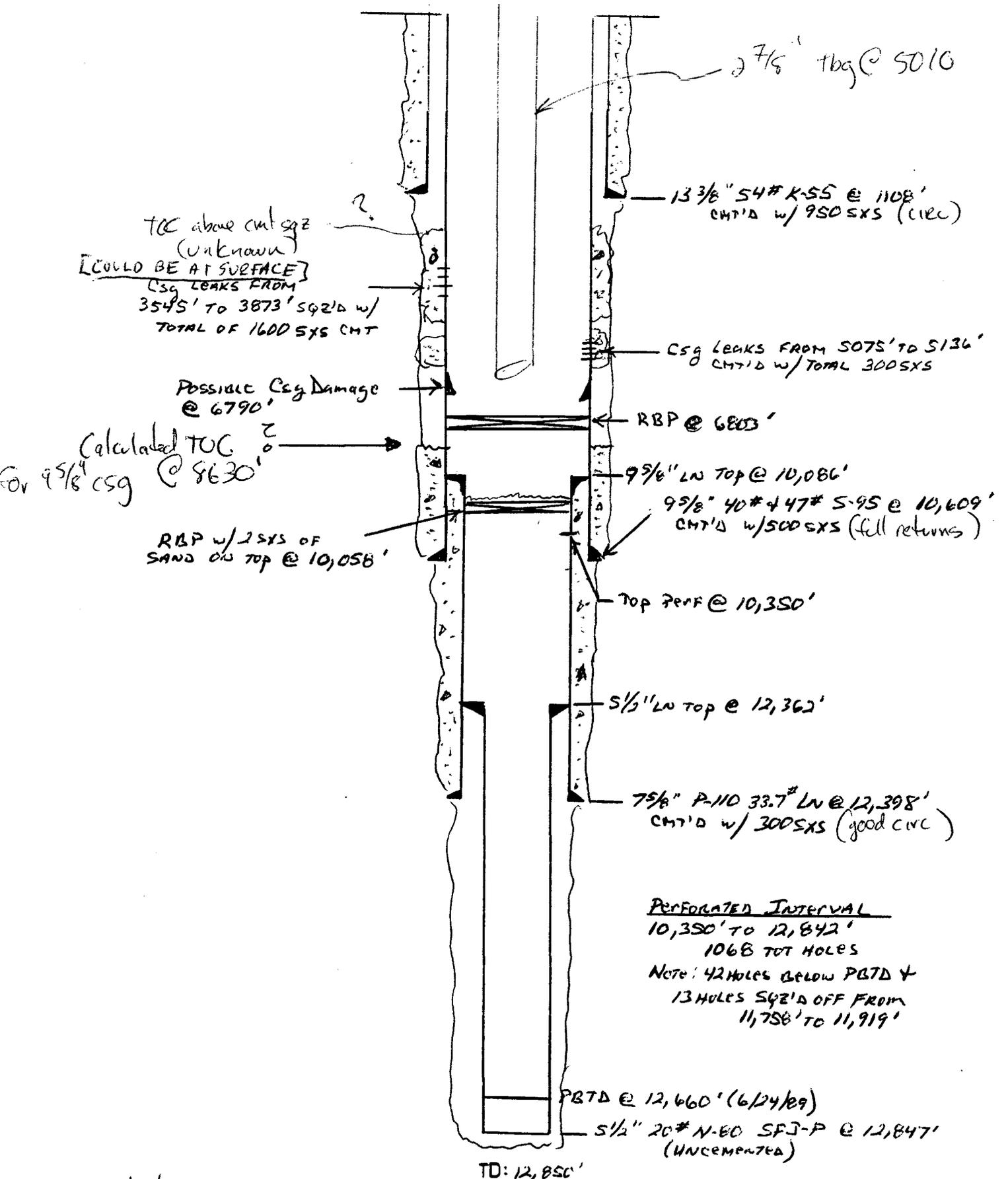
M. O. Reid

PRESENT WELLBORE SCHEMATIC

BROTHERSON #1-3B4

GL 6307

KB 6301



TCC above cut sqz (Unknown) [COULD BE AT SURFACE] CSG LEAKS FROM 3545' TO 3873' SQZ'D w/ TOTAL OF 1600 SXS CMT

Calculated TOC for 9 5/8" CSG @ 8630'

PERFORATED INTERVAL

10,350' TO 12,842' 1068 TOT HOLES

Note: 42 HOLES BELOW PBD + 13 HOLES SQZ'D OFF FROM 11,756' TO 11,919'

2/8/94 M.O. Reid



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

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

April 7, 1994

Stipulations for Plugging and Abandonment  
Brotherson 1-3B4  
SW/NE Section 3, Township 2 South, Range 4 West  
Duchesne County, Utah  
API NO. 43-013-30048

1. In Step 4, bring cement to 3300' because of the Base of Moderately Saline Ground Water. TAG PLUG!
2. In Step 6, it is not necessary to perforate casing. Set a 100' balanced cement plug across the shoe of the 13 3/8" casing. (1158 to 1058)
3. No perforations, delete step 5.
4. Fill all annuli with cement after cutting off well head.
5. Notify DOGM 24 hrs. prior to setting plugs.

*JAM Matthew*

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ABANDONMENT OPERATIONS

JUN 21 1994

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

COMPANY NAME: ANR Production Company

WELL NAME: Brotherson #1-3B4

QTR/QTR: SW/NE SECTION: 3 TWP: 2S RANGE: 4W

CEMENTING COMPANY: Basin Cementing WELL SIGN: yes

INSPECTOR: David W. Hackford TIME: various DATE: 6/9/94

CEMENTING OPERATIONS: PLUGBACK: \_\_\_\_\_ SQUEEZE: \_\_\_\_\_ P&A WELL: yes

SURFACE PLUG: 1160' to 1025' INTERMEDIATE PLUG: 5140' to 3300'

BOTTOM PLUG SET AT: 6750' WIRELINE: \_\_\_\_\_ MECHANICAL: X

PERFORATIONS: \_\_\_\_\_ SQUEEZE PRESSURE: \_\_\_\_\_

CASING SIZE & GRADE: SURFACE: 13 3/8 K-55 PRODUCTION: 5 1/2 N-80

PRODUCTION CASING TESTED TO: N/A PSI TIME: \_\_\_\_\_ MIN

SLURRY INFORMATION : (INCLUDE NO. OF SACKS, CLASS AND ADDITIVES)

1. SURFACE PLUG: 50 sacks class G 2% CaCl at shoe. 150 sacks @ surface.
2. INTERMEDIATE PLUG: 900 sacks class G 2% CaCl
3. BOTTOM PLUG: 400 sacks class G neat.
4. CEMENT ON TOP OF PLUG: 100 sacks class G neat.
5. ANNULUS CEMENTED: 255 sacks class G. First 50 sacks 3% CaCl
6. TYPE OF FLUID LEFT IN WELL BORE: Production water with packer fluid.

ABANDONMENT MARKER SET:

PLATE: \_\_\_\_\_ PIPE: X CORRECT INFORMATION: yes

REHABILITATION COMPLETED: no

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

Plugging and abandonment of Brotherson 1-3B4. SW/NE sec. 3 T2S R4W  
ANR Production Company.

6/9/94

Set CICR @ 6750'. Pumped 300 sacks class G cement through retainer. Pressured up and unable to pump with 2 barrels cement remaining in tubing. Pulled tubing and pumped clear. At this point well was flowing 50 barrels per hour production water, probably from close by disposal wells.

6/10/94

Spotted 100 sacks class G neat cement on top of retainer. Lay down tubing to 5140'. At this point water flow increased to 90 barrels per hour. Spot 200 sacks class G cmt. balanced plug 2% cacl. POOH.

6/11/94

Tagged contaminated cement @ 4830'. Tubing would go through cement. Tag should have been @ 4600' but plug shut off water flow. Pumped 200 sacks class G 2 % cacl. @ 4830' POOH.

6/12/94

Tagged cement @ 4430'. Picked up tubing to 4370'. Pressure test casing to 500 psi for five minutes. Pumped 250 sacks class G neat cement. Lay down to 3695' and pumped 250 sacks class G 2% cacl.

6/13/94

Tagged top of balanced plug @ 3300'. Lay down tubing to 1160'. Pump 50 sacks class G 2% cacl. cement. Lay down tubing to 310'. Circulate cement to surface. Class G neat.

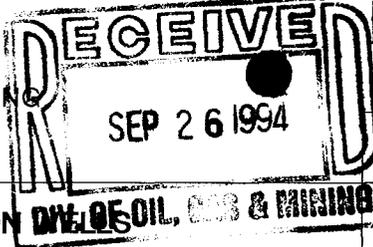
Move out rig. Pump into 9 5/8-13 3/8 annulus with 50 sacks class G 3% cacl. Cut off wellhead.

6/14/94

Fill annulus 9 5/8-13 3/8 with 180 sacks class G neat cement.

6/15/94

Pumped 30 barrels water into same annulus and one inched top 60 feet with class G neat cement. (25 sacks.) Weld on monument.



Lease Designation and Serial Number:  
Patented

If Indian, Allottee or Tribe Name:  
N/A

**SUNDRY NOTICES AND REPORTS ON**

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:  
N/A

1. Type of Well:  
OIL  GAS  OTHER:

8. Well Name and Number:  
Brotherson #1-3B4

2. Name of Operator:  
ANR Production Company

9. API Well Number:  
43-013-30048

3. Address and Telephone Number:  
P.O. Box 749, Denver, CO 80201-0749 (303) 573-4476

10. Field and Pool, or Wildcat:  
Altamont

4. Location of Well  
Footages: 1468' FNL & 1503' FEL  
QQ, Sec., T., R., M.: SW/NE Section 3-T2S-R4W

County: Duchesne  
State: Utah

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

**NOTICE OF INTENT**  
(Submit In Duplicate)

- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Multiple Completion
- Other \_\_\_\_\_
- New Construction
- Pull or Alter Casing
- Recompletion
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start \_\_\_\_\_

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

- Abandonment \*
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other \_\_\_\_\_
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Date of work completion 6/15/94

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION 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.)

Please see attached chronological history for work performed to P&A the subject well.

13.  
Name & Signature: *N.O. Shiflett*

Title: N.O. Shiflett  
District Drilling Manager Date: 09/20/94

(This space for State use only)

THE COASTAL CORPORATION  
PRODUCTION REPORT

CHRONOLOGICAL HISTORY

BROTHERSON #1-3B4 (P&A)  
ALTAMONT FIELD  
DUCHESNE COUNTY, UTAH  
WI: 57.89614% ANR AFE: 00231  
TD: 12,850'  
5½" LINER @ 12,362'-12,847'  
CWC(M\$): 65.5

PAGE 1

6/7-15/94

Well P&A'd, 6/15/94.  
MIRU Wisco on 6/7/94. POH & LD rods. ND WH, NU BOP. RIH w/2⅞" tbg, tag PBD (CIBP) @ 6803'. Roll hole w/400 bbl 200° wtr. POH. RIH w/8⅝" mill to 3400', could not work past, POH. RIH w/8¼" mill to 6800', POH. RIH & set CICR @ 6727'. Est inj rate @ 2 BPM, 500#. Sqz'd 300 sx Class "G" (15.6 ppg, 1.15 CF/sx) below RET. Spot 100 sx Class "G" (15.6 ppg, 1.15 CF/sx) from 6457-6727'. Spot 900 sx Class "G" w/3% CaCl<sub>2</sub> (1.15 CF/sx) from 3300-5120'. Tag top of plug @ 3300'. POH to 1158', spot 50 sx Class "G" w/3% CaCl<sub>2</sub> @ 1023-1158'. POH to 279'. Spot 165 sx Class "G" w/3% CaCl<sub>2</sub> (1.15 CF/sx) @ sfc to 279' in the 9⅝" csg. Cut of csg, weld on plate. Spot 270 sx Class "G" w/3% CaCl<sub>2</sub> down 9⅝" - 13⅜" annulus. Install DHM. P&A witnessed by Dennis Ingram, State of Utah. Well P&A'd 6/15/94. Final report.



FORM B

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

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.

6. Lease Designation and Serial Number:

Patented

6. If Indian, Allottee or Tribe Name:

N/A

7. Unit Agreement Name:

N/A

1. Type of Well:

OIL  GAS  OTHER:

8. Well Name and Number:

Brotherson #1-3B4

2. Name of Operator:

ANR Production Company

9. API Well Number:

43-013-30048

3. Address and Telephone Number:

P.O. Box 749, Denver, CO 80201-0749

(303) 573-4476

10. Field and Pool, or Wildcat:

Altamont

4. Location of Well

Footages: 1468' FNL & 1503' FEL  
QQ, Sec., T., R., M.: SW/NE Section 3-T2S-R4W

County: Duchesne

State: Utah

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

**NOTICE OF INTENT**  
(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Full or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Approximate date work will start \_\_\_\_\_

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair            | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans          | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection  | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat           | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____              |   |

Date of work completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION 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.)

**Final Abandonment Notice**

Operator has restored wellsite location to landowner's satisfaction and is being released per the attached Release Agreement.

13.

Name & Signature: Sheila Bremer

Title Environmental & Safety Analyst

Date 09/22/98

(This space for State use only)

RELEASE AGREEMENT

This Release Agreement is made and entered as of July 21, 1998 by Lake Fork Ranch, Inc., of P. O. Box 48, Mountain Home, Utah 84051, hereinafter referred to as Owner.

WITNESSETH

WHEREAS, Coastal Oil & Gas Corporation of P.O. Box 749, Denver, CO 80201 ("Coastal") is the operator of record of the following well, to wit:

Field : Altamont
API Well # : 43-013-30048
Well Name : Brotherson #1-3B4
Location : SW1/4NE1/4 Section 3-T2S-R4W, USM
County : Duchesne, Utah

(the "well") and;

WHEREAS, on or about June 15, 1994, the well was plugged and abandoned in accordance with the rules and regulations of the State of Utah, Division of Oil, Gas And Mining; and surface equipment belonging to Coastal has been removed from the well location, and;

WHEREAS, the Owner desires to relieve and release Coastal from any obligation of restoring the wellsite location as nearly as possible to its original contours and condition in order that Owner may integrate the wellsite location into its ranch operations; and

WHEREAS, Coastal and Owner desire to resolve all restoration issues.

NOW, THEREFORE, for Ten Dollars (\$10.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Owner does hereby release and forever discharge Coastal, its agents, contractors, officers and employees, from any and all claims, demands and causes of action of whatsoever kind or nature, whether in contract or tort, including any claims, demands and causes of action which may hereafter develop as well as those now apparent which Owner now may have or may hereafter have arising out of or related to the events described herein and all activities, conditions, events and occurrences incident or directly related thereto. Owner does specifically release Coastal of any obligation to recontour, reshape, reconstruct, or repair the lands which comprise the wellsite for the well to their former shape or contour, including but not limited to any obligation to prevent erosion. Owner agrees to assume the obligation to recontour, reshape, reconstruct, or repair the lands which comprise the wellsite for the well to their former shape or contour, including but not limited to any obligation to prevent erosion. Owner accepts the lands which comprise the wellsite in its present condition "as is", with all defects of whatsoever nature; and Coastal makes no representations or warranties either express or implied as to their suitability or fitness of use.

Executed as to the date first written above.

Lake Fork Ranch, Inc.

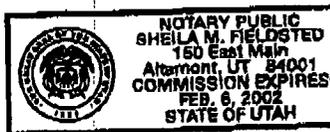
Attest:

Beth C. Brotherson, Secretary

By: Brent C. Brotherson, President

ACKNOWLEDGMENT

STATE OF UTAH
COUNTY OF DUCHESNE



The foregoing instrument was acknowledged before me by Brent C. Brotherson, President of Lake Fork Ranch, Inc., a Utah Corporation, this 31st day of August, 1998.

Witness my hand and official seal.

Sheila Fieldsted, Notary Public

My Commission expires: 2-6-2002

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

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.

5. Lease Designation and Serial Number:

Patented

6. If Indian, Allottee or Tribe Name:

N/A

7. Unit Agreement Name:

N/A

1. Type of Well:

OIL  GAS  OTHER:

8. Well Name and Number:

Brotherson #1-3B4

2. Name of Operator:

ANR Production Company

9. API Well Number:

43-013-30048

3. Address and Telephone Number:

P.O. Box 749, Denver, CO 80201-0749 (303) 573-4476

10. Field and Pool, or Wildcat:

Altamont

4. Location of Well

Footages: 1468' FNL & 1503' FEL

County: Duchesne

QQ, Sec., T., R., M.: SW/NE Section 3-T2S-R4W

State: Utah

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

**NOTICE OF INTENT**

(Submit In Duplicate)

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

Approximate date work will start \_\_\_\_\_

**SUBSEQUENT REPORT**

(Submit Original Form Only)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair            | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans          | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection  | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat           | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____              |   |

Date of work completion \_\_\_\_\_

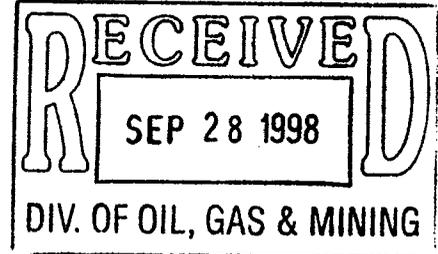
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

\* 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.)

Final Abandonment Notice

Operator has restored wellsite location to landowner's satisfaction and is being released per the attached Release Agreement.



13.

Name & Signature:

*Sheila Bremer*

Sheila Bremer

Title Environmental & Safety Analyst

Date

09/22/98

(This space for State use only)

RELEASE AGREEMENT

This Release Agreement is made and entered as of July 21, 1998 by Lake Fork Ranch, Inc., of P. O. Box 48, Mountain Home, Utah 84051, hereinafter referred to as Owner.

WITNESSETH

WHEREAS, Coastal Oil & Gas Corporation of P.O. Box 749, Denver, CO 80201 ("Coastal") is the operator of record of the following well, to wit:

Field : Altamont
API Well # : 43-013-30048
Well Name : Brotherson #1-3B4
Location : SW1/4NE1/4 Section 3-T2S-R4W, USM
County : Duchesne, Utah

(the "well") and;

WHEREAS, on or about June 15, 1994, the well was plugged and abandoned in accordance with the rules and regulations of the State of Utah, Division of Oil, Gas And Mining; and surface equipment belonging to Coastal has been removed from the well location, and;

WHEREAS, the Owner desires to relieve and release Coastal from any obligation of restoring the wellsite location as nearly as possible to its original contours and condition in order that Owner may integrate the wellsite location into its ranch operations; and

WHEREAS, Coastal and Owner desire to resolve all restoration issues.

NOW, THEREFORE, for Ten Dollars (\$10.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Owner does hereby release and forever discharge Coastal, its agents, contractors, officers and employees, from any and all claims, demands and causes of action of whatsoever kind or nature, whether in contract or tort, including any claims, demands and causes of action which may hereafter develop as well as those now apparent which Owner now may have or may hereafter have arising out of or related to the events described herein and all activities, conditions, events and occurrences incident or directly related thereto. Owner does specifically release Coastal of any obligation to recontour, reshape, reconstruct, or repair the lands which comprise the wellsite for the well to their former shape or contour, including but not limited to any obligation to prevent erosion. Owner agrees to assume the obligation to recontour, reshape, reconstruct, or repair the lands which comprise the wellsite for the well to their former shape or contour, including but not limited to any obligation to prevent erosion. Owner accepts the lands which comprise the wellsite in its present condition "as is", with all defects of whatsoever nature; and Coastal makes no representations or warranties either express or implied as to their suitability or fitness of use.

Executed as to the date first written above.

Lake Fork Ranch, Inc.

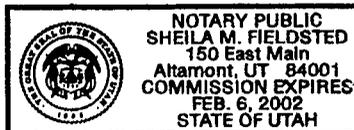
Attest:

Beth C. Brotherson, Secretary

By: Brent C. Brotherson, President

ACKNOWLEDGMENT

STATE OF UTAH §
COUNTY OF DUCHESNE §



The foregoing instrument was acknowledged before me by Brent C. Brotherson, President of Lake Fork Ranch, Inc., a Utah Corporation, this 31st day of August, 1998.

Witness my hand and official seal.

Sheila Fieldsted, Notary Public

My Commission expires: 2-6-2002