



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

September 25, 1980

State of Utah  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

ATTN: Bonnie Melendez



RE: Cities Service Company  
State AB #1  
SW SW Section 2-T18S-R16W S.L.  
Millard County, Utah  
State of Utah ML-29566

Dear Ms. Melendez:

Please find enclosed, for your approval, three (3) copies of the following materials for the above captioned well.

- 1) State of Utah, Form DOGC-1a, "Application for Permit to Drill, Deepen or Plug Back".
- 2) Survey Plat
- 3) BOPE Schematic (Plat "A")
- 4) Topo Maps "A" and "B"

Cities Service Company currently has two bonds in effect in favor of the State of Utah, Division of Lands. They are Safeco Bond #603388-573, Bond of Lessee in the amount of \$25,000 and Safeco Bond #603388-570, Blanket Oil and Gas Drilling Bond in the amount of \$50,000.

If there are any further requirements concerning this well, please contact this office.

Sincerely,

Richard O. Berg  
Operations Manager  
Western Region

ROB/RJM/nrm  
Enclosures

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

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL [X] DEEPEN [ ] PLUG BACK [ ]
b. Type of Well Oil Well [ ] Gas Well [X] Other [ ]
Single Zone [X] Multiple Zone [ ]

2. Name of Operator CITIES SERVICE COMPANY

3. Address of Operator 1600 Broadway, Suite 900, Denver, Colorado 80202

4. Location of Well (Report location clearly and in accordance with any State requirements.\*)
At surface 690' FSL and 798' FWL (SW SW)
At proposed prod. zone Same as above

14. Distance in miles and direction from nearest town or post office\* Approximately 60 miles west of Delta, Utah

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 690'
16. No. of acres in lease 639.56
17. No. of acres assigned to this well 640
18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft. N/A
19. Proposed depth 9500'+
20. Rotary or cable tools Rotary

21. Elevations (Show whether DF, RT, GR, etc.) 5503' Ungraded Ground
22. Approx. date work will start\* December 1, 1980

PROPOSED CASING AND CEMENTING PROGRAM

Table with 5 columns: Size of Hole, Size of Casing, Weight per Foot, Setting Depth, Quantity of Cement. Rows include 17-1/2" hole with 13-3/8" casing, 12-1/4" hole with 9-5/8" casing, and 8-1/2" hole with 5-1/2" casing.

- 1) Drill 17-1/2" hole to 1000'+.
2) Set 13-3/8" casing, nipple up BOPE and test. Plat "A" attached.
3) Drill 12-1/4" hole to 7000'+ and set 9-5/8" casing.
4) Drill 8-1/2" hole to TD and set 5-1/2" production casing.
5) Logs: Dual Induction, BHC Sonic w/GR, FDC-CNL w/GR, and HDT.
6) Coring: Four (4) fifty-foot cores.
7) DST: All legitimate shows.

\* To be calculated from caliper log to give 2000' of fillup + 20% excess.

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: [Signature] Title: Operations Manager Date: September 25, 1980

(This space for Federal or State office use)

Permit No. .... Approval Date .....

Approved by ..... Title: APPROVED BY THE DIVISION OF OIL, GAS, AND MINING

Conditions of approval, if any: DATE: 10/15/80

\*See Instructions On Reverse Side

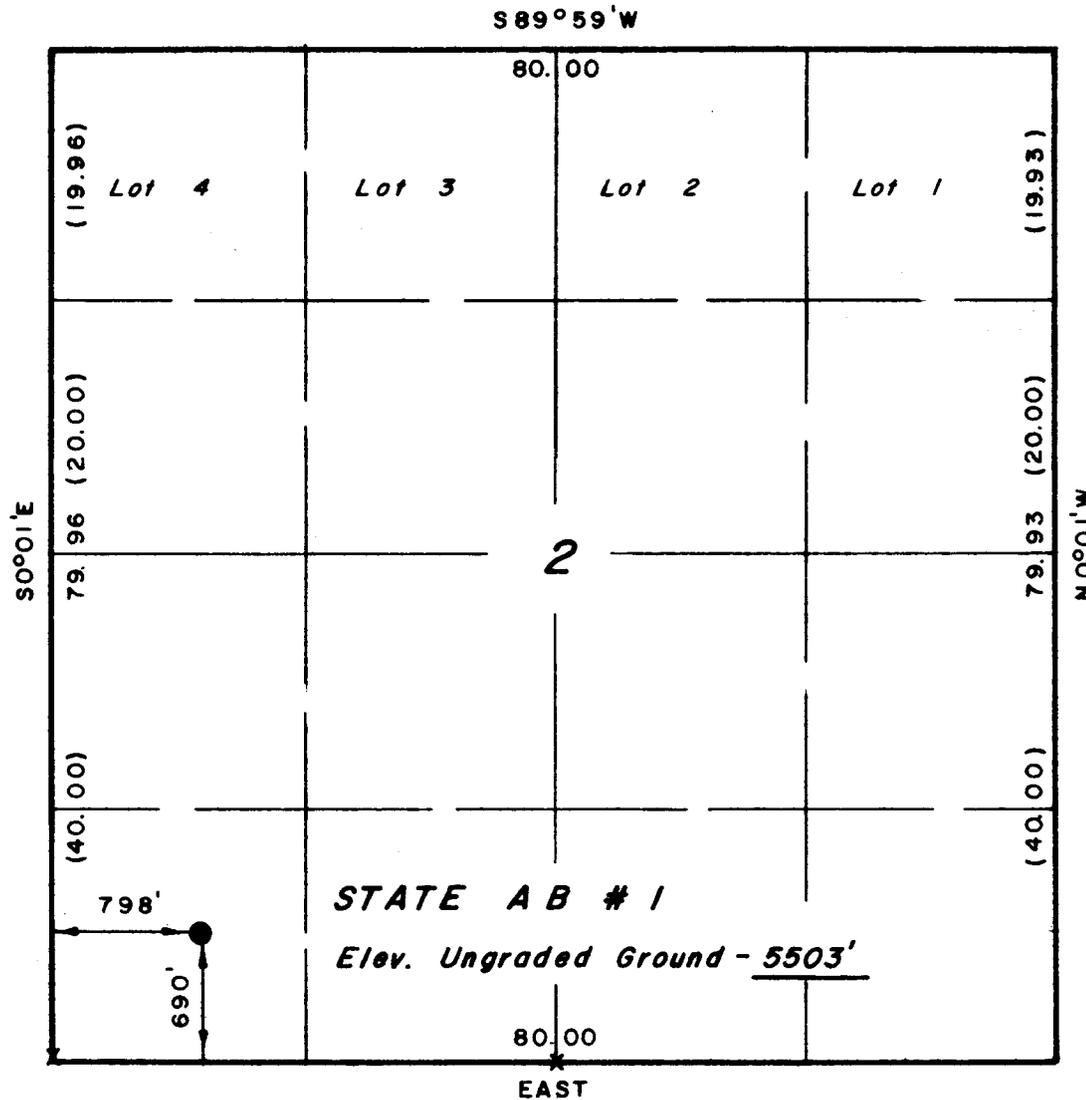
BY: [Signature]

T 18 S , R 16 W , S.L.B.&M.

PROJECT

CITIES SERVICE COMPANY

Well location, STATE AB # 1,  
located as shown in the SW1/4 SW1/4  
Section 2, T18S, R16W, S.L.B. & M.  
Millard County, Utah.



X = Section Corners Located



CERTIFICATE

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

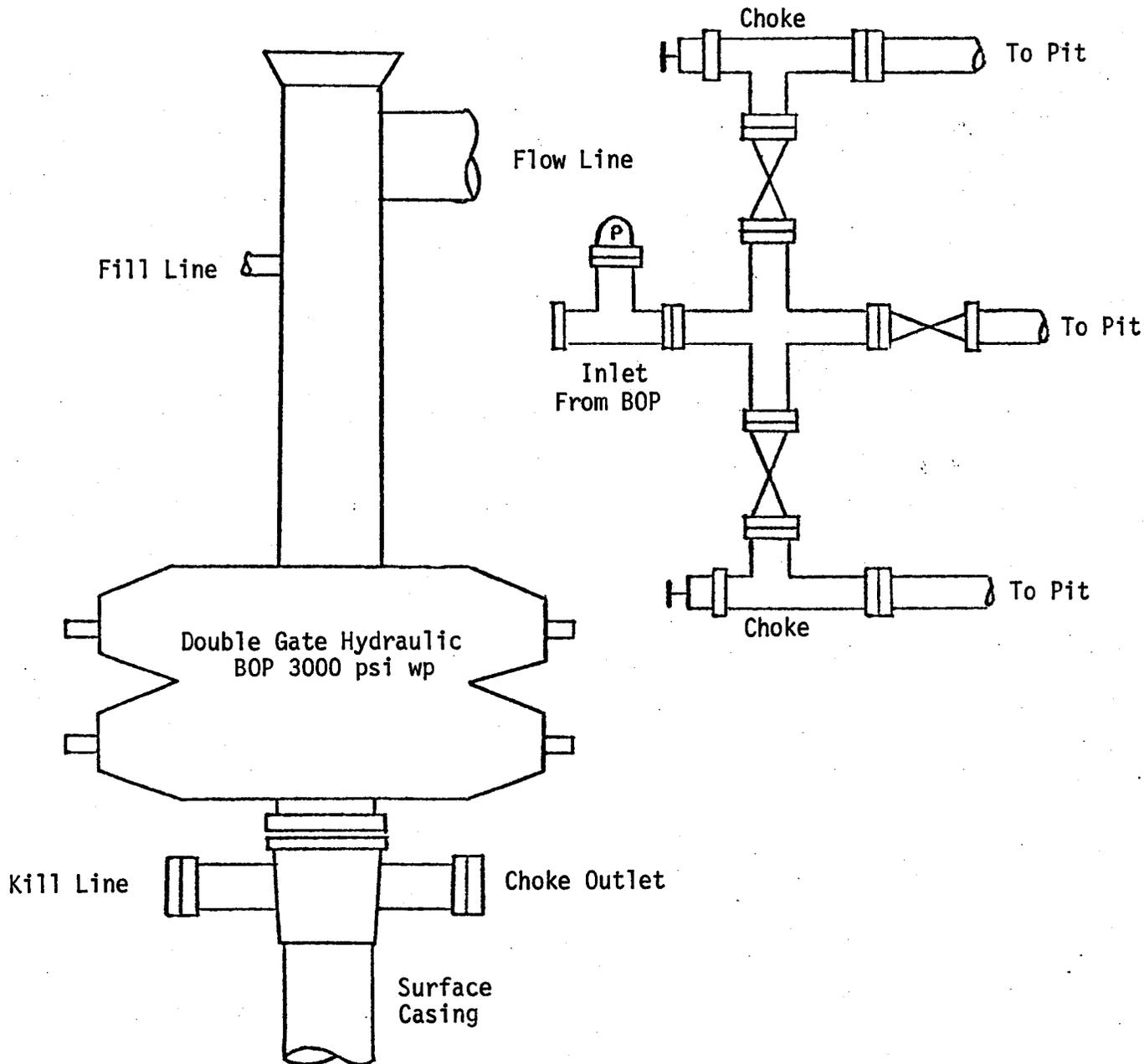
*Lawrence P. Ken*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO 3137  
STATE OF UTAH

Revised 4-14-80

UINTAH ENGINEERING & LAND SURVEYING  
P. O. BOX Q - 110 EAST - FIRST SOUTH  
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 4 / 2 / 80
PARTY R.K. D.B.      S.B.	REFERENCES GLO Plat
WEATHER Fair	FILE CITIES SERVICE

BOPE SCHEMATIC  
PLAT A



CITIES SERVICE COMPANY  
STATE AB #1  
SW SW SECTION 2-T18S-R16W S.L.  
MILLARD COUNTY, UTAH

CITIES SERVICE COMPANY

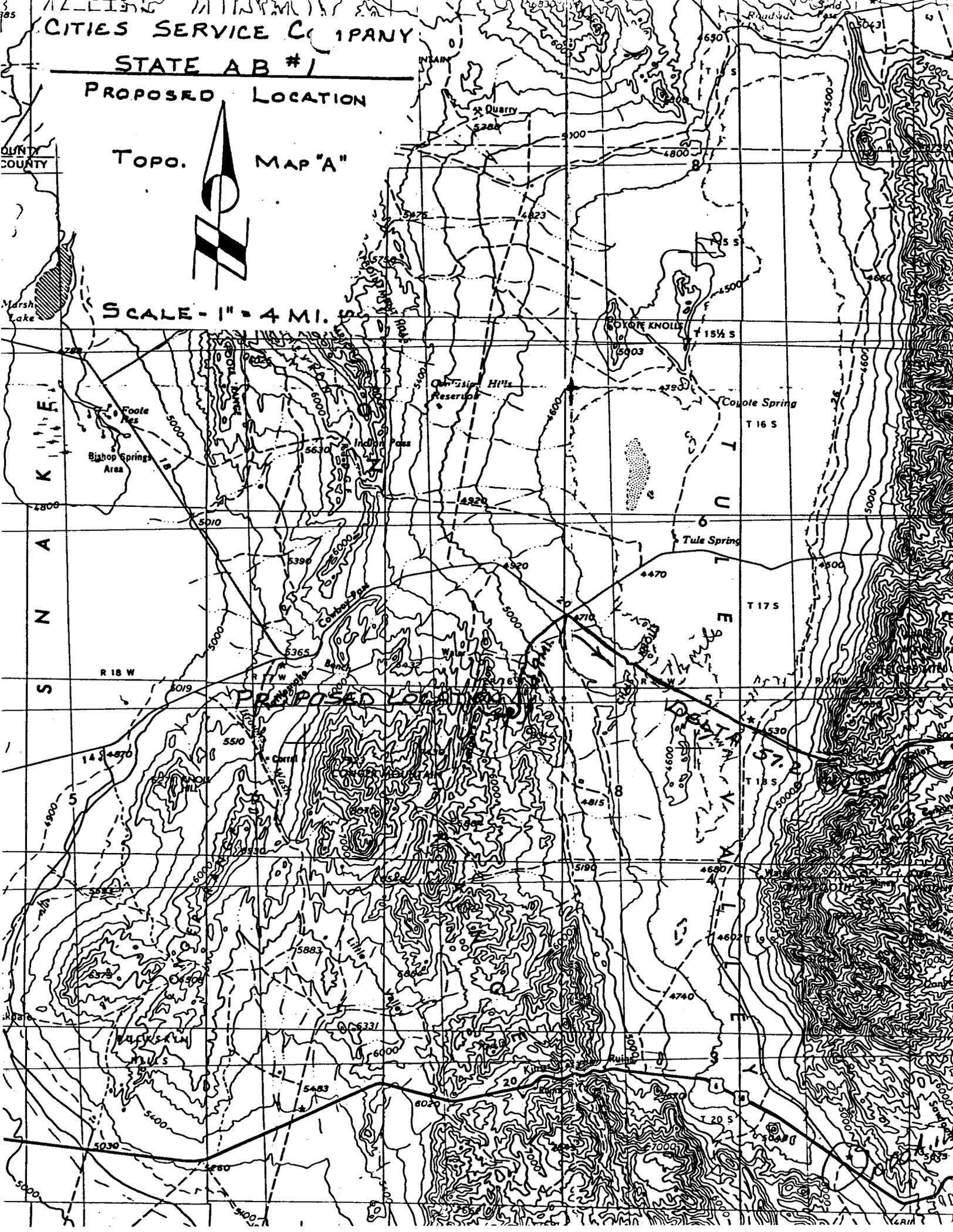
STATE AB #1

PROPOSED LOCATION

TOPO. MAP "A"



SCALE - 1" = 4 MI.





# CITIES SERVICE COMPANY

STATE AB #1

PROPOSED LOCATION

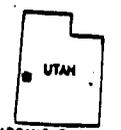
TOPO. MAP "B"



SCALE - 1" = 5000'

### ROAD CLASSIFICATION

- Heavy-duty
- Medium-duty
- Light-duty
- Unimproved dirt
- U. S. Route



L. QUADRANGLE LOCATION

CONDOR PASS

BM 4714

Rattlesnake Bench

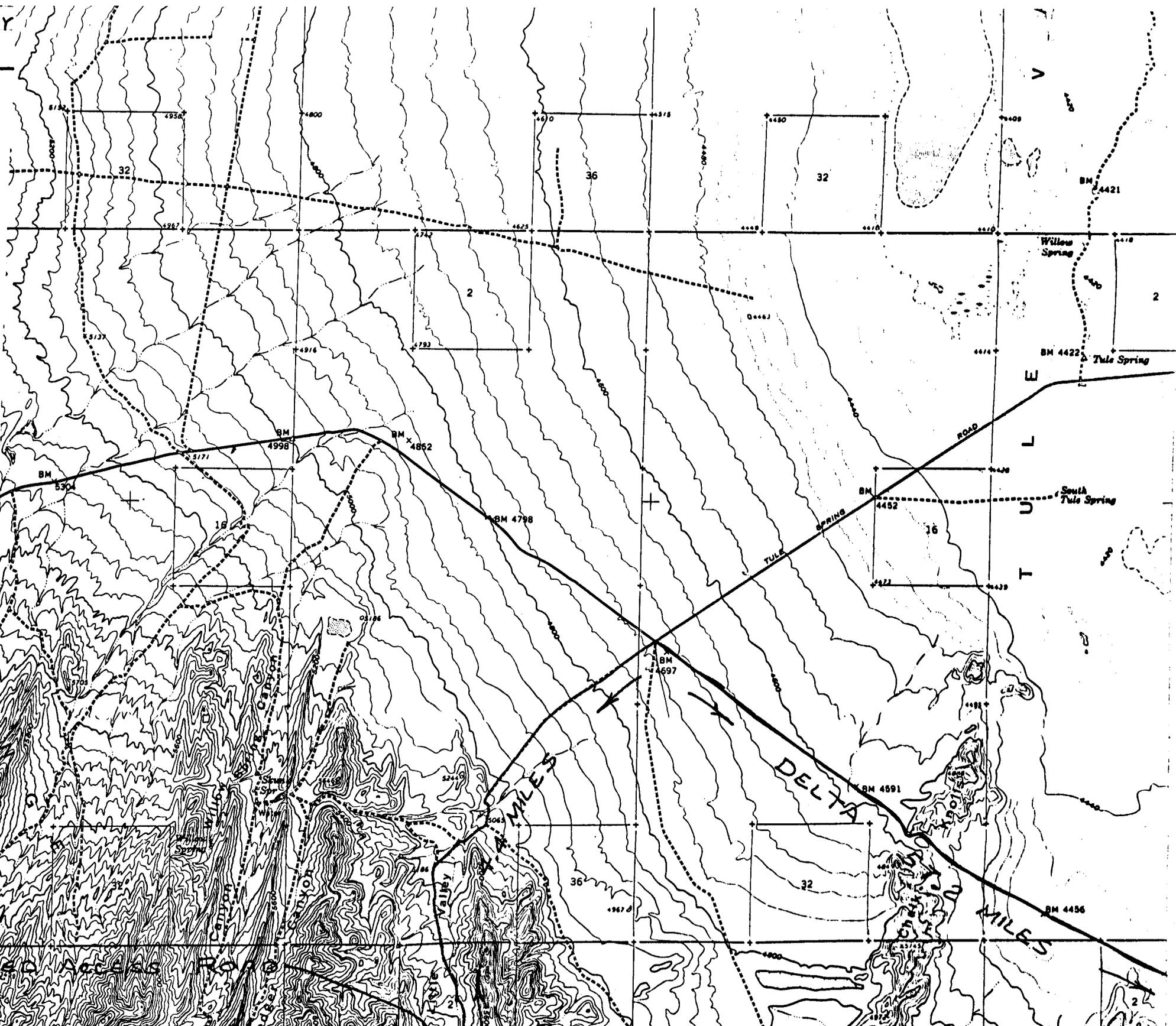
Rattlesnake Summit

VALLEY

DELTA

MILES

PROPOSED ACCESS ROAD



\*\* FILE NOTATIONS \*\*

DATE: Oct 10, 1980  
OPERATOR: Citrus Service Company  
WELL NO: ~~State AB #1~~ Federal DG-1  
Location: Sec. X 11 T. 18S R. 16W County: Millard

File Prepared:  Entered on N.I.D:   
Card Indexed:  Completion Sheet:

API Number 43-027-30023

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_  
\_\_\_\_\_  
Director: OK under Rule C-3  
\_\_\_\_\_  
Administrative Aide: \_\_\_\_\_  
\_\_\_\_\_

APPROVAL LETTER:

Bond Required:  Survey Plat Required:   
Order No. \_\_\_\_\_ O.K. Rule C-3   
Rule C-3(c), Topographic Exception - company owns or controls acreage  
within a 660' radius of proposed site   
Lease Designation State Plotted on Map   
Approval Letter Written   
Hot Line  P.I.

October 17, 1980

Cities Service Company  
1600 Broadway, Suite 900  
Denver, Colorado 80202

Re: Well No. State AB #1  
Sec. 2, T. 18S, R. 16W,  
Millard County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

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

MICHAEL T. MINDER - Petroleum Engineer  
Office: 533-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-027-30023.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

*Clayton B. Feight /ka*  
Clayton B. Feight  
Director

/ka  
cc: Donald Prince



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

December 4, 1980



DEC 08 1980

State of Utah  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

DIVISION OF  
OIL, GAS & MINING

ATTN: Mr. Cleon B. Feight

RE: Cities Service Company  
State AB-1  
Section 2-T18S-R16W S.L.  
Millard County, Utah  
State of Utah ML-29566

Gentlemen:

Enclosed are three (3) copies of Form OGC-1b, "Sundry Notices and Reports on Wells", for our State AB-1. This report shows a change in plans for our casing program. We have decided not to run 13-3/8" casing to 1000' as shown on our "Application for Permit to Drill".

If there are any questions regarding this matter, please contact this office.

Sincerely,

George H. Baer  
Region Petroleum Engineer  
Western Region

GHB/nrm  
Enclosures

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

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> ML-29566
<b>1. OIL WELL</b> <input type="checkbox"/> <b>GAS WELL</b> <input checked="" type="checkbox"/> <b>OTHER</b> <input type="checkbox"/>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b> N/A
<b>2. NAME OF OPERATOR</b> CITIES SERVICE COMPANY		<b>7. UNIT AGREEMENT NAME</b> N/A
<b>3. ADDRESS OF OPERATOR</b> 1600 Broadway, Suite 900, Denver, Colorado 80202		<b>8. FARM OR LEASE NAME</b> State AB
<b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  690' FSL & 798' FWL (SW SW)		<b>9. WELL NO.</b> 1
<b>14. PERMIT NO.</b> 43-027-30023		<b>10. FIELD AND POOL, OR WILDCAT</b> Wildcat
<b>15. ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 5503' GL (Ungraded)		<b>11. SEC., T., R., M., OR B.LK. AND SURVEY OR AREA</b> Section 2-T18S-R16W S.L.
		<b>12. COUNTY OR PARISH</b> Millard <b>18. STATE</b> 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 checked="" 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.)\*

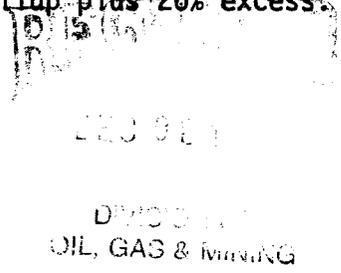
Cities Service has changed its casing program for this well to the following:

Hole Size	Casing Size	Wt. Per Foot	Setting Depth	Cement
12-1/4"	9-5/8"	36#	2100+	1200 cu ft (100% excess)
8-3/4"	5-1/2"	15.5# & 17#	9500+	*

\* To be calculated from caliper log to give 2000' of fillup plus 20% excess

APPROVED BY THE DIVISION  
OF OIL, GAS, AND MINING

DATE: 1-5-80  
BY: [Signature]



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

SIGNED George A. Baer TITLE Region Petroleum Engineer DATE 12/4/80

(This space for Federal or State office use)

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



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

March 5, 1981

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

U.S. Geological Survey  
1745 West 1700 South  
Suite 2000  
Salt Lake City, Utah 64104

ATTN: Mr. Edgar W. Guynn

RE: Cities Service Company  
State AB #1  
SW SW Section 2-T18S-R16W  
Millard County, Utah

Gentlemen:

The Cities Service State AB #1 was spudded on December 3, 1980. The surface location of the well is 798' FWL and 690' FSL (SW SW) Section 2-T18S-R16W, Millard County, Utah. Since we drilled out from the surface casing we have had a problem with increasing hole deviation. Recently, a multi-shot survey indicated that the location of the hole at 7374' was 855' FWL and 252' FSL. Hole deviation was 14°. At 8059' hole deviation was 18°. The estimated hole location at this depth is 828' FWL and 54' FSL.

The section directly south of our well, Section 11-T18S-R16W, is a Federal section # U-22832. This is a 60% Cities Service lease, as is the lease on Section 2. Because of the hole deviation and the current proximity to Section 11, we will soon be drilling under Federal acreage. In a telephone conversation with Mr. Edgar Guynn on Monday, March 2, 1981, Mr. Guynn advised that Cities Service should submit an "Application for Permit to Drill", so that we may continue drilling operations under Section 11.

This application is enclosed in triplicate. Our partners have been contacted by telephone, and they are in agreement with our filing.

Based on the last deviation survey and the last multi-shot survey, we have arrived at an estimated bottomhole location. At 13,870' measured depth (13,500' true vertical depth) the estimated bottomhole location is 641' FWL and 1728' FNL, Section 11-T18S-R16W. This estimate assumes constant drift direction at S 6° W (from the last multi-shot at 7374' MD). It also assumes constant deviation at 18° (from last deviation survey at 8059').

If there are any questions regarding this matter, please contact this office.

Sincerely,

*George H. Baer by JRE*  
George H. Baer  
Region Petroleum Engineer  
Western Region

GHB/nrm  
Enclosures

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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  
 Cities Service Company

3. ADDRESS OF OPERATOR  
 1600 Broadway, Suite 900; Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface 793' FWL & 690' FSL  
 Section 2-T18S-R16W  
 At proposed prod. zone 641' FWL & 1728' FNL  
 Section 11-T18S-R16W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 60 miles west of Delta, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 641'

16. NO. OF ACRES IN LEASE  
 2560

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 640

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 N/A

19. PROPOSED DEPTH  
 13870 MD; 13500 TVD

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5522' KB

22. APPROX. DATE WORK WILL START\*  
 12/03/80

5. LEASE DESIGNATION AND SERIAL NO.  
 U-22832

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 N/A

7. UNIT AGREEMENT NAME  
 N/A

8. FARM OR LEASE NAME  
 Federal DG (Formerly AB-1)

9. WELL NO.  
 1

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 11-T18S-R16W

12. COUNTY OR PARISH  
 Millard

13. STATE  
 Utah

LOCATION CHANGE FROM SEC 2 TO SEC. 11

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36	2203	1st stage - 485 sx 2nd stage - 530 sx
8-3/4"	7"	20 & 23	10000	To be calc. to give 2000' fillup plus 20% excess.
6-1/4"	5" liner	23	3870	To be calc. to cement entire liner plus 20% excess.

Well was spudded on state land in Sec. 2-T18S-R16W on 12/03/80. Due to hole deviation problems well will bottom under Federal land in Sec. 11-T18S-R16W.

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING  
 DATE: 4-7-81  
 BY: M. J. Minder

Held for concurrence of St. Lande notified 3/27/81

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 George H. Baer TITLE Region Petroleum Engineer DATE 3/05/81

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY:

COMPANY CITIES SERVICE \_\_\_\_\_ WELL STATE AB #1 \_\_\_\_\_ TEST NO. 5 \_\_\_\_\_ COUNTY MILLARD STATE UTAH  
COMPANY

**JOHNSTON-MACCO**

**Schlumberger**

**technical  
report**

FIELD REPORT # 32326 D

JS-164-A

----- WELL IDENTIFICATION -----

COMPANY:	CITIES SERVICE COMPANY	CUSTOMER:	SAME
	SUITE 900; 1600 BROADWAY		
	DENVER, CO. 80202		
WELL:	STATE AB #1	LOCATION:	SEC. 2 - T18S - R16W
TEST INTERVAL:	11439' TO 11483'	FIELD:	WILD CAT
TEST NO:	5	TEST DATE:	3-21-81
COUNTY:	MILLARD	STATE:	UTAH
TECHNICIAN:	RICHARDS (VERNAL)	TEST APPROVED BY:	-

----- EQUIPMENT AND HOLE DATA -----

TEST TYPE:	M.F.E. OPEN HOLE	DRILL PIPE LENGTH:	11033	FT.
ELEVATION:	5503 GR	DRILL PIPE I.D.:	3.80	IN.
TOTAL DEPTH:	11483	DRILL COLLAR LENGTH:	372	FT.
MAIN HOLE/CASING SIZE:	8 3/4	DRILL COLLAR I.D.:	2.25	IN.
RAT HOLE/LINER SIZE:	-	PACKER DEPTHS:	11435 & 11439	FT.
FORMATION TESTED:	HELLAMARIA		&	FT.
NET PROD. INTERVAL:	22	FT. DEPTHS REF. TO:	KELLY BUSHING	FT.
POROSITY:	10-15	%		

----- TEST TOOL CHAMBER DATA -----

SAMPLER PRESSURE:	5	PSIG
RECOVERED OIL GRAVITY:	-	API @
RECOVERY GOR:	-	FT3/BBL.

SAMPLE CHAMBER CONTENTS

FLUID	VOLUME	RESIST. (OHM-M)	MEAS. TEMP. (DEG F.)	CHLOR. (PPM)
GAS:	- FT.3			
OIL:	- CC			
WATER:	2400 CC	.55	87	100000
MUD:	- CC			
FILTRATE:				
TOTAL LIQUID:	2400 CC			

----- MUD DATA -----

TYPE:	L.S.N.D.
WEIGHT:	9.0 LB/GAL.
VISCOSITY:	36 SEC.
WATER LOSS:	8.6 CC
FLUID	RESIST (OHM-M) TEMP (DEG F) CHLOR (PPM)
MUD:	2 78
FILTRATE:	2 78 900

----- REMARKS -----

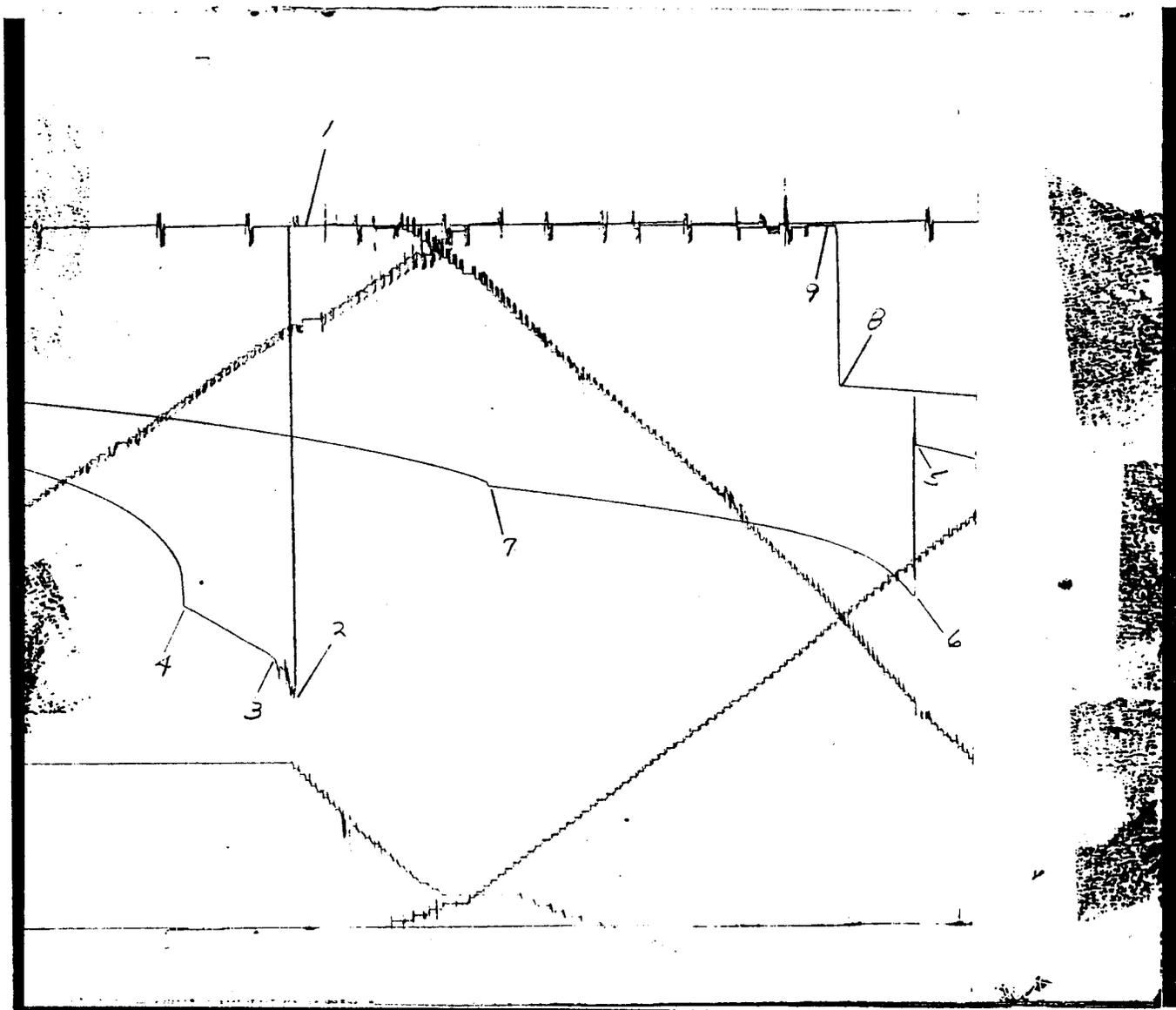
NO. OF REPORTS REQUESTED: 5

FIELD REPORT NO. 32326D



FIELD REPORT NO.: 32326 D CAPACITY: 6400#

INSTRUMENT NO.: J-1400 NUMBER OF REPORTS: 5



# PRESSURE LOG

FIELD REPORT NO. 32326D

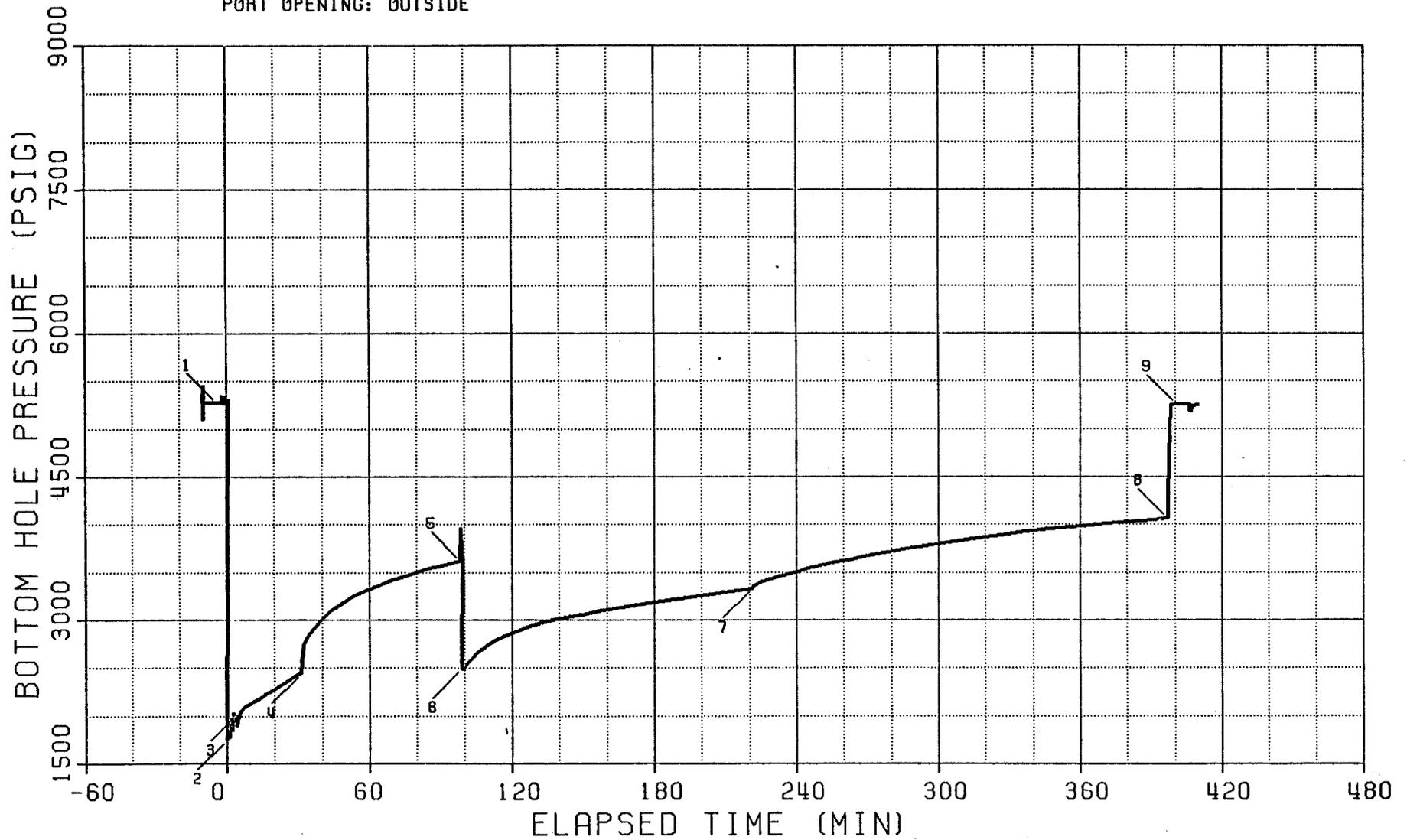
INSTRUMENT:

NUMBER: J-1400

CAPACITY: 6400 PSI

DEPTH: 11451 FT

PORT OPENING: OUTSIDE



BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-1400  
 PORT OPENING: OUTSIDE

CAPACITY (PSI): 6400  
 BOTTOM HOLE TEMP (F): 210

DEPTH (FT): 11451  
 PAGE 1

EXPLANATION	LABELED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	5277	-4.1
START FLOW	2	1750	0.0
FLOW POINT	3	2048	5.6
END FLOW & START SHUT-IN	4	2444	31.2
END SHUT-IN	5	3617	98.4
START FLOW	6	2495	99.1
END FLOW & START SHUT-IN	7	3332	221.3
END SHUT-IN	8	4065	397.1
HYDROSTATIC MUD	9	5256	400.7

\*\*\*\*\*  
 \* SUMMARY OF FLOW PERIODS \*  
 \*\*\*\*\*

FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	0.0	31.2	31.2	1750	2444
2	99.1	221.3	122.2	2495	3332

\*\*\*\*\*  
 \* SUMMARY OF SHUT-IN PERIODS \*  
 \*\*\*\*\*

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	31.2	98.4	67.2	2444	3617	2444	31.2
2	221.3	397.1	175.8	3332	4065	3332	153.4

TEST PHASE : FLOW PERIOD # 1  
\*\*\*\*\*

ELAPSED TIME (MIN) *****	DELTA TIME (MIN) *****	FLOWING PRESSURE (PSIG) *****
0.0	0.0	1750
5.0	5.0	2014
10.0	10.0	2127
15.0	15.0	2202
20.0	20.0	2280
25.0	25.0	2357
30.0	30.0	2429
31.2	31.2	2444

TEST PHASE : SHUT-IN PERIOD # 1  
\*\*\*\*\*

1. FINAL FLOW PRESSURE ["P<sub>WF</sub> "] = 2444 PSIG
2. PRODUCING TIME ["T<sub>P</sub> "] = 31.2 MIN

ELAPSED TIME (MIN) *****	DELTA TIME ["DT"] (MIN) *****	SHUT-IN PRESSURE ["P <sub>WS</sub> "] (PSIG) *****	LOG [(T +DT)/DT] P *****	DELTA PRESSURE [P <sub>WS</sub> - P <sub>WF</sub> ] WS WF *****
31.2	0.0	2444		0
32.2	1.0	2738	1.508	295
33.2	2.0	2790	1.220	346
34.2	3.0	2835	1.057	391
35.2	4.0	2869	0.944	426
36.2	5.0	2904	0.860	460
37.2	6.0	2935	0.792	491
38.2	7.0	2963	0.737	519
39.2	8.0	2991	0.690	548
40.2	9.0	3014	0.650	571
41.2	10.0	3037	0.615	593
43.2	12.0	3082	0.556	639
45.2	14.0	3119	0.509	676
47.2	16.0	3154	0.470	711
49.2	18.0	3185	0.437	742
51.2	20.0	3215	0.408	771
53.2	22.0	3243	0.383	799
55.2	24.0	3269	0.362	825
57.2	26.0	3293	0.342	850
59.2	28.0	3317	0.325	873
61.2	30.0	3337	0.310	893
66.2	35.0	3386	0.277	943
71.2	40.0	3432	0.250	989
76.2	45.0	3472	0.229	1028
81.2	50.0	3510	0.211	1066
86.2	55.0	3547	0.195	1103

TEST PHASE : SHUT-IN PERIOD # 1  
\*\*\*\*\*

1. FINAL FLOW PRESSURE ["P " ] = 2444 PSIG
2. PRODUCING TIME ["T " ] = <sup>WF</sup> 31.2 MIN  
P

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P " ] (PSIG)	LOG [(T +DT)/DT] P	DELTA PRESSURE [P - P ] WS WF
*****	*****	*****	*****	*****
91.2	60.0	3578	0.182	1135
96.2	65.0	3606	0.170	1162
98.4	67.2	3617	0.166	1173

TEST PHASE : FLOW PERIOD # 2  
\*\*\*\*\*

ELAPSED TIME (MIN)	DELTA TIME (MIN)	FLOWING PRESSURE (PSIG)
*****	*****	*****
99.1	0.0	2495
109.1	10.0	2729
119.1	20.0	2857
129.1	30.0	2944
139.1	40.0	3006
149.1	50.0	3057
159.1	60.0	3103
169.1	70.0	3144
179.1	80.0	3184
189.1	90.0	3221
199.1	100.0	3256
209.1	110.0	3291
219.1	120.0	3324
221.3	122.2	3332

TEST PHASE : SHUT-IN PERIOD # 2  
\*\*\*\*\*

1. FINAL FLOW PRESSURE ["P " ] = 3332 PSIG
2. PRODUCING TIME ["T " ] = <sup>WF</sup> 153.4 MIN  
P

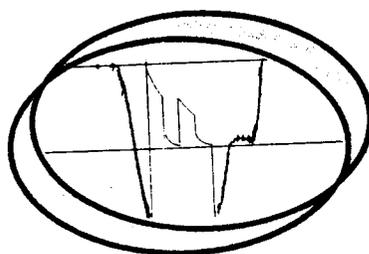
ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P " ] (PSIG)	LOG [(T +DT)/DT] P	DELTA PRESSURE [P - P ] WS WF
*****	*****	*****	*****	*****
221.3	0.0	3332		0
222.3	1.0	3365	2.189	34
223.3	2.0	3376	1.890	44
224.3	3.0	3306	1.717	54

TEST PHASE : SHUT-IN PERIOD # 2  
\*\*\*\*\*

1. FINAL FLOW PRESSURE ["P "] = 3332 PSIG
2. PRODUCING TIME ["T "]<sub>P</sub><sup>WF</sup> = 153.4 MIN

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P "] WS (PSIG)	LOG [(T +DT)/DT] P	DELTA PRESSURE [P - P ] WS WF
*****	*****	*****	*****	*****
225.3	4.0	3396	1.595	65
226.3	5.0	3406	1.501	74
227.3	6.0	3415	1.424	84
228.3	7.0	3423	1.360	92
229.3	8.0	3431	1.305	99
230.3	9.0	3439	1.256	108
231.3	10.0	3447	1.213	115
233.3	12.0	3461	1.139	129
235.3	14.0	3475	1.078	143
237.3	16.0	3488	1.025	156
239.3	18.0	3501	0.979	169
241.3	20.0	3514	0.938	183
243.3	22.0	3528	0.902	197
245.3	24.0	3541	0.869	209
247.3	26.0	3553	0.839	221
249.3	28.0	3565	0.812	233
251.3	30.0	3577	0.786	246
261.3	40.0	3628	0.684	297
271.3	50.0	3681	0.609	349
281.3	60.0	3724	0.551	393
291.3	70.0	3766	0.504	434
301.3	80.0	3807	0.465	475
311.3	90.0	3844	0.432	512
321.3	100.0	3876	0.404	545
331.3	110.0	3908	0.379	577
341.3	120.0	3939	0.358	607
351.3	130.0	3964	0.338	633
361.3	140.0	3988	0.321	656
371.3	150.0	4012	0.306	680
381.3	160.0	4035	0.292	703
391.3	170.0	4055	0.279	723
397.1	175.8	4065	0.272	734

# Formation Testing Service Report



**HALLIBURTON SERVICES**  
DUNCAN, OKLAHOMA

FLUID SAMPLE DATA		Date	2-26-81	Ticket Number	917617	
Sampler Pressure	P.S.I.G. at Surface		Kind of D.S.T.	OPEN HOLE	Halliburton Location	ROCK SPRINGS
Recovery: Cu. Ft. Gas			Tester	MR. LEGER	Witness	MR. CARGILE
cc. Oil			Drilling Contractor	COLORADO WELL SERVICE bc		
cc. Water	1600 (3.2@71 <sup>0</sup> -1750 ppm)		EQUIPMENT & HOLE DATA			
cc. Mud			Formation Tested	JUAB		
Tot. Liquid cc.			Elevation	Ft.		
Gravity	° API @ °F.		Net Productive Interval	Ft.		
Gas/Oil Ratio	cu. ft./bbl.		All Depths Measured From	Kelly Bushing		
RESISTIVITY		CHLORIDE CONTENT	Total Depth	7813' Ft.		
Recovery Water	@ °F.	ppm	Main Hole/Casing Size	8 3/4"		
Recovery Mud	2.92 @ 69 °F.	1800 ppm	Drill Collar Length	527' I.D. 2.25"		
Recovery Mud Filtrate	@ °F.	ppm	Drill Pipe Length	7197' I.D. 3.826"		
Mud Pit Sample	2.93 @ 73 °F.	1800 ppm	Packer Depth(s)	7754' - 7760' Ft.		
Mud Pit Sample Filtrate	1.8 @ 100 °F.	1800 ppm	Depth Tester Valve	7737' Ft.		
Mud Weight	8.8 vis	45 sec.				

TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/8" Hose	.75"
Recovered	One Feet of drilling mud			
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			
Remarks	SEE PRODUCTION TEST DATA SHEET.			

TEMPERATURE	Gauge No.	1281	Gauge No.	1160	Gauge No.	TIME (00:00-24:00 hrs.)	
	Depth:	7738' Ft.	Depth:	7809 Ft.	Depth:	Hour Clock	
Est. 135 °F.	Blanked Off	NO	Blanked Off	YES	Blanked Off	Tool Opened 0625	
Actual °F.	Pressures		Pressures		Pressures		Opened Bypass 1057
	Field	Office	Field	Office	Field	Office	Reported Minutes
Initial Hydrostatic	3474	3509.8	3513	3549.9			Computed Minutes
First Period	Flow Initial	-	13.2	34	43.9		
	Flow Final	-	13.2	34	43.9		32
	Closed in	-	26.4	34	57.4		60
Second Period	Flow Initial	-	13.2	34	47.2		
	Flow Final	-	13.2	34	47.2		60
	Closed in	-	26.4	34	54.0		120
Third Period	Flow Initial						
	Flow Final						
Final Hydrostatic	3474	3454.2	3513	3509.9			

Legal Location Sec. - Twp. - Rng. 2 - 18S - 16W

STATE Lease Name AB #1 Well No. 4 Test No. 7760' 7813' Tested Interval

Field Area WILDCAT

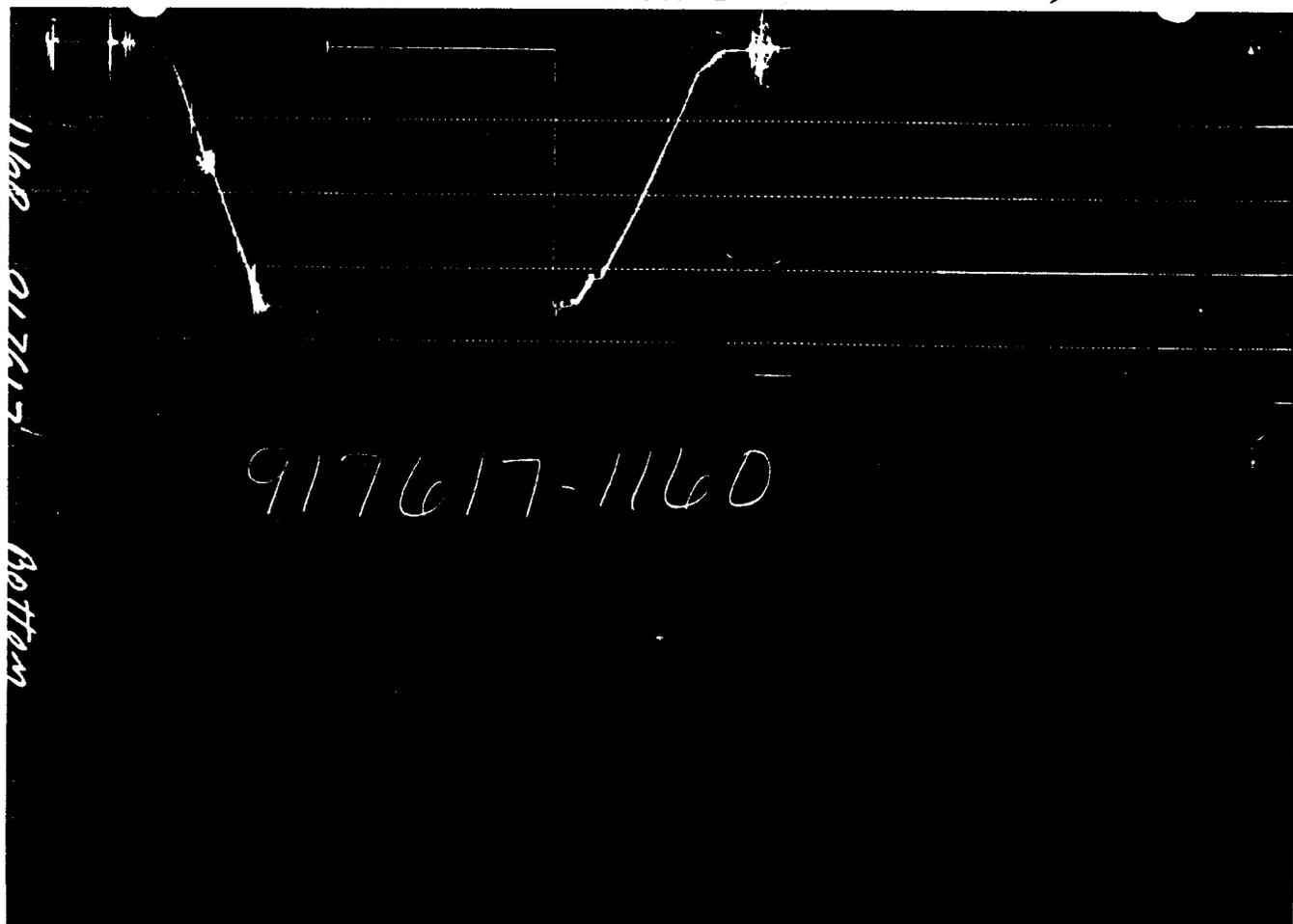
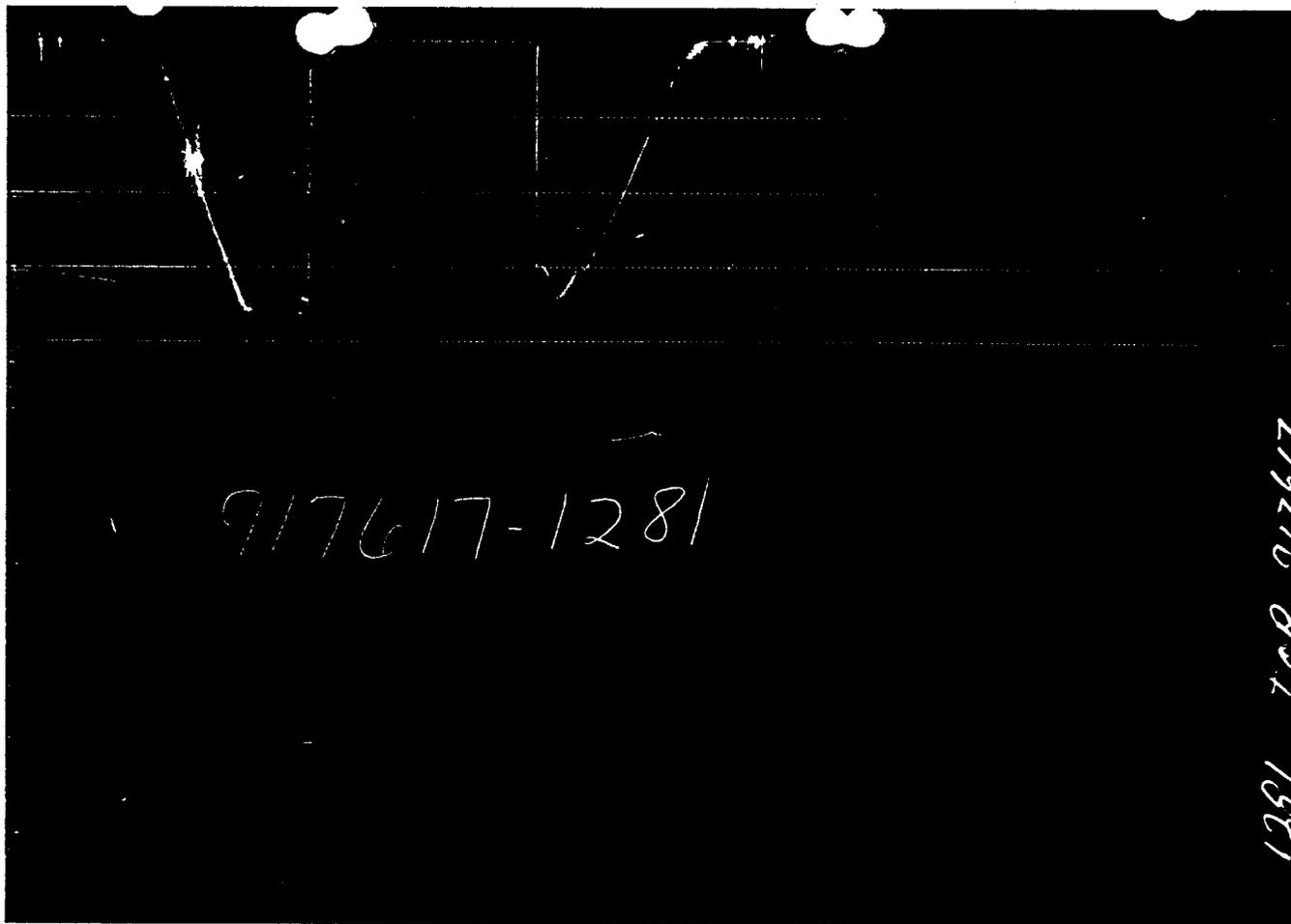
Country MILLARD

State UTAH

Lease Owner/Company Name CITIES SERVICE COMPANY



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	4 1/2"	3.826"	7197'	
Drill Collars	6.375"	2.25"	439'	
Reversing Sub	6.25"	2.275"	1.125'	
Water Cushion Valve				
Drill Pipe				
Drill Collars	6.375"	2.25"	93'	
Handling Sub & Choke Assembly				
<del>Dual CIP Valve</del> X over	6"	2.875"	.75'	
Dual CIP Sampler	5"	.75"	5.75'	7732'
Hydro-Spring Tester	5"	.25"	4'	7737'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4.10'	7738'
Hydraulic Jar	5.03"	1.25"	5'	
VR Safety Joint	5"	1"	2.78'	
Pressure Equalizing Crossover				
Packer Assembly	7.75"	1.53"	5.80'	7754'
Distributor	5"	1.68"	2'	
Packer Assembly	7.75"	1.53"	5.83'	7760'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint	5.75"	1.5"	4.32'	
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5.75"	3"	43'	
Blanked-Off B.T. Running Case	5.75"	3"	4.55'	7809'
Total Depth				7813'



Each Horizontal Line Equal to 1000 p.s.i.



Division of Smith International, Inc.

GYROSCOPIC MULTI-SHOT SURVEY

## Report of Sub-Surface Directional Survey

CITIES SERVICE OIL COMPANY'

FEDERAL U.S.A., WELL NO. A-B1

CRC COLORADO 140, DELTA, UTAH

ASSUMED VERTICAL TO 2,900 FT.

SURVEY FROM 2,900 FT. TO 7,374 FT.MD.

**HEADQUARTERS:**

P. O. Box 880  
Gardena, California 90247  
Phone (213) 538-5330

225 E. Tidwell Street  
Houston, Texas 77002  
Phone (713) 622-7422

P. O. Box 4993  
Corpus Christi, Texas 78408  
Phone (512) 241-2818

P. O. Box 52505  
Lafayette, Louisiana 70505  
Phone (318) 233-3982

CITIES SERVICE OIL COMPANY  
FEDERAL USA, WELL NO. A-31  
CRC COLORADO 140, DELTA, UTAH

Sii SERVCO  
DIVISION OF SMITH INTERNATIONAL, INC.  
DIRECTIONAL DRILLING AND WELL SURVEY  
GYROSCOPIC MULTI-SHOT SURVEY

APRIL 7, 1981

February 18, 1981

JOB No.:

;

## \*\*\* RECORD of SURVEY \*\*\*

RADIUS of CURVATURE METHOD  
ANGULAR VALUES ARE DECIMAL

MEAS DEPTH FT	INCL ANGLE	TRUE VERT. DEPTH	SUB SEA DEPTH	VERT SECT	D R I F T DIRECTION	T O T A L RECT. COORDINATES	C L O S U R E DIST-DIRECTION	DOG LEG SEVERITY LEG/100FT
ASSUMED VERTICAL TO 2900 FT.								
2900	0.00	2900.00			N 0.0 E	0.00 N 0.00 E	0.00 N 0.00 E	0.0
3200	0.50	3200.00			S 19.0 W	1.24 S 0.43 W	1.31 S 19.00 W	0.2
3300	1.00	3299.99			S 34.0 W	2.41 S 1.01 W	2.61 S 22.74 W	0.5
3400	1.00	3399.97			S 37.0 W	3.83 S 2.02 W	4.33 S 27.85 W	0.1
3500	0.50	3499.96			S 16.0 W	4.99 S 2.60 W	5.63 S 27.54 W	0.6
3600	0.50	3599.96			S 33.0 E	5.83 S 2.48 W	6.33 S 23.03 W	0.4
3700	1.25	3699.95			N 84.0 E	6.45 S 1.17 W	6.56 S 10.26 W	1.1
3800	2.00	3799.91			N 74.0 E	5.91 S 1.61 E	6.13 S 15.25 E	0.8
3900	2.25	3899.84			N 66.0 E	4.65 S 5.09 E	6.89 S 47.64 E	0.4
4000	3.00	3999.73			N 75.0 E	3.12 S 9.41 E	9.91 S 71.66 E	0.9
4100	3.00	4099.59			N 78.0 E	1.90 S 14.50 E	14.62 S 82.55 E	0.2
4200	3.75	4199.42			N 78.0 E	0.67 S 20.25 E	20.26 S 88.10 E	0.8
4300	3.75	4299.21			N 75.0 E	0.85 N 26.61 E	26.63 N 88.16 E	0.2
4400	4.00	4398.98			N 84.0 E	2.08 N 33.25 E	33.32 N 86.41 E	0.7
4500	4.00	4498.73			N 76.0 E	3.29 N 40.11 E	40.25 N 85.30 E	0.6
4600	4.00	4598.49			N 89.0 E	4.20 N 47.02 E	47.20 N 84.89 E	0.9

MEAS DEPTH FT	INCL ANGLE	TRUE VERT DEPTH	SUB SEA DEPTH	VERT SECT	D R I F T DIRECTION	T O T A L RECT. COORDINATES	C L O S U R E DIST-DIRECTION	DOG LEG SEVERITY DEG/100FT
4700	5.00	4693.18			N 87.0 E	4.48 N 54.86 E	55.04 N 85.33 E	1.0
4800	5.25	4797.78			N 83.0 E	4.87 N 63.78 E	63.97 N 85.64 E	0.3
4900	6.00	4897.30			N 87.0 E	5.29 N 73.57 E	73.76 N 85.88 E	0.8
5000	5.50	4996.80			N 88.0 E	5.73 N 83.58 E	83.78 N 86.08 E	0.5
5100	6.00	5096.29			S 88.0 E	5.73 N 93.60 E	93.77 N 86.50 E	0.6
5200	7.00	5195.65			S 88.0 E	5.34 N 104.91 E	105.05 N 87.09 E	1.0
5300	7.25	5294.88			S 86.0 E	4.69 N 117.30 E	117.39 N 87.71 E	0.4
5400	6.75	5394.13			S 89.0 E	4.16 N 129.47 E	129.54 N 88.16 E	0.6
5500	7.00	5493.41			S 87.0 E	3.74 N 141.43 E	141.48 N 88.49 E	0.3
5600	7.75	5592.58			S 84.0 E	2.73 N 154.23 E	154.25 N 88.99 E	0.8
5700	7.75	5691.67			S 85.0 E	1.44 N 167.65 E	167.66 N 89.51 E	0.1
5800	8.00	5790.73			S 89.0 E	0.72 N 181.33 E	181.33 N 89.77 E	0.6
5900	7.25	5889.84			S 87.0 E	0.26 N 194.59 E	194.59 N 89.92 E	0.8
6000	8.00	5988.96			S 81.0 E	1.13 S 207.78 E	207.78 S 89.69 E	1.1
6100	8.75	6087.89			S 85.0 E	2.90 S 222.24 E	222.25 S 89.25 E	0.9
6200	9.75	6186.59			S 84.0 E	4.44 S 238.24 E	238.28 S 88.93 E	1.0
6300	8.75	6285.29			S 88.0 E	5.56 S 254.27 E	254.33 S 88.75 E	1.2
6400	9.25	6384.05			S 85.0 E	6.52 S 269.88 E	269.96 S 88.62 E	0.7
6500	9.00	6482.79			S 86.0 E	7.76 S 285.69 E	285.79 S 88.44 E	0.3
6600	9.25	6581.52			S 85.0 E	9.01 S 301.50 E	301.63 S 88.29 E	0.3
6700	9.50	6680.19			S 87.0 E	10.14 S 317.75 E	317.91 S 88.17 E	0.4
6800	9.50	6778.82			S 84.0 E	11.44 S 334.20 E	334.40 S 88.04 E	0.5
6900	10.75	6877.26			S 80.0 E	13.89 S 351.60 E	351.88 S 87.74 E	1.4
7000	11.25	6975.42			S 72.0 E	18.50 S 370.10 E	370.57 S 87.14 E	1.6
7100	12.75	7073.23			S 74.0 E	24.58 S 389.98 E	390.76 S 86.39 E	1.6
7200	13.75	7170.57			S 73.0 E	31.09 S 411.96 E	413.13 S 85.68 E	1.0
7300	14.25	7267.60			S 74.0 E	37.96 S 435.16 E	436.81 S 85.02 E	0.6
7374	14.00	7339.36			S 71.0 E	43.39 S 452.38 E	454.45 S 84.52 E	1.0

BOTTOM HOLE CLOSURE: 454.45 ft. S 84deg 31min 18sec E

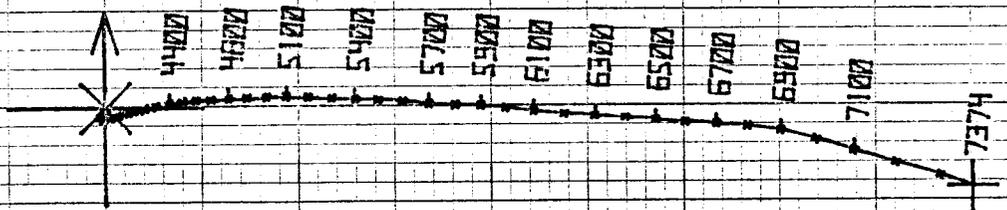
CITIES SERVICE OIL COMPANY  
FEDERAL USA, WELL NO. A-81  
CRC COLORADO 140, DELTA, UTAH

BHL 454.45 FT S 84.52 E OF SURFACE

TVD= 7339.36

MD= 7374.00

SCALE: 1 IN= 100 FT



45 0782

10 X 10 TO THE INCH • 7 1/2 X 10  
KUPFEL & ESSER CO. MADE IN U.S.A.

We hereby certify that the Field Data contained in this report from 2900 feet to 7374 feet by our Directional Surveyors, represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.



**SERVCO**

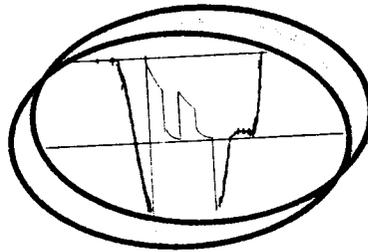
Division of Smith International, Inc.

*Randy Poulton*

Division Survey Supervisor

S-121 (11/80)

# Formation Testing Service Report



**HALLIBURTON SERVICES**  
DUNCAN, OKLAHOMA

FLUID SAMPLE DATA				Date	2-16 81	Ticket Number	837178	
Sampler Pressure	25	P.S.I.G. at Surface		Kind of D.S.T.	OPEN HOLE	Halliburton Location	VERNAL	
Recovery: Cu. Ft. Gas	.07			Tester	MR. RIPPLE	Witness	MR. CARGILE	
cc. Oil				Drilling Contractor	COCO WELL #140		bc	
cc. Water				EQUIPMENT & HOLE DATA				
cc. Mud	2100			Formation Tested	Juab top	Kanosh bottom		
Tot. Liquid cc.				Elevation	5520'		Ft.	
Gravity		° API @		° F.				
Gas/Oil Ratio				Net Productive Interval	30'		Ft.	
		RESISTIVITY		CHLORIDE CONTENT				
Recovery Water		@		° F.		ppm		
Recovery Mud	1.8	@	74	° F.	3000	ppm		
Recovery Mud Filtrate		@		° F.		ppm		
Mud Pit Sample	2.2	@	74	° F.	2500	ppm		
Mud Pit Sample Filtrate		@		° F.		ppm		
Mud Weight	8.8	vis	55	sec.				
TYPE AMOUNT				Depth Back	Surface	Bottom		
Cushion				Ft. Pres. Valve	1/8"	Choke	.75"	
Recovered	40	Feet of	Rat hole mud					
Recovered		Feet of						
Recovered		Feet of						
Recovered		Feet of						
Recovered		Feet of						
Remarks SEE PRODUCTION TEST DATA SHEET.								
TEMPERATURE	Gauge No. 1531	Gauge No. 1530	Gauge No.	TIME				
	Depth: 7205' Ft.	Depth: 7319' Ft.	Depth: Ft.	(00:00-24:00 hrs.)				
Est. °F.	24 Hour Clock	24 Hour Clock	Hour Clock	Tool				
	Blanked Off NO	Blanked Off YES	Blanked Off	Opened 1045				
Actual 132 °F.	Pressures		Pressures		Pressures		Opened Bypass 1720	
	Field	Office	Field	Office	Field	Office	Reported Minutes	
Initial Hydrostatic	3290.6	3296.5	3380.2	3345.0			Computed Minutes	
First Period	Flow Initial	20.5	26.5	62.8	71.1			
	Flow Final	40.9	30.6	83.7	75.3	30	30	
	Closed in	1584.7	1596.7	1646.0	1641.8	60	59	
Second Period	Flow Initial	40.9	38.7	83.8	81.5			
	Flow Final	40.9	42.8	83.7	85.7	125	127	
	Closed in	898.0	910.1	952.4	956.0	180	179	
Third Period	Flow Initial							
	Flow Final							
	Closed in							
Final Hydrostatic	3270.6	3258.5	3297.6	3307.8				

Legal Location Sec. - Twp. - Rng. 2 - 18S - 16W  
 Lease Name STATE A B  
 Well No. 1  
 Test No. 3  
 Field Area WILDCAT  
 County MILLARD  
 State UTAH  
 Tested Interval 7228' - 7322'  
 Lease Owner/Company Name CITIERS SERVICE COMPANY

Casing perms. \_\_\_\_\_ Bottom choke \_\_\_\_\_ Surf. temp \_\_\_\_\_ °F Ticket No. 837178  
 Gas gravity \_\_\_\_\_ Oil gravity \_\_\_\_\_ GOR \_\_\_\_\_  
 Spec. gravity \_\_\_\_\_ Chlorides \_\_\_\_\_ ppm Res. \_\_\_\_\_ @ \_\_\_\_\_ °F  
**INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED**

Date	Time	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
2-16-81						On location
	0530					
	0630					Picked up tools
	0750					Ran in hole with tools
	1045	1/8"				Tool opened with a 1/2" blow
	1050	"				1/4" in water
	1055	"				3/8" in water
	1100	"				"
	1105	"				1/4" in water
	1110	"				"
	1115	"				Closed tool
	1215	"				Opened tool with a 1/8" blow
	1220-1235	"				Blow too small to measure
	1236	"				Lost 25' of mud
	1240-1415	"				Blow too small to measure
	1420					Closed tool
	1720					Pulled tool loose
	1745					Pulled out of hole
	2010					Drained sampler
	2020					Broke down tool
	2145					Job completed

Gauge No. 1531			Depth 7205'				Clock No. 4090			24 hour		Ticket No. 837178			
First Flow Period			First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.0000	26.5	.0000		30.6	.0000	38.7	.0000		42.8					
1	.1030	30.6	.0170		281.6*	.4330	42.8	.0379		155.1**					
2			.0375		638.7			.0791		338.7					
3			.0579		887.7			.1204		467.3					
4			.0784		1082.6			.1617		557.1					
5			.0988		1225.8			.2030		624.4					
6			.1192		1336.6			.2443		679.5					
7			.1397		1421.3			.2856		720.4					
8			.1601		1489.9			.3269		753.0					
9			.1806		1546.3			.3682		785.7					
10			.2010		1596.7			.4095		812.2					
11								.4508		834.6					
12								.4921		855.0					
13								.5334		875.5					
14								.5747		893.8					
15								.6160		910.1					

Gauge No. 1530			Depth 7319'				Clock No. 2290			24 hour					
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.0000	71.1	.0000		75.3	.0000	81.5	.0000		85.7					
1	.1000	75.3	.0165		357.7*	.4180	85.7	.0363		202.9**					
2			.0364		707.1			.0759		380.7					
3			.0562		964.4			.1156		512.5					
4			.0760		1151.1			.1552		604.6					
5			.0958		1287.7			.1948		673.6					
6			.1157		1393.3			.2344		721.7					
7			.1355		1476.1			.2740		765.7					
8			.1553		1542.4			.3137		801.2					
9			.1752		1598.3			.3533		830.5					
10			.1950		1641.8			.3929		855.6					
11								.4325		878.6					
12								.4721		901.6					
13								.5118		920.5					
14								.5514		939.3					
15								.5910		956.0					

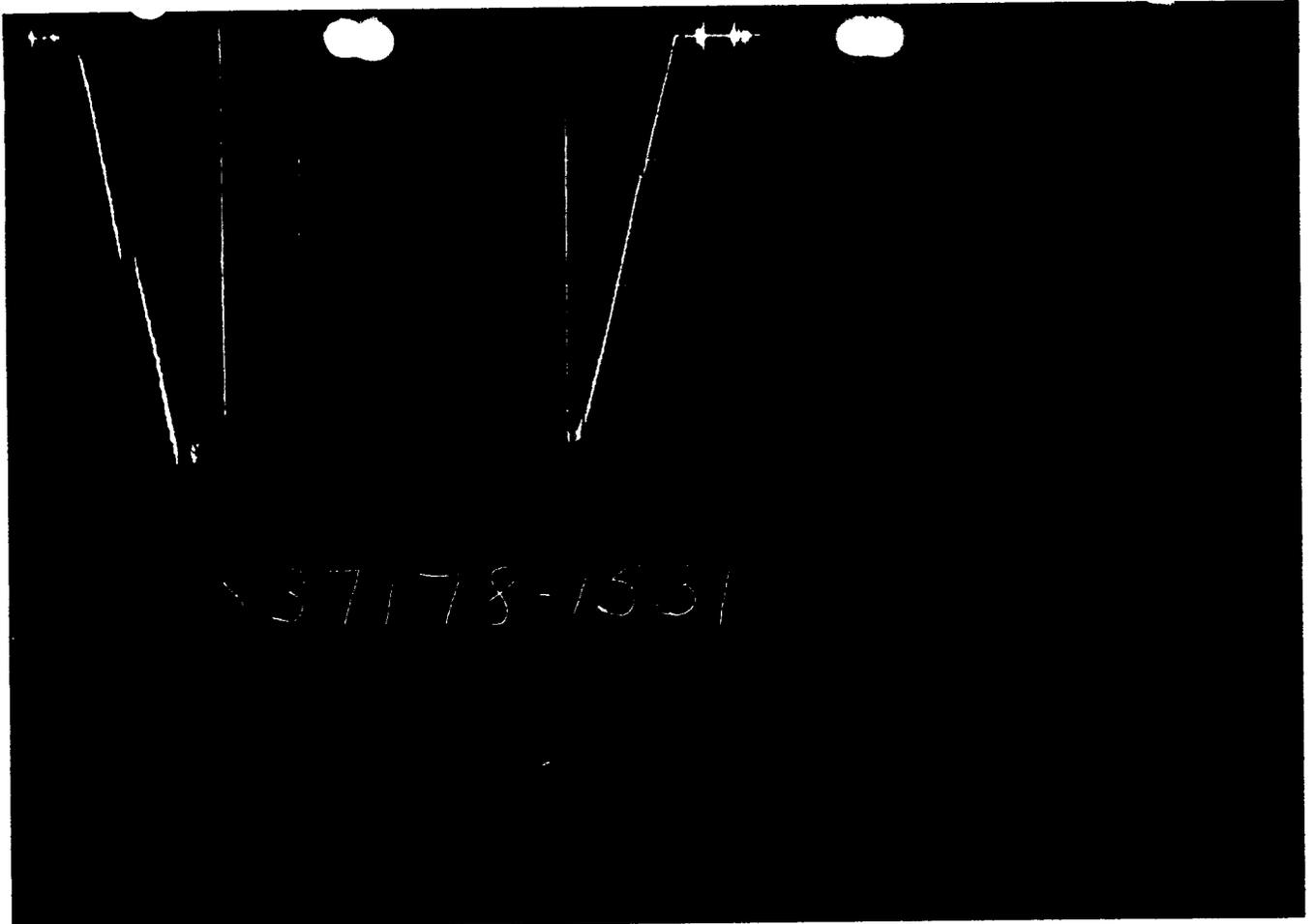
Reading Interval 6 12 Minutes

REMARKS: \*Interval = 5 minutes \*\*Interval = 11 minutes

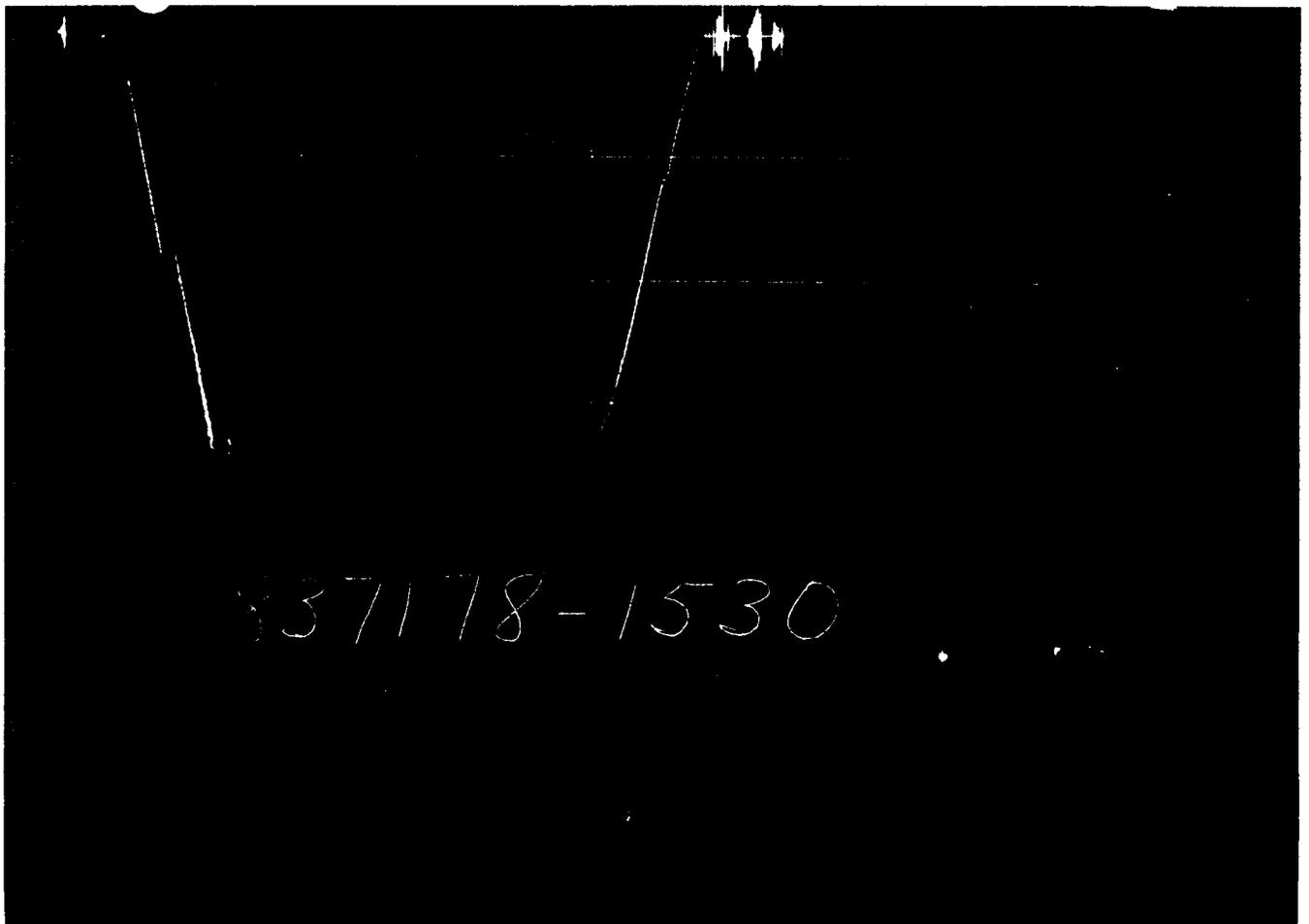
SPECIAL PRESSURE DATA



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	4 1/2"	3.826"	6850'	
Drill Collars	6"	2 1/2"	340'	
Reversing Sub	6 3/8"	2 7/8"	.99'	
Water Cushion Valve				
Drill Pipe				
Drill Collars	6"	2 1/2"	31'	
<del>Running Sub &amp; Choke Assembly</del> X over	6 1/4"	2 13/16"	.95'	
Dual CIP Valve	5"	.75"	6.75'	7198'
Dual CIP Sampler	5"	.75"	5'	7203'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	7205'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7 3/4"	1.53"	5.81'	7220'
Distributor	5"	1.68"	2'	
Packer Assembly	7 3/4"	1.53"	5.81'	7228'
Flush Joint Anchor	5 3/4"	2.87"	20'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
X over	6"	2 13/16"	.18'	
Drill Collars	6"	2 1/2"	62.61'	
Anchor Pipe Safety Joint				
X over ??	6"	2 1/4"	.73'	
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5 3/4"	2.87"	4'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	4.12'	7319'
Total Depth				7322'



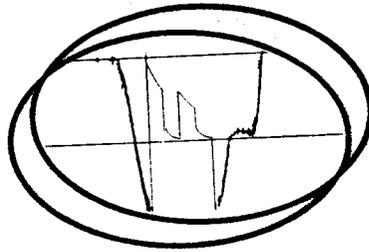
37178-1531



37178-1530

Each Horizontal Line Equal to 1000 p.s.i.

# Formation Testing Service Report



**HALLIBURTON SERVICES**  
DUNCAN, OKLAHOMA

AB STATE  
 Lease Name  
 Well No. 1  
 Test No. 2  
 Tested Interval 6584.25' - 6625'  
 CITIES SERVICE COMPANY  
 Lease Owner/Company Name

Legal Location Sec. - Twp. - Rng. 218S - 16N  
 Field Area WILDCAT  
 County MILLARD  
 State UTAH

FLUID SAMPLE DATA				Date 2-5-81	Ticket Number 836767		
Sampler Pressure _____ P.S.I.G. at Surface				Kind of D.S.T. OPEN HOLE TEST	Halliburton Location VERNAL		
Recovery: Cu. Ft. Gas _____				Tester B. C. RICH	Witness G. BAER		
cc. Oil _____				Drilling Contractor CRE #140 TJH S			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud 2400				Formation Tested Lehman (Limestone)			
Tot. Liquid cc. _____				Elevation 5503' GL Ft.			
Gravity _____ ° API @ _____ ° F.				Net Productive Interval 20' Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly Bushing			
RESISTIVITY		CHLORIDE CONTENT		Total Depth 6625' Ft.			
Recovery Water _____ @ _____ ° F. _____ ppm				Main Hole/Casing Size 8 3/4"			
Recovery Mud _____ @ _____ ° F. _____ ppm				Drill Collar Length 470' I.D. 2 1/2"			
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm				Drill Pipe Length 6075' I.D. 3.826"			
Mud Pit Sample _____ @ _____ ° F. _____ ppm				Packer Depth(s) 6576.25' - 6584.25' Ft.			
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm				Depth Tester Valve 6559.25' Ft.			
Mud Weight 8.6 vis 39 sec.				Surface Choke 1 7/8"			
TYPE		AMOUNT		Depth Back Pres. Valve		Bottom Choke .75"	
Cushion				Ft.			
Recovered 185		Feet of		rathole mud.			
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks SEE PRODUCTION TEST DATA SHEET . . .							
TEMPERATURE		Gauge No. 490		Gauge No. 198		Gauge No.	
Depth: 6561 Ft.		Depth: 6622 Ft.		Depth: Ft.		TIME (00:00-24:00 hrs.)	
24 Hour Clock		24 Hour Clock		Hour Clock		Tool 0940	
Est. 150 ° F.		Blanked Off NO		Blanked Off YES		Opened 1357	
Actual 120 ° F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2963.7 2969.1		2985.5 2994.7		Reported Computed	
Flow Initial		53.0 17.4		53.0 41.1		Minutes Minutes	
Flow Final		80.0 88.4		132.7 112.7		30 45	
Closed in		2347.0 2347.1		2350.0 2371.3		60 57	
Flow Initial		80.0 95.1		132.7 115.3		45 48	
Flow Final		107.0 121.9		159.0 143.2		122 122	
Closed in		2347.0 2353.8		2350.0 2376.6			
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		2963.7 2961.1		2985.5 2985.4			

Casing perms. \_\_\_\_\_ Bottom choke \_\_\_\_\_ Surf. temp. \_\_\_\_\_ °F Ticket No. 836767  
 Gas gravity \_\_\_\_\_ Oil gravity \_\_\_\_\_ GOR \_\_\_\_\_  
 Spec. gravity \_\_\_\_\_ Chlorides \_\_\_\_\_ ppm Res. \_\_\_\_\_ @ \_\_\_\_\_ °F  
**INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED**

Date	Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
2-5-81	0015						On location. Waited for rig to pull pipe.
	0400						Started to pick up tools.
	0600						Started tools in hole.
	0940						Opened tool with a weak blow 2" water.
	0949						1" water dying.
							Have lost 5' of mud.
	1009						3/4" water. Have lost 9' mud.
	1010						Closed tool. While closed in hole lost 25' mud.
	1110						Reopened tool with no blow.
							Dead.
	1117						Very weak small blow.
							1/32 of a inch.
	1136						No change.
	1155						Closed tool.
2-5-81	1357						Pulled tool loose and started out of hole.
	1645						Out of hole with tools.
	1745						Loaded out tools.
	1800						Read charts.
	1830						Operator released - end of job.

Gauge No. 490			Depth 6561				Clock No. 9987			24 hour		Ticket No. 836767		
First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.0000	17.4	.0000		88.4	.0000	95.1	.0000	121.9					
1	.0286	18.7	.0032*		662.2	.0266	96.5	.0324**	2276.1					
2	(.0330	20.1)	B.0161		2083.1	.0533	101.8	.0583	2312.3					
3	(.0370	69.7)	A.0290		2268.1	.0800	105.8	.0842	2324.4					
4	.0572	69.7	.0420		2304.2	.1066	111.2	.1101	2332.4					
5	.0858	76.4	.0549		2316.3	.1333	116.6	.1360	2337.8					
6	.1144	81.7	.0678		2324.4	.1600	121.9	.1619	2340.4					
7	.1430	88.4	.0807		2329.7			.1878	2344.5					
8			.0936		2333.7			.1237	2345.8					
9			.1065		2336.4			.2396	2348.5					
10			.1194		2339.1			.2655	2349.8					
11			.1323		2341.8			.2914	2351.2					
12			.1452		2343.1			.3173	2352.5					
13			.1581		2344.5			.3432	2352.5					
14			.1711		2345.8			.3691	2353.8					
15			.1840		2347.1			.3950	2353.8					

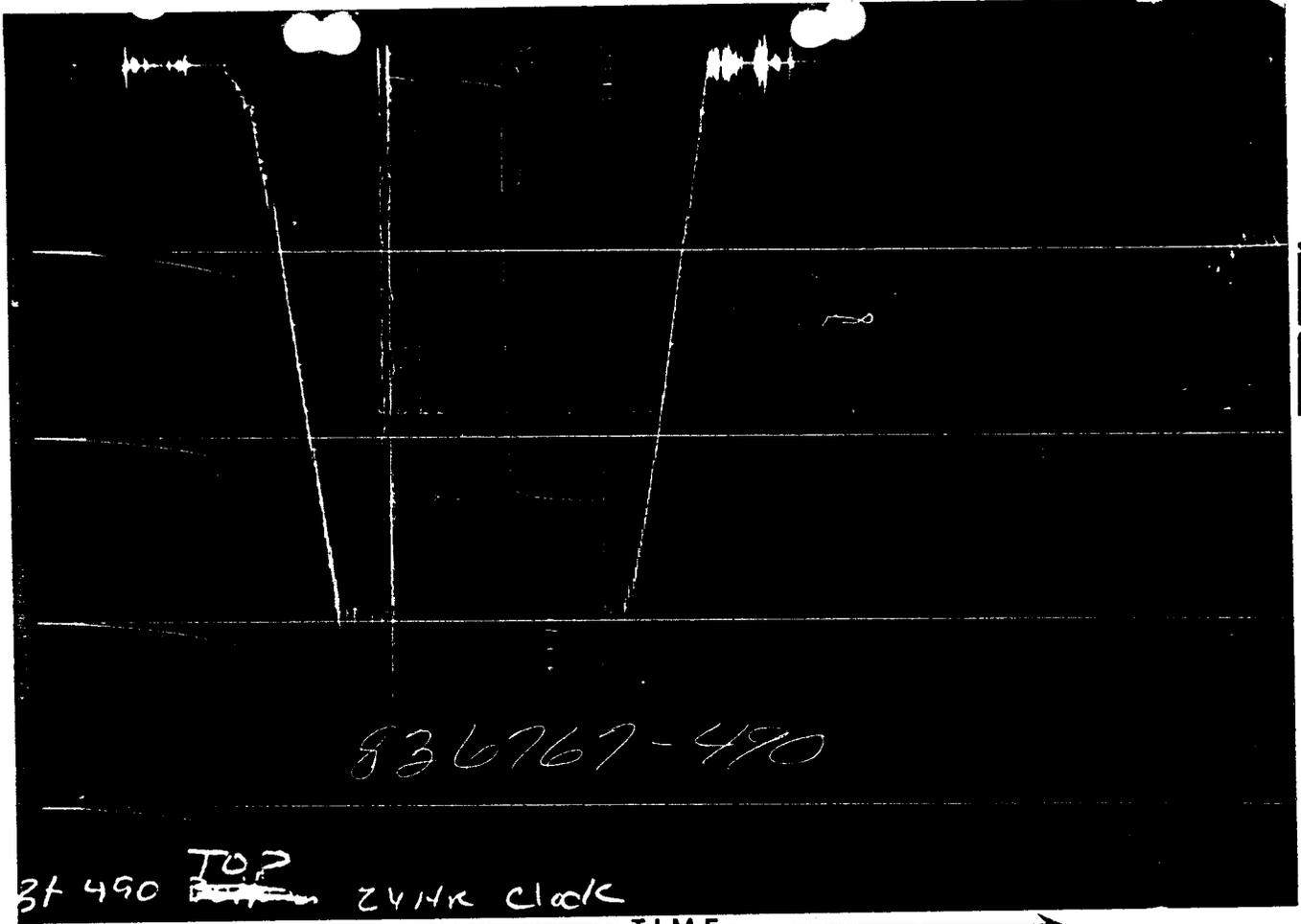
Gauge No. 198			Depth 6622				Clock No. 4090			24 hour	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	41.1	.0000		112.7	.0000	115.3	.0000	143.2		
1	.0304	45.0	.0033*		405.8	.0268	119.3	.0334**	2297.0		
2	(.0340	45.0)	B.0168		2076.9	.0536	123.3	.0602	2334.2		
3	(.0410	91.5)	A.0303		2287.8	.0804	128.6	.0869	2347.4		
4	.0608	95.4	.0438		2328.9	.1072	133.9	.1137	2354.1		
5	.0912	102.1	.0572		2340.8	.1340	139.2	.1404	2360.7		
6	.1216	107.4	.0707		2348.8	.1610	143.2	.1672	2363.4		
7	.1520	112.7	.0842		2354.1			.1939	2366.0		
8			.0977		2358.1			.2207	2368.7		
9			.1111		2360.7			.2474	2371.3		
10			.1246		2363.4			.2742	2371.3		
11			.1381		2366.0			.3009	2372.6		
12			.1515		2367.3			.3277	2374.0		
13			.1650		2368.7			.3544	2374.0		
14			.1785		2370.0			.3812	2375.3		
15			.1920		2371.3			.4080	2376.6		
Reading Interval	9		4		8		8				Minutes

REMARKS: \* - first interval is equal to 1 minute, \*\* - 10 minutes.  
 B - Before Bypassing. A - After Bypassing.

6

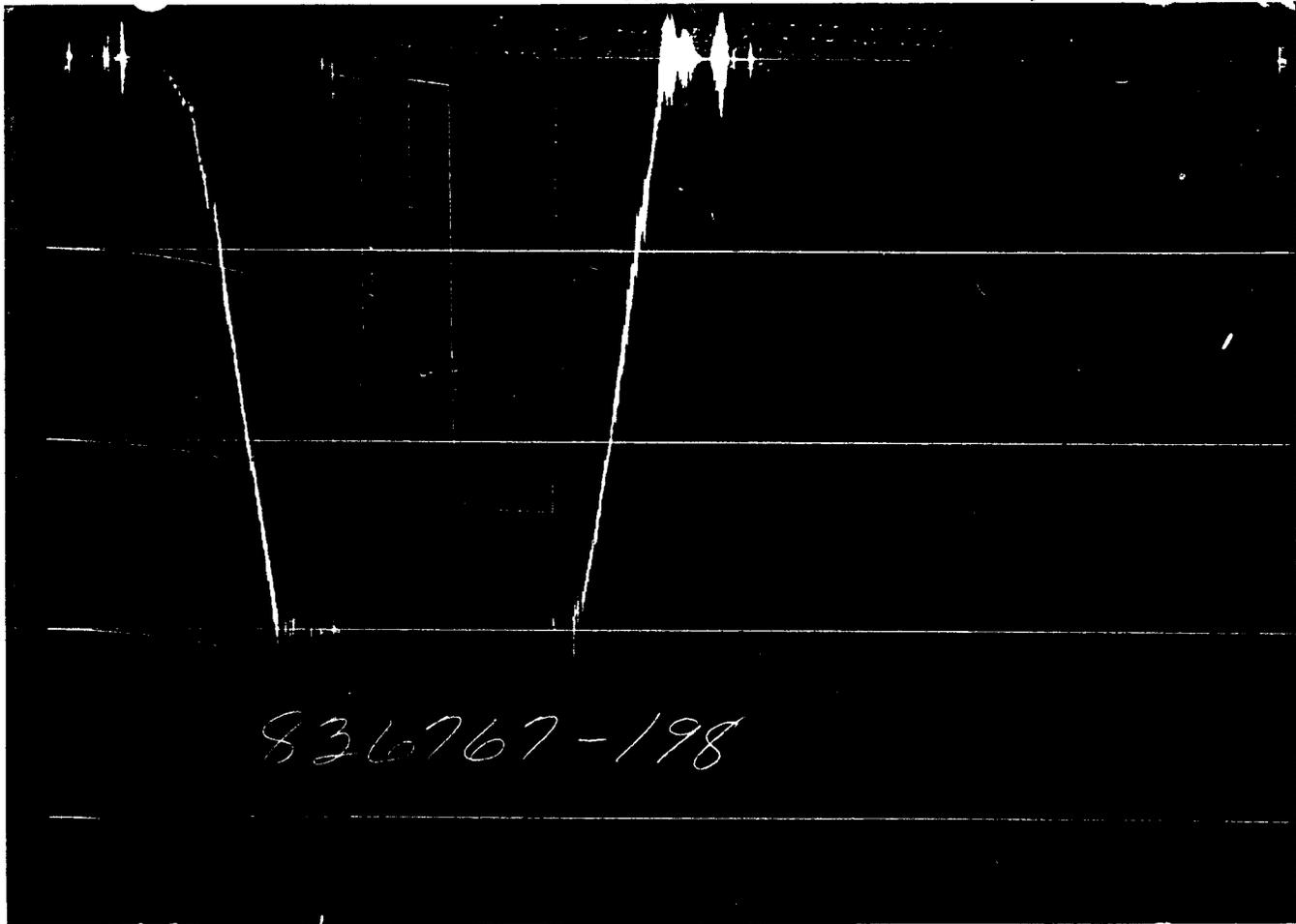


	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	4 1/2"	3.826"	6075'	
Drill Collars	6"	2.25"	376'	
Reversing Sub	6 1/4"	2 7/8"	1'	6454.5'
Water Cushion Valve				
Drill Pipe				
Drill Collars	6"	2.25"	94'	
Handling Sub & Choke Assembly	6"	2 1/4"	.75' X OVER	
Dual CIP Valve				
Dual CIP Sampler	5"	.75"	6.75'	6554.25'
Hydro-Spring Tester	5"	.75"	5'	6559.25'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	6561.25'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7 3/4"	1.58"	5.75'	6576.25'
Distributor	5"	1.68"	2'	
Packer Assembly	7 3/4"	1.58"	5.75'	6584.25'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5 3/4"	2.89"	35'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	4.60'	6622'
Total Depth				6625'



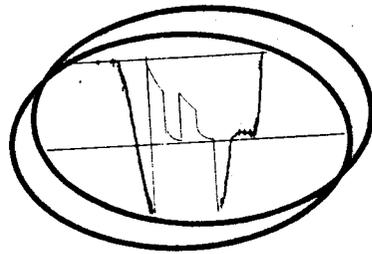
↓ PRESSURE

→ TIME



Each Horizontal Line Equal to 1000 p.s.i.

# Formation Testing Service Report



**MALIBURTON SERVICES**  
DUNCAN, OKLAHOMA

FLUID SAMPLE DATA		Date 1-20-81	Ticket Number 836198
Sampler Pressure _____ P.S.I.G. at Surface		Kind of D.S.T. OPEN HOLE	Halliburton Location VERNAL
Recovery: Cu. Ft. Gas _____		R. RIPPLE	
cc. Oil _____		Tester K. STEWART	Witness _____
cc. Water _____		Drilling Contractor CRC # 140	DR
cc. Mud 2350		EQUIPMENT & HOLE DATA	
Tot. Liquid cc. _____		Formation Tested Wah Wah	
Gravity _____ ° API @ _____ °F.		Elevation 5503' GL	Ft.
Gas/Oil Ratio _____ cu. ft./bbl.		Net Productive Interval 35'	Ft.
RESISTIVITY		All Depths Measured From Kelly Bushing	
CHLORIDE CONTENT		Total Depth 5767'	Ft.
Recovery Water _____ @ _____ °F. _____ ppm		Main Hole/Casing Size 8 3/4"	
Recovery Mud 2.3 @ 78 °F. 2100 ppm		Drill Collar Length 433.87' I.D. 2 1/4"	
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm		Drill Pipe Length 5228' I.D. 3.826"	
Mud Pit Sample 2.4 @ 83 °F. 2100 ppm		Packer Depth(s) 5691-5699'	Ft.
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm		Depth Tester Valve 5674'	Ft.
Mud Weight 8.9 vis 42 sec.			

TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/8"	.75"

Recovered 102	Feet of drilling mud	Field Area Mea. From Tester Valve WILDCAT
Recovered	Feet of	

Remarks See production test data sheet

TEMPERATURE				Gauge No. 205		Gauge No. 192		Gauge No.		TIME (00:00-24:00 hrs.)	
		Depth: 5676 Ft.		Depth: 5764 Ft.		Depth: _____ Ft.					
		24 Hour Clock		24 Hour Clock		Hour Clock				Tool	
Est. °F.		Blanked Off NO		Blanked Off YES		Blanked Off				Opened 1630	
Actual 120 °F.		Pressures		Pressures		Pressures				Opened Bypass 2030	
		Field Office		Field Office		Field Office				Reported Computed	
		Minutes Minutes		Minutes Minutes		Minutes Minutes				Minutes Minutes	

First Period	Initial Hydrostatic	2597	2601.1	2702	2641.0						
	Flow Initial	13.8	15.1	54.1	56.7						
	Flow Final	27.6	31.6	81.1	71.6					30	29
Second Period	Closed in	1920.2	1914.5	1926	1953.8					60	59
	Flow Initial	27.6	49.5	81.1	91.8						
	Flow Final	55.1	55.0	94.6	95.9					30	31
Third Period	Closed in	1947.7	1946.2	1994	1983.6					120	121
	Flow Initial										
	Flow Final										
	Closed in										
	Final Hydrostatic	2555.5	2554.0	2574	2595.8						

Legal Location Sec. - Twp. - Rng. 2-18S-16W  
 Lease Name STATE AB  
 Well No. 1  
 Test No. 1  
 Tested Interval 5699-5767'  
 County MILLARD  
 State UTAH  
 Lease Owner/Company Name CITIES SERVICE COMPANY

Gauge No. 205			Depth 5676'				Clock No. 4090			24 hour		Ticket No. 836198		
First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	15.1	.000	31.6	.000	49.5	.000		55.0					
1	.0141*	16.5	.0099**	882.5	.0203***	42.6	.0298****		1505.5					
2	.0317	19.2	.0233	1460.3	.0373	44.0	.0563		1691.4					
3	.0492	22.0	.0365	1619.8	.0542	46.8	.0828		1764.4					
4	.0668	24.7	.0498	1701.1	.0711	50.9	.1094		1812.6					
5	.0844	28.9	.0631	1746.5	.0881	53.7	.1359		1844.3					
6	.1020	31.6	.0764	1786.4	.1050	55.0	.1624		1869.1					
7			.0897	1812.6			.1889		1884.2					
8			.1030	1836.0			.2154		1898.0					
9			.1163	1855.3			.2419		1909.0					
10			.1296	1869.1			.2684		1918.7					
11			.1429	1881.5			.2949		1924.2					
12			.1561	1892.5			.3215		1931.1					
13			.1694	1902.2			.3480		1935.2					
14			.1827	1907.7			.3745		1942.1					
15			.1960	1914.5			.4010		1946.2					

Gauge No. 192		Depth 5764'				Clock No. 2290			hour 24		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
0	.000	56.7	.000	71.6	.000	91.8	.000		95.9		
1	.0134*	56.7	.0098**	983.8	.0199***	85.1	.0199****		1535.3		
2	.0301	59.4	.0229	1430.8	.0366	86.4	.0366		1716.0		
3	.0468	62.1	.0360	1654.8	.0532	89.1	.0532		1797.5		
4	.0635	66.2	.0491	1725.5	.0698	91.8	.0698		1847.8		
5	.0803	68.9	.0621	1779.8	.0864	94.5	.0864		1880.4		
6	.0970	71.6	.0752	1820.6	.1030	95.9	.1030		1903.5		
7			.0883	1847.8					1923.9		
8			.1014	1872.2					1937.5		
9			.1145	1891.3					1947.0		
10			.1276	1906.2					1956.5		
11			.1407	1919.8					1964.6		
12			.1537	1932.0					1972.8		
13			.1668	1940.2					1975.5		
14			.1799	1948.3					1980.9		
15			.1930	1953.8					1983.6		

Reading Interval 5 4 5 8 Minutes

REMARKS: \*-4 minutes \*\*-3 minutes \*\*\*-6 minutes \*\*\*\*9 minutes

SPECIAL PRESSURE DATA

Casing perms. \_\_\_\_\_ Bottom choke \_\_\_\_\_ Surf. temp \_\_\_\_\_ °F Ticket No. 836198  
 Gas gravity \_\_\_\_\_ Oil gravity \_\_\_\_\_ GOR \_\_\_\_\_  
 Spec. gravity \_\_\_\_\_ Chlorides \_\_\_\_\_ ppm Res. \_\_\_\_\_ @ \_\_\_\_\_ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED \_\_\_\_\_

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1-20-81 0900						On location
1300						Picked up tools
1400						Went in hole with tools
1630		1/8"				Opened tool with blow, too small to measure
1635		"				1/8" in blow in water
1640		"				"
1645		"				"
1650		"				"
1655		"				"
1700		"				Closed tool
1800		"				Opened tool with no blow
1810		"				
1820		"				
1830						Closed tool
2030						Pulled tool loose
2050						Pulled out of hole.
1055						Broke down tools, loaded out
1-21-81 0015						Through with job



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	4 1/2"	3.826"	5228'	
Drill Collars	6"	2 1/4"	340.99'	
Reversing Sub	6 3/8"	2 15/16"	1	
Water Cushion Valve				
Drill Pipe	6"	2 1/4"	92.88'	5570'
Drill Collars	6"	2 11/16"	.82' Change over	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.75"	6.75'	5669'
Dual CIP Sampler	5"	.75"	5'	5674'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	5676'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1.00"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7 3/4"	1.53"	5.81'	5691'
Distributor	5"	1.68"	2'	
Packer Assembly	7 3/4"	1.53"	5.81'	5699'
Flush Joint Anchor	5 3/4"	2.87"	24'	
Pressure Equalizing Tube	5 3/4"	2 3/4"	.86' X over	
Blanked-Off B.T. Running Case				
Drill Collars	6"	2 1/4"	30.65'	
Anchor Pipe Safety Joint	6 1/4"	2 3/4"	.95' X over	
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5 3/4"	2.87"	5'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	4.50'	5764'
Total Depth				5767'



## CITIES SERVICE COMPANY

Daily Well History - Initial Report

**INSTRUCTIONS:** Submit an Initial Report as soon as possible after spudding. Complete applicable data and begin in the appropriate space a daily chronological record of drilling activity. Daily work prior to spudding should be summarized giving inclusive dates only. Include in the initial summary the exact surface location of the drill site and if the well is directionally drilled, also report bottom hole location at projected TD. Description of work performed on the Initial Report after spud date should be a complete report of each days Drilling Activity. Significant workovers may also be recorded on an Initial Report.

LEASE / UNIT NAME & WELL NO. State "AB" #1		OPERATOR Cities Service Company		REGION Western	
COUNTY - PARISH - STATE - PROVINCE Millard County, Utah		FIELD OR PROSPECT NAME Little Cattleman's Valley		AFE NUMBER 9-4370034-6 01	APPRO. NO. P8001-01
PROJECTED TO & DEEPEST OBJECTIVE FORMATION 9500' Big Horse Limestone		SEC. REC. PROJECT NO. --	PRODUCING COST CENTER IF ASSIGNED --		
SPUD DATE 12-3-80	ELEVATION KB GL		DEPTH OF WATER --	OFFSHORE GROUP --	API WELL NUMBER 43-027-30023
ORIGINAL 100% COST ESTIMATE	DRILLING CONTRACTOR CRC Colorado Well	DRLG. COST INTEREST IF DIFFERENT FROM GROSS WI		CO. GROSS WI 60%	NET REV. INT. 50%

SURFACE LOCATION Inc.

SW SW Sec. 2-18S-16W

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED
12-5-80	1 day Present Depth: 117' Present Operation: Drilling Spudded 12- $\frac{1}{4}$ " hole at 11:00 p.m., 12-3-80 PP 500 psi, 80 rpm, wt. on bit 4,000# Survey: $\frac{1}{2}$ degree at 56' Bit #1: 12- $\frac{1}{4}$ " Sec MANJ (Serial No. 948216) 0/117/10- $\frac{1}{2}$ /Inc Drilling 10- $\frac{1}{2}$ PU BHA 1- $\frac{1}{2}$ Survey $\frac{1}{2}$ RR $\frac{1}{2}$

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling wells and may also be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each days Drilling Activity. Submit the Interim Report on all wells that have suspended drilling activity.

LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		AFE NUMBER
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State "AB" #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	9-4370034-6	
12-6-80	<p>2 days  Present Depth: 163' 46' 5-1/2 hours  Present Operation: Mixing mud.  Lost returns @ 135'; mix 100 bbls w/30% LCM and 100 bbls w/50% LCM. No returns, dry drilled 135-163'. Lost 1400 bbls water. Now mixing mud and waiting on water and LCM material.  Bit #1: 12-1/4" Sec M4NJ 0/117/11  Bit #2: 12-1/2" Reed HFS1J (Ser #338885) 117/163/46/5/Inc  Drilling 5-1/2 Trip 1  Wait on water and LCM material 17-1/2</p>	
12-7-80	<p>3 days  Present Depth: 290' 127' 3 hours  Present Operation: Drilling  Mud wt. 8.4, vis 40, ck 2/32, pH 8.5, LCM 15%  Survey: 1/4 degree at 158', 3/4 degree at 245'  PP 500 psi, 100 rpm, wt. on bit 6,000#  Bit #2: 12-1/4" Reed HS-51J 117/290/173/8/Inc  Mix mud &amp; wait on LCM pills to heal formation 17  Drilling 3 Trip to unplug bit 2-1/2  Circulate 1/2</p>	
12-8-80	<p>4 days  Present Depth: 438' 148' 14 hours  Present Operation: Drilling  Mud wt. 8.4, vis 40, pH 9.0, solids 1/2%  Survey: 1 degree at 307', 1 degree at 368'  PP 500 psi, 110 rpm, wt. on bit 10,000#  Bit #2: 12-1/4" Reed HS-51 117/438/321/22/Inc  Unplug bit 1/2 Drilling 14  Heal lost circulation w/LCM pills 8-1/2  Survey 1</p>	
12-9-80	<p>5 days  Present Depth: 725' 287' 22 hours  Present Operation: Drilling  Mud wt. 8.5, vis 42, pH 9.0, solids 1%  Survey: 1-1/2 degrees at 461', 1-3/4 degrees at 554',  2 degrees at 660'.  PP 500 psi, 100 rpm, wt. on bit 10,000#  Bit #2: 12-1/4" Reed HS-51J 117/725/608/44/Inc  Drilling 22 Survey 2</p>	

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LEASE UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	SAFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
12-10-80	<p>6 days  Present Depth: 917' 192' 20-1/2 hours  Present Operation: Drilling  Mud wt. 8.7, vis 43, w.l. 12, ck 2/32, pH 9.0, solids 3%  Survey: 1-3/4 degrees at 678', 2 degrees at 805',  2 degrees at 740', 2-1/4 degrees at 865'.  PP 1500 psi, 120 rpm, wt. on bit 15,000#  Drilling 20-1/2 Survey 1-1/2  Trip 1-1/2 RR 1/2</p>	
12-11-80	<p>7 days  Present Depth: 1061' 136' 14 hours  Present Operation: Mixing LCM material  Mud wt. 8.4, vis 40  Survey: 2-1/2 degrees at 926', 2-1/4 degrees at 958'  PP 1500 psi, 120 rpm, wt. on bit 10,000#  Bit #2: 12-1/4" Reed HS-51J 117/1061/944/76 1/2 Inc  Drilling 14 Survey 1  Mix LCM 9  Hit cavern at 1054'. Bit dropped 5' w/very little weight.  Lost returns. Hole not staying full. Lost 700 bbls LCM  mixture to formation. Unable to gain returns.</p>	
12-12-80	<p>8 days  Present Depth: 1128' 67' 13-1/2 hours  Present Operation: Mixing LCM (Lost circulation)  Mud wt. 8.5, vis 37  Survey: 2-1/4 degrees at 1018', 2-1/4 degrees at 1078'  PP 1300 psi, 110 rpm, wt. on bit 10,000#  Bit #2: 12-1/4" Reed HS-51J 117/1128/1011/92/Inc  Drilling 13-1/2 Mixing LCM 9-1/2  Survey 1</p>	

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LEASE UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		WELL OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
	State "AB" #1	Western
	Millard County, Utah	Little Cattleman's Valley
		WELL NUMBER 9-4370034-6
12-13-80	<p>9 days  Present Depth: 1200'      72'      15 hours  Present Operation: TIH w/new bit  Mud wt. 8.4, vis 59, pH 8.5  Survey 2-3/4 degrees at 1170'  PP 1200 psi, 110 rpm, wt. on bit 15,000#  Bit #2: 12-1/4" Reed HS-51J 117/1200/1083/107  Mix mud and LCM. (Regained circulation after losing approximately 800 bbls mud to formation.) 4-1/2  Drilling 15      Survey, trip and change BHA 4-1/4</p>	
12-14-80	<p>10 days  Present Depth: 1238'      38'      8-1/2 hours  Present Operation: Drilling  Mud wt. 8.6, vis 75, pH 8.5  Survey 2-1/2 degrees at 1184'  PP 1400 psi, 95 rpm, wt. on bit 12,000#  Bit #3: 12-1/4" HTC J-22 (FE-376) 1200/1238/38/8-1/2/Inc.  Drilling 8-1/2      Survey 1/2      TIH 2  Mix LCM 13 (Pump LCM slugs and wait on hole to heal.) Lost approximately 500 bbls mud to formation.</p>	
12-15-80	<p>11 days  Present Depth: 1387'      149'      22 hours  Present Operation: Drilling  Mud wt. 8.4, vis 47, ck 2/32, pH 8.5, solids 1/2%, LCM 10%  Survey 2 degrees at 1215', 2-1/8 degrees at 1246',  2 degrees at 1277', 2 degrees at 1307'  PP 1400 psi, 105 rpm, wt. on bit 15,000#  Bit #3: 12-1/4" HTC J-22 1200/1387/187/30-1/2/Inc.  Drilling 22      Survey 2</p>	
12-16-80	<p>12 days  Present Depth: 1594'      207'      22 hours  Present Operation: Drilling  Mud wt. 8.7, vis 75, pH 9  Survey 2-1/4 degrees at 1370', 1-3/4 degrees at 1432',  2 degrees at 1494'  PP 1800 psi, 95 rpm, wt. on bit 20,000#  Bit #3: 12-1/4" HTC J-22 1200/1594/394/52-1/2/Inc.  Drilling 22      RS 1/2      Survey 1-1/2</p>	

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LEASE / UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	AFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
12-17-80	<p>13 days  Present Depth: 1852' 258' 21-1/4 hours  Present Operation: Drilling  Mud wt. 8.6, vis 40, w.l. 2/32, pH 8.5, solids 2%  Survey 1-3/4 degrees at 1743', 2 degrees at 1806'  PP 1800 psi, 90 rpm, wt. on bit 20,000#  Bit #3: 8-3/4" HTC J-22 1200/1852/652/73-3/4/Inc.  Drilling 21-1/4 RS 1/4  Survey 2-1/2</p>	
12-18-80	<p>14 days  Present Depth: 1907' 55' 6-1/2 hours  Present Operation: Drilling  Mud wt. 8.4, vis 46, pH 8.5  Survey: 1-3/4 degrees at 1836', 2 degrees at 1806'  PP 1300 psi, 95 rpm, wt. on bit 20,000#  Bit #3: 12-1/4" HTC J-22 1200/1901/701/79-3/4/Inc  Bit #4: 12-1/4" HTC J-33 (EX510) 1901/1907/6/1/2/Inc  Drilling 6-1/2  Pump LCM pills and mix mud 13 Survey 1/2  RS 1/2 Trip for bit 3  Circulate and condition hole 1/2  Note: Lost 50% returns at 1900'. Lost approximately 750 bbls mud to formation.</p>	
12-19-80	<p>15 days  Present Depth: 2106' 205' 23 hours  Present Operation: Drilling  Mud wt. 8.4, vis 49, pH 8.5, solids 1/2%  Survey 1-3/4 degrees at 1930', 2 degrees at 2021'  PP 1300 psi, 100 rpm, wt. on bit 20,000#  Bit #4: 12-1/4" HTC J-33 1895/2106/211/23-1/2/Inc.  Drilling 23 Surveys 1</p>	
12-20-80	<p>16 days  Present Depth: 2215' 109' 11-1/2 hours  Present Operation: Rig up Halliburton  Mud wt. 8.5, vis 39, pH 8.5  Survey 1-1/2 degrees at 2171'; 2 degrees at 2084'; 2 degrees at 2021'  PP 1300 psi, 110 rpm, wt. on bit 20,000#  Bit #4: 12-1/4" HTC J-33 1901/2215/314/35  Drilling 11-1/2  Survey 1  Circulate 4-1/2 TOOH and lay down BHA 2-1/2  Rig up and run 9-5/8" casing 4-1/2</p>	

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LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
	State "AB" #1	Western
	Millard County, Utah	Little Cattleman's Valley
		AFE NUMBER 9-4370034-6
12-21-80	<p>17 days  Present Depth: 2215'  Present Operation: Welding on casinghead.  Mud wt: Water  Survey: None  Circulate and condition hole 3  Cement 9-5/8" casing 1-1/2 WOC 12-1/2  Cut off casing and clean cellar 2  Welding on casinghead 5  Ran 52 jts 9-5/8" 36# K-55 ST&amp;C casing, set @ 2203' w/DV tool @ 978'. Cemented 1st stage w/325 sx Halco Lite w/1/4# LCM/sx followed w/150 sx Class G w/1/4# LCM/sx. Open DV tool &amp; circulate out excess cement. Cement 2nd stage w/530 sx Halco Lite w/2% CaCl<sub>2</sub> and 1/4# LCM/sx. Cement circulated. Good returns T.O. Plug down at 4:30 p.m. on 12-19-80.</p>	
12-22-80	<p>18 days  Present Depth: 2215'  Present Operation: Nipple up BOP's.  Mud wt: Water  Survey: None  Weld on casinghead and test weld to 3000 psi. Laid down 8" BHA and pick up 6" BHA. Nipple up BOP's. 24</p>	
12-23-80	<p>19 days  Present Depth: 2215'  Present Operation: Testing BOP's  Mud: Water  Survey: None  Nipple up BOP's 7 Wait on Halliburton 15-1/2  Test BOP's. Test blind rams and manifold to 1500 psi 1-1/2</p>	
12-24-80	<p>20 days  Present Depth: 2337' 126' 8 hours  Present Operation: Lost circulation (Mixing LCM)  Mud wt. 8.5, vis 45  Survey 1-3/4 degrees at 2249'  PP 800 psi, 50 rpm, wt. on bit 25,000#  Bit #5: 8-3/4" HTC OWVJ (EE-514) Drilled DV tool and shoe.  Bit #6: 8-3/4" HTC J-33 (BS-140) 2211/2337/126/8/Inc.  Drilling 8 Mixing LCM pills and trying to gain  circulation 7 Survey 1/2  Test BOP's to 1500 psi and Hydril to 400 psi. Tested formation to 300 psi. Bled to 200 psi after 10 minutes 1-1/2  Trips 4-1/2 Drill float collar and shoe 2  Wash and ream to bottom 1/2  NOTE: Drilled 4 feet at 1-1/2 minutes/ft. Lost 600 bbls fluid to formation. FI + 1000'</p>	

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LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
	State "AB" #1	Western
	Millard County, Utah	Little Cattleman's Valley
		AFE NUMBER 9-4370034-6
12-25-80	21 days Present Depth: 2337' Present Operation: WOC Mud: Water Survey: None Bit #6: 8-3/4" HTC J-33 2211/2337/126/8/Inc Mix and pump LCM pills 5 Wait on Halliburton 7-1/2 Trips 5 Cement 1/2 WOC 6 Note: Mix and pump Plug #1: 150 sx Class H cement w/12% "CalSeal", 3% CaCl <sub>2</sub> , 1/2# LCM/sx and 15# gilsonite/sx. Lost 750 bbls mud w/LCM to formation.	
12-26-80	22 days Present Depth: 2349' 12' 1/2 hour Present Operation: WOC Mud: Water Survey: None Bit #6: 8-3/4" HTC J-33 2211/2349/138/8 1/2/Inc Trips 8-1/2 Drilling 1/2 Cementing 2-1/2 WOC 13 Note: Mix and pumped 2 batches of 175 sx Class G cement w/12% "Cal-Seal", 3% CaCl <sub>2</sub> , 1/2# LCM/sx and 15# gilsonite/sx. (Plugs #2 and #3.)	
12-27-80	23 days Present Depth: 2426' 83' 13 hours Present Operation: TOOH to pick up BHA Mud wt. 8.4, vis 40, pH 11, LCM 20% Survey: 2-1/2 degrees at 2346' PP 800 psi, 60 rpm, wt. on bit 10,000# Bit #6: 8-3/4" HTC J-33 2211/2426/215/21 1/2/Inc WOC 3 Mix LCM 5 Trips 2-1/2 Drilling 13 Survey 1/2	

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LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
	State "AB" #1	Western
	Millard County, Utah	Little Cattleman's Valley
		AFE NUMBER 9-4370034-6
12-28-80	<p>24 days Present Depth: 2432' 6' Present Operation: TOOH w/drill pipe after cementing Mud wt. 8.4, vis 40 Survey: None Bit #7: 8-3/4" HTC J-44 (FK599) 2426/2432/6/0/Inc Pick up BHA 1/2 RS &amp; check BOP's 1/2 Ream to bottom (twice) 2-1/2 Trips 11 WOC 8 Cementing 1-1/2 Note: Mixed 2 cement plugs. Plug #4: 150 sx Class "G" cement w/12% "Cal-Seal", 3% CaCl<sub>2</sub>, 1/2# LCM/sx and 17# gilsonite/sx. No returns. Plug #5: 200 sx Class "G" w/12% "Cal-Seal", 3% CaCl<sub>2</sub>, 1/2# LCM/sx and 17# gilsonite/sx. Drill pipe on vacuum after mixing and pumping cement.</p>	
12-29-80	<p>25 days Present Depth: 2458' 25' 2 hours Present Operation: Drilling Mud wt. 8.4, vis 50 Survey: None PP 800 psi, 70 rpm, wt. on bit 10,000# Bit #7: 8-3/4" HTC J-44 2426/2458/32/2/Inc WOC 14 Trips 4-1/2 Drill cement 3 Drilling 2 Cementing 1/2 Note: After drilling plug #5, hit 3' void. Mix and pump plug #6: 150 sx Class H cement w/12% "Cal-Seal", 3% CaCl<sub>2</sub>, 1/2# LCM/sx and 17# gilsonite/sx.</p>	
12-30-80	<p>26 days Present Depth: 2512' 54' 2-1/2 hours Present Operation: WOC Mud wt. 8.4, vis 40 Survey: None PP 800 psi, 70 rpm, wt. on bit 12,000# Bit #7: 8-3/4" HTC J-44 2426/2512/86/4 1/2/Inc Trips 8 WOC 8-1/2 Cementing 1-1/2 Mix LCM 2 Drill cement 1-1/2 Drilling 2-1/2 Note: Drilled to 2467' and lost circulation. Drilled 12' without circulation. Mix and pump plug #7: 150 sx Class H cement w/12% "Cal Seal", 3% CaCl<sub>2</sub>, 1/2#/sx LCM &amp; 17#/sx gilsonite. After drilling plug #7 drilled 2' and lost circulation. Mix and pump plug #8: 150 sx Class H cement w/12% "Cal Seal", 3% CaCl<sub>2</sub>, 1/2#/sx LCM and 17#/sx gilsonite.</p>	

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LEASE UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
	State "AB" #1	Western
	Millard County, Utah	Little Cattleman's Valley
		SAFE NUMBER 9-4370034-6
12-31-80	27 days Present Depth: 2582' 70' 13-1/2 hours Present Operation: Drilling Mud wt. 7.8, vis 45, w.l. 68, ck 4/32, pH 11.5, solids 1% Survey: None PP 800 psi, 70 rpm, wt. on bit 15,000# Bit #7: 8-3/4" HTC J-44 2426/2582/156/20 1/2/Inc WOC 6 Trips 1-1/2 Drill cement (Plug #8) 3 Drilling 13-1/2	
1-1-81	28 days Present Depth: 2715' 133' 24 hours Present Operation: Drilling Mud wt. 8.5, vis 56, w.l. 34, ck 4/32, pH 9, solids 2% Survey: None Bit #7: 8-3/4" HTC J-44 2426/2715/289/44-1/2/Inc. Drilling 24	
1-2-81	29 days Present Depth: 2901' 186' 24 hours Present Operation: Drilling Mud wt. 8.5, vis 56, w.l. 21.6, ck 3/32, pH 9.0, solids 1-1/2% Survey: None PP 700 psi, 70 rpm, wt. on bit 16,000# Bit #7: 8-3/4" HTC J-44 2426/2901/475/68-1/2/Inc. Drilling 24	
1-3-81	30 days Present Depth: 3051' 150' 20 days Present Operation: TIH w/bit #8 Mud wt. 8.6, vis 47, w.l. 20.8, ck 2/32, pH 9, solids 2% Survey 1 degree at 2,931'; 3/4 degree at 3,006' PP 1300 psi, 70 rpm, wt. on bit 25,000# Bit #7: 8-3/4" HTC J-44 2426/3051/625/88-1/2 Bit #8: 8-3/4" Sec M84F (847595) 3051/3051/0/0/Inc. Drilling 20 RS 1/2 RR 1/2 Survey 1/2 Trip 2-1/2	

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LEASE UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		AFE NUMBER
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
	State "AB" #1	Western
	Millard County, Utah	Little Cattleman's Valley
		9-4370034-6
1-4-81	31 days Present Depth: 3291' 240' 20 hours Present Operation: Drilling Mud wt. 8.6, vis 41, w.l. 8.8, ck 2/32, pH 9, solids 1.5% Survey: None PP 1300 psi, 70 rpm, wt. on bit 25,000# Bit #8: 8-3/4" Sec M84F 3051/3291/340/20/Inc Trip 1-1/2 Drilling 20 Cut drilling line 1 Work tite hole 1 RS 1/2	
1-5-81	32 days Present Depth: 3518' 227' 22 hours Present Operation: Drilling Mud wt. 8.7, vis 41, w.l. 8.2, ck 2/32, pH 9.0, solids 3% Survey: 1-1/4 degrees at 3334' PP 1300 psi, 60 rpm, wt. on bit 21,000# Bit #8: 8-3/4" Sec M84F 3051/3518/467/42/Inc Drilling 22 Survey 1/2 RS 1/2 RR 1	
1-6-81	33 days Present Depth: 3774' 256' 23 hours Present Operation: Drilling Mud wt. 8.5, vis 36, w.l. 8.8, ck 2/32, pH 10.5, solids 2% Survey 3/4 degree at 3646' PP 1300 psi, 60 rpm, wt. on bit 30,000# Bit #8: 8-3/4" Sec M84F 3051/3774/723/65/Inc. Drilling 23 RS 1/2 Survey 1/2	
1-7-81	34 days Present Depth: 4124' 350' 23-1/2 hours Present Operation: Drilling Mud wt. 8.6, vis 40, w.l. 14.8, ck 2/32, pH 10, solids 2-1/2% Survey: None PP 1300 psi, 60 rpm, wt. on bit 30,000# Bit #8: 8-3/4" Sec M84F 3051/4124/1073/88-1/2/Inc. Drilling 23-1/2 Mix LCM 1/2	

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LEASE / UNIT NAME AND WELL NO.		REGION												
COUNTY - PARISH - STATE - PROVINCE		WELL OR PROSPECT NAME												
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED													
State "AB" #1	Western													
Millard County, Utah	Little Cattleman's Valley													
	WELL NUMBER 9-4370034-6													
1-8-81	35 days Present Depth: 4197' 73' 6 hours Present Operation: Pumping LCM plug Mud wt. 8.4, vis 45 Survey 3-1/2 degrees at 4141' PP 1300 psi, 60 rpm, wt. on bit 25,000# Bit #8: 8-3/4" Sec 184F 3051/4197/1146/94-1/2 Bit #9: 8-3/4" HTC J-33 (SN #126) 4197/Inc. Drilling 6 Survey 1/2 Trip 3 Pump and mix LCM and wait on materials 14-1/2													
1-9-81	36 days Present Depth: 4197' Present Operation: Working stuck pipe Mud wt. 8.4, vis 43, w.l. 11.4, ck 2/32, pH 8.5 Spotted 150 sk Class "H" + 1/2# floseal + 3% CaCl + 12% Cal Seal + 15# Gilsonite. Mud circulated but dropped back 25 feet per hour. Started to spot second plug and pipe stuck. Displaced hole with water. Wait on cement 13 Trip and spot plug 2 Trip and WOC 7 Strap In 1-1/2 Cement and displace hole 1/2													
1-10-81	37 days Present Depth: 4365' 168' 13 hours Present Operation: Drilling Mud wt. 8.5, vis 52, w.l. 21, ck 2/32, pH 10.5, solids 2% Survey: 3-1/2 degrees at 4232', 3-1/2 degrees at 4294' PP 1300 psi, 100 rpm, wt. on bit 15,000# Bit #9: 8-3/4" HTC J-33 4197/4365/168/13/Inc  <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Work stuck pipe</td> <td style="width: 5%;">3</td> <td style="width: 50%;">Drill cement</td> <td style="width: 5%;">3</td> </tr> <tr> <td>Trip for bit</td> <td>3</td> <td>Drilling</td> <td>13</td> </tr> <tr> <td>Circulate</td> <td>1</td> <td>Survey</td> <td>1</td> </tr> </table>		Work stuck pipe	3	Drill cement	3	Trip for bit	3	Drilling	13	Circulate	1	Survey	1
Work stuck pipe	3	Drill cement	3											
Trip for bit	3	Drilling	13											
Circulate	1	Survey	1											

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling wells and may also be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each days Drilling Activity. Submit the Interim Report on all wells that have suspended drilling activity.

LEASE UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	AFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
1-11-81	<p>38 days  Present Depth: 4506' 141' 15-1/2 hours  Present Operation: Drilling  Mud wt. 8.5, vis 40, w.l. 12.4, ck 2/32, pH 8.5, solids 2%  Survey: 3-1/2 degrees at 4294', 4 degrees at 4355',  4 degrees at 4417'  PP 1300 psi, 90 rpm, wt. on bit 10,000#  Bit #9: 8-3/4" HTC J-33 4197/4506/309/28 1/2/Inc  Drilling 15-1/2 Work stuck pipe 7-1/2  Survey 1  Note: Drill pipe stuck @ 3 p.m. @ 4400'. Spotted 1000 gals diesel w/30 gals "Release". Worked drill pipe &amp; pipe came loose at 10:30 p.m.</p>	
1-12-81	<p>39 days  Present Depth: 4693' 187' 22-1/2 hours  Present Operation: Drilling  Mud wt. 8.7, vis 40, w.l. 10.6, ck 2/32, pH 8.5, solids 2-3/4%  Survey: 4-1/2 degrees at 4601', 4 degrees at 4510'  PP 1300 psi, 90 rpm, wt. on bit 15,000#  Bit #9: 8-3/4" HTC J-33 4197/4693/496/51/Inc  Drilling 22-1/2 Circulate 1/2  Survey 1</p>	
1-13-81	<p>40 days  Present Depth: 4852' 159' 21-1/2 hours  Present Operation: TOOH w/bit  Mud wt. 8.7, vis 39, w.l. 11.8, ck 1/32, pH 8.5, solids 2-3/4%  Survey: 4-1/4 degrees at 4690', 5-1/4 degrees at 4781',  5-1/2 degrees at 4807'  PP 1300 psi, 90 rpm, wt. on bit 15,000#  Bit #9: 8-3/4" HTC J-33 4197/4852/655/72 1/2  Drilling 21-1/2 Survey 1  Trip 1-1/2</p>	
1-14-81	<p>41 days  Present Depth: 4923' 80' 15-1/2 hours  Present Operation: Drilling  Mud wt. 8.8, vis 42, w.l. 11.4, ck 2/32, pH 8.5, solids 3.5%  Survey: 5-3/4 degrees at 4839'  PP 1100 psi, 100 rpm, wt. on bit 15,000#  Bit #10: 8-3/4" HTC J-55R (NS817) 4843/4923/80/15 1/2/Inc  TOOH 1 RS 1/2  TIH 6-1/2 Survey 1/2  Drilling 15-1/2</p>	

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LEASE / UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	AFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
1-15-81	<p>42 days  Present Depth: 5054' 131' 22-1/2 hours  Present Operation: Drilling  Mud wt. 8.7, vis 39, w.l. 10, ck 1/32, pH 8.5, solids 2-3/4%  Survey: 5-3/4 degrees at 4902'  PP 1000 psi, 100 rpm, wt. on bit 15,000#  Bit #10: 8-3/4" HTC J-55R 4843/5054/211/38/Inc  Drilling 22-1/2 RS 1/2  Survey 1</p>	
1-16-81	<p>43 days  Present Depth: 5158' (104'/17 hrs.)  Present Operation: Trip in hole w/new bit.  Mud wt. 8.8; Vis 38; W.L. 10.3; ck 2/32"; pH 8.5; Solids 3 1/2%  Survey: 7 deg. at 5108; 7 deg at 5086  PP 1000 psi, 100 rpm; wt. on bit 12,000#  Bit #10: 8 3/4 HTC J-55R 4843/5158/315/55  Bit #11: 8 3/4 HTC J-44 (XB 568) 5158/Inc  Drilling 17 hrs.  Survey 2 hrs.  R.S. 1/2 hr.  Trip 2 1/2 hrs.  Clean pump suction 1 hr.  Make up new BHA 1 hr.</p>	
1-17-81	<p>44 days  Present Depth: 5249' 96' 21 hours  Present Operation: Drilling  Mud wt. 8.9, vis 40, w.l. 9.2, ck 1/32, pH 8.5, solids 4%  Survey: 7-1/4 degrees at 5156'  PP 1300 psi, 80 rpm, wt. on bit 12,000#  Bit #11: 8-3/4" HTC J-44 (SB568) 5153/5249/96/21/Inc  TIH w/new BHA 2-1/2 Drilling 21  Survey 1/2</p>	
1-18-81	<p>45 days  Present Depth: 5386' 137' 22-1/2 hours  Present Operation: Drilling  Mud wt. 8.8, vis 38, w.l. 9.0, ck 1/32, pH 9.0, solids 3 1/2%  Survey: 7-1/4 degrees at 5217', 7 degrees at 5279', 7-1/2 degrees at 5340'  PP 1300 psi, 120 rpm, wt. on bit 15,000#  Bit #11: 8-3/4" HTC J-44 5153/5368/233/43 1/2/Inc  Drilling 22-1/2 Survey 1-1/2</p>	

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LEASE / UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	AFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
1-19-81	46 days Present Depth: 5542' 156' 23 hours Present Operation: Drilling Mud wt. 8.9, vis 41, w.l. 10.0, ck 1/32, pH 9, solids 4% Survey: 7-3/4 degrees at 5432' PP 1300 psi, 85 rpm, wt. on bit 15,000# Bit #11: 8-3/4" HTC J-44 5153/5542/389/66½/Inc Drilling 23 Survey 1	
1-20-81	47 days Present Depth: 5700' 158' 23 hours Present Operation: Drilling Mud wt. 8.9, vis 42, w.l. 9.7, ck 1/32, pH 9, solids 4% Survey: 7-1/2 degrees at 5614' PP 1300 psi, 95 rpm, wt. on bit 15,000# Bit #11: 8-3/4" HTC J-44 5153/5700/527/89-1/2/Inc. Drilling 23 Survey 1	
1-21-81	48 days Present Depth: 5767' 67' 10-1/2 hours Present Operation: Picking up DST tools Mud wt. 8.9, vis 42, w.l. 8.0, ck 2/32, pH 10, solids 4% Survey: 8 degrees at 5705' PP 1300 psi, 90 rpm, wt. on bit 15,000# Bit #11: 8-3/4" HTC J-44 5153/5767/594/100 Drilling 10-1/2 Survey 1/2 Circulate 10 Trip 3 DST #1 5700-5767' (67) Wah Wah Formation	
1-22-81	49 days Present Depth: 5805' 38' 8 hours Present Operation: Drilling Mud wt. 8.9, vis 43, w.l. 8, ck 2/32, pH 10, solids 4% Survey: 8 degrees at 5705' PP 1400 psi, 80 rpm, wt. on bit 15,000# Bit #12: 8-3/4" Sec M89F (850632) 5767/5805/38/8/Inc. Pick up DST tools 3-1/2 Run DST #1 4-1/2 TOOH 3 Lay down DST tools 2 TIH w/bit #12 3 Drilling 8 DST #1: 5699-5767' (68') Wah Wah Formation. Open tool for 30" preflow. Tool open w/weak blow (TSTM), SI 60". Open tool for 30" test. Tool open w/no blow. SI 120". Recovered 102' drilling fluid. IHP 2597 psi. 1st IFP: 13.8 psi, 1st FFP: 27.6 psi, ISIP: 1920 psi. 2nd IFP: 27.6 psi, 2nd FFP: 55.1 psi, FSIP: 1947.7 psi, FHP: 2555 psi. Sampler pressure: 0 psi. Recovered 2350 cc drilling fluid in sampler. Rm 2.3 at 78 degrees F (recovery). Rm 2.4 at 83 degrees F (bit). BHT 120 degrees F	

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LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State "AB" #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	9-4370034-6	
1-23-81	50 days Present Depth: 5963'      158'      22-1/2 hours Present Operation: Drilling Mud wt. 8.8, vis 41, w.l. 8, ck 2/32, pH 10, solids 4% Survey: 8 degrees at 5792', 8 degrees at 5885 PP 1400 psi, 80 rpm, wt. on bit 15,000# Bit #12: 8-3/4" Sec M89F 5767/5963/196/30-1/2/Inc. Drilling 22-1/2      Survey 1      RS 1/2	
1-24-81	51 days Present Depth: 6040'      77'      15-1/2 hours Present Operation: Drilling Mud wt. 8.8, vis 40, w.l. 8, ck 2/32, pH 9.5, solids 4% Survey: 8 degrees at 5994' PP 1300 psi, 67 rpm, wt. on bit 15,000# Bit #12: 8-3/4" Sec M84F 5767/5994/227/61-1/2 Bit #13: 8-3/4" Sec H100F(836656) 5994/6040/46/8-1/2/Inc. Drilling 15-1/2      Survey 1/2      Trip 8	
1-25-81	52 days Present Depth: 6144'      104'      21 hours Present Operation: TOOH for bit Mud wt. 8.8, vis 38, w.l. 8, ck 2/32, pH 9.5, solids 4% Survey: 8 degrees at 6041' PP 1300 psi, 60 rpm, wt. on bit 15,000# Bit #13: 8-3/4" Sec H100F 5994/6144/150/29-1/2 Drilling 21      RS 1/2      Survey 1/2      Trip 2	
1-26-81	53 days Present Depth: 6160'      16'      10-1/2 hours Present Operation: TOOH and checking drill collars Mud wt. 8.7, vis 38, w.l. 8, ck 2/32, pH 10, solids Survey: 9 degrees at 6112' PP 1300 psi, 75 rpm, wt. on bit 15,000# Bit #14: 8-3/4" Sec M84F 6144/6160/16/10-1/2 Trips 10      RS 1/2      Unplug bit 2-1/2 Drilling 10-1/2      Survey 1/2	

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LEASE / UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	AFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
1-27-81	<p>54 days  Present Depth: 6193' 33' 12 hours  Present Operation: TIH w/bit #16  Mud wt. 8.7, vis 38, w.l. 8, ck 2/32, pH 10, solids 3%  Survey: 9 degrees at 6112'  PP 1400 psi, 70 rpm, wt. on bit 20,000#  Bit #15: 8-3/4" HTC J-77 (XC919) 6160/6193/33/12  Magnaflux 1/2 RS 1/2  Clean mud pits 1 Trips 9-1/2  Ream 45' to bottom 1/2  Drilling 12</p>	
1-28-81	<p>55 days  Present Depth: 6250' 57' 16 hours  Present Operation: Mixing mud and LCM  Mud wt. 8.7, vis 41, w.l. 8, ck 2/32, pH 10, solids 3%  Survey: 9 degrees at 6205'  PP 1300 psi, 65 rpm, wt. on bit 20,000#  Bit #16: 8-3/4" HTC J-99 (BC374) 6193/6250/57/16  Bit #17: 8-3/4" STC F-9 (BE4413) 6250  Drilling 16 Tripping 8</p>	
1-29-81	<p>56 days  Present Depth: 6272' 22' 7 hours  Present Operation: Waiting on wireline truck  Mud wt. 8.7, vis 41  Survey: None  PP 800 psi, 60 rpm, wt. on bit 20,000#  Bit #17: 8-3/4" STC F-9 6250/6272/22/7  Check fluid level (approximately 1000') 1/2  Pump LCM plugs and mix mud 9-1/2  Trip 5-1/2 Drilling 7 Wait on wireline 1-1/2</p>	
1-30-81	<p>57 days  Present Depth: 6272'  Present Operation: TIH to tag cement plug  Mud wt. 8.7, vis 41  Survey: None  Bit #17: 8-3/4" STC F-9 6250/6272/22/7/Inc.  Mix mud and build mud volume 4  Wait on wireline truck 4  Rig up wireline truck 1  Log w/GO wireline (find fluid entry @ 2265') 4-1/2  Set cement plug. Spot 50 sx Class "H" cement w/3% CaCl<sub>2</sub> and 15% Cal Seal. 2 WOC 8 TIH to tag cement plug 1/2</p>	

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LEASE - UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		WELL NUMBER
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State "AB" #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	9-4370034-6	
1-31-81	<p>58 days  Present Depth: 6354'      82'      21 hours  Present Operation: Trip for bit  Mud wt. 8.5, vis 36, w.l. 13, ck 2/32, pH 10.0, solids 2%  Survey: None  PP 700 psi, 70 rpm, wt. on bit 15,000#  Bit #17: 8-3/4" STC F-9 6250/6354/104/28  TIH to 2530' and break circulation 1/2      Circulate 1  Finish TIH 1      Drilling 21      TOOH 1/2</p>	
2-1-81	<p>59 days  Present Depth: 6428'      74'      15 hours  Present Operation: TOOH for bit  Mud wt. 8.7, vis 37, w.l. 10, ck 2/32, pH 10.0, solids 3%  Survey 9-1/2 degrees @ 6329'  PP 1300 psi, 55 rpm, wt. on bit 15,000#  Bit #18: 8-3/4" STC F-57 (BF8535) 6354/6428/74/15  Trips 7      RS 1/2      Check BOP's 1/2      Drilling 15  Survey 1/2      Circulate samples 1/2</p>	
2-2-81	<p>60 days  Present Depth: 6428  Present Operation: WOC  Mud wt. 8.5, vis 34, w.l. 12.4, ck 2/32, pH 10.0, solids 1-1/4%  Survey: None  NOTE: Losing 40-50 bbls/hour of drilling fluid. Ran drill pipe to 2275'. Cement w/75 sx Class "H" cement w/3% CaCl<sub>2</sub>, 12% Cal-Seal, 1/2#/sx LCM and 15#/sx gilsonite. Pulled 10 stands and WOC for 8 hours. Filled hole after 4 hours. Lost 15' of fluid in 3 hours. TIH open ended and tag cement @ 2314'. Pulled to 2275'. Rigged up Halliburton and found drill pipe plugged. TOOH and had 5 jts of drill pipe plugged w/cement. Lay down 5 jts plugged drill pipe and picked up 5 new jts drill pipe. TIH to 2275' and spot 50 sx Class "H" cement w/3% CaCl<sub>2</sub>, 12% Cal-Seal, 1/2#/sx LCM and 15#/sx gilsonite. TOOH and WOC.  Trip for bit #18 1      RS and check BOP's 1  TIH w/23 stands 1/2      Wait on Halliburton 6-1/2  Pump 75 sx cement plug 2-1/2      WOC 8-1/2  Tag cement @ 2314' 1/2      Find plugged drill pipe 1/2  Lay down and pick up 5 jts drill pipe and TIH 2  Pump 50 sx cement plug 1/2      TOOH 1/2</p>	

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LEASE UNIT NAME AND WELL NO. State "AB" #1		REGION Western
COUNTY - PARISH - STATE - PROVINCE Millard County, Utah	FIELD OR PROSPECT NAME Little Cattleman's Valley	AFF NUMBER <del>9-4370034-6</del> 9-437034-6

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED
2-3-81	61 days Present Depth: 6471' 43' 9 hours Present Operation: Drilling Mud wt. 8.4, vis 40, w.l. 24, ck 2/32, pH 12, solids 1/2% Survey: 9-1/2 degree @ 6383' PP 1300 psi, 75 rpm, wt. on bit 20,000# Bit #19: 8-3/4" STC F-7 (BF8583) 6428/6471/43/9/Inc. WOC 8-1/2 TIH and tag cement @ 2172' 1-1/2 Drill cement stringers to 2493' 3 Circulate and condition mud 1/2 TIH to 6428' 1 Drilling 9 RS 1/2
2-4-81	62 days Present Depth: 6532' 61' 14-1/2 hours Present Operation: Reaming to bottom Mud wt. 8.6, vis 47, w.l. 14.8, ck 2/32, pH 10.5, solids 2% Survey: 9 degrees @ 6484' PP 1300 psi, 70 rpm, wt. on bit 20,000# Bit #19: 8-3/4" STC F-7 6428/6532/104/19-1/2 Bit #20: 8-3/4" STC F-7 (BJ-2798) Drilling 14-1/2 Survey 1 Trip 5 Clean pits 2-1/2 RS 1 Ream 1/2
2-5-81	63 days Present Depth: 6605' 73' 20-1/2 hours Present Operation: Drilling Mud wt. 8.6, vis 39, w.l. 14.4, ck 2/32, pH 10.0, solids 2% PP 1250 psi, 70 rpm, wt. on bit 20,000# Bit #20: 8-3/4" STC F-7 6532/6605/20-1/2/Inc. Reaming 3-1/2 Drilling 20-1/2
2-6-81	64 days Present Depth: 6625' 20' 5 hours Present Operation: Running DST #2 Mud wt. 8.6, vis 36, w.l. 14.0, ck 1/32, pH 9.0, solids 2% Survey: 8-3/4 degrees at 6615' PP 1250 psi, 70 rpm, wt. on bit 20,000# Bit #20: 8-3/4" STC F-7 6532/6625/93/25-1/2 Drilling 5 Circulate and condition hole 5 Trips 6-1/2 Pick up DST tools 2-1/2 Running DST #2 3

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State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
Millard County, Utah		Little Cattleman's Valley
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
2-7-81	65 days Present Depth: 6665' 40' 11-1/2 hours Present Operation: Drilling Mud wt. 8.7, vis 38, w.l. 11.2, ck 1/32, pH 9.0, solids 3% PP 1400 psi, 65 rpm, wt. on bit 20,000# Bit #21: 8-3/4" STC F-7 (DS8576) 6625/6665/40/Inc. DST #2: 6586 - 6625' Open 30 mins, slight blow, SI 60 mins. Open 45 mins, slight blow, SI 120 mins. Recovered 185' drilling mud. IHP: 2937; 1st IFP: 53; FFP: 80; ISIP: 2357. 2nd IFP: 80; FFP: 107; FSIP: 2347; FHP: 2937; BHT: 120°F	
2-8-81	66 days Present Depth: 6750' 85' 22-1/2 hours Present Operation: Drilling Mud wt. 8.8, vis 44, w.l. 10.2, ck 1/32, pH 9.0, solids 3-1/2% Survey: 9-3/4 degrees @ 6671'; 9-1/4 degrees @ 6700' PP 1400 psi, 65 rpm, wt. on bit 13-17,000# Bit #21: 8-3/4" STC F-7 6625/6750/125/34/Inc. Drilling 22-1/2 Survey 1 RS 1/2	
2-9-81	67 days Present Depth: 6817' 67' 23 hours Present Operation: Drilling Mud wt. 8.7, vis 43, w.l. 11.6, ck 1/32, pH 8.5, solids 2-3/4% Survey: 10 degrees @ 6767' PP 1300 psi, 60-65 rpm, wt. on bit 13-15,000# Bit #21: 8-3/4" STC F-7 6625/6817/45-1/2/Inc. Drilling 23 Survey 1/2 RS 1/2	
2-10-81	68 days Present Depth: 6856' 39' 13-1/2 hours Present Operation: Trip Mud wt. 8.8, vis 37, w.l. 11.8, ck 2/32, pH 9.0, solids 3-1/2% Survey: 10 degrees @ 6826' PP 1300 psi, 60 rpm, wt. on bit 13-15,000# Bit #21: 8-3/4" STC F-7 6625/6856/231/70-1/2 Bit #22: 8-3/4" STC F-7 (BJ2786) Drilling 13-1/2 Trip 8 Change BHA 2-1/2	

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LEASE UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		WELL NUMBER
State "AB" #1		Western
Millard County, Utah		9-4370034-6
DATE AND DEPTH	FIELD OR PROSPECT NAME	
	Little Cattleman's Valley	
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
2-11-81	69 days Present Depth: 6910'      54'      16-1/2 hours Present Operation: Drilling Mud wt. 8.8, vis 46, w.l. 10.4, ck 1/32, pH 9.0, solids 3-1/2% Survey 11 degrees @ 6900' PP 1300 psi, 60-75 rpm, wt. on bit 15-20,000# Bit #22: 8-3/4" STC F-7 6856/6879/23/5 Bit #23: 8-3/4" J-33 (EF999) 6879/6910/31/11-1/2 Trip 7      Drilling 16-1/2      Survey 1/2	
2-12-81	70 days Present Depth: 6952'      42'      14 hours Present Operation: Drilling Mud wt. 8.8, vis 43, w.l. 10.6, ck 2/32, pH 9.0, solids 3-1/2% Survey 11-1/2 degrees @ 6920' PP 1300 psi, 100 rpm, wt. on bit 18,000# Bit #23: 8-3/4" HTC J-33 6879/6952/73/25-1/2/Inc. Drilling 14      Survey 1/2      Trip and change BHA 3 Ream 60' to bottom 1-1/2	
2-13-81	71 days Present Depth: 7055'      103'      21-1/2 hours Present Operation: Drilling Mud wt. 8.8, vis 42, w.l. 10.6, ck 1/32, pH 9.0, solids 3-1/2% Surveys: 11-3/4 degrees @ 6947' and 11-3/4 degrees @ 6978' PP 1300 psi, 55 rpm, wt. on bit 20,000# Bit #23: 8-3/4" HTC J-33 6879/7055/176/47/Inc. Drilling 21-1/2      Surveys 2      RS 1/2	
2-14-81	72 days Present Depth: 7156'      101'      22-1/2 hours Present Operation: Drilling Mud wt. 8.8, vis 39, w.l. 10.0, ck 1/32, pH 9.0, solids 3-1/2% Survey: 12-1/4 degrees @ 7070' PP 1300 psi, 60 rpm, wt. on bit 15,000# Bit #23: 8-3/4" HTC J-33 6879/7156/277/69-1/2/Inc. Drilling 22-1/2      Survey 1-1/2	

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UNIT NAME AND WELL NO. State "AB" #1		REGION Western
COUNTY-PARISH-STATE-PROVINCE Millard County, Utah	FIELD OR PROSPECT NAME Little Cattleman's Valley	AFE NUMBER 9-4370034-6

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED
2-15-81	<p><del>73</del> days Present Depth: 7210' 54' 17-1/2 hours Present Operation: Drilling Mud wt. 8.9, vis 38, w.l. 9.6, ck 1/32, pH 9.0, solids 4% Survey: 14 degrees @ 7163' PP 1300 psi, 60 rpm, wt. on bit 15,000# Bit #23: 8-3/4" HTC J-33 6879/7206/327/87 Bit #24: 8-3/4" HTC J-44 (FN189) 7206/7210/4/1/Inc. Drilling 17-1/2 Survey 1 Trip 5-1/2</p>
2-16-81	<p><del>74</del> days Present Depth: 7301' 91' 23 hours Present Operation: Drilling Mud wt. 8.8, vis 55, w.l. 10.2, ck 2/32, pH 9.0, solids 3-1/2% Survey: None PP 1300 psi, 112 rpm, wt. on bit 15,000# Bit #24: 8-3/4" HTC J-44 (FN189) 7206/7301/95/24/Inc. Drilling 23 Survey 1</p>
2-17-81	<p><del>75</del> days Present Depth: 7322' 21' 4 hours Present Operation: Running DST #3 Mud wt. 8.8, vis 55, w.l. 10.6, ck 2/32, pH 9.0, solids 3-1/2% Survey 15 degrees @ 7315' PP 1400 psi, 85 rpm, wt. on bit 17,000# Bit #24: 8-3/4" HTC J-44 7206/7322/116/28/Inc. Drilling 4 Survey 1/2 Circulate for DST #3 8-1/2 TOOH 3-1/2 Wait on Halliburton 1-1/2 Rig up Test tools 1 TIH w/DST #3 4 Testing 1 DST #3 7240-7322' (82') Juab Limestone</p>
2-18-81	<p>76 days Present Depth: 7327' 5' 2 hours Present Operation: Drilling Mud wt. 8.8, vis 39, w.l. 10.6, ck 1/32, pH 9.0, solids 3-1/2% Survey: None PP 1300 psi, 85 rpm, wt. on bit 15,000# Bit #25: 8-3/4" HTC J-44 (XW 853) 7322/7327/5/Inc. DST #3 5-1/2 TOOH w/test tools 2-1/2 Loading test tools 1 RS 1 Magnifluxing DC's 9 (LD 15 DC's - boxes swelled) TIH 3 Drlg. 2</p> <p>DST #3: 7228-7322' (94') Juab Formation. Open tool for 30" preflow. Opened w/light blow. SI 60". Opened tool for 125" test. Opened w/light blow for 10" and died. SI 180 mins. Recovered 40' DM.</p>

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LEASE UNIT NAME AND WELL NO. State "AB" #1		REGION Western
COUNTY-PARISH-STATE-PROVINCE Millard County, Utah	FIELD OR PROSPECT NAME Little Cattleman's Valley	WELL NUMBER 9-4370034-6

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED
	<u>Top Chart @ 7205'</u>
	IHP 3290.6 psi IFP 20.5 psi ISIP 1584.7 psi FFP 40.9 psi FSIP 898.0 psi FHP 3270.6 psi
	Recovered 2100 cc DM in sampler. Rm = 1.8 @ 74°F, chlorides 3000 (recovery). Rm = 2.2 @ 74°F, chlorides 2500 (pit). BHT 132°F @ 7318'.
2-19-81	77 days Present Depth: 7416' 89' 23-1/2 hours Present Operation: Drilling Mud wt. 8.7, vis 43, w.l. 10.4, ck 1/32, pH 9.0, solids 2-3/4% Survey: Misrun @ 7363' PP 1300 psi, 65 rpm, wt. on bit 16,000# Bit #25: 8-3/4" HTC J-44 (xw 853) 7322/7416/94/25-1/2/Inc. Drilling 23-1/2 Survey 1/2
2-20-81	78 days Present Depth: 7495' 79' 19 hours Present Operation: Drilling Mud wt. 8.7, vis 40, w.l. 9.6, ck 1/32, pH 9.5, Solids 2-3/4% Survey: 14 degrees @ 7374' Coordinates 438'S 57'E Azimuth 441.74' @ 172° or S8°E PP 1300 psi, 78 rpm, wt. on bit 17,000# 7322/173/44-1/2/Inc. Bit #25: 8-3/4" HTC J-44 (xw853) Drilling 19 Surveys Multi shot 4-1/2 Check BOP 1/2
2-21-81	79 days Present Depth: 7600' 105' 22-1/2 hours Present Operation: Drilling Mud wt. 8.7, vis 39, w.l. 11.2, ck 2/32, pH 9.5, solids 2-3/4% Survey: 14 degrees @ 7535' PP 1300 psi, 75 rpm, wt. on bit 25,000# Bit #25: 8-3/4" HTC J-44 (XW853) 7322/7600/278/67/Inc. Drilling 22-1/2 RS & check BOP's 1/2 Survey 1

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LEASE / UNIT NAME AND WELL NO.		REGION
State "AB" #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	SAFE NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
2-22-81	<p>80 days  Present Depth: 7752' 152' 22-1/2 hours  Present Operation: Drilling  Mud wt. 8.8, vis 38, w.l. 12, ck 2/32, pH 9.5, solids 2-1/2%  Survey: 14-1/2 degrees @ 7585'  PP 1300 psi, 75 rpm, wt. on bit 25,000#  Bit #25: 8-3/4" HTC J-44 7322/7752/430/89-1/2/Inc.  Drilling 22-1/2 Survey 1 RS 1/2</p>	
2-23-81	<p>81 days  Present Depth: 7813' 61' 12 hours  Present Operation: TOOH for DST #4  Mud wt. 8.8, vis 38, w.l. 11.0, ck 2/32, pH 10.0, solids 3%  Survey: 17 degrees @ 7737'  PP 1300 psi, 70 rpm, wt. on bit 15,000#  Bit #25: 8-3/4" HTC J-44 7322/7813/491/101-1/2  Drilling 12 Survey 1 Short trip 1  WO Halliburton 8 TOOH for DST 2</p>	
2-24-81	<p>82 days  Present Depth: 7813' 0' 0 hours  Present Operation: Waiting on fishing tools and wireline  Mud wt. 8.7, vis 40, w.l. 10.4, ck 2/32, pH 10.5, solids 3%  Survey: None  PP 500 psi, 0 rpm, wt. on bit 0#  Bit #25: 8-3/4" HTC J-44 7322/7813/491/101-1/2/Inc.  TOOH and work tite spot @ 2800'-3200' 3  Lay down parted jars 2 Cut drilling line 1  TIH w/overshot 1 Work stuck pipe 1/2  Wait on fishing tools and wireline 16-1/2</p> <p>Note: Jars backed off in tight spot. Left 11 drill collars, shock sub, 3 IBS stabilizers, 2 short drill collars, 6 point reamer and bit in hole.</p>	

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LEASE UNIT NAME AND WELL NO.		REGION
COUNTY-PARISH-STATE-PROVINCE		WELL NUMBER
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State "AB" #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	9-4370034-6	
2-25-81	83 days Present Depth: 7813' 0' 0 hours Present Operation: Circulating and conditioning mud Mud wt. 8.7, vis 40, w.l. 10, ck 2/32, pH 10.5, solids 3% Survey: None PP 1200 psi, 25 rpm, wt. on bit 0# Bit #5: 8-3/4" HTC OWVJ 7813/7813/0/0/Inc. Run free point and back off @ 2630'. Left overshot and 3 drill collars in hole. 3 TOOH w/7 drill collars 2 Pick up fishing tools 2 TIH and jar on drill collars and overshot 2 TOOH. Recovered 3 drill collars and overshot. 2 TIH and ream to 2650'. 1 TIH and tag fish @ 7428'. 6 Circulating and conditioning mud 6	
2-26-81	84 days Present Depth: 7813' 0' 0 hours Present Operation: TOOH w/fish Mud wt. 8.7, vis 42, w.l. 9.2, ck 1/32, pH 10.5, solids 2-3/4% Survey: None Circulate and condition mud 1/2 TOOH 3-1/2 Pick up fishing tools and TIH w/fishing tools 3-1/2 Latch on and work fish 2 TOOH to 2609' 4 Work stuck fish @ 2609' 5-1/2 Finish TOOH w/fish 5	
2-27-81	85 Days Present Depth: 7813' Present Operation: Circulating and conditioning mud Mud wt. 8.8, vis 53, w.l. 10, ck 2/32, pH 10.0, solids 3% Survey: None PP 1600 psi, 25 rpm, wt. on bit 0# Bit #26: 8-3/4" HTC OWVJ (184WG) 7813/7813/0/0/Inc. Lay down fish and fishing tools 1 Change out rig generator 1 Rig service and test BOP's 1 Wait on Magnaflux people 6 Magnaflux BHA 2600'-3900' 5 TIH, ream bridges 2600'-3900' and wash 50' to bottom 4 Circulate and condition mud 5	

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LEASE UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		WELL OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State "AB" #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	WELL NUMBER 9-4370034-6	
2-28-81	<p>86 days  Present Depth: 7813'  Present Operation: Running DST #4  Mud wt. 8.8, vis 44, w.l. 8.8, ck 2/32, pH 10.5, solids 3%  Survey: None Trips 7-1/2  Circulate and condition mud 2-1/2 RS 1/2  Pick up DST tools and TIH 8-1/2  Run DST #4 4  DST #4: 7760-7813' (53') Juab Limestone  Tool open for 32 minute pre-flow w/no blow. SI 60 minutes. Open tool for 60 minute test. No blow thru out test. SI 120 minutes.  Recovered 1' of drilling fluid. IHP 7809 psi: 1st IFP 34 psi; 1st FFP 34 psi; ISIP 34 psi. 2nd IFP 34 psi; 2nd FFP 34 psi; FSIP 34 psi; FHP 3513 psi. Sampler pressure: 0 psi. Recovered 1600 cc drilling fluid in sampler. Rmd 3.2 @ 71° F C12 800 BHT 1350 F.</p>	
3-1-81	<p>87 days  Present Depth: 7862' 49' 12 hours  Present Operation: Drilling  Mud wt. 8.8, vis 48, w.l. 9.0, ck 2/32, pH 10, solids 3%  Survey: None  PP 1700 psi, 80 rpm, wt. on bit 15,000#  Bit #24: 8-3/4" HTC J-44 7813/7862/49/12/Inc.  TOOH w/DST #4 2 Lay down DST tools 1-1/2  Pick up BHA 3-1/2 TIH 3  Work thru tite spot and bridge @ 3,000' 1/2  Ream to bottom 1/2 Drilling 12</p>	
3-2-81	<p>88 days  Present Depth: 7981' 119' 22 hours  Present Operation: Drilling  Mud wt. 8.8, vis 45, w.l. 8.8, ck 2/32, pH 10.0, solids 3-1/2%  Survey: 16-1/2 degrees @ 7874'; 17 degrees @ 7981'  PP 1700 psi, 75 rpm, wt. on bit 20,000#  Bit #24: HTC J-44 7813/7981/158/34/Inc.  Drilling 22 Survey 2</p>	

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WELL NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		WELL NUMBER
State "AB" #1		Western
Millard County, Utah		9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
3-3-81	89 days Present Depth: 8130' 149' 23 hours Present Operation: Drilling Mud wt. 8.8, vis 44, w.l. 8.8, ck 1/32, pH 10.0, solids 3% Survey: 18 degrees @ 8059' PP 1700 psi, 75 rpm, wt. on bit 25,000# Bit #24: 8-3/4" HTC J-44 7813/307/45/Inc. Drilling 23 Survey 1	
3-4-81	90 days Present Depth: 8285' 155' 22½ hours Present Operation: Drilling Mud wt. 8.8, vis 44, w.l. 8.8, ck 1/32, pH 9.5, solids 3% Survey 18 degrees @ 8245' PP 1700 psi, 65 rpm, wt. on bit 30,000# Bit #24RR: HTC J-44 7813/462/67½ Drilling 22½ TS ½ Survey 1	
3-5-81	91 days Present Depth: 8470' 185' 23 hours Present Operation: Drilling Mud wt. 8.8, vis 45, w.l. 9.2, ck 1/32, pH 9.5, solids 3% Survey 19 degrees @ 8245' PP 1700 psi, 65 rpm, wt. on bit 35,000# Bit #24RR: HTC J-44 7813/647/90½ Drilling 23 Survey 1	
3-6-81	92 days Present Depth: 8651' 181' 24 hours Present Operation: Drilling Mud wt. 8.9, vis 45, w.l. 9.2, ck 1/32, pH 9.5, solids 3% Survey: None PP 1700 psi, 65 rpm, wt. on bit 35,000# Bit #24: 8-3/4" HTC J-44 7813/8651/838/126-1/2/Inc. Drilling 24	
3-7-81	93 days Present Depth: 8836' 185' 23 hours Present Operation: Drilling Mud wt. 8.8, vis 42, w.l. 8.8, ck 1/32, pH 9, solids 3.5% Survey 20 degrees @ 8657' and 19 degrees @ 8432' PP 1700 psi, 65 rpm, wt. on bit 35,000# Bit #24RR: 8-3/4" HTC J-44 7813/8836/1023/149½/Inc. Drilling 23 Survey 1	

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LEASE / UNIT NAME AND WELL NO.		REGION	
State "AB" #1		Western	
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME	
Millard County, Utah		Little Cattleman's valley	
		AFE NUMBER	
		9-4370034-6	
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED		
3-8-81	94 days Present Depth: 8973'      137'      18 hours Present Operation: TIH w/bit #26 Mud wt. 8.8, vis 39, w.l. 8.8, ck 1/32, pH 9.0, solids 3% Survey 17½ degrees @ 8829' and 18½ degrees @ 8973' PP 1700 psi, 65 rpm, wt. on bit 35,000# Bit #24RR: 8-3/4" HTC J-44 7813/8973/1160/167½ Bit #27: 8-3/4" Sec M84F (969018) 8973/8973/0/0/Inc. Drilling 18      Survey 1      Trip 5		
3-9-81	95 days Present Depth: 9104'      131'      18 hours Present Operation: Drilling Mud wt. 8.9, vis 42, w.l. 9.0, ck 2/32, pH 9.0, solids 4% PP 1600 psi, 65 rpm, wt. on bit 35,000# Bit #27: 8-3/4" Sec M84F 8973/9104/18 hours Trip 4-1/2      Cut drilling line 1      RS 1/2      Drilling 18		
3-10-81	96 days Present Depth: 9291'      187'      22 hours Present Operation: Drilling Mud wt. 8.9, vis 42, w.l. 9.2, ck 1/32, pH 9.0, solids 4% Survey: 19-1/2 degrees @ 9138' PP 1700 psi, 65 rpm, wt. on bit 35,000# Bit #27: 8-3/4" Sec. M84F 8973/9291/318/40 hrs. Drilling 22      R.S. 1      Survey 1		
3-11-81	97 days Present Depth: 9502'      211'      22-1/2 hours Present Operation: Drilling Mud wt. 8.9, vis 40, w.l. 9.2, ck 2/32, pH 9.0, solids 4% Survey: 20-1/2 degrees @ 9325' PP 1700 psi, 65 rpm, wt. on bit 35,000# Bit #27: 8-3/4" Sec. M84S 8973/9502/529/62-1/2 Drilling 22-1/2      ck BOP 1/4      RS 1/4 Survey 1		

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WELL UNIT NAME AND WELL NO.		REGION
State AB #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	WELL NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
3-12-81	<p>98 days  Present Depth: 9687' 185' 22 hours  Present Operation: Drilling  Mud wt. 9.0, vis 42, w.l. 9.2, ck 2/32, pH 9.0, solids 5%  Survey: 20-1/2 degrees @ 9509' 21-1/2 degrees @ 9663'  PP 1700 psi, 65 rpm, wt. on bit 35,000#  Bit #27: 8-3/4" Sec. M84F 8973/9687/714/84-1/2  Drilling 22 Surveys 2</p>	
3-13-81	<p>99 days  Present Depth: 9867' 180' 23 hours  Present Operation: Drilling  Mud wt. 9.0, vis 46, w.l. 9.2, ck 2/32, pH 9.0, solids 5%  Survey: 19-1/2 degrees @ 9846'  PP 700 psi, 65 rpm, wt. on bit 35,000#  Bit #27: 8-3/4" Sec. M84F 8973/9867/894/107-1/2  Drilling 23 Survey 1  NOTE: Survey may not be accurate.</p>	
3-14-81	<p>100 days  Present Depth: 10,043' 176' 20-1/2 hours  Present Operation: Drilling  Mud wt. 8.9, vis 41, w.l. 9.0, ck 2/32, pH 9.0, solids 4%  Surveys: 20-1/2 degrees @ 9936' and 20-1/2 degrees @ 10,027'  PP 1100 psi, 65 rpm, wt. on bit 35,000#  Bit #27: 8-3/4" Sec. M84F 8973/10043/1070/128/Inc.  Drilling 20-1/2 Surveys 3-1/2  NOTE: Lost approximately 250 bbls mud last 24 hours.</p>	
3-15-81	<p>101 days  Present Depth: 10,287' 244' 21-1/2 hours  Present Operation: Drilling  Mud wt. 8.9, vis 43, w.l. 10.4, ck 2/32, pH 8.5, solids 4%  Survey: 18 degrees @ 10,272'  PP 1100 psi, 65 rpm, wt. on bit 35,000#  Bit #27: 8-3/4" Sec. M84F 8973/10287/1314/149-1/2/Inc.  Drilling 21-1/2 Circulate samples 1-1/2 Survey 1  NOTE: Lost approximately 125 bbls mud last 24 hours.</p>	

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LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		WELL NUMBER
State AB #1		Western
Millard County, Utah		9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
3-16-81	<p>102 days  Present Depth: 10,422' 135' 12 hours  Present Operation: Magnafluxing drill collars  Mud wt. 8.8, vis 37, w.l. 8.8, ck 2/32, pH 8.5, solids 4%  Surveys: 19 degrees @ 10,303' and 20 degrees @ 10,393'  PP 1100 psi, 65 rpm, wt. on bit 35,000#  Bit #27: 8-3/4" Sec. M84F 8973/10422/1449/161-1/2  Drilling 12 Surveys 3 Circulate 1-1/2  TOOH 5-1/2 Wait on Magnaflux people 2</p>	
3-17-81	<p>103 Days  Present Depth: 10,510 88' 10 hours  Present Operation: Drilling  Mud wt. 8.8, vis 41, w.l. 9.0, ck 2/32, pH 8.5, solids 4%  Survey: None  PP 1100 psi, 65 rpm, wt. on bit 35,000#  Bit #28: 8-3/4" STC F-57 (BJ2777) 10422/10510/88/10/Inc.  Magnaflux drill collars 6-1/2 Test casing and BOP's 1  Pick up drill pipe 2 TIH 3-1/2  Ream 60' to bottom 1 Drilling 10  NOTE: TIH w/Halliburton RTTS packer and set @ 400'. Test casing, casinghead, pipe rams and Hydril to 1200 psi. Held OK. Did not test blind rams.</p>	
3-18-81	<p>104 days  Present Depth: 10,725' 215' 22-1/2 hours  Present Operation: Drilling  Mud wt. 8.8, vis 41, w.l. 8.8, ck 2/32, pH 8.5, solids 3.5%  Survey: 19 degrees @ 10,586'  PP 1100 psi, 65 rpm, wt. on bit 35,000#  Bit #28: 8-3/4" STC F-57 10422/10725/303/32-1/2/Inc.  R.S. 1/2 Survey 1 Drilling 22-1/2</p>	
3-19-81	<p>105 Days  Present Depth: 10,933' 208' 22-1/2 hours  Present Operation: Drilling  Mud wt. 8.8, vis 43, w.l. 8.9, ck 2/32, pH 8.5, solids 3.5%  Survey: 20-3/4 degrees @ 10,770'  PP 1100 psi, 65 rpm, wt. on bit 35,000#  Bit #28: 8-3/4" STC F-57 10422/10933/511/55/Inc.  Survey 1 R.S. 1/2 Drilling 22-1/2</p>	

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LEASE UNIT NAME AND WELL NO. <b>State AB #1</b>		REGION <b>Western</b>
COUNTY - PARISH - STATE - PROVINCE <b>Millard County, Utah</b>	FIELD OR PROSPECT NAME <b>Little Cattleman's Valley</b>	WELL NUMBER <b>9-4370034-6</b>

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED
3-20-81	<p>106 days                      Present Depth: 11,160' 227' 22 hours                      Present Operation: Drilling                      Mud wt. 8.9, vis 43, w.l. 8.8, ck 2/32, pH 8.5, solids 4%                      Survey: 20-1/2 degrees @ 11,109'                      PP 1100 psi, 65 rpm, wt. on bit 40,000#                      Bit #28: 8-3/4" STC F-57 10422/11160/738/77/Inc.                      R.S. 1 Survey 1 Drilling 22</p>
3-21-81	<p>107 days                      Present Depth: 11,384' 224' 22 hours                      Present Operation: Drilling                      Mud wt. 8.9, vis 47, w.l. 9.4, ck 2/32, pH 9.0, solids 4%                      Survey: 19-1/2 degrees @ 11,166'                      PP 1100 psi, 65 rpm, wt. on bit 40,000#                      Bit #28: 8-3/4" STC F-57 10422/11384/962/99/Inc.                      R.S. 1 Survey 1 Drilling 22                      NOTE: Lost approximately 125 bbls mud last 24 hours.</p>
3-22-81	<p>108 days                      Present Depth: 11,483 99' 9-1/2 hours                      Present Operation: TIH w/DST #5                      Mud wt. 9.0, vis 36, w.l. 8.6, ck 2/32, pH 9.0, solids 5%                      Survey: 19 degrees @ 11,378'                      PP 1100 psi, 65 rpm, wt. on bit 35,000#                      Bit #28: 8-3/4" STC F-57 10422/11483/1061/108-1/4                      Drilling 9-1/2 Circulate for DST #5 2-1/2                      Survey 1 TOOH 8 R.S. 1/2 Pick up DST tools 1-1/2                      TIH w/DST #5 1                      DST #5 11,429-11,483' (54') Hellnmaria</p>

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling wells and may also be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each days Drilling Activity. Submit the Interim Report on all wells that have suspended drilling activity.

LEASE / UNIT NAME AND WELL NO.		REGION
COUNTY - PARISH - STATE - PROVINCE		FIELD OR PROSPECT NAME
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State AB #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	9-4370034-6	
3-23-81	<p>109 days  Present Depth: 11,483' 0' 0 hours  Present Operation: Laying down DST tools  Mud wt. 8.8, vis 37, w.l. 8.0, ck 2/32, pH 9.0, solids 3-1/2%  Survey: None  DST #5: 11429-11483' (54') Hellmaria  Tool opened for 30 minute preflow w/strong blow increasing to 4.5 psi thru 1/4" line at end of preflow period. SI 60 minutes.  Tool opened for 90 minute test period w/2 psi decreasing to .75 psi thru 1/4" line at end of test period. SI 180 minutes.  Recovered 2200' of fresh water cushion and 5700' of muddy saltwater w/strong sulphur odor. No evidence of hydrocarbons.  IHP 5307 psi. 1st IFP 1566 psi: 1st FFP 2403 psi: ISIP 3625 psi.  2nd IFP 2539 psi: 2nd FFP 3268 psi: FSIP 3861 psi: FHP 5196 psi.  Sampler pressure: 5 psi. Recovered 2400 cc muddy salt water w/strong sulphur odor in sampler.  Rw .55 @ 87° F. BHT 210° F.  Trips 10 DST #5 6-1/2 Wait on daylight 6-1/2  Clean mud pits 1</p>	
3-24-81	<p>110 days  Present Depth: 11,580' 97' 10 hours  Present Operation: TOOH to check bit  Mud wt. 8.9, vis 45, w.l. 8.6, ck 2/32, pH 8.5, solids 4%  Survey: None  PP 1100 psi, 65 rpm, wt. on bit 40,000#  Bit #29: 8-3/4" HTC J-55 (MX 134) 11483/11580/97/10  Lay down DST tools 1-1/2 RS 1/2  Cut drilling line 1-1/2 TIH w/bit 4-1/2  Pick up 34 jts. drill pipe 2 Ream 90' to bottom 1  Drilling 10 Work tite hole 1/2  TOOH to check bit 2-1/2</p>	
3-25-81	<p>111 days  Present Depth: 11,580'  Present Operation: Waiting on rig parts  Mud wt. 8.8, vis 36, w.l. 9.2, ck 2/32, pH 8.5, solids 3.5%  Survey: 19-1/2 degrees @ 11,565'  Trips 3 Change BHA 1-1/2 RS 1/2  Wait on rig parts 19</p>	

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling wells and may also be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each days Drilling Activity. Submit the Interim Report on all wells that have suspended drilling activity.

STATE - UNIT NAME AND WELL NO.		REGION
State AB #1		Western
COUNTY - PARISH - STATE - PROVINCE	FIELD OR PROSPECT NAME	WELL NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
3-26-81	112 days Present Depth: 11,580' Present Operation: Repairing rig Mud wt. 8.8, vis 36, w.l. 9.2, ck 2/32, pH 8.5, solids 3.5% Survey: None Rig repairs 24	
3-27-81	113 days Present Depth: 11,580' Present Operation: Repairing rig	
3-28-81	114 days Present Depth: 11,580' Present Operation: Conditioning hole to log Mud wt. 8.9, vis 42, w.l. 6.3, ck 2/32, pH 8.5, solids 4% PP 1500-2000 psi, 15-20 rpm, wt. on bit 5-10,000# Reaming 14-1/2 R.R. 1 Trip 5-1/2 Circ. 3	
3-29-81	115 days Present Depth: 11,580' Schlumb. T.D: 11,542' Mud wt. 8.9, vis 37, w.l. 6.0, ck 2/32, pH 8.8, solids 4% Trip 4 Rig up loggers and logging 20	
3-30-81	116 days Present Depth: 11,580' Present Operation: Reaming to bottom Mud wt. 8.8, vis 37, w.l. 6.0, ck 1/32, pH 8.5, solids 4% PP 1150 psi, 25-35 rpm, wt. on bit 10-15,000# Bit #30: 8-3/4" Sec. S86F 11580/Inc. Logging 16-1/2 Trip 6 Reaming 1-1/2	
3-31-81	117 days Present Depth: 11,609' 29' 5 hours Present Operation: Rig repairs (transmission) Mud wt. 8.9, vis 40, w.l. 6.1, ck 1/32, pH 8.5, solids 4% Survey: None PP 1300 psi, 65 rpm, wt. on bit 20,000# Bit #30: 12-1/4" Sec. S86F (958028) 11580/11609/29/5/Inc. Reaming to bottom 10 Drilling 5 TOOH for rig repairs 5 Rig repairs 4	

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling wells and may also be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each days Drilling Activity. Submit the Interim Report on all wells that have suspended drilling activity.

LEASE UNIT NAME AND WELL NO.		REGION
COUNTRY - PARISH - STATE - PROVINCE		WELL NUMBER
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
State AB #1	Western	
Millard County, Utah	Little Cattleman's Valley	
	9-4370034-6	
4-1-81	118 days Present Depth: 11,609' 0' 0 hours Present Operation: Reaming @ 11,608' Mud wt. 8.9, vis 50, w.l. 6.1, ck 2/32, pH 8.5, solids 4% Survey: None PP 1100 psi, 65 rpm, wt. on bit 20,000# Bit #30: 8-3/4" Sec. S86F 11580/11609/29/31/Inc. R.R. 15-1/2 TIH 7 Pick up BHA 1/2 Ream to bottom 1	
4-2-81	119 days Present Depth: 11,801' 193' 21-1/2 hours Present Operation: Drilling Mud wt. 9.0, vis 40, w.l. 6.8, ck 1/32, pH 9.0, solids 5% Survey: None PP 1300 psi, 65 rpm, wt. on bit 40,000# Bit #30: 8-3/4" Sec. S86F 11580/11801/221/52-1/2/Inc. Ream to bottom 1 R.S. 1/2 Drilling 21-1/2 Short trip (3 joints) 1	
4-3-81	120 days Present Depth: 11,822' 21' 2-1/2 hours Present Operation: Rigging up to free point Mud wt. 8.9, vis 36 w.l. 6.0, ck 2/32, pH 9.5, solids 5% Survey: 19-1/2 degrees @ 11,807' Bit #30: 8-3/4" Sec. S86F 11580/11822/242/55/Inc. Drilling 2-1/2 Survey 2 Work stuck pipe 19 Circulate 1/2	
4-4-81	121 days Present Depth: 11,822' 0' 0 hours Present Operation: Waiting on perforating charges Mud wt. 8.9, vis 36, w.l. 6.0, ck 2/32, pH 9.5, solids 5% Bit #30: 8-3/4" Sec. S86F 11580/11822/242/55/Inc. Run free point 2 times and attempt to back off 4 times. 1st free point 11,580'. 2nd free point 11,500'. Attempt to back off @ 11,500' 3 times and 11,470' 1 time. Drill string backed off @ top of drill collars @ 11,124' each time. 21 Rig up to perforate 1 Wait on perforating charges to perforate drill collars. 2	

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling wells and may also be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each days Drilling Activity. Submit the Interim Report on all wells that have suspended drilling activity.

WELL NAME AND WELL NO.		REGION
State AB #1		Western
COUNTY - STATE - PROVINCE	FIELD OR PROSPECT NAME	WELL NUMBER
Millard County, Utah	Little Cattleman's Valley	9-4370034-6
DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED	
4-5-81	<p>122 days  Present Depth: 11,822' 0' 0 hours  Present Operation: Circulating and conditioning mud  Mud wt. 9.0, vis 54, w.l. 4.8, ck 2/32, pH 10.0, solids 5%  PP 1450 psi, 0 rpm, wt. on bit 0#  Running free point 7 Waiting on perforating charges 3  Perforate 9 Circulate and condition mud 5  NOTE: Perforate 11,479-11,480' twice w/2 90 gram charges.  Had to make 5 runs w/perforating gun. Lost 12' of sinker bars and cable head in drill collars. when attempting to back off @ 11,480'. Drill string plugged on inside @ 11,485'.</p>	
4-6-81	<p>123 days  Present Depth: 11,822' 0' 0 hours  Present Operation: Jarring on fish  Mud wt. 8.9, vis 38, w.l. 5.2, ck 2/32, pH 9.0, solids 4%  PP 1100 psi, 0 rpm, wt. on bit 0#  Attempt to back off. Backed off @ 9981' 8 TOOH 4  Pick up fishing assembly 4 TIH 4  Screw into fish @ 9981' 1 Jar on fish 1  Cut drlg. line 1-1/2 R.S. 1/2  NOTE: Manually backed off @ 9981'. Unable to work torque any deeper. 14 stands D.P. and 20 D.C's in hole.</p>	
4-7-81	<p>124 days  Present Depth: 11,822' 0' 0 hours  Present Operation: TOOH after backing off  Mud wt. 8.8, vis 36, w.l. 5.6, ck 2/32, pH 9.0, solids 4%  PP 1100 psi, 0 rpm, wt. on bit 0#  Bit #30: 8-3/4" Sec. S86F 11580/11822/242/55/Inc.  Jarring on fish 14 Shooting severing shots 3  Run free point 3 Back off @ 11,120' 2-1/2  TOOH 1-1/2  NOTE: Tried to sever drill collars @ 11,497'. No results. Again @ 11,480'. No results. Run string shot and back off @ 11,120' at top of collars.</p>	
4-8-81	<p>125 days  Present Depth: 11,822' 0' 0 hours  Present Operation: Rig Repairs  Mud wt. 8.8, vis 36, w.l. 5.8, ck 2/32, pH 9.0, solids 4%  TOOH w/fish #1 4-1/2 Lay down fish 1-1/2  Pick up and run BHA 2 Rig repair (Right angle drive) 16  Recovered 38 jts. Grade E drill pipe. 4 jts. drill pipe and 20 drill collars still in hole.</p>	

INSTRUCTIONS: Interim Reports shall be completed and submitted with the Completion Report for the well. Interim Reports are required for all drilling workover operations. Reports shall be used for recording daily work on significant workovers. The description of work performed on Interim Reports should be a complete report of each day's drilling activity. Submit the Interim Report on all wells that have suspended drilling activity.

WELL NAME AND WELL NO. State AB #1		REGION Western
COUNTY-PARISH-STATE-PROVINCE Millard County, Utah	FIELD OR PROSPECT NAME Little Cattleman's Valley	AFE NUMBER 9-4370034-6

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED												
4-9-81	126 days Present Depth: 11,822' 0' 0 hours Present Operation: Rig repairs Mud wt. 9.0, vis 54, w.l. 4.8, ck 2/32, pH 10.0, solids 5% Rig repair 24												
4-10-81	127 days Present Depth: 11,822' 0' 0 hours Present Operation: TOOH w/fishing string Mud wt. 9.0, vis 40, w.l. 5.6, ck 2/32, pH 9.0, solids 5% PP 950 psi R.R. 2 TIH w/bit 4 Circulate to tag fish @ 11,041' 1 Circulate 2 TOOH 4-1/2 TIH w/fishing string 4-1/2 Attempt to screw into fish (failure) 1 TOOH 5												
4-11-81	128 days Total Depth: 11,822' Present Operation: Wait on orders Mud wt. 9.0, vis 40, w.l. 5.6, ck 2/32, pH 9.0, solids 5% Make up fishing tools 2-1/2 Cut drilling line 2 Rig repair 3 TIH 3-1/2 Try to catch fish w/overshot (failure) 2 TOOH 4-1/2 Wait on orders 4-1/2 Lay down fishing tools 2 Lost in hole: 20 drill collars, 1 set daily jars, 1-6 point reamer, 1 string reamer, 1 shock sub, 2 stabilizers and 4 jts Grade "E" drill pipe.												
4-12-81	129 days Present Depth: 11,822' 0' 0 hours Present Operation: Rigging down rig Wait on orders 1-1/2 Rig up Halliburton 3-1/2 Plugging well 11-1/4 Nipple down BOP's 4-1/2 Trip in hole 3-3/4 Plugged well as follows: <table border="0" style="margin-left: 40px;"> <tr> <td>Plug #1</td> <td>60 sx</td> <td>10941-11041</td> </tr> <tr> <td>Plug #2</td> <td>60 sx</td> <td>4900- 5000</td> </tr> <tr> <td>Plug #3</td> <td>50 sx</td> <td>2153- 2253</td> </tr> <tr> <td>Plug #4</td> <td>10 sx</td> <td>Surface</td> </tr> </table>	Plug #1	60 sx	10941-11041	Plug #2	60 sx	4900- 5000	Plug #3	50 sx	2153- 2253	Plug #4	10 sx	Surface
Plug #1	60 sx	10941-11041											
Plug #2	60 sx	4900- 5000											
Plug #3	50 sx	2153- 2253											
Plug #4	10 sx	Surface											

**INSTRUCTIONS:** Complete this report and submit as soon as possible after the regulatory agency completion report or a well T.P. & A. When operations are suspended or curtailed or suspended or T.P. & A. is completed, the report should be submitted as if the well had not been suspended or T.P. & A. On operations when a well is plugged and abandoned, it must include the surface and subsurface logs, completion and production data in separate sections. Description of work performed on the well and the plugging of the well (if applicable) must include the surface and subsurface logs and plugging and tubing data, on the Completion Report form in which the well is plugged and abandoned. The surface logs should not be a part of the completion report.

LEASE UNIT NAME AND WELL NO. <b>State AB #1</b>		OPERATOR <b>Cities Service Company</b>	REGION <b>Western</b>
COUNTY-PARISH-STATE-PROVINCE <b>Millard County, Utah</b>	FIELD OR PROSPECT NAME <b>Little Cattleman's Vly.</b>	ESTIMATED 100% O&E COST AT COMP.	AFE NUMBER <b>9-4370034-6</b>
CLASS OF WELL OIL <input type="checkbox"/> GAS <input type="checkbox"/> SERV <input type="checkbox"/>	DRLG. COST INTEREST IF DIFFERENT FROM GROSS WI	COMPANY GROSS WI <b>60%</b>	NET REV. INT. <b>50%</b>

FINAL BOTTOM HOLE LOCATION

DATE AND DEPTH	DESCRIPTION OF WORK PERFORMED
4-13-81	130 days Present Depth: 11,822' Present Operation: Rigging down rig Nipple down BOP's and clean mud pits 8 Well plugged and abandoned. Release rig 8:00 p.m. 4/11/81. <u>LAST REPORT</u>

TD-MEASURED <b>11,822'</b>	PBTD <b>Surface</b>	TVD
-------------------------------	------------------------	-----

POTENTIAL TEST DATA		GAS PLANT CONNECTION									
DATE	RESERVOIR	PRODUCING INTERVAL	TBG PR	CSG PR	CHK. SIZE	BOPD	MCF/D	% WTR.	GOR	CORR. GR.	TEST TIME
		Plugged and Abandoned									

PRODUCTION ESTIMATE (COMPLETE EVEN IF WELL IS SHUT IN)					
RESERVOIR	BOPD	MCF/D	BWPD	DATE ON PRODUCTION ESTIMATED (OR ACTUAL)	DATE THE PERMANENT WELL HEAD WAS INSTALLED



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

March 5, 1981

State of Utah  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Mr. Cleon B. Feight  
Director

RECEIVED  
MARCH 22 1981  
DIVISION OF  
OIL, GAS & MINING

RE: Cities Service Company  
State AB #1  
SW SW Section 2-T18S-R16W S.L.  
Millard County, Utah  
State of Utah Lease ML-29566

Gentlemen:

The subject well was spudded on December 3, 1980 at a surface location 798' FWL and 690' FSL (SW SW) of Section 2-T18S-R16W. We have had a problem with hole deviation since drilling out from under surface casing and it now appears certain the well will reach target depth off the lease. Based on available deviation surveys the estimated ultimate bottomhole location at 13,870' MD (13,500' TVD) is 641' FWL and 1728' FNL of Section 11-T18S-R16W.

Since Section 11-T18S-R16W is a Federal lease (#U-22832), we have advised Mr. Edgar W. Guynn with the U.S.G.S. in Salt Lake City, Utah, of the situation and received permission to continue drilling and instructions on filing for a drilling permit. Your office was also telephoned about the situation by Mr. George Baer with Cities Service on March 4th.

A copy of a letter being sent to the U.S.G.S. and two (2) copies of U.S.G.S. Form 9-331C are enclosed. If there are any questions regarding this matter, please contact this office.

Sincerely,

James R. Vaughan  
Region Engineering Manager  
Western Region

JRV/nmf  
Enclosures

**DIVISION OF STATE LANDS  
FORESTRY & FIRE CONTROL**

231 East Fourth South • Salt Lake City, Utah 84111 • (801) 533-5439

William K. Dinehart-Director • Paul Sjoblom-State Forester

April 3, 1981



Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, UT  
84116

ATTENTION: MIKE MINDER

Dear Mike:

This office has received the material which you submitted concerning Cities Service Company State AB Well in Section 2, T18S, R16W, SLM., Millard County, Utah. As you indicated, because of the deviation of the hole in this well, the bottom hole location will be in Section 11, T18S, R16W, SLM., on federal land rather than on the State lands where the well was spudded. This office has no objection to the continuation of the drilling of this well and the issuance of a new permit to legalize the location on federal lands, however, if the well is unsuccessful, the same reclamation requirements will apply under the provisions of Oil, Gas, and Hydrocarbon Lease ML 29566 as if the well were drilled entirely under this lease on State lands. Also, if the well should be a producing well, the State will require that some type of agreement be entered into to provide the State with a percentage of royalties on productions from this well in much the same way as the various landowner in a participating area in a unit agreement or in a communitized area.

If you have any questions concerning this matter, please let us know.

Yours very truly,

DONALD G. PRINCE  
ASSISTANT DIRECTOR

DGP/bp

CC United States Geological Survey  
ATTENTION: EDGAR W. GUYNE  
1745 West 1700 South  
Suite 2000  
Salt Lake City, UT 84104

Cities Service Company  
ATTENTION: GEORGE H. BAER  
900 Colorado State Bank Building  
1600 Broadway  
Denver, CO 80202

APR 6 1981

DIVISION OF  
OIL, GAS & MINING



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

April 13, 1981

RECEIVED

APR 15 1981

State of Utah  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

DIVISION OF  
OIL, GAS & MINING

Attn: Cleon B. Feight

RE: Cities Service Company  
State AB #1  
SW SW Section 2-T18S-R16W S.L.  
Millard County, Utah  
State of Utah Lease #ML-29566

Dear Sir:

Enclosed please find three (3) copies each of State of Utah, Form OGC-1b, "Sundry Notices and Reports on Wells; Notice of Intention to Abandon and Subsequent Report of Abandonment", for the above referenced well.

If you have any questions concerning this information, please feel free to contact this office.

Sincerely,

Richard O. Berg  
Operations Manager  
Western Region

ROB/RJM/nmf  
Enclosures

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

5. LEASE DESIGNATION AND SERIAL NO.

ML-29566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

N/A

8. FARM OR LEASE NAME

State AB

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Section 6-T18S-R16W S.L.

12. COUNTY OR PARISH 13. STATE

Millard

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

Cities Service Company

3. ADDRESS OF OPERATOR

1600 Broadway, Suite 900; Denver, Colorado 80202

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

690' FSL & 798' FWL (SW SW)

14. PERMIT NO.

43-027-30023

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

5503' GL (Ungraded)

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

FULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

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

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

Verbal approval received 4/10/81 by Cleon B. Feight to plug and abandon the above referenced well with cement plugs as follows:

Plug #1	10,941'-11,041'	60 sx Class "G"
Plug #2	4,900'- 5,000'	60 sx Class "G"
Plug #3	2,513'- 2,253'	50 sx Class "G"
Plug #4	Surface	10 sx Class "G"

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING

DATE: 4/19/81

BY: Cleon B. Feight

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

SIGNED

Richard O'Keefe

TITLE Operations Manager

DATE 4/13/81

(This space for Federal or State office use)

APPROVED BY

TITLE

APR 15 1981

CONDITIONS OF APPROVAL, IF ANY:

DIVISION OF OIL, GAS & MINING

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

5. LEASE DESIGNATION AND SERIAL NO.	ML-29566
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	N/A
7. UNIT AGREEMENT NAME	N/A
8. FARM OR LEASE NAME	State AB
9. WELL NO.	1
10. FIELD AND POOL, OR WILDCAT	Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA	Section 6-T18S-R16W S.L.
12. COUNTY OR PARISH	Millard
13. STATE	Utah

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Cities Service Company

3. ADDRESS OF OPERATOR  
1600 Broadway, Suite 900; Denver, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
690' FSL & 798' FWL (SW SW)

14. PERMIT NO.  
43-027-30023

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5503' GL (Ungraded)

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

Plugged and abandoned the above referenced well on April 11, 1981 per verbal approval received 4/10/81 by Cleon B. Feight. Cement plugs set as follows:

Plug #1	10,941'-11,041'	60 sxs Class "G"
Plug #2	4,900'- 5,000'	60 sxs Class "G"
Plug #3	2,153 - 2,253'	60 sxs Class "G"
Plug #4	Surface	10 sxs Class "G"

Plugs displaced with mud: wt, 9,0, vis 40, pH 9,0

*4/19/81*  
*C. B. Feight*

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

SIGNED

*Richard O. Berg*

TITLE Operations Manager

DATE

4/13/81

(This space for Federal or State office use)

APPROVED BY

TITLE

APR 15 1981

DATE

CONDITIONS OF APPROVAL, IF ANY:

DIVISION OF  
OIL, GAS & MINING

\*See Instructions on Reverse Side

## FORMATIONS

0-1000	Unmonitored
1000-5802	Contorted section - probably imbricate repetition of thick monotonous carbonates - non correlable
Eureka Quartzite Top 5802	Sandstone quartz fine grained subround to round clear
Crystal Peak Dolomite Top 6214	Dolomite, gray-white with floating quartz grains
Watson Ranch Quartzite Top 6313	Sandstone white-brown fine grained to silty
Lehman Limestone Top 6535	Limestone gray-brown sandy - becoming argillaceous towards base
Kanosh Shale Top 6890	Shale black to dark brown pyritic calcareous towards base
Juab Limestone Top 7220	Limestone white to light gray chalky to dense
Wah Wah Limestone Top 7405	Limestone brown to light gray dense to chalky - hard
Fillmore Limestone Top 7825	Limestone, light gray-white mottled shaley in part. Very massive chalky
House Limestone Top 9785	Limestone gray to black vuggy and fractured with much void filling with calcite crystals. Dolomitic towards base.
Notch Peak Limestone Top 10,290	Limestone gray-white sucrosic to chalky dolomitic at top - cherty
Corset Springs Shale Top 11,580	Shale gray-green flakey to blocky plastic with possible fault breccia.

WELL DATA SUMMARY

OPERATOR:	Cities Service Company
WELL NAME:	State AB #1
LOCATION:	798' FWL & 690' FSL Section 2-18S-16W Millard County, Utah
SPUD DATE:	12/03/80
ELEVATION:	5503' GL 5521' KB
TOTAL DEPTH:	DTD 11,822' LTD 10,019'
COMPLETED:	4/13/81
WELL STATUS:	Plugged and abandoned
WELL-SITE GEOLOGIST:	Lee Cargile
SAMPLES:	American Stratigraphic Company Denver, Colorado

Plugging Program.

City Service Company

Well State <sup>DG</sup> ~~185~~ # 1 Gen 2  
Township 18S 14 West SLBm  
Millard County - T.O. 11822

9  $\frac{5}{8}$  at 2203 not of hole  
afun. No porosity until reached  
11,450.

set plugs # 1 100' 492 cub feet cement  
11,450 to 11,350

# 2 100' <sup>545</sup> ~~492~~ CF cement  
5000 - 4900

# 3 100' 454 CF cement  
2250 - 2150

set surface marker -



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

April 14, 1981

RECEIVED  
APR 17 1981

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

DIVISION OF  
OIL, GAS & MINING

Attn: Michael T. Minder

RE: Cities Service Company  
State AB #1  
SW SW Section 2-T18S-R16W  
Millard County, Utah  
State Lease #U-22832

Dear Sir:

Please find enclosed three (3) copies of State of Utah, Form OGC-8-X, "Report of Water Encountered During Drilling", for the above referenced well.

If you have any questions concerning this information, please feel free to contact this office.

Sincerely,

Richard O. Berg  
Operations Manager  
Western Region

ROB/RJM/nmf  
Enclosures

FILE IN TRIPLICATE  
FORM OGC-8-X

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116

\*\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*\*

Well Name & Number STATE AB-1  
Operator CITIES SERVICE COMPANY Address 1600 Broadway, Suite 900  
Denver, Colorado 80202  
Contractor CRC Colorado Well, Inc. Address P.O. Box 1006  
Rangely, Colorado 81648  
Location SW 1/4 SW 1/4 Sec. 2 T. 18S R. 16W County Millard

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	<u>From</u>	<u>To</u>	<u>Flow Rate or Head</u>	<u>Fresh or Salty</u>
1.	11,429	- 11,483'	N/A	Salty
2.				(Chlorides 12,000 ppm)
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops (See reverse)

RECEIVED  
APR 17 1981

Remarks The above referenced well was plugged and abandoned on April 11, 1981.

DIVISION OF  
OIL, GAS & MINING

- NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.  
(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

Formation Tops

Depth

Eureka Quartzite	5802'
Crystal Peak Dolomite	6214'
Watson Ranch	6313'
Lehman Limestone	6535'
Kanosh Shale	6890'
Juab Limestone	7220'
Fillmore	7825'
House Limestone	9785'
Notch Peak (Lava Dam)	10290'



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

900 Colorado State Bank Building  
1600 Broadway  
Denver, Colorado 80202  
(303) 861-2464

May 18, 1981

State of Utah  
Division of Oil and Gas Conservation  
1588 West North Temple  
Salt Lake City, Utah 84116

RE: ~~Cities Service Company~~  
~~State AB #1~~  
~~SW/4 Section 2-T18S-R16W~~  
~~Millard County, Utah~~

Gentlemen:

Enclosed please find two (2) copies of Utah Form OGCC-3, "Well Completion or Recompletion Report and Log", for the above captioned well. Also enclosed are two (2) copies each of the following:

Well History  
Mud Logs  
Drill Stem Tests 1 thru 5  
Directional Surveys  
Continuous Dipmeter Log  
BHC Sonic Log  
FIL Log  
CNL Formation Density Log  
Dual Laterolog-MSFL

If there are further requirements concerning this well, please feel free to contact this office.

Sincerely,

George Carrick  
Engineer  
Western Region

GC/nrm  
Enclosures

STATE OF UTAH

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

OIL & GAS CONSERVATION COMMISSION

5. LEASE DESIGNATION AND SERIAL NO.

ML-29566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

N/A

8. FARM OR LEASE NAME

State AB

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Section 2-T18S-R16W

12. COUNTY OR PARISH

Millard

13. STATE

Utah

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

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

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other Plug & Abandon

2. NAME OF OPERATOR  
CITIES SERVICE COMPANY

3. ADDRESS OF OPERATOR  
1600 Broadway, Suite 900, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 798' FWL & 690' FSL SW SW Section 2-T18S-R16W  
At top prod. interval reported below N/A  
At total depth 2416' FWL & 198' FNL NE NW Section 11-T18S-R16W

14. PERMIT NO. 43-027-30023 DATE ISSUED 10/17/80

15. DATE SPUDDED 12/03/80 16. DATE T.D. REACHED 4/02/81 17. DATE COMPL. (Ready to prod.) Plugged 4/11/81 18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 5522' RKB 19. ELEV. CASINGHEAD 5505' GL

20. TOTAL DEPTH, MD & TVD 11822' MD-11510' TVD 21. PLUG, BACK T.D., MD & TVD Plugged 22. IF MULTIPLE COMPL., HOW MANY\* N/A 23. INTERVALS DRILLED BY → Rotary Tools A11 Cable Tools None

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* N/A 25. WAS DIRECTIONAL SURVEY MADE Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN Continuous Dipmeter, FIL, BHC Sonic, Dual Lateralog-MSFL, CN-Formation Density, Directional Log 27. WAS WELL CORED No

Table with 6 columns: CASING SIZE, WEIGHT, LB./FT., DEPTH SET (MD), HOLE SIZE, CEMENTING RECORD, AMOUNT PULLED. Row 1: 9-5/8", 36#, 2203', 12-1/4", 855 sx Lite, 150 sx Class G, None.

Table with 8 columns: SIZE, TOP (MD), BOTTOM (MD), SACKS CEMENT\*, SCREEN (MD), SIZE, DEPTH SET (MD), PACKER SET (MD). Row 1: N/A, N/A.

Table with 2 columns: DEPTH INTERVAL (MD), AMOUNT AND KIND OF MATERIAL USED. Row 1: N/A.

Table with 8 columns: DATE FIRST PRODUCTION, PRODUCTION METHOD, WELL STATUS, DATE OF TEST, HOURS TESTED, CHOKER SIZE, PROD'N. FOR TEST PERIOD, OIL—BBL., GAS—MCF., WATER—BBL., GAS-OIL RATIO. Row 1: N/A, Plugged & Abandoned.

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

35. LIST OF ATTACHMENTS  
Electric Logs, Mud Logs, Well History, DST's #1, #2, #3, #4, #5 and Directional Surveys

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

SIGNED [Signature] TITLE Engineer DATE 5/18/81

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

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Socks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Wah-Wah	5340'	5802'	DST#1: 5699' -5767' Open 30 min. @ 27.6 ps w/weak blow. SI 60 min. @ 1920 psi. Open 30 min. @ 55.1 psi w/no blow. SI 120 min. @ 1947.7 psi. Recovered 102' drilling mud
Lehman	6535'	6890'	DST#2: 6584' -6625' Open 30 min. @ 80 psi w/weak blow. SI 60 min. @ 2347 psi. Open 45 min. @ 107 psi w/weak blow. SI 120 min @ 2347 psi. Recovered 185' drilling mud.
Juab	7220'	7405'	DST#3: 7228' -7322' Open 30 min. @ 41 psi w/weak blow. SI 60 min. @ 1585 psi. Open 125 min @ 41 psi w/weak blow. SI 180 min. @ 898 psi. Recovered 40' drilling mud.
Wah-Wah	7405'	7825'	DST#4: 7760' -7813' Open 32 min. @ 34 psi w/no blow. SI 60 min. @ 34 psi. Open 60 min. @ 34 psi w/no blow. SI 120 min. @ 34 psi. Recovered 1' drilling mud.
Notch Peak	10290'	-	DST#5: 11429' -11463' Fresh water cushion Open 30 min. @ 2403 psi w/strong blow. SI 60 min. @ 3625 psi. Open 90 min. @ 3268 psi w/weak blow. SI 180 min. @ 3861 psi. Recovered 2200' fresh water cushion and 5700' of salt water and drilling mud.

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Lehman LS.	4482'	4480'
Juab LS.	5172'	5167'
Eureka QTZ.	5802'	5790'
Fault	+ 5802'	5790'
Crystal Peak Dol	- 6214'	6199'
Watson Ranch QTZ.	6313'	6296'
Lehman LS.	6535'	6515'
Kanosh SH.	6890'	6865'
Juab LS.	7220'	7186'
Fillmore	7825'	7770'
House LS.	9785'	9609'
Notch Peak	10290'	10081'

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
CONSERVATION DIVISION

Sec. 11  
T. 18S  
R. 16W  
SLB & Mer.

	+	11

INDIVIDUAL WELL RECORD

PUBLIC LAND: \_\_\_\_\_ Date June 2, 1981 Ref. No. 1

Land office Utah State Utah

Serial No. 22832 County Millard

Leasee Cities Services Co. (60%)  
Mobil Oil Corp. (40%) Field Wildcat

Operator Cities Services Co. District Salt Lake City

Well No. DG - 1 Subdivision SW NW

Surf. Location  
Location 793' FWL & 690' FSL Sec. 2 (Bottom Hole: 2416' FWL & 198' FNL Sec 11)

Drilling ~~approved~~ accepted June 2, 1981 Well elevation 5522' KB feet

Drilling commenced Dec. 3, 1980 Total depth 11510 TVD feet

Drilling ceased April 2, 1981 Initial production Dry

Abandoned April 11, 1981 Gravity A. P. I. \_\_\_\_\_

Abandonment approved Dec 4, 1986 Initial R. P. \_\_\_\_\_

Geologic Formations		Productive Horizons		
Surface	Lowest tested	Name	Depths	Contents
--	<u>Notch Peak</u>			

WELL STATUS

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1980												spud
1981				TD 11510 ABD								
1986												PLA

REMARKS Geologic Markers: see well file  
Well commenced operations in Sec. 2, T.18S, R.16W. on state minerals. Hole  
deviated under Federal Oil & Gas Lease in Sec. 11, T.18S, R.16W. Well  
No. DG-1 has been abandoned. The USGS did not approve any well operations  
all reports accepted for the record only.  
Casing record: 9 5/8" cc @ 2203' w/1005 sxs.

43-027-30023 SURFACE LOCATION  
IN SECTION 2 18S 16W

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

*PWA*

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  
 Cities Service Company

3. ADDRESS OF OPERATOR  
 1600 Broadway, Suite 900; Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface 793' FWL & 690' FSL  
 Section 2-T18S-R16W  
 At proposed prod. zone 641' FWL & 1728' FNL  
 Section 11-T18S-R16W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 60 miles west of Delta, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 641'

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N/A

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5522' KB

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36	2203	1st stage - 485 sx 2nd stage - 530 sx
8-3/4"	7"	20 & 23	10000	To be calc. to give 2000' fillup plus 20% excess.
6-1/4"	5" liner	23	3870	To be calc. to cement entire liner plus 20% excess.

Well was spudded on state land in Sec. 2-T18S-R16W on 12/03/80. Due to hole deviation problems well will bottom under Federal land in Sec. 11-T18S-R16W.

- 1) Designation of Operator received May 11, 1981.
- 2) This well and associated reports are accepted as a matter of record only. The Geological Survey did not approve well operations nor abandonment procedures.
- 3) Bottom Hole location 2416' FWL & 198' FNL, Section 11, T.18S, R.16W.

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 George H. Baer TITLE Region Petroleum Engineer DATE 3/05/81

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY RC Kennick FOR E. W. GYNN DISTRICT ENGINEER DATE JUN 2 1981  
 CONDITIONS OF APPROVAL, IF ANY:

5. LEASE DESIGNATION AND SERIAL NO.  
 U-22832

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 N/A

7. UNIT AGREEMENT NAME  
 N/A

8. FARM OR LEASE NAME  
 Federal DG

9. WELL NO.  
 1

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 11-T18S-R16W

12. COUNTY OR PARISH | 13. STATE  
 Millard | Utah

16. NO. OF ACRES IN LEASE 2560

17. NO. OF ACRES ASSIGNED TO THIS WELL 640

19. PROPOSED DEPTH 13870 MD; 13500 TVD

20. ROTARY OR CABLE TOOLS Rotary

22. APPROX. DATE WORK WILL START\* 12/03/80

ACCEPTED