



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 01/14/2021
Tracking No.: 244640

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT,

OPERATOR INFORMATION			
Operator	SHELL WESTERN E&P	Operator	774719
Operator	PO BOX 576 HOUSTON, TX 77001-0000		

WELL INFORMATION			
API	42-495-34450	County:	WINKLER
Well No.:	3907H	RRC District	08
Lease	UNIVERSITY 20 TG UNIT	Field	TWO GEORGES (BONE SPRING)
RRC Lease	38244	Field No.:	92100050
Location	Section: 39, Block: 20, Survey: UL, Abstract: U34		
Latitude	31	Longitud	-103
This well is 9.9 miles in a SW direction from WINK, which is the nearest town in the			

FILING INFORMATION			
Purpose of	Initial Potential		
Type of	Other/Recompletion		
Well Type:	Producing	Completion or Recompletion	12/11/2020
Type of Permit	Date	Permit No.	
Permit to Drill, Plug Back, or Rule 37 Exception	11/07/2019	858780	
Fluid Injection			
O&G Waste Disposal			
Other:			

COMPLETION INFORMATION			
Spud	02/08/2020	Date of first production after rig	12/11/2020
Date plug back, deepening, drilling operation	02/08/2020	Date plug back, deepening, recompletion, drilling operation	04/14/2020
Number of producing wells on this lease this field (reservoir) including this	13	Distance to nearest well in lease & reservoir	1873.0
Total number of acres in	13103.98	Elevation	2769 GL
Total depth TVD	11664	Total depth MD	21960
Plug back depth TVD		Plug back depth MD	
Was directional survey made other inclination (Form W-	Yes	Rotation time within surface casing Is Cementing Affidavit (Form W-15)	57.0 Yes
Recompletion or	Yes	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	2779.0 Feet from the	Off Lease :	No
	10158.0 Feet from the	NE Line and	
		SE Line of the	
	UNIVERSITY 20 TG UNIT 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	250.0	Date 11/12/2019
SWR 13 Exception	Depth	4995.0	

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION			
Date of	12/24/2020	Production	Flowing
Number of hours	24	Choke	36/64
Was swab used during this	No	Oil produced prior to	10764.00
PRODUCTION DURING TEST PERIOD:			
Oil	1033.00	Gas	1161
Gas - Oil	1123	Flowing Tubing	1110.00
Water	3289		
CALCULATED 24-HOUR RATE			
Oil	1033.0	Gas	1161
Oil Gravity - API - 60.:	43.0	Casing	1070.00
Water	3289		

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.)
1	Surface	9 5/8	12 1/4	5070	388		C	3671	5768.0	0	Circulated to Surface
2	Intermediate	7 5/8	8 3/4	11296			C & H	393	997.0	4070	Calculation
3	Tapered Production	5 1/2	6 3/4	11279			H	1464	1947.0	9796	Calculation
4	Tapered Production	4 1/2	6 3/4	21937			H	1464	1947.0	9796	Calculation

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

TUBING RECORD			
Ro	Size (in.)	Depth	Size (ft.)
1	2 7/8	11299	
			11271 / HALLIBURTIO N VERSASET V2

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Ro	Open hole?	From (ft.)	To (ft.)
1	No	L1 12013	21793.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment		Yes	
Is well equipped with a downhole sleeve?		If yes, actuation pressure	8504.0
Production casing test pressure (PSIG)		Actual maximum pressure (PSIG) during	
hydraulic fracturing	9900	fracturin	11130
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>
1	Fracture	WELL DATA SUBMITTED TO FRAC FOCUS	12013 21793

FORMATION RECORD					
<u>Formations</u>	<u>Encountere</u>	<u>Depth TVD</u>	<u>Depth MD</u>	<u>Is formation</u>	<u>Remarks</u>
RUSTLER - POSSIBLE FLOW; POSSIBLE USABLE QUALITY W COLBY-QUEEN	Yes	805.0	806.0	Yes	
YATES	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
QUEEN-SEVEN RIVERS	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
SAN ANDRES - HIGH FLOWS, H2S, CORROSIVE HOLT	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
DELAWARE	Yes	5097.0	5124.0	Yes	FORMATION IS NOT GEOLOGICALLY PRESENT
GLORIETA	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
CLEARFORK	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
WICHITA ALBANY	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
BRUSHY CANYON	Yes	7389.0	7416.0	Yes	
CHERRY CANYON	Yes	6094.0	6121.0	Yes	
CANYON	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
BONE SPRINGS	Yes	9774.0	9802.0	Yes	
1ST BONE SPRING	Yes	9774.0	9802.0	Yes	
2ND BONE SPRING	Yes	10355.0	10383.0	Yes	
3RD BONE SPRING	Yes	10698.0	10726.0	Yes	
MONTOYA	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
WADDELL	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
WOLFCAMP	Yes	11726.0	11845.0	Yes	
ATOKA	No			No	BELOW WELLBORE DEPTH
STRAWN	No			No	BELOW WELLBORE DEPTH
PENNSYLVANIAN	No			No	BELOW WELLBORE DEPTH
MISSISSIPPIAN	No			No	BELOW WELLBORE DEPTH
DEVONIAN	No			No	BELOW WELLBORE DEPTH
SILURIAN	No			No	BELOW WELLBORE DEPTH
FUSSELMAN	No			No	BELOW WELLBORE DEPTH
ELLENBURGER	No			No	BELOW WELLBORE DEPTH

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 @ 11,370'. DEPTHS PROVIDED ARE REFERENCED AT KB @ 26'. INITIAL POTENTIAL FILING. NO WELLBORE CHANGE FROM WRO FILED AT TRACKING #239879. THIS TWO GEORGES (BONE SPRING) WELL IS COMPLETED WITHIN THE TOP OF THE WOLFCAMP, ABOVE THE BASE OF THE TWO GEORGES (BONE SPRING) CORRELATIVE INTERVAL.

RRC REMARKS
<p>PUBLIC COMMENTS:</p> <p>[RRC Staff 2021-01-07 12:18:36.631] EDL=9750 feet, max acres=704, TWO GEORGES (BONE SPRING) oil well;</p> <p>take points: 12013-21793 feet</p> <p>CASING RECORD :</p> <p>DV TOOL SET, BUT NOT OPENED, AS APPROVED IN SWR 13 EXCEPTION. SETTING DEPTH OF 5 1/2" CASING IS THE CROSSOVER POINT DEPTH ON THE TAPERED PRODUCTION STRING AND IS REFLECTED AS THE UPPER SHOE SETTING DEPTH ON THE W-15.</p> <p>TUBING RECORD:</p> <p>PRODUCING/INJECTION/DISPOSAL INTERVAL :</p> <p>ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :</p> <p>POTENTIAL TEST DATA:</p>

OPERATOR'S CERTIFICATION			
Printed	Michael Boutwell	Title:	Regulatory Specialist
Telephone	(832) 337-0258	Date	12/29/2020

WAYNE CHRISTIAN, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
RYAN SITTON, COMMISSIONER



DANNY SORRELLS
DIRECTOR, OIL AND GAS DIVISION
JEFFREY MORGAN
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

OPERATOR Name: SHELL WESTERN E&P

RE: Lease: UNIVERSITY 20 TG UNIT

Address1: PO BOX 576

Address2:

City: HOUSTON

State: TX

Well No: 3907H

Sec: 39 **Block:** 20

County: WINKLER

Survey Name: UL

SWR13EX Application Number: 77970

Drilling Permit No: 858780

SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for the **LEASE NAME:** UNIVERSITY 20 TG UNIT ;
WELL NUMBER: 3907H has been approved by the Railroad Commission of Texas District Office.

- a. A copy of this approved letter must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing Program on the original application without additional approval from the Railroad Commission of Texas District Office.
- b. Any substantive modifications to the cement program require prior approval from the Railroad Commission of Texas District Office, and may require re-submission of the SWR 13 (Statewide Rule 13) Alternate Surface Casing Application. Contact the Railroad Commission of Texas District Office for more information.
- c. The tail slurry must be sufficient to fill the Zone of Critical Cement as described in Statewide Rule 13(b)(1)(H)(i). In addition, all cement slurries must be mixed on location as described in Application for Alternate Surface Casing Program.
- d. The casing and cement program shall adhere to the following specifications:

Set 4995 feet of surface casing with a multistage tool set at a depth of not less than 350 feet. Circulate cement from the multistage tool to the ground surface. If cement does not circulate to surface during the first stage, the multistage tool MUST be opened and neat cement be circulated from the tool to the surface.

An extension to omit the installation of tubing in the above-referenced well is approved for a period of up to 180 days from the date the application was received or the date the well began producing, whichever occurred last.

The proposed alternative drilling fluid program for the fresh water protected interval is hereby approved.

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(b)(1)(H)(iii) OR AS REQUIRED BY THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE.

You must comply with all other provisions of SWR 13 (Statewide Rule 13) and a representative of the cementing company who performs the cementing job for the protection of usable quality water strata must sign the Form W-15 attesting to the information regarding cementing operations performed; including circulation of cement. (Note: If surface casing is set below the approved depth, this can result in denial of future Statewide Rule 13(b)(1)(H)(i) requests.) A condition of the approved drilling permit requires notification to the Railroad Commission of Texas District Office eight (8) hours prior to the time casing is to be set/cemented in the well. If your exception request was submitted after the subject well has been drilled and completed, the operator may be referred for enforcement action.

This authorization shall expire within five (5) years from the date the Groundwater Protection Determination was issued, or at the expiration of the drilling permit (if the well is not spudded prior to expiration) for the referenced well, whichever occurs first. Furthermore, this authorization supersedes any prior authorizations issued for the referenced well.

This exception is based on information provided when the application was submitted on 12/09/2019 .
If any information has changed, you must contact the appropriate Railroad Commission of Texas District Office, and submit a new application if applicable. If you have questions, please contact the appropriate Oil and Gas District office.

RRC APPROVAL BY: Jessica Kent

DATE: 12/12/2019

JEFFREY MORGAN

DISTRICT DIRECTOR



APPLICATION FOR APPROVAL OF SURFACE CASING > 3500 FEET
Statewide Rule 13(b)(1)(A)
RAILROAD COMMISSION OF TEXAS

Operator's Name and Address: Shell Western E&P
150 N. Dairy Ashford
Houston, Texas 77079

P5 Number: 774719

Area for review: District 8

Lease Name: University 20 TG Unit 3907H

Field Name: Two Georges (Bone Springs) County: Winkler

Survey: University Lands

Abstract: _____

Drilling Permits: 858780

Note: Attach a map if the request is for more than one pad.

How will the operator maintain well control during drilling operations:

While drilling the surface hole Shell utilizes drilling fluid of sufficient weight to overbalance the formations being penetrated.
In the event that flow is encountered a low-pressure rotating head is rigged-up under the rig floor to divert flow to the reserve pit.

How will the operator ensure cement is circulated to surface and that there is adequate bonding of cement:

A DV tool is to be placed below the water table if the operator is determined it is needed (as defined by the GAU), and Shell pumps a minimum of 100% excess cement for the first stage of the surface cement job. Adequate bonding of cement is achieved by utilizing the centralizer program as outlined in RRC Rule 3.13 (b) (1) (G). A second stage of cement is only included in this request plan as a contingency measure to achieve cement returns to surface.

How will the operator prevent the migration of formation fluids thru the annular space:

All cement slurries pumped by Shell comply with RRC Rule 3.13 (b) (1) (D) and Rule 3.13 (b) (1) (E). These slurries have been effective in preventing migration of formation fluids after the cement has been placed in the 100+ wells Shell has drilled in the Permian.

Signature: _____

Name: George Mullen

Date: 12/09/2019 Phone: 832-337-0549

RRC Use Only ►

RRC District Office Action:			
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Approved as Modified	<input type="checkbox"/> Denied	By: <u>Jessica Kent</u> Date: <u>12/12/2019</u>
Remarks/Modifications:			



RAILROAD COMMISSION OF TEXAS

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P.O. Box 12967
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Form W-15

Rev. 08/2014

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

CEMENTING REPORT

OPERATOR INFORMATION

Operator Name: Shell Western E&P Operator P-5 No.: 774719
Cementor Name: BJ Services, LLC Cementor P-5 No.: 072507

WELL INFORMATION

District No.: 08 County: WINKLER
Well No.: 3907 H API No.: 42-495-34450 Drilling Permit No.: 858780
Lease Name: UNIVERSITY 20 TG UNIT Lease No.:
Field Name: Two Georges (Bone Spring) Field No.: 92100050

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☒ Surface ☐ Intermediate ☐ Liner ☐ Production
Drilled hole size (in.): 12 1/4 Depth of drilled hole (ft.): 5078 Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 9.625 Casing weight (lbs/ft) and grade: 36#, J-55 No. of centralizers used: 31
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☒ YES ☐ NO If no for surface casing, explain in Remarks. Setting depth shoe (ft.): 5070 Top of liner (ft.):
Setting depth tool: 388
Hrs. waiting on cement before drill-out: 12+ Calculated top of cement (ft.): 0 Cementing date: 2/10/20

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	3168	C	SEE REMARKS	5100	16277
2	503	C	SEE REMARKS	668	9017
3					
Total	3671	C	SEE REMARKS	5768	25294

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ 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? ☐ YES ☐ 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: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ 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? ☐ YES ☐ 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 SLURRY 55/45 C+0.005#STATIC FREE+0.01GPS FP-28L+5.00%NACL+0.75%SMS+0.90%R-3+2.00%BENTONITE TAIL SLURRY C+0.005#STATIC FREE+0.15%SMS+0.30%R-3+0.01GPS FP-28L

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.

Vivian Munoz Field Specialist I

BJ SERVICES, LLC

Name and title of cementer's representative

Cementing Company

Signature

11211 FM 2920 RD.

TOMBALL, TEXAS 77375 (281) 408-2361

2/10/20

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.

Michael Boutwell

Regulatory Specialist

Michael Boutwell

Typed or printed name of operator's representative

Title

Signature

150 N. Dairy Ashford

Houston, TX 77079

832-337-0258

08/20/2020

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.

**RAILROAD COMMISSION OF TEXAS**

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Form W-15**Cementor: Fill in Shaded Areas****Operator: Fill in Other Items****CEMENTING REPORT****OPERATOR INFORMATION**

Operator Name:	Shell Western E&P	Operator P-5 No.:	774719
Cementor Name:	BJ Services, LLC	Cementor P-5 No.:	072507

WELL INFORMATION

District No.:	08	County:	Winkler
Well No.:	3907H	API No.:	42-495-34450 DP#: 858780
Lease Name:	UNIVERSITY 20 TG Unit	Lease No.:	
Field Name:	Two Georges (Bone Spring)	Field No.:	92100050

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.):	8 3/4	Depth of drilled hole (ft.):	11313	Est. % wash-out or hole enlargement:	10%
Size of casing in O.D. (in.):	7 5/8	Casing weight (lbs/ft) and grade:	29.7#, L-80	No. of centralizers used:	0
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Setting depth shoe (ft.):	11296	Top of liner (ft.):	
Hrs. waiting on cement before drill-out:	12+	Calculated top of cement (ft.):	4070	Cementing date:	2/28/2020
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	205.00	H	See Remarks 1	789.99	7821
2	188.00		See Remarks 2	207.97	1826
3					
Total	393.00			997.95	9647

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 drilled hole size (in.):				
Tapered string size of casing in O.D. (in.):		Tapered string casing weight (lbs/ft) and grade:		Tapered string no. of centralizers used:		
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (ft.):		Cementing date:	2/28/2020	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):				
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)	
1						
2						
3	0			0		
Total	0			0		0

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.):		Cementing date:	2/28/2020	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):				
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)	
1			See Remarks 1			
2			See Remarks 2			
3			See Remarks 3			
Total	0			0		0

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	
REMARKS1:	LEAD: Class "C": Poz: 45:55+ 0.25% Celloflake + 5.0 % BA95+ 10.0 % BA-90 + 0.35% ASA-301+ 0.5% CD-32A+ 0.8 % FL-52 + 1.0% R-3 + 5.0 % A-10
REMARKS2:	TAIL: Class "H": Poz: 45:55 + 0.3 % A-2 + 0.3% R-21 + 0.4 % CD-32A+ 0.5 % FL-66+ 2.0 % Bentonite + 0.004 lb/sk Static Free + 0.005 gps FP-28L
REMARKS3:	

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.

ERNESTO JURADO Cement Specialist
Name and title of cementer's representative

BJ Services, LLC
Cementing Company


Signature

11211 FM 2920 RD
Address

Tomball TX 77375
City, State, Zip Code

281-408-2361
Tel: Area Code Number

2/28/2020
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.

Michael Boutwell
Typed or printed name of operator's representative

Regulatory Specialist
Title


Signature

150 N. Dairy Ashford
Address

Houston, TX 77079
City, State, Zip Code

832-337-0258
Tel: Area Code Number

08/20/2020
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 representatives. 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 Commissioner'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-).

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=&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=&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 Cement 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

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.



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: Shell Western E&P	Operator P-5 No.: 774719
Cementer Name: BJ SERVICES, LLC	Cementer P-5 No.: 072507

WELL INFORMATION

District No.: 08		County: WINKLER	
Well No.: 3907H		API No.: 4249534450	Drilling Permit No.: 858780
Lease Name: UNIVERSITY 20 TG UNIT		Lease No.:	
Field Name: Two Georges (Bone Spring)		Field No.: 92100050	

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 checked="" type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.): 6 3/4		Depth of drilled hole (ft.): 21960		Est. % wash-out or hole enlargement: 15%	
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: 6 3/4 Lower: 6 3/4		Upper: 21960 Lower: 21960			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used	
Upper: 5 1/2 Lower: 4 1/2		Upper: 20#, P-110 Lower: 11.6#, P-110		Upper: 9 Lower: 17	
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.): Upper: 11,279 Lower: 21,937	
Hrs. waiting on cement before drill-out: N/A		Calculated top of cement (ft.): 9796		Cementing date: 04/14/2020	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1464	H	SEE REMARK #1	1947	15716
2					
3					
Total	1464			1947	15716

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
REMARK #1: H55/45POZ+ 2% BENTONITE+ 0.5% FL-66+ 0.35% CD32A+ 0.4% SMS+ 0.5% R-21+ 0.05% ASA-301+ 0.005 LB/SK STATIC FREE+ 0.01 GAL/SK FP-28L.

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.

JESUS ALFREDO ESPARZA

BJ SERVICES, LLC

Name and title of cementer's representative

Cementing Company

Signature

11211 FM 2920 RD.

TOMBALL, TX 77375

(281) 408-2361

04/14/2020

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.

Michael Boutwell

Regulatory Specialist

Signature

150 N. Dairy Ashford

Houston, TX 77079

832-337-0258

08/20/2020

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.: 244640

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: SHELL WESTERN E&P	District No. 08	Completion Date: 12/11/2020
Field Name TWO GEORGES (BONE SPRING)	Drilling Permit No. 858780	
Lease Name UNIVERSITY 20 TG UNIT	Lease/ID No. 38244	Well No. 3907H
County WINKLER	API No. 42- 495-34450	

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). _____

Michael Boutwell

Signature

SHELL WESTERN E&P

Name (print)

Regulatory Specialist

Title

(832) 337-0258

Phone

12/29/2020

Date

-FOR RAILROAD COMMISSION USE ONLY-



PHOENIX

TECHNOLOGY SERVICES

MD
1:1200
Feet

MWD Gamma / ROP (1")

Client: SWEPI

Well Name: University 20 TG Unit 3907H

API/UWID: 42495344500000

County: Winkler **Field:** Permian

Permit #: 30315573

State: TX **Country:** USA

Longitude: 103° 17' 43.7 W

Latitude: 31° 40' 0.74 N

Personnel

Rig Name: PD 559

Job Number: 66132

Ground Level: 2768.50 ft

Kelly Bushing: 2794.50 ft

Drill Floor: 26.00 ft

Permanent Datum: Mean Sea Level

Drilling Measured From: Kelly Bushing

Spud Date: February 7, 2020

Bottom Hole Temp: N/A °F

Log Start Depth: 0.00 ft

Log End Depth: 22000.00 ft

Company Representative

Justin Kibby

Geologist

Directional Driller(s)

Dustin StClair

MWD Operator(s)

Gatlin Finley

Reference Data

North Reference: Grid North

Magnetic Declination: 6.93

Grid Convergence: -1.54

Total Mag Correction: 8.47

Comments:

Main Leg

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66132

Operational Run Summary

	Run 1	Run 2	Run 3	Run 4	Run 5
Run Start Depth (ft)	0.00	5070.11	11313.14	12092.99	17397.01
Run End Depth (ft)	5070.11	11313.14	12092.99	17397.01	21960.08
Run Start Date	2/6/2020	2/22/2020	3/28/2020	3/31/2020	4/2/2020
Run Start Time	2:41 PM	4:41 PM	12:39 PM	11:04 AM	11:05 PM
Run End Date	2/9/2020	2/25/2020	3/31/2020	4/2/2020	4/10/2020
Run End Time	5:28 PM	6:01 PM	9:47 AM	9:28 PM	1:55 PM

Boutwell, Michael SEPCO-UPU/S/R

From: Boutwell, Michael SEPCO-UPU/S/R
Sent: Wednesday, August 12, 2020 2:07 PM
To: Boutwell, Michael SEPCO-UPU/S/R
Subject: FW: Shell Wetern E&P University 19 Unit P-6

From: Sandy Buch <sbuch@msmtx.com>
Sent: Wednesday, August 12, 2020 12:25 PM
To: Mullen, George S SEPCO-UPU/S/R <George.Mullen@shell.com>
Cc: Krystal Schmidt <KSchmidt@msmtx.com>
Subject: FW: Shell Wetern E&P University 19 Unit P-6

Think Secure. This email is from an external source.

George,
I found this email relating to our work with the RRC and wanted you to have it for our call.
Sandy

From: Colin Lineberry <Colin.Lineberry@rrc.texas.gov>
Sent: Tuesday, November 1, 2016 10:11 AM
To: Sandy Buch <sbuch@msmtx.com>; Joe Stasulli <Joe.Stasulli@rrc.texas.gov>
Cc: Brian Sullivan <bsullivan@msmtx.com>; Lois White <lwhite@msmtx.com>; Lisa Eddins <Lisa.Eddins@rrc.texas.gov>
Subject: RE: Shell Wetern E&P University 19 Unit P-6

Hi Sandy,

Joe and I have discussed this two or three times and we agree that, based on the facts shown on the draft P-6 you have provided and the facts stated in your proposal, that your proposed procedure addresses regulatory concerns and we do not see any reason the transfers and future completions you have outlined could not be processed and approved. Of particular significance to that conclusion is the fact that you propose to place all existing and future Shell wells, completed above the base of the designated interval for the Two Georges (Bone Spring) Field in that field and all existing and future wells completed below the base of the designated interval for the Two Georges (Bone Spring) Field in the Phantom (Wolfcamp) Field. Also of prime importance is the designation of the pooled units by P-6 to exclude tracts 6 and 12 from the shallower designated unit and only include acreage that Shell has the right to develop and in which all interests are identical.

I hope this is helpful and gives Shell the assurance it seeks.

Colin

From: Sandy Buch [<mailto:sbuch@msmtx.com>]
Sent: Monday, October 31, 2016 2:15 PM
To: Colin Lineberry; Joe Stasulli
Cc: Brian Sullivan; Lois White
Subject: Shell Wetern E&P University 19 Unit P-6

Hi Colin and Joe,

I am checking to see if you have any comments on the proposal I sent you to combine RRC leases and assign completions for a University Lands pooled unit in Loving and Ward Counties. As you may recall, Shell is anxious to begin permitting wells so we would like to get the procedure OK'd so we can file the P-6 and begin permitting.

Sandy

Sandra Bolz Buch

sbuch@msmtx.com

McElroy, Sullivan Miller, Weber & Olmstead, L.L.P.

1201 Spyglass Drive, Suite 200

Austin, Texas 78746

512/327-8111 phone

512/327-6566 fax

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

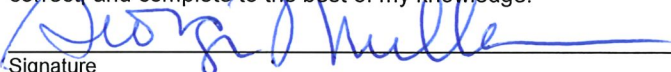
1. Field Name(s) Two Georges (Bone Spring)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Shell Western E&P	5. Operator P-5 Number 774719	6. Well Number 3907H
7. Pooled Unit Name University 20 TG Unit	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Loving, Ward & Winkler	11. Total acres in pooled unit 13103.98	

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
Tr. 1	University Lands	641.29	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 2	University Lands	641.16	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 3	University Lands	640.88	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 4	University Lands	640.98	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 5	University Lands	641.20	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 6	University Lands	641.33	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 7	University Lands	280.45	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 8	University Lands	641.29	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 9	University Lands	641.38	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 10	University Lands	641.28	<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

George Mullen

Print Name

Sr. Reg. Specialist

george.mullen@shell.com

11/05/2019

(832) 337-0549

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

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s) Two Georges (Bone Spring)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Shell Western E&P	5. Operator P-5 Number 774719	6. Well Number 3907H
7. Pooled Unit Name University 20 TG Unit	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Loving, Ward & Winkler	11. Total acres in pooled unit 13103.98	

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
Tr. 11	University Lands	320.63	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 13	University Lands	641.30	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 14	University Lands	641.33	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 15	University Lands	641.37	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 16	University Lands	641.29	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 17	University Lands	160.25	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 18	University Lands	480.74	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 19	University Lands	640.97	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 20	University Lands	640.97	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 21	University Lands	640.98	<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.



George Mullen

Signature

Print Name

Sr. Reg. Specialist

george.mullen@shell.com

11/05/2019

(832) 337-0549

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

**CERTIFICATE OF
POOLING AUTHORITY**

Revised 05/2001

P-12

1. Field Name(s) Two Georges (Bone Spring)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Shell Western E&P	5. Operator P-5 Number 774719	6. Well Number 3907H
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10. County Loving, Ward & Winkler	11. Total acres in pooled unit 13103.98	

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
Tr. 23	University Lands	641.18	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 24	University Lands	320.59	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 25	University Lands	641.14	<input type="checkbox"/>	<input type="checkbox"/>
	TOTAL	13103.98	<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.



George Mullen

Signature

Print Name

Sr. Reg. Specialist

george.mullen@shell.com

11/05/2019

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Title

E-mail (if available)

Date

Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

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- 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

Form P-16

Page 1

Acreage Designation

SECTION I. OPERATOR INFORMATION			
Operator Name:	Shell Western E&P	Operator P-5 No.:	774719
Operator Address:	P.O. Box 576, Houston, Texas 77001		

District No.:	08	API No.:	42-495-34450	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.:	3907H	Drilling Permit No.:	858780	
Lease Name:	University 20 TG Unit	RRC ID or Lease No.:	38244	
Total Lease Acres:	13103.980	Field Name:	Two Georges (Bone Spring)	
Proration Acres:	320.000	Field No.:	92100050	
Wellbore Profile	Horizontal Well	Is this a UFT field?	No	
SL Record (Parent) Well Drilling Permit No.:		County:	Winkler	

RRC ID No. or Lease No.	Well No.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
38244	1802HH	Horiz.	University 20 TG Unit	42-301-31342	320.000	N	
38244	1101H	Horiz.	University 20 TG Unit	42-495-33241	280.300	N	
38244	4602H	Horiz.	University 20 TG Unit	42-495-33378	320.000	N	
38244	0302H	Horiz.	University 20 TG Unit	42-495-33379	320.350	N	
38244	1501H	Horiz.	University 20 TG Unit	42-495-33390	320.750	N	
38244	0301H	Horiz.	University 20 TG Unit	42-495-33545	320.000	N	
38244	1006H	Horiz.	University 20 TG Unit	42-495-33894	320.000	N	
38344	1004H	Horiz.	University 20 TG Unit	42-495-33895	320.000	N	
38244	2705H	Horiz.	University 20 TG Unit	42-495-34171	320.000	N	
38244	2702H	Horiz.	University 20 TG Unit	42-495-34173	320.000	N	
38244	1008H	Horiz.	University 20 TG Unit	42-495-34407	320.000	N	
38244	3907H	Horiz.	University 20 TG Unit	42-495-34450	320.000	N	
38244	2707H	Horiz.	University 20 TG Unit	42-495-34456	320.000	N	

C. Total Assigned Acreage	=	4121.400
Total Remaining Acreage	=	8982.580

--

12/29/20

Date: mo. day yr.

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 12 November 2019**GAU Number:** 265069**Attention:** SHELL WESTERN E&P
PO BOX 576
HOUSTON, TX 77001**Operator No.:** 774719**API Number:** 49534448
County: WINKLER
Lease Name: UNIVERSITY 20 PW UNIT
Lease Number:
Well Number: 3908H
Total Vertical Depth: 12600
Latitude: 31.666794
Longitude: -103.295464
Datum: NAD27**Purpose:** New Production Well**Location:** Survey-UL; Abstract-U34; Block-20; Section-39

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 the base of the Alluvium, which is estimated to occur at a depth of 250 feet, must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

Please send Gamma/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 11/07/2019. 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

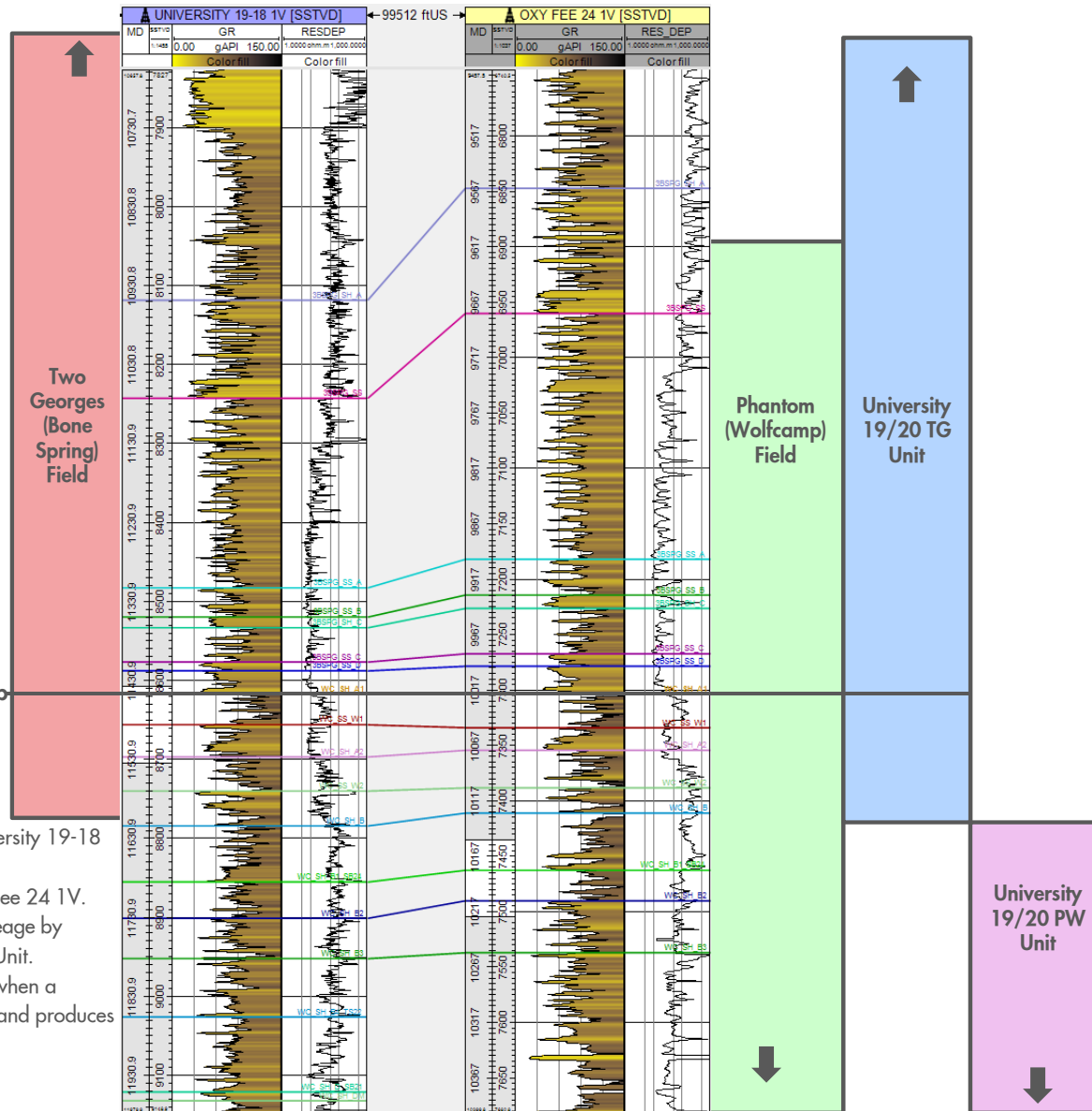
Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov
Rev. 02/2014

University 19/20 Unit Formation Boundaries

Target	Two Georges	Phantom
Upper Avalon		
Lower Avalon	X	
1BSPG	X	
2BSPG	X	
3BSPG_B	X	X
3BSPG_D	X	X
WC_SS_W1	X	X
WC_SS_W2	X	X
WC_SH_B, D, F		X

Top Wolfcamp

- Two Georges (Bone Spring) defined as 8979'-11600' in University 19-18 1V.
- Phantom (Wolfcamp) Field defined as 9515'-12447' in Oxy Fee 24 1V.
- For SWR 40 purposes, Shell avoids double assignment of acreage by assigning all of the depths in the overlap to the Two Georges Unit.
- It is Shell's understanding, that a SWR 10 would be required when a wellbore crosses the base of the Two Georges field boundary and produces from the overlap (TG) and below the overlap (PW).





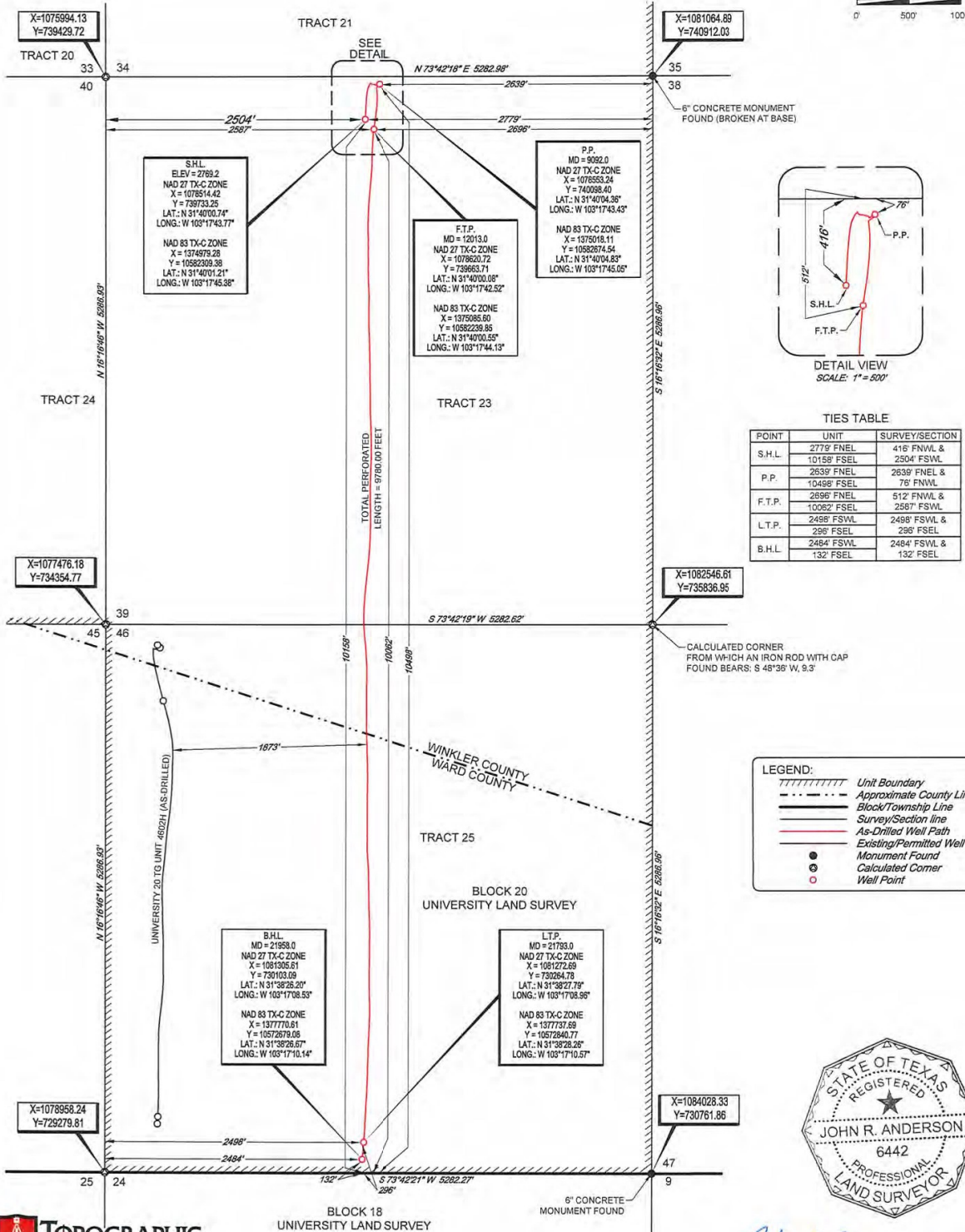
SHELL WESTERN
E&P

AS-DRILLED LOCATION
LEASE NAME & WELL NO.:
UNIVERSITY 20 TG UNIT 3907H

UNIT/LEASE ACREAGE:
13103.98 ACRES (MEASURED)
NEAREST TOWN IN COUNTY:
±9.9 MILES SOUTHWEST OF WINK, TEXAS

DESCRIPTION:
SECTIONS 39 & 46, BLOCK 20, UNIVERSITY LAND SURVEY
WINKLER & WARD COUNTIES, TEXAS

SCALE: 1" = 1000'



TIES TABLE

POINT	UNIT	SURVEY/SECTION
S.H.L.	2779' FSWL	418' FSWL & 2504' FSWL
P.P.	2639' FSWL	2639' FSWL & 76' FSWL
F.T.P.	2696' FSWL	512' FSWL & 2587' FSWL
L.T.P.	2498' FSWL	2498' FSWL & 298' FSWL
B.H.L.	2484' FSWL	2484' FSWL & 132' FSWL

LEGEND:

-----	Unit Boundary
- - - - -	Approximate County Line
=====	Block/Township Line
=====	Survey/Section Line
-----	As-Drilled Well Path
-----	Existing/Permitted Well Path
●	Monument Found
○	Calculated Corner
○	Well Point



John R. Anderson 8/31/2020
John R. Anderson, R.P.L.S. No. 6442

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 148 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7854
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

UL-20-39-P2A UNIVERSITY 20 TG UNIT 3907H	REVISION:		NOTES:
	INT	DATE	
DATE: 08/27/2020			NOTES CONT'D: 6. THE AS-DRILLED SURFACE LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF JANUARY 21, 2020. 7. THE SUBSURFACE WELL PATH DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES. 8. S.H.L. = SURFACE HOLE LOCATION 9. P.P. = POINT OF PENETRATION 10. F.T.P. = FIRST TAKE POINT 11. L.T.P. = LAST TAKE POINT 12. B.H.L. = BOTTOM HOLE LOCATION
FILE: AD_20_39_P2A_UNIVERSITY_20_TG_UNIT_3907H			
DRAWN BY: O.M.			
SHEET: 1 OF 1			