



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 12/22/2017
Tracking No.: 181536

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

OPERATOR INFORMATION

Operator Name: EP ENERGY E&P COMPANY, L.P. Operator No.: 253385
Operator Address: ATTN CHELSEA CANTRELLE PO BOX 4660 HOUSTON, TX 77210-4660

WELL INFORMATION

API No.: 42-105-42362 County: CROCKETT
Well No.: 3819HH RRC District No.: 7C
Lease Name: UNIVERSITY STONEGATE Field Name: LIN (WOLFCAMP)
RRC Lease No.: 17668 Field No.: 53613750
Location: Section: 19, Block: 38, Survey: UL, Abstract:

Latitude: Longitude:
This well is located 8.57 miles in a SOUTHEAST
direction from BARNHART,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing Completion or Recompletion Date: 05/01/2017

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	03/02/2017	823898
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 03/18/2017	Date of first production after rig released: 05/01/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 03/18/2017	Date plug back, deepening, recompletion, or drilling operation ended: 05/01/2017
Number of producing wells on this lease in this field (reservoir) including this well: 9	Distance to nearest well in lease & reservoir (ft.): 347.0
Total number of acres in lease: 14831.60	Elevation (ft.): 2619 GL
Total depth TVD (ft.): 6435	Total depth MD (ft.): 14639
Plug back depth TVD (ft.):	Plug back depth MD (ft.): 14580
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 63.5
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	Off Lease : No
of lease on which this well is located: 30.0 Feet from the South Line and 2290.0 Feet from the East Line of the UNIVERSITY STONEGATE 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.): 750.0	Date: 03/03/2017
SWR 13 Exception	Depth (ft.):	

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION	
Date of test: 09/22/2017	Production method: Gas Lift
Number of hours tested: 24	Choke size: 64
Was swab used during this test? No	Oil produced prior to test: 3040.00
PRODUCTION DURING TEST PERIOD:	
Oil (BBLs): 678.00	Gas (MCF): 1182
Gas - Oil Ratio: 1743	Flowing Tubing Pressure: 264.00
Water (BBLs): 1841	
CALCULATED 24-HOUR RATE	
Oil (BBLs): 678.0	Gas (MCF): 1182
Oil Gravity - API - 60.: 40.8	Casing Pressure: 1007.00
Water (BBLs): 1841	

CASING RECORD											
		Casing	Hole	Setting	Multi -	Multi -		Cement	Slurry	Top of	TOC
Row	Type of	Size	Size	Depth	Stage Tool	Stage Shoe	Cement	Amount	Volume	Cement	Determined
	Casing	(in.)	(in.)	(ft.)	Depth (ft.)	Depth (ft.)	Class	(sacks)	(cu. ft.)	(ft.)	By
1	Surface	9 5/8	12 1/4	903			C/POZ ;C	400	772.0	0	Circulated to Surface
2	Conventional Production	5 1/2	8 3/4	14628			C/POZ;H/P OZ	2080	3596.6	0	Calculation

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

TUBING RECORD				
Row	Size (in.)	Depth	Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	3481		6463 / EUE AS1-X

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 6817	14537.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment performed? Yes			
Is well equipped with a downhole actuation sleeve? Yes			
If yes, actuation pressure (PSIG): 8400.0			
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 8500			
Actual maximum pressure (PSIG) during hydraulic fracturing: 8146			
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	ADD PERFS AND FRAC (SEE FRACFOCUS FOR DETAILS)	6817 14537

FORMATION RECORD					
<u>Formations</u>	<u>Encountered</u>	<u>Depth TVD (ft.)</u>	<u>Depth MD (ft.)</u>	<u>Is formation isolated?</u>	<u>Remarks</u>
QUEEN	Yes	965.3	965.3	Yes	TOPS PICKED FROM LOG
SAN ANDRES	Yes	1341.7	1342.4	Yes	TOPS PICKED FROM LOG
LEONARD	Yes	3312.5	3369.0	Yes	TOPS PICKED FROM LOG
WOLFCAMP	Yes	5648.6	5736.5	Yes	PRODUCING INTERVAL
CANYON	No			Yes	BELOW TOTAL DEPTH
STRAWN	No			Yes	BELOW TOTAL DEPTH
DEVONIAN	No			Yes	BELOW TOTAL DEPTH
ELLENBURGER	No			Yes	BELOW TOTAL DEPTH

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)?

No

Is the completion being downhole commingled (SWR 10)?

No

REMARKS

RRC REMARKS
<div>PUBLIC COMMENTS: [RRC Staff 2017-11-06 17:34:45.041] EDL=7688 feet, max acres=320, LIN (WOLFCAMP) oil well</div> <div>CASING RECORD :</div> <div>TUBING RECORD:</div> <div>PRODUCING/INJECTION/DISPOSAL INTERVAL :</div> <div>ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :</div> <div>POTENTIAL TEST DATA:</div>

OPERATOR'S CERTIFICATION	
Printed Name: Rita Martinez-Dean	Title: Associate Analyst
Telephone No.: (713) 997-6212	Date Certified: 12/07/2017



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 shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION					
Operator Name:			Operator P-5 No.:		
Cementer Name:			Cementer P-5 No.:		

WELL INFORMATION			
District No.:		County:	
Well No.:		API No.:	Drilling Permit No.:
Lease Name:		Lease No.:	
Field Name:		Field No.:	

I. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production					
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:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks.			Setting depth shoe (ft.):		Top of liner (ft.):
					Setting depth liner (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					

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.) Upper: Lower:			Tapered string depth of drilled hole (ft.) Upper: Lower:		
Tapered string size of casing in O.D. (in.) Upper: Lower:		Tapered string casing weight (lbs/ft) and grade Upper: Lower:		Tapered string no. of centralizers used 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.) Upper: Lower:			Tapered string depth of drilled hole (ft.) Upper: Lower:		
Tapered string size of casing in O.D. (in.) Upper: Lower:		Tapered string casing weight (lbs/ft) and grade Upper: Lower:		Tapered string no. of centralizers used 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
LEAD= CLASS C+ LAFARGE POZMIX+5%BENTONITE+1.25%C-45+.20%C-40P+5.2%SALT+6%KOLSEAL+2%PHENOSEAL. TAIL = CLASS C+.25%C-45+1.61%SALT

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.

Joshua Hicks Service Supervisor	Compass Cementing	Joshua Hicks	<small>Digitally signed by Joshua Hicks DN: cn=Joshua Hicks, o=Compass Well Services, ou=Compass Cementing, email=jhicks@compasswell.com, c=US Date: 2017.03.18 12:00:00 -0500</small>
Name and title of cementer's representative	Cementing Company	Signature	
10013 W. County Rd. 157	Midland TX 79706 325-387-2940	3/18/2017	
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.

Charles Pannell	Drilling Consultant	Charles Pannell	<small>Digitally signed by Charles Pannell DN: cn=Charles Pannell, o=Compass Well Services, ou=Compass Cementing, email=cpannell@compasswell.com, c=US Date: 2017.03.18 12:00:00 -0500</small>
Typed or printed name of operator's representative	Title	Signature	
Po Box 154 Houston, Texas 77001	713-997-1205	3/18/17	
Address	City, State, Zip Code	Tel: Area Code Number	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.

- 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&p_tac=&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&p_tac=&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 a 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-15s 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.

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

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Name and title of cementer's representative	Cementing Company	Signature
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.

Typed or printed name of operator's representative	Title	Signature
Address	City, State, Zip Code	Tel: Area Code Number Date: mo. day yr.

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- 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?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&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&p_tac=&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-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a 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 an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s 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.



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

Form W-15

Rev. 08/2014

CEMENTING REPORT

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

OPERATOR INFORMATION

Operator Name: EP ENERGY E&P COMPANY, L.P.	Operator P-5 No.: 253385
Cementer Name: COMPASS CEMENTING SERVICES, LLC.	Cementer P-5 No.: 169789

WELL INFORMATION

District No.: 7C	County: CROCKETT	
Well No.: 3819HH	API No.: 42-105-42362	Drilling Permit No.: 823898
Lease Name: UNIVERSITY STONEGATE	Lease No.: 17668	
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.): 8.75 & 8.5	Depth of drilled hole (ft.): 14,639	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 5.5	Casing weight (lbs/ft) and grade: 17# HCP-110	No. of centralizers used: 71
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 14628'	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 0' Surface	Cementing date: 5/1/17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	575	C/POZ	SEE REMARKS	1610	6297.52
2	1505	H/POZ	SEE REMARKS	1986.6	8566.82
3					
Total	2080			3596.6	14864.34

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.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used 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	
LEAD CLASS C 50% POZ 50% BENTONITE 8%, C-45 .4%, C-47B .1%, CITRIC ACID .3%, CSA-1000 .1%, KOL SEAL 5%, GYP SEAL 4%.	TAIL CLASS H 50% POZ 50% C-47B .1%, CSA-1000 .1%.

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.

Justin Cortez	Cement Supervisor I	Compass Cementing Services			
Name and title of cementer's representative		Cementing Company	Signature		
1930 S US HWY 277	SONORA TX, 76950	325-387-2940	5/1/17		
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.

JARED FAUST	COMPANY REP				
Typed or printed name of operator's representative		Title	Signature		
P.O BOX 154	HOUSTON, TX, 77001	713-997-1205	05/01/2017		
Address	City,	State,	Zip Code	Tel: Area Code	Number
					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?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&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&p_tac=&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-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a 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 an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s 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.: 181536

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: EP ENERGY E&P COMPANY, L.P.	District No. 7C	Completion Date: 05/01/2017
Field Name LIN (WOLFCAMP)	Drilling Permit No. 823898	
Lease Name UNIVERSITY STONEGATE	Lease/ID No. 17668	Well No. 3819HH
County CROCKETT	API No. 42- 105-42362	

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). _____

Rita Martinez-Dean

Signature

EP ENERGY E&P COMPANY, L.P.

Name (print)

Associate Analyst

Title

(713) 997-6212

Phone

10/24/2017

Date

-FOR RAILROAD COMMISSION USE ONLY-



Gamma Log

MD
1":100'

Company: EP Energy E&P Company
Well Name: University Stonegate 3819 HH
API: 42-105-42362
County/Parish: Crockett County
State/Prov: Texas
Country: USA
Job #: T2988

Company: EP Energy E&P Company
Well Name: University Stonegate 3819 HH
API: 42-105-42362
County/Parish: Crockett County
State or Prov: Texas
Country: USA
Job number: T2988
Field: Wolfcamp Shale
Rig Identification: Nabors F-34
Survey Company: Nabors Drilling Solutions
MWD Operator 1 David Foley
MWD Operator 2 Remote Operating Center
Geologist Lauren Robinson
Drilling Engineer Ryan Williams
Coordinates N: 496624.600 E:1765096.860

Log measurements: GR, ROP
Depth measured from: Drill Floor - 30 ft
Maximum temperature: 202 F

Depth	Date
Start: 933 ft	04/26/2017
End: 14639 ft	04/30/2017

Casing	Depth	Size	Mud type: Oil based	Elevations
Surface:	976 ft	9 5/8"	Density: 9.4 ppg	KB2649.00 ft
Intermediate:			Viscosity: 61 sec/qt	DF: 30 ft
			Rm: Rmf: Rmc:	GL2619.00 ft

Run	Bit Size	Offsets		Depths		Dates	
		Gamma	Survey	Start	End	Start	End
1	8 3/4"	49.00 ft	50.00 ft	933 ft	6140 ft	04/26/2017	04/27/2017
2	8 3/4"	51.00 ft	52.00 ft	6140 ft	6815 ft	04/27/2017	04/28/2017
3	8 1/2"	54.00 ft	55.00 ft	6815 ft	6815 ft	04/28/2017	04/28/2017
4	8 1/2"	57.00 ft	58.00 ft	6815 ft	14639 ft	04/28/2017	04/30/2017
5							
6							
7							
8							
9							
10							

Nabors Drilling Solutions uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

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

Operator Name:	Operator P-5 No.:
Operator Address:	

SECTION II. WELL INFORMATION

District No.:	County:	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.:	API No.:	
Total Lease Acres:	Drilling Permit No.:	
Lease Name:	Lease No.:	
Field Name:	Field No.:	

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 >		< A. Total Assigned Horiz. Acreage		< C. Total Assigned Acreage
		< Total Remaining Horiz. Acreage		< 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.

Signature	Name and title (type or print)	Email (include email address <i>only</i> if you affirmatively consent to its public release)
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Address	City,	State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.
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GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued: 03 March 2017

GAU Number: 168297

Attention: EP ENERGY E&P COMPANY,
ATTN JOSEPH ARAIZA
HOUSTON, TX 77210

Operator No.: 253385

API Number:
County: CROCKETT
Lease Name: University Stonegate
Lease Number: 17668
Well Number: 3819FH
Total Vertical Depth: 8999
Latitude: 31.030735
Longitude: -101.089209
Datum: NAD27

Purpose: New Drill

Location: Survey-UL; Abstract-U261; Block-38; Section-19

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 20 feet below the base of the Cretaceous-age beds must be protected. The base of the Cretaceous is estimated to occur at a depth of 750 feet.

This recommendation is applicable for all wells drilled in this sec. 19.

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 03/03/2017. 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

NAD 83, Central Zone 4203

Surface Hole Location (SHL Sec. 19)
Latitude: 31.000185° N
Longitude: 101.003726° W
X=1761563.85
Y=4850923.58
Elev.=2619'
30' FSL & 2290' FWL

NAD 27, Central Zone 4203

Surface Hole Location (SHL Sec. 19)
Latitude: 31.030029° N
Longitude: 101.003337° W
X=1760965.86
Y=485024.60
Elev.=2619'
30' FSL & 2290' FWL

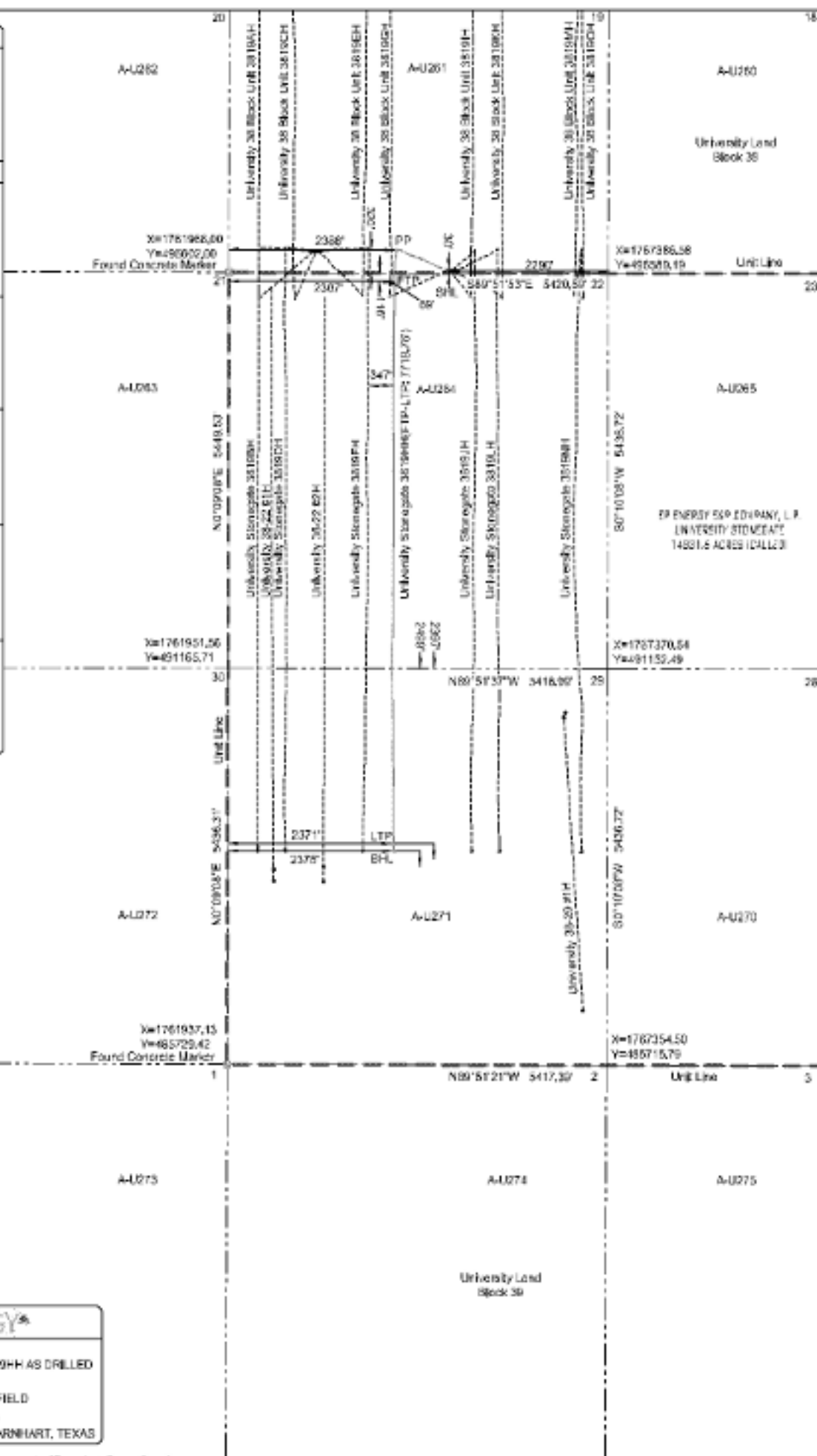
Point of Penetration (PP Sec. 19)
Latitude: 31.030816° N
Longitude: 101.005712° W
X=1764333.20
Y=485816.04
MD=6,738.47'
300' FSL & 2365' FWL

First Take Point (FTP Sec. 22)
Latitude: 31.030817° N
Longitude: 101.005774° W
X=1764332.88
Y=485890.07
MD=6,017'
116' FSL & 2367' FWL

Last Take Point (LTP Sec. 29)
Latitude: 31.030306° N
Longitude: 101.005880° W
X=1764316.35
Y=485762.60
MD=14,537'
2397' FSL & 2377' FWL

Bottom Hole Location (BHL Sec. 29)
Latitude: 31.030310° N
Longitude: 101.005947° W
X=1764315.69
Y=485690.91
MD=14,637'
2495' FSL & 2373' FWL

Unit Boundary Distance	
SHL	On Lease
PP	On Lease
FTP	116' FSL & 2367' FWL
LTP	3030' FSL & 2377' FWL
BHL	2937' FSL & 2373' FWL



EP ENERGY

Well Name
UNIVERSITY STONEGATE 3819HH AS DRILLED

Dilling Field
LIN (WOLF CAMP) FIELD

Nearest Town
8.57 MILES SOUTHEAST OF BARNHART, TEXAS

NOTE: This Plot 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 Acresages were furnished by others. The information contained on this plot is intended for the sole use of EP ENERGY E&P COMPANY, L.P.

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 9/27/2017
DATE
DAMIAN M. JAGERS
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269



EP ENERGY E&P COMPANY, L.P.

EXHIBIT A-1

UNIVERSITY STONEGATE 3819HH
AS DRILLED
Block 38, Section 19
Block 38, Section 22
Block 38, Section 29
Crockett County, Texas

NAD 83, Central Zone 4203
Surface Hole Location (SHL Sec. 19)
Latitude: 31,030195° N
Longitude: 101,083726° W
X=2061563.85
Y=10339203.59
Elev.=2619'
30' FSL & 2290' FEL

NAD 27, Central Zone 4203
Surface Hole Location (SHL Sec. 19)
Latitude: 31,030029° N
Longitude: 101,083337° W
X=1765096.86
Y=496624.60
Elev.=2619'
30' FSL & 2290' FEL

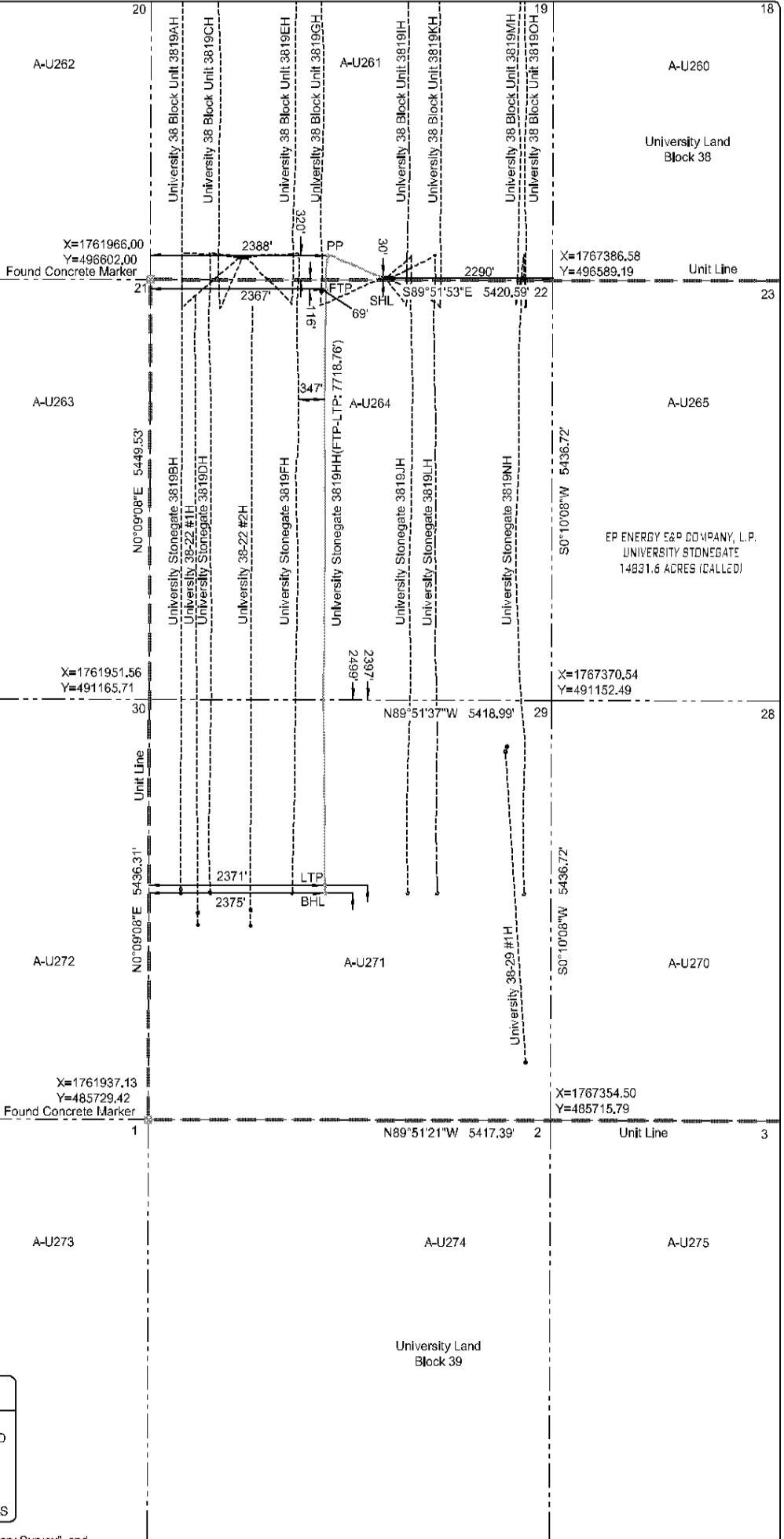
Point of Penetration (PP Sec. 19)
Latitude: 31,030816° N
Longitude: 101,085712° W
X=1764355.20
Y=496916.04
MD=5,736.47'
320' FSL & 2388' FWL

First Take Point (FTP Sec. 22)
Latitude: 31,029617° N
Longitude: 101,085774° W
X=1764332.88
Y=496480.07
MD=6,817'
116' FNL & 2367' FWL

Last Take Point (LTP Sec. 29)
Latitude: 31,008398° N
Longitude: 101,085660° W
X=1764316.35
Y=488762.83
MD=14,537'
2397' FNL & 2371' FWL

Bottom Hole Location (BHL Sec. 29)
Latitude: 31,008118° N
Longitude: 101,085647° W
X=1764319.69
Y=488660.91
MD=14,639'
2499' FNL & 2375' FWL

Unit Boundary Distance	
SHL	Off Lease
PP	Off Lease
FTP	116' FNL & 2367' FWL
LTP	3039' FSL & 2371' FWL
BHL	2937' FSL & 2375' FWL



EP ENERGY

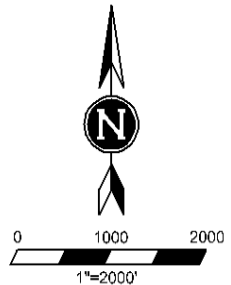
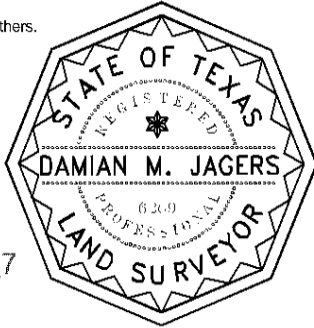
Well Name
UNIVERSITY STONEGATE 3819HH AS DRILLED
Drilling Field
LIN (WOLFCAMP) FIELD
Nearest Town
8.57 MILES SOUTHEAST OF BARNHART, TEXAS

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 EP ENERGY E&P COMPANY, L.P.

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 9/27/2017
DAMIAN M. JAGERS
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269



EP ENERGY E&P COMPANY, L.P.

EXHIBIT A-1

UNIVERSITY STONEGATE 3819HH
AS DRILLED
Block 38, Section 19
Block 38, Section 22
Block 38, Section 29
Crockett County, Texas