



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved  
Date: 02/16/2017  
Tracking No.: 166205

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT,

OPERATOR INFORMATION			
Operator	PERMIAN RESOURCES, LLC	Operator	655836
Operator	700 MILAM STE 3100 HOUSTON, TX 77002-0000		

WELL INFORMATION			
API	42-383-39596	County:	REAGAN
Well No.:	0632HE	RRC District	7C
Lease	UNIVERSITY 10 RE	Field	LIN (WOLFCAMP)
RRC Lease	18869	Field No.:	53613750
Location	Section: 6, Block: 10, Survey: UNIVERSITY LANDS, Abstract:		
Latitude		Longitud	
This well is	6.74	miles in a	NORTH
direction from	BIG LAKE,		
which is the nearest town in the			

FILING INFORMATION			
Purpose of	Initial Potential		
Type of	New Well		
Well Type:	Producing	Completion or Recompletion	09/18/2016
Type of Permit	Date	Permit No.	
Permit to Drill, Plug Back, or	04/04/2016	814374	
Rule 37 Exception			
Fluid Injection			
O&G Waste Disposal			
Other:			

COMPLETION INFORMATION			
Spud	03/16/2016	Date of first production after rig	09/18/2016
Date plug back, deepening, drilling operation	08/19/2016	Date plug back, deepening, recompletion, drilling operation	08/30/2016
Number of producing wells on this lease this field (reservoir) including this	5	Distance to nearest well in lease & reservoir	283.0
Total number of acres in	630.90	Elevation	2538 GL
Total depth TVD	7943	Total depth MD	18197
Plug back depth TVD	7943	Plug back depth MD	18197
Was directional survey made other inclination (Form W-	Yes	Rotation time within surface casing Is Cementing Affidavit (Form W-15)	190.0 Yes
Recompletion or	No	Multiple	No
Type(s) of electric or other log(s)	Gamma Ray (MWD)		
Electric Log Other Description:			
Location of well, relative to nearest lease of lease on which this well is	674.0 Feet from the	Off Lease :	No
	1263.0 Feet from the	South Line and	
		East Line of the	
		UNIVERSITY 10 RE Lease.	

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.			
Field & Reservoir	Gas ID or Oil Lease	Well No.	Prior Service Type
PACKET:	N/A		

W2:	N/A		
FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:			
GAU Groundwater Protection Determination	Depth	550.0	Date 03/14/2016
SWR 13 Exception	Depth		

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION			
Date of	09/29/2016	Production	Flowing
Number of hours	24	Choke	64
Was swab used during this	No	Oil produced prior to	9155.00
PRODUCTION DURING TEST PERIOD:			
Oil	1183.00	Gas	918
Gas - Oil	775	Flowing Tubing	0.00
Water	2573		
CALCULATED 24-HOUR RATE			
Oil	1183.0	Gas	918
Oil Gravity - API - 60.:	41.4	Casing	308.00
Water	2573		

CASING RECORD											
Ro	Type of Casing	Casing	Hole	Setting	Multi -	Multi -	Cement	Cement	Slurry	Top of	TOC
		Size (in.)	Size	Depth	Stage Tool	Stage Shoe	Class	Amoun	Volume (cu.	Cement (ft.)	Determined By
1	Surface	13 3/8	17 1/2	723			CLASS C 65/35	900	1444.0	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	7052			CLASS C 50/50	1270	3142.0	0	Circulated to Surface
3	Conventional Production	5 1/2	8 3/4	18197			CLASS H 50/50	4200	5335.0	1300	Calculation

LINER RECORD									
<u>Ro</u>	<u>Liner Size</u>	<u>Hole Size</u>	<u>Liner Top</u>	<u>Liner Bottom</u>	<u>Cement Class</u>	<u>Cement Amoun</u>	<u>Slurry Volume (cu.</u>	<u>Top of Cement (ft.)</u>	<u>TOC Determined</u>
N/A									

TUBING RECORD			
<u>Ro</u>	<u>Size (in.)</u>	<u>Depth</u>	<u>Size (ft.)</u>
1	2 7/8	8246	
			<u>Packer Depth (ft.)/Type</u>
			/

PRODUCING/INJECTION/DISPOSAL INTERVAL			
<u>Ro</u>	<u>Open hole?</u>	<u>From (ft.)</u>	<u>To (ft.)</u>
1	No	L1 8326	18100.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment	Yes		
Is well equipped with a downhole sleeve?	No	If yes, actuation pressure	
Production casing test pressure (PSIG)		Actual maximum pressure (PSIG) during	
hydraulic fracturing	8500	fracturin	8330
Has the hydraulic fracturing fluid disclosure been	Yes		
<u>Ro</u>	<u>Type of Operation</u>	<u>Amount and Kind of Material Used</u>	<u>Depth Interval (ft.)</u>

FORMATION RECORD					
Formations	Encountere	Depth TVD	Depth MD	Is formation	Remarks
GRAYBURG	Yes	2698.0	2698.0	Yes	
QUEEN	Yes	2115.0	2115.0	Yes	
SAN ANDRES - SALTWATER FLOW, POSSIBLY HEAVY CLEARFORK	Yes	2864.0	2864.0	Yes	
	No			No	PINCHED OUT IN THE AREA
SPRABERRY	Yes	5527.0	5527.0	Yes	
WOLFCAMP	Yes	7070.0	7119.0	Yes	
STRAWN	No			No	BELOW TD
FUSSELMAN	No			No	BELOW TD
ELLENBURGER	No			No	BELOW TD
Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm					No
Is the completion being downhole commingled			No		

REMARKS
KOP FOR THIS WELL IS 7,474

RRC REMARKS
<b>PUBLIC COMMENTS:</b> [RRC Staff 2016-12-20 13:31:59.484] EDL=9774 feet, max acres=380, LIN (WOLFCAMP) oil well
<b>CASING RECORD :</b>
<b>TUBING RECORD:</b>
<b>PRODUCING/INJECTION/DISPOSAL INTERVAL :</b>
<b>ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :</b>
<b>POTENTIAL TEST DATA:</b>

OPERATOR'S CERTIFICATION			
Printed	Rian Hinds	Title:	Regulatory Technician
Telephone	(405) 968-4451	Date	02/16/2017



**RAILROAD COMMISSION OF TEXAS**

1701 N. Congress

P.O. Box 12967

Austin, Texas 78701-2967

**Form W-15**

Rev. 08/2014

**CEMENTING REPORT****Cementer: Fill in shade areas.  
Operator: Fill in other items.****OPERATOR INFORMATION**

Operator Name: American Energy Permian	Operator P-5 No.:
Cementer Name: Crest Pumping Technologies	Cementer P-5 No.: 189898

**WELL INFORMATION**

District No.: 7C	County: Reagan	
Well No.: 0632HE	API No.: 42-383-39596	Drilling Permit No.: 814374
Lease Name: University 10RE	Lease No.:	
Field Name: Lin (Wolfcamp)	Field No.:	

**I. CASING CEMENTING DATA**

Type of casing: <input type="checkbox"/> Conductor <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production		
Drilled hole size (in.): 17 1/2	Depth of drilled hole (ft.): 723	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 13 3/8	Casing weight (lbs/ft) and grade: 54.5#	No. of centralizers used: 5
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 723	Top of liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date: 3/17/2016

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	475	Class C 65/35	Remarks 1	879	1,265
2	425	Class C	Remarks 2	565	814
3					
Total	900			1,444	2,079

**II. CASING CEMENTING DATA**

Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings		
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.)	Tapered string depth of drilled hole (ft.)	
Upper: Lower:	Upper: Lower:	
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used
Upper: Lower:	Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

**III. CASING CEMENTING DATA**

Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> Multiple parallel strings		
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.)	Tapered string depth of drilled hole (ft.)	
Upper: Lower:	Upper: Lower:	
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used
Upper: Lower:	Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth tool (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					


CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole of pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS	
1	3% Salt; 6% Bentonite Gel; 0.25# Cellophane Flakes
2	2% Calcium Chloride; 0.25# Cellophane Flakes
3	
4	

CEMENTER'S 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.

Lee McCarter / Cementer	Crest Pumping Technologies	
Name and title of cementer's representative	Cementing Company	Signature
P.O. Box 117 Jacksboro, TX 76458	940-567-3392	
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 the 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	
Typed or printed name of operator's representative	Title	Signature
PO Box 13710 OKC, OK 73113	405-968-4451	05/11/2016
Address City, State, Zip Code	Tel: Area Code Number	Date:

### Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- 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.  
The Form W-15 should be filed with the form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.  
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_tloc=&p\\_ploc=&pg=1&ptac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&ptac=&ti=16&pt=1&ch=3&rl=14)). 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.
- Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as caliper log to show how the estimated % wash-out was obtained.
- Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15's to show all data for multiple parallel strings.
- Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



**RAILROAD COMMISSION OF TEXAS**

1701 N. Congress

P.O. Box 12967

Austin, Texas 78701-2967

**Form W-15**

Rev. 08/2014

**CEMENTING REPORT****Cementer: Fill in shade areas.  
Operator: Fill in other items.****OPERATOR INFORMATION**

Operator Name: Permian Resources	Operator P-5 No.: 655836
Cementer Name: Crest Pumping Technologies	Cementer P-5 No.: 189898

**WELL INFORMATION**

District No.: 7C	County: Reagan		
Well No.: 0632HE	API No.: 42-383-39596	Drilling Permit No.: 814374	
Lease Name: University 10 RE	Lease No.: 18869		
Field Name: Lin (Wolfcamp)	Field No.: 53613750		

**I. CASING CEMENTING DATA**

Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production		
Drilled hole size (in.): 12 1/4	Depth of drilled hole (ft.): 7,067	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 9 5/8	Casing weight (lbs/ft) and grade: 40# J-55, L-80	No. of centralizers used: 56
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 7,052	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 0	Cementing date: 5/20/2016

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1,065	Class C 50/50	Remarks 1	2,812	8,978
2	205	C PLUS	Remarks 2	330	1,054
3					
Total	1,270			3,142	10,031

**II. CASING CEMENTING DATA**

Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings			
Drilled hole size (in.):		Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)	
Upper: Lower:		Upper: Lower:	
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used
Upper: Lower:		Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO			Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):	Cementing date:

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

**III. CASING CEMENTING DATA**

Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> Multiple parallel strings			
Drilled hole size (in.):		Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)	
Upper: Lower:		Upper: Lower:	
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used
Upper: Lower:		Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO			Setting depth tool (ft.):
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):	Cementing date:

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					


CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS	
1	5% Salt; 7% Bentonite Gel; 0.05% GXT-C; 0.25% CPT-503p; 4# Kol Seal; 0.9389# Dura Fiber-X; 0.5% CPT-45
2	3% Salt; 1% Bentonite Gel; 0.5% CPT-19; 0.4% CPT-35; 4# Kol Seal; 0.1% CPT-20A
3	
4	Circulated 19 Sacks of Cement to Surface

CEMENTER'S 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.

Deseree McCarter / Cementer		Crest Pumping Technologies	
Name and title of cementer's representative		Cementing Company	Signature
P.O. Box 117 Jacksboro, TX 76458		940-567-3392	5/21/2016
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 the 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	
Typed or printed name of operator's representative		Title	Signature
PO Box 14670 OKC, OK 73113		405-968-4451	12/12/2016
Address	City, State, Zip Code	Tel: Area Code Number	Date:

### Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- 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 on form.  
The Form W-15 should be filed with the form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.  
  
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_floc=&p\\_ploc=&pg=1&ptac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_floc=&p_ploc=&pg=1&ptac=&ti=16&pt=1&ch=3&rl=14)). 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.
- D. **Estimated % wash-out:** If the estimated % wash-outs less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as caliper log to show how the estimated % wash-out was obtained.
- E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- F. **Multiple parallel strings:** An operator should file the Form W-15 as and attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W15's to show all data for multiple parallel strings.
- G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



**RAILROAD COMMISSION OF TEXAS**

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

**Form W-15**

Rev. 08/2014

**CEMENTING REPORT**

Cementer: Fill in shade areas.  
Operator: Fill in other items.

**OPERATOR INFORMATION**

Operator Name:	Permian Resources	Operator P-5 No.:	655836
Cementer Name:	Crest Pumping Technologies	Cementer P-5 No.:	189898

**WELL INFORMATION**

District No.: 7C	County: Reagan		
Well No.: 0632HE	API No.: 42-383-39596	Drilling Permit No.: 814374	
Lease Name: University 10 RE	Lease No.: 18869		
Field Name: Lin (Wolfcamp)	Field No.: 53613750		

**I. CASING CEMENTING DATA**

Type of casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input checked="" type="checkbox"/> Production
Drilled hole size (in.):	8 3/4	Depth of drilled hole (ft.):	18,197	Est. % wash-out or hole enlargement:	20%
Size of casing in O.D. (in.):	5 1/2	Casing weight (lbs/ft) and grade:	17#	No. of centralizers used:	160
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Setting depth shoe (ft.):	18,197	Top of liner (ft.):	
	If no for surface casing, explain in Remarks.			Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):	1,300	Cementing date:	6/3/2016

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1,405	Class H 50/50	Remarks 1	2,009	7,954
2	2,795	Class H 50/50	Remarks 2	3,326	13,168
3					
Total	4,200			5,335	21,122

**II. CASING CEMENTING DATA**

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement shoe	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (ft.):				
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:		

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

**III. CASING CEMENTING DATA**

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement/DV tool	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth tool (ft.):				
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:		

**SLURRY**

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

## CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

## REMARKS

- 1 2% Bentonite Gel; 0.25% CPT-503p; 1% CPT-16 A; 0.3% CPT-35; 0.3% CPT-45; 0.1% CPT-20A; 0.1% Citric Acid
- 2 0.25% CPT-503p; 0.8% CPT-16 A; 0.2% CPT-35; 0.2% CPT-20A
- 3
- 4

CEMENTER'S 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.

James W / Cementer  
Name and title of cementer's representative

Crest Pumping Technologies  
Cementing Company

Signature: *James West*

P.O. Box 117 Jacksboro, TX 76458  
Address City, State, Zip Code

940-567-3392  
Tel: Area Code Number

6/4/2016  
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 the 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  
Typed or printed name of operator's representative

Regulatory Technician  
Title

Signature: *Rian Hinds*

PO Box 14670 OKC, OK 73113  
Address City, State, Zip Code

405-968-4451  
Tel: Area Code Number

12/12/2016  
Date: mo. day yr.

## Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- 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.  
The Form W-15 should be filed with the form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.  
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?si=R&app=9&p\\_dir=&p\\_rloc=&poloc=&p\\_ploc=&pg=1&ptac=&ti=16&pt=1&ch=3&r=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?si=R&app=9&p_dir=&p_rloc=&poloc=&p_ploc=&pg=1&ptac=&ti=16&pt=1&ch=3&r=14)). 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.
- D. **Estimated % wash-out:** If the estimated % wash-outs less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as caliper log to show how the estimated % wash-out was obtained.
- E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- F. **Multiple parallel strings:** An operator should file the Form W-15 as and attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W15's to show all data for multiple parallel strings.
- G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

Tracking No.: 166205

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: PERMIAN RESOURCES, LLC	District No. 7C	Completion Date: 09/18/2016
Field Name LIN (WOLFCAMP)	Drilling Permit No. 814374	
Lease Name UNIVERSITY 10 RE	Lease/ID No. 18869	Well No. 0632HE
County REAGAN	API No. 42- 383-39596	

## 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). \_\_\_\_\_

Rian Hinds

Signature

PERMIAN RESOURCES, LLC

Name (print)

Regulatory Technician

Title

(405) 968-4451

Phone

12/12/2016

Date

-FOR RAILROAD COMMISSION USE ONLY-



Gamma Ray Build and Lateral

Job #: 168073 Well ID: 814374

Scale: 5" = 100 ft Type: MD

Well Site Information

Oil Company	Cathedral Energy Services
Surface Location	University Lands Block 10, Sec. 6
Well Name	University 10 RE 0632HE
API	42-383-39596
Field	Lin (Wolfcamp)
State	TX
Country	USA

Surface Coordinates

Well Type	Horizontal
Latitude	32° 17' 20 N
Longitude	-101° 28' 13 W
N / S Coordinates	591,818.98 ft
E / W Coordinates	1,644,859.60 ft
Azimuth Reference	True North
Grid Convergence	0.59°

MWD Engineers

Lead Hand	A. Evans
Second Hand	A. Clark

Perm Datum	Mean Sea Level	Elevation	2,538.00 ft		
Log depth measured from KB is	21.00 ft	above perm datum.	KB =	2,559.00 ft	
Total Depth	18,328.00 ft	Spud Date	May/13/2016	End Date	Jun/01/2016
(MD) Log Interval		Start Depth	6,850.00 ft	End Depth	18,197.16 ft

Bore Hole Record		
Hole Size	From	To
12.25 in	727.00 ft	7,067.00 ft
8.75 in	7,067.00 ft	18,197.00 ft

Casing Record				
Type	Size	WGT	From	To
Surface	13.38 in	54.5	0.00 ft	723.00 ft
Intermediate	9.63 in	40	723.00 ft	7,054.00 ft

# CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

# P-12

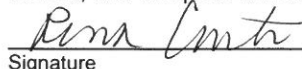
1. Field Name(s) <b>Lin (Wolfcamp)</b>	2. Lease/ID Number (if assigned)	3. RRC District Number <b>7C</b>
4. Operator Name <b>American Energy-Perm Basin, LLC</b>	5. Operator P-5 Number <b>017996</b>	6. Well Number <b>0632HE</b>
7. Pooled Unit Name <b>University 10 RE</b>	8. API Number <b>42-383-39596</b>	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County <b>Reagan</b>	11. Total acres in pooled unit <b>630.90</b>	

## DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT (See inst. #7 below)	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
1	University Lands	313.100	<input type="checkbox"/>	<input type="checkbox"/>
2	University Lands	317.800	<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.



Signature

Rena Carter

Print Name

Sr. Regulatory Specialist

rena.carter@aep-lp.com

03/11/2016

(405) 607-5559

Title

E-mail (if available)

Date

Phone

### INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

- 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.
- 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.
- If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
- 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.
- If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
- Identify the drill site tract with an \* to the left of the tract identifier.
- The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

Clear Form



STATEMENT OF PRODUCTIVITY OF ACREAGE  
ASSIGNED TO PRORATION UNITS

Form P-15

Tracking No.: 166205

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 PERMIAN RESOURCES, LLC ,

UNIVERSITY 10 RE , No. 0632HE ; that such well is  
LEASE OPERATOR WELL

completed in the LIN (WOLFCAMP) Field, REAGAN 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 \_\_\_\_\_

157.725 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 12/13/2016 Signature Rian Hinds

Telephone (405) 968-4451 Title Regulatory Technician  
AREA CODE

# RAILROAD COMMISSION OF TEXAS

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

Form P-16

Page 1

Rev. 01/2016

## Acreage Designation

## SECTION I. OPERATOR INFORMATION

<b>Operator Name:</b> Permian Resources, LLC	<b>Operator P-5 No.:</b> 655836
<b>Operator Address:</b> PO Box 14670 OKC, OK 73113	

## SECTION II. WELL INFORMATION

<b>District No.:</b> 7C	<b>County:</b> Reagan	<b>Purpose of Filing:</b> <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
<b>Well No.:</b> 0632HE	<b>API No.:</b> 42-383-39596	
<b>Total Lease Acres:</b> 630.9	<b>Drilling Permit No.:</b> 814374	
<b>Lease Name:</b> University 10 RE	<b>Lease No.:</b> 18869	
<b>Field Name:</b> Lin (Wolfcamp)	<b>Field No.:</b> 53613750	

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

**SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER**

[illegible]

Total Well Count >	5	630.9	< A. Total Assigned Horiz. Acreage	630.9	< C. Total Assigned Acreage
		0	< Total Remaining Horiz. Acreage	0	< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

## SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

--

**Attach Additional Pages As Needed.** ☒ No additional pages ☐ Additional Pages: \_\_\_\_\_ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

	Rian Hinds, Regulatory Technician			rian.hinds@permanresources.com		
<b>Signature</b>	<b>Name and title (type or print)</b>			<b>Email (include email address <i>only</i> if you affirmatively consent to its public release)</b>		
PO Box 14670	OKC	OK	73113	405	9684451	12/12/2016
<b>Address</b>	<b>City.</b>	<b>State.</b>	<b>Zip Code</b>	<b>Tel: Area Code</b>	<b>Number</b>	<b>Date: mo. day yr.</b>



Railroad Commission of Texas  
1701 N. Congress  
Austin, TX 78701

RE: 30 Day IP Exception Letter  
Cope 82-81 07HA

Dear Ms. Frischen,

Permian Resources, LLC (655836) respectfully requests an exception to the 30 day provision in regards to SWR 3.51, Oil Potential Test Forms Required, for this well.

If you have any questions or concerns about the above subject matter, please let us know.

Thank you,

Rian Hinds  
[Rian.hinds@permianresources.com](mailto:Rian.hinds@permianresources.com)  
405.968.4451

## GROUNDWATER PROTECTION DETERMINATION

Form GW-2



## Groundwater Advisory Unit

**Date Issued:** 14 March 2016**GAU Number:** 152286**Attention:** AMERICAN ENERGY-PERM  
PO BOX 13710  
OKLAHOMA CITY, OK 73113**Operator No.:** 017996**API Number:**  
**County:** REAGAN  
**Lease Name:** University 10 RE  
**Lease Number:**  
**Well Number:** 0620HD  
**Total Vertical Depth:** 13000  
**Latitude:** 31.288955  
**Longitude:** -101.470382  
**Datum:** NAD27**Purpose:** New Drill**Location:** Survey-UL; Block-10; Section-6

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

The interval from the land surface to a depth of 550 feet must be protected.

This recommendation is applicable to all wells within a radius of 500 feet of this location.

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

This determination is based on information provided when the application was submitted on 03/14/2016. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2      P.O. Box 12967   Austin, Texas   78771-2967      512-463-2741      Internet address: [www.rrc.texas.gov](http://www.rrc.texas.gov)  
Rev. 02/2014

NAD 27, Central Zone 4203  
 Surface Hole Location (SEC. 6)  
 Latitude: 31.288954° N  
 Longitude: 101.470317° W  
 X=1644859.80  
 Y=591818.98  
 Elev.=2538'  
 674' FSL & 1263' FEL

Point of Penetration (SEC. 6)  
 Latitude: 31.287219° N  
 Longitude: 101.470387° W  
 X=1644831.59  
 Y=591187.91  
 42' FSL & 1317' FEL

First Take Point (SEC. 6)  
 Latitude: 31.289022° N  
 Longitude: 101.470416° W  
 X=1644829.34  
 Y=591843.59  
 698' FSL & 1293' FEL

Last Take Point (SEC. 32)  
 Latitude: 31.315877° N  
 Longitude: 101.470302° W  
 X=1644964.57  
 Y=601610.33  
 147' FNL & 1299' FEL

Bottom Hole Location (SEC. 32)  
 Latitude: 31.316144° N  
 Longitude: 101.470300° W  
 X=1644956.17  
 Y=601707.31  
 50' FNL & 1299' FEL

Tract	Lessor	Called Acreage	% of Total
1	University Lands	313.1000 Acres	49.6275
2	University Lands	317.8000 Acres	50.3725
Total		630.9000 Acres	100.0000

G. C. & S. F. RR CO Survey  
 Section 1, A-163

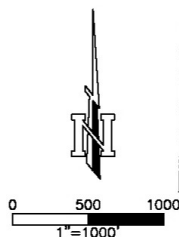
X=1646265.93  
 Y=601732.22

Unit Boundary Distances	
SHL	674' FSL & 1263' FEL
PP	42' FSL & 1281' FEL
FTP	698' FSL & 1293' FEL
LTP	147' FNL & 1289' FEL
BHL	50' FNL & 1299' FEL

University Lands  
 Block 58, Sec. 31

University Lands  
 Block 10, Sec. 5

University Lands  
 Block 10, Sec. 8



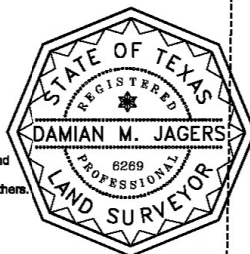
Well Name  
 University 10 RE 0632HE  
 Drilling Field  
 LIN (WOLF CAMP) FIELD  
 Nearest Town  
 6.74 MILES NORTH OF BIG LAKE, TEXAS

NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.B.P.L.S. Minimum Standards of Procedures for Boundary Survey. Shown Acreages were furnished by others. The information contained on this plat is intended for the sole use of PERMIAN RESOURCES, LLC.

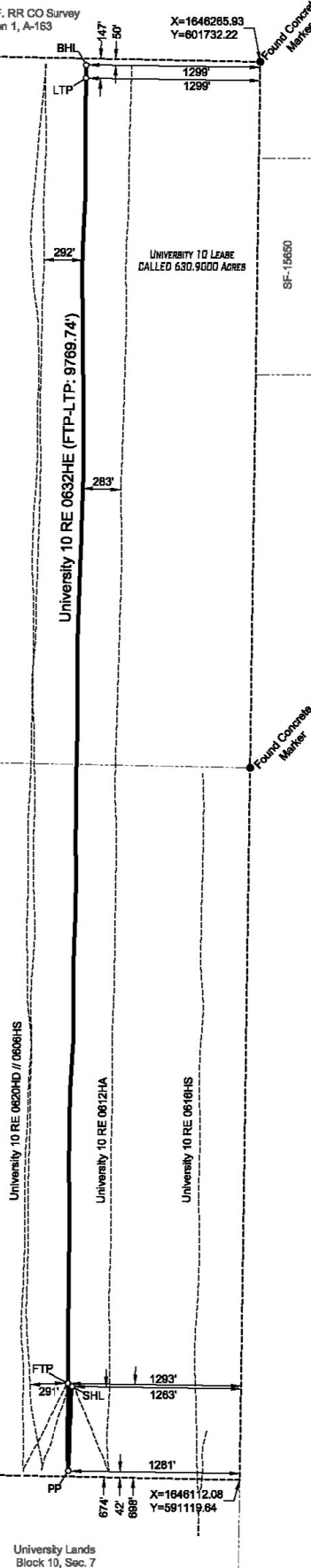
NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, Damian M. Jagers do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.

*Damian M. Jagers* 11/14/2016  
 Damian M. Jagers  
 REGISTERED PROFESSIONAL LAND SURVEYOR  
 TEXAS REGISTRATION NO. 6269



X=1643507.64  
 Y=591172.10



As-Drilled Plat  
 for  
 Rermian Resources, LLC

University 10 RE 0632HE  
 University Lands Block 10, Section 6  
 University Lands Block 58, Section 32  
 Reagan County, Texas