



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 03/27/2015
Tracking No.: 129735

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

OPERATOR INFORMATION

Operator Name: AMERICAN ENERGY-PERM BASIN, LLC **Operator No.:** 017996
Operator Address: PO BOX 13710 OKLAHOMA CITY, OK 73113-0000

WELL INFORMATION

API No.: 42-383-38027 **County:** REAGAN
Well No.: 0702UH **RRC District No.:** 7C
Lease Name: UNIVERSITY 48 **Field Name:** LIN (WOLFCAMP)
RRC Lease No.: 18110 **Field No.:** 53613750
Location: Section: 7, Block: 48, Survey: UL, Abstract: U319

Latitude: **Longitude:**
This well is located 10.6 **miles in a** SE
direction from BIG LAKE,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: New Well
Well Type: Shut-In Producer **Completion or Recompletion Date:** 08/18/2014

<u>Type of Permit</u>	<u>Date</u>	<u>Permit No.</u>
Permit to Drill, Plug Back, or Deepen Rule 37 Exception	08/22/2014	748217
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 08/16/2014	Date of first production after rig released: 08/18/2014
Date plug back, deepening, recompletion, or drilling operation commenced: 08/16/2014	Date plug back, deepening, recompletion, or drilling operation ended: 08/18/2014
Number of producing wells on this lease in this field (reservoir) including this well: 12	Distance to nearest well in lease & reservoir (ft.): 3243.4
Total number of acres in lease: 3670.52	Elevation (ft.): 2758 GL
Total depth TVD (ft.): 975	Total depth MD (ft.): 975
Plug back depth TVD (ft.): 975	Plug back depth MD (ft.): 975
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 0.0
Recompletion or reclass? No	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 of lease on which this well is located:	Off Lease : No
	South Line and
	West Line of the
	UNIVERSITY 48 Lease.

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

<u>Field & Reservoir</u>	<u>Gas ID or Oil Lease No.</u>	<u>Well No.</u>	<u>Prior Service Type</u>
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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.): 875.0 Date: 09/20/2012
 SWR 13 Exception Depth (ft.):

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: Production method:
 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): Gas (MCF):
 Gas - Oil Ratio: 0 Flowing Tubing Pressure:
 Water (BBLs):

CALCULATED 24-HOUR RATE

Oil (BBLs): Gas (MCF):
 Oil Gravity - API - 60.: Casing Pressure:
 Water (BBLs):

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	13 3/8	17 1/2	975			PREM PLUS	820	1358.0	0	Circulated to Surface

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
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N/A

TUBING RECORD

Row	Size (in.)	Depth	Size (ft.)	Packer Depth (ft.)/Type
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N/A

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
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N/A

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? No
 Is well equipped with a downhole actuation sleeve? No If yes, actuation pressure (PSIG):
 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)? No

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)
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N/A

Cementer: 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) American Energy - Perm Basin		2. RRC Operator No. 017996	3. RRC District No. 7C	4. County of Well Site Reagan
5. Field Name (Wildcat or Exactly as Shown on RRC Records) Lin (Wolfcamp)		6. API No. 42-383-38027	7. Drilling Permit No. 748217	
8. Lease Name University "48"		9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well Number 0702U H

CASING CEMENTING DATA:		SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				SINGLE STRING	MULTIPLE PARALLEL STRINGS	TOOL	SHOE
12. Cementing Date		8/17/2014					
13. *Drilled Hole Size		17 1/2					
*Ext. % Wash or Hole Enlargement							
14. Size of Casing (in. O.D.)		13 3/8					
15. Top of Liner (ft)							
16. Setting Depth (ft)		975					
17. Number of Centralizers Used		0					
18. Hrs. Waiting on Cement Before Drill-Out							
1st Slurry	19. API Cement Used: No. of Sacks >	455					
	Class >	premium plus					
	Additives >	*					
2nd Slurry	No. of Sacks >	365					
	Class >	premium plus					
	Additives >	**					
3rd Slurry	No. of Sacks >						
	Class >						
	Additives >						
1st	20. Slurry Pumped: Volume (cu.ft.) >	869					
	Height (ft) >	1254					
2nd	Volume (cu.ft.) >	489					
	Height (ft) >	647					
3rd	Volume (cu.ft.) >						
	Height (ft) >						
Total	Volume (cu.ft.) >	1358					
	Height (ft) >	1901					
21. Was Cement Circulated to Ground Surface (or Bottom of Casing) Outside Casing?		yes					

22. Remarks

* premium plus 65/35/6 w/1% calcium chloride 0.5% cfl-4 1/4# celloflake

** premium plus w/0.5%cfl-4 1/4# celloflake

circulated 105 bbls or 308sks back to surface

OVER →

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing Date								
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)								
27. Slurry Volume Pumped (cu.ft.)								
28. Calculated Top of Plug (ft)								
29. Measured Top of Plug, If Tagged (ft)								
30. Slurry Wt. (lbs/gal)								
31. Type Cement								

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.

Keith Smart Service Supervisor Universal Pressure Pumping, Inc. Signature
 Name and Title of Cementer's Representative Cementing Company

4124 Dan Hanks Ln San Angelo TX 76904 (325) 651 - 5700 August 18, 2014
 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.

Rian Hinds regulatory technician Signature
 Typed or Printed Name of Operator's Representative Title
 301 NW W30th Ave. OKC, OK 73116 4056085477 3/4/15
 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.

CERTIFICATE OF POOLING AUTHORITY

P-12

Revised 05/2001

1. Field Name(s) Lin (Wolfcamp)	2. Lease/ID Number (if assigned) 18110	3. RRC District Number 7C
4. Operator Name Enduring Resources, LLC	5. Operator P-5 Number 252014	6. Well Number 0702UH
7. Pooled Unit Name University 48	8. API Number 42-383-38027	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Reagan	11. Total acres in pooled unit 3670.5 21	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT <i>(See inst. #7 below)</i>	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
1	University Lands - Lease #113380	530.526	<input type="checkbox"/>	<input type="checkbox"/>
2	University Lands - Lease #75494	178.872	<input type="checkbox"/>	<input type="checkbox"/>
3	University Lands - Lease #73626	340.922	<input type="checkbox"/>	<input type="checkbox"/>
4	University Lands - Lease #113379	302.140	<input type="checkbox"/>	<input type="checkbox"/>
5	University Lands - Lease #73629	305.609	<input type="checkbox"/>	<input type="checkbox"/>
6	University Lands - Lease #73630	308.431	<input type="checkbox"/>	<input type="checkbox"/>
7	University Lands - Lease #73627	346.837	<input type="checkbox"/>	<input type="checkbox"/>
8	University Lands - Lease #73628	174.218	<input type="checkbox"/>	<input type="checkbox"/>
9	University Lands - Lease #89738	349.489	<input type="checkbox"/>	<input type="checkbox"/>
10	University Lands - Lease #71111	172.586	<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature	Alvin R. (Al) Arlian Print Name
Regulatory Specialist	aarlian@enduringresources.com
Title	E-mail (if available)
Date	Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

1. When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
2. The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
4. If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an * to the left of the tract identifier.
7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.



CERTIFICATE OF POOLING AUTHORITY

P-12

Revised 05/2001

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4. Operator Name Enduring Resources, LLC	5. Operator P-5 Number 252014	6. Well Number 0702UH
7. Pooled Unit Name University 48	8. API Number 42-383-38027	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Reagan	11. Total acres in pooled unit 3670.521	

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			UNLEASED	NON-POOLED
11	University Lands - Lease #71112	347.325	<input type="checkbox"/>	<input type="checkbox"/>
12	University Lands - Lease #32210	313.566	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

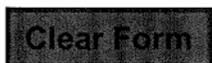
CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

	Alvin R. (Al) Arlian
Signature	Print Name
Regulatory Specialist aarlian@enduringresources.com	08/22/2014 (303) 350-5114
Title	Date Phone

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5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an * to the left of the tract identifier.
7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.



**Groundwater
Advisory Unit**

GROUNDWATER PROTECTION DETERMINATION

Date

GAU File No.: SC-

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

API Number

Attention:

RRC Lease No.

[SC_252014_38338027_748217_11079.pdf](#)

--Measured--

956 ft FEL

2546 ft FSL

MRL: SECTION

Digital Map Location:	
X-coord/Long	<input type="text" value="1680105"/>
Y-coord/Lat	<input type="text" value="531187"/>
Datum	<input type="text" value="27"/>
Zone	<input type="text" value="C"/>

County

Lease & Well No.

Purpose

Location

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

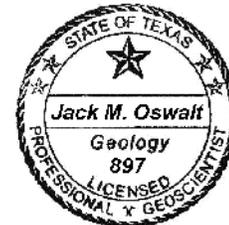
The interval from the land surface to the base of the SANTA ROSA, which is estimated to occur at a depth of 875 feet, must be protected.

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,

GEOLOGIST SEAL



Geologist, Groundwater Advisory Unit
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 9/20/2012
Note: Alteration of this electronic document will invalidate the digital signature.