



RAILROAD COMMISSION OF TEXAS

Form W-2

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Submitted
Date: 11/20/2015
Tracking No.: 146582

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: APACHE CORPORATION Operator No.: 027200
Operator Address: ATTN REGULATORY STE 3000 303 VETERANS AIRPARK LN MIDLAND, TX 79705-0000

WELL INFORMATION

API No.: 42-103-32997 County: CRANE
Well No.: 1 RRC District No.: 08
Lease Name: UNIVERSITY 38B Field Name: BLOCK 31 (DEVONIAN)
RRC Lease No.: 27766 Field No.: 09358450
Location: Section: 38, Block: 31, Survey: UL, Abstract:

Latitude: Longitude:
This well is located 5.4 miles in a NW
direction from CRANE,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: Other/Recompletion
Well Type: Producing Completion or Recompletion Date: 06/02/2013

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	10/19/2015	811291
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 10/11/1982	Date of first production after rig released: 06/02/2013
Date plug back, deepening, recompletion, or drilling operation commenced: 04/30/2013	Date plug back, deepening, recompletion, or drilling operation ended: 05/29/2013
Number of producing wells on this lease in this field (reservoir) including this well: 1	Distance to nearest well in lease & reservoir (ft.): 0.0
Total number of acres in lease: 160.00	Elevation (ft.): 2517 GL
Total depth TVD (ft.): 9044	Total depth MD (ft.):
Plug back depth TVD (ft.): 8890	Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? No	Rotation time within surface casing (hours):
Recompletion or reclass? Yes	Is Cementing Affidavit (Form W-15) attached? Yes
Type(s) of electric or other log(s) run: None	Multiple completion? No
Electric Log Other Description:	
Location of well, relative to nearest lease boundaries	Off Lease : No
of lease on which this well is located:	659.0 Feet from the North Line and
	660.0 Feet from the West Line of the
	UNIVERSITY 38B Lease.

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type
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PACKET: N/A

W2:	N/A		
FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:			
GAU Groundwater Protection Determination		Depth (ft.): 650.0	Date: 08/20/2012
SWR 13 Exception		Depth (ft.):	

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION		
Date of test: 06/04/2013		Production method: Pumping
Number of hours tested: 24		Choke size:
Was swab used during this test?	No	Oil produced prior to test:
PRODUCTION DURING TEST PERIOD:		
Oil (BBLS): 33.00		Gas (MCF): 275
Gas - Oil Ratio: 8333		Flowing Tubing Pressure:
Water (BBLS): 3090		
CALCULATED 24-HOUR RATE		
Oil (BBLS): 33.0		Gas (MCF): 275
Oil Gravity - API - 60.:	41.0	Casing Pressure:
Water (BBLS): 3090		

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	8 5/8	11	3595			C	1500	2220.0	0	Circulated to Surface
2	Conventional Production	5 1/2	7 7/8	9044			C	2000	3040.0	1750	Calculation

LINER RECORD									
Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
N/A									

TUBING RECORD				
<u>Row</u>	<u>Size (in.)</u>	<u>Depth</u>	<u>Size (ft.)</u>	<u>Packer Depth (ft.)/Type</u>
1	2 7/8	8796		/

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L 8494	8631.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment performed?		Yes	
Is well equipped with a downhole actuation sleeve?		If yes, actuation pressure (PSIG):	
No			
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:		Actual maximum pressure (PSIG) during hydraulic fracturing:	
Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)?		Yes	
Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)
1	Fracture	SEE FRAC FOCUS	8494 8631

Cementor: Fill in shaded areas
Operator: Fill in other items

Form W-15
Cementing Report

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report)	2. RRC Operator No.	3. RRC District No.	4. County of Well Site
APACHE CORPORATION	027200	08	CRANE
5. Field Name (Wildcat or Exactly as Shown on RRC Records)	6. API No.	7. Drilling Permit No.	
Block 31 (Devonian)	42-103-32997	811291	
8. Lease Name	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well Number
UNIVERSITY 38B #1		27760	1

CASING CEMENTING DATA		SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				SINGLE STRING	MULTIPLE PARALLEL STRINGS	TOOL	SHOE
12. Cementing Date							
13. *Drilled Hole Size							
*Ext. % Wash or Hole Enlargement							
14. Size of Casing (in. O.D.)							
15. Top of Liner (ft)							
16. Setting Depth (ft)							
17. Number of Centralizers Used							
18. Hrs. Waiting on Cement Before Dri-Out							
1st slurry	19. API Cement Used: No. of Sacks >						
	Class >						
	Additives >						
2nd slurry	No. of Sacks >						
	Class >						
	Additives >						
3rd slurry	No. of Sacks >						
	Class >						
	Additives >						
1st	20. Slurry Pumped: Volume (cu.ft.) >						
	Height (ft) >						
2nd	Volume (cu.ft.) >						
	Height (ft) >						
3rd	Volume (cu.ft.) >						
	Height (ft) >						
Total	Volume (cu.ft.) >						
	Height (ft) >						
21. Was Cement Circulated to Ground Surface (or Bottom of Casing) Outside Casing?							
22. Remarks							

OVER →

RECEIVED

MAY 7 2013

CEMENTING TO PLUG AND ABANDON	SQUEEZE	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing Date	5/3/13							
24. Size of Hole or Pipe Plugged (in)								
25. Depth to Bottom of Tubing or Drill Pipe (ft)								
26. Sacks of Cement Used (each plug)	150							
27. Slurry Volume Pumped (cu.ft.)	177							
28. Calculated Top of Plug (ft)	7579							
29. Measured Top of Plug, If Tagged (ft)								
30. Slurry Wt. (lbs/gal)	15.6							
31. Type Cement	H+0.2%C35+0.25%R38							

CEMENTERS CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

ERIC JUAREZ

Name and Title of Cementer's Representative

RISING STAR SERVICES LP.

Cementing Company

[Signature]
Signature

P.O. BOX 61193

MIDLAND

TX.

79711

(432) 617-0114

MAY 3 2013

Address

City

State

Zip Code

Tel: Area Code Number

Date: Mo. Day Yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

DEE BAGWELL

Typed or Printed Name of Operators Representative

INSTRUMENT TECH

Title

[Signature]
Signature

8602 EXXON LOOP

CRANE TX

79731

432.557.8694

5 3 2013

Address

City

State

Zip Code

Tel: Area Code Number

Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

- * An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- * Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- * Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written applications, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 12 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

STATEMENT OF PRODUCTIVITY OF ACREAGE
ASSIGNED TO PRORATION UNITS

Form P-15

Tracking No.: 146582

This facsimile P-15 was generated electronically
from data submitted to the RRC.

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the APACHE CORPORATION ,

UNIVERSITY 38B , No. 1 ; that such well is
LEASE OPERATOR WELL

completed in the BLOCK 31 (DEVONIAN) Field, CRANE County,

Texas and that the acreage claimed, and assigned to such well for proration purposes as authorized by special rule and as shown on the attached certified plat embraces _____

80.0 acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE -

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge,

Date 11/20/2015 Signature Christine Smith

Telephone (432) 818-1107 EXT 1107 Title _____
AREA CODE

Groundwater
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Date August 20, 2012

GAU File No.: SC- 7684

***** EXPEDITED APPLICATION *****

API Number 10300000

Attention: SUSAN BLAKEMORE

RRC Lease No. 000000

SC_027200_10300000_000000_7684.pdf

APACHE CORP
303 VETERANS AIRPARK LN
STE 3000
MIDLAND TX 79705

P-5# 027200

--Measured--

1780 ft FEL

1916 ft FNL

MRL: SECTION

Digital Map Location:

X-coord/Long 1347469

Y-coord/Lat 652713

Datum 27 Zone C

County CRANE

Lease & Well No. UNIVERSITY DEVONIAN 38 A #4&ALL

Purpose ND

Location SUR-UL, BLK-31, SEC-38, -- [TD=9300] , [RRC 8] ,

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Texas Railroad Commission recommends:

The interval from land surface to the base of the SANTA ROSA, which is estimated to occur at a depth between 600 and 650 feet, must be protected.

This recommendation is applicable to all wells drilled in this section 38.

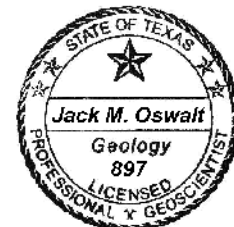
Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

If you have any questions, please contact us at 512-463-2741, gau@rrc.state.tx.us, or by mail.

Sincerely,

Jack M. Oswalt, P.G.

GEOLOGIST SEAL



Geologist, Groundwater Advisory Unit
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 8/20/2012
Note: Alteration of this electronic document will invalidate the digital signature.

Tracking No.: 146582

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:

- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:

- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:

- with the appropriate Commission district office

Filling out Form L-1:

- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:

- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: APACHE CORPORATION	District No. 08	Completion Date: 06/02/2013
Field Name BLOCK 31 (DEVONIAN)	Drilling Permit No. 811291	
Lease Name UNIVERSITY 38B	Lease/ID No. 27766	Well No. 1
County CRANE	API No. 42- 103-32997	

SECTION II. LOG STATUS (Complete either A or B)

☒ A. BASIC ELECTRIC LOG NOT RUN☐ B. BASIC ELECTRIC LOG RUN. (Select one)

- ☐ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
- ☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
- ☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
- ☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Christine Smith

Signature

Name (print)

Title

(432) 818-1107 EXT 1107

Phone

11/20/2015

Date

-FOR RAILROAD COMMISSION USE ONLY-

34

35

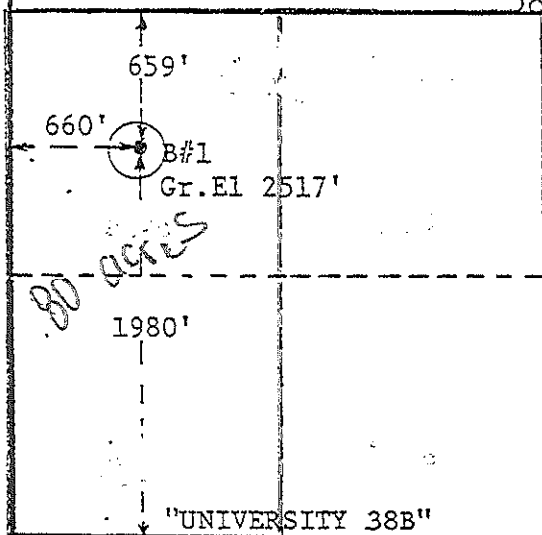
36

APACHE CORPORATION
BLOCK 31
UNIVERSITY LAND

39

38

37



46

47

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R.R.C. OF TEXAS

DEC 10 1982

OG
MIDLAND TEXAS

Holly Energy



N

160 Acre Lease

Block 31 (Devonian) Field

SCALE 1" = 1000' Approximately 5.4 miles NW of Crane, Texas

LOCATION PLAT

WATSON AND
ASSOCIATES OF
MIDLAND, INC.

CONSULTING ENGINEERS
LAND SURVEYORS
PO BOX 3848
MIDLAND, TEXAS

JOB # Crane NW Texas
TOPO
FIELD BOOK 65/63

APACHE CORPORATION
"UNIVERSITY 38B#1
1980 FSL & 660 FWL
SECTION 38, BLOCK 31
UNIVERSITY LAND
CRANE COUNTY, TEXAS