

API No. <u>42-301-33232</u> Drilling Permit # <u>823264</u> SWR Exception Case/Docket No. <u>0303920</u> (R37)		<b>RAILROAD COMMISSION OF TEXAS</b> <b>OIL &amp; GAS DIVISION</b> <b>APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER</b> <i>This facsimile W-1 was generated electronically from data submitted to the RRC.</i> <i>A certification of the automated data is available in the RRC's Austin office.</i>				<b>FORM W-1</b> 07/2004 Permit Status: <b>Approved</b>	
1. RRC Operator No. <u>774719</u>		2. Operator's Name (as shown on form P-5, Organization Report) <b>SHELL WESTERN E&amp;P</b>		3. Operator Address (include street, city, state, zip): <b>PO BOX 576</b> <b>HOUSTON, TX 77001-0000</b>			
4. Lease Name <b>UNIVERSITY 19 J</b>		5. Well No. <u>0910H</u>					
<b>GENERAL INFORMATION</b>							
6. Purpose of filing (mark ALL appropriate boxes): <input checked="" type="checkbox"/> New Drill <input type="checkbox"/> Recompletion <input type="checkbox"/> Reclass <input type="checkbox"/> Field Transfer <input type="checkbox"/> Re-Enter <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D)							
7. Wellbore Profile (mark ALL appropriate boxes): <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal (Also File Form W-1H) <input type="checkbox"/> Directional (Also File Form W-1D) <input type="checkbox"/> Sidetrack							
8. Total Depth <u>12000</u>		9. Do you have the right to develop the minerals under any right-of-way ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<b>SURFACE LOCATION AND ACREAGE INFORMATION</b>							
11. RRC District No. <u>08</u>		12. County <b>LOVING</b>		13. Surface Location <input checked="" type="checkbox"/> Land <input type="checkbox"/> Bay/Estuary <input type="checkbox"/> Inland Waterway <input type="checkbox"/> Offshore			
14. This well is to be located <u>10.6</u> miles in a <u>SE</u> direction from <u>Mentone</u> which is the nearest town in the county of the well site.							
15. Section <u>9</u>		16. Block <u>19</u>		17. Survey <u>UL</u>		18. Abstract No. <u>A-U9</u>	
				19. Distance to nearest lease line: <u>1</u> ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: <u>8547.92</u>	
21. Lease Perpendiculars: <u>1461</u> ft from the <u>SW</u> line and <u>6550</u> ft from the <u>NW</u> line. 22. Survey Perpendiculars: <u>1461</u> ft from the <u>SW</u> line and <u>1379</u> ft from the <u>SE</u> line.							
23. Is this a pooled unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		24. Unitization Docket No:		25. Are you applying for Substandard Acreage Field? <input type="checkbox"/> Yes    (attach Form W-1A) <input checked="" type="checkbox"/> No			
<b>FIELD INFORMATION    List all fields of anticipated completion including Wildcat. List one zone per line.</b>							
26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)		29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	
<u>08</u>	<u>92100050</u>	<u>TWO GEORGES (BONE SPRING)</u>		<u>Oil Well</u>	<u>11500</u>	<u>1773.00</u>	
		< see Page 2 for additional Fields >					
<b>BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)</b>							
<b>Remarks</b> See W1 Comments attached				<b>Certificate:</b> I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="text-align: center;"> <b>George Mullen, Sr. Regulatory Specialist</b> </div> <div style="display: flex; justify-content: space-between;"> <div> <u>George Mullen, Sr. Regulatory Specialist</u>            Name of filer         </div> <div> <u>Apr 13, 2017</u>            Date submitted         </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>(832)337-0549</u>            Phone         </div> <div> <u>george.mullen@shell.com</u>            E-mail Address (OPTIONAL)         </div> </div>			
<b>RRC Use Only</b> Data Validation Time Stamp:    May 1, 2017 5:15 PM( 'As Approved' Version )							

Permit Status: <b>Approved</b>  <i>The RRC has not approved this application.          Duplication or distribution of information is at          the user's own risk.</i>
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**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

**W-1 Supplemental Field Data**

07/2004

**APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER**

*This facsimile W-1 was generated electronically from data submitted to the RRC.  
 A certification of the automated data is available in the RRC's Austin office.*

Permit #	<b>823264</b>
Approved Date:	<b>May 01, 2017</b>

1. RRC Operator No. <b>774719</b>	2. Operator's Name (exactly as shown on form P-5, Organization Report) <b>SHELL WESTERN E&amp;P</b>	3. Lease Name <b>UNIVERSITY 19 J</b>	4. County <b>LOVING</b>				
<b>ADDITIONAL FIELD INFORMATION ( continued from Page 1 )</b>							
26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir	33. Total Acres
08	71052900	PHANTOM (WOLFCAMP)	Oil Well	11600	505.00	30	8908.59
Lease Name & Well Number <b>UNIVERSITY 19 J, Well No. 0910H</b>		Surface Lease/Unit Perpendiculars <b>1461 ft from SW line; 6550 ft from NW line</b>				Wellbore Profiles <b>Horizontal</b>	

Permit Status:	Approved
<i>The RRC has not approved this application.          Duplication or distribution of information is          at the user's own risk.</i>	

**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

**Form W-1H** 07/2004  
**Supplemental Horizontal Well Information**

**APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER**

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Approved Date:	May 01, 2017

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**Lateral Drainhole Location Information**

5. Field as shown on Form W-1	<b>TWO GEORGES (BONE SPRING) (Field # 92100050, RRC District 08)</b>
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6. Section <b>3</b>	7. Block <b>19</b>	8. Survey <b>UNIVERSITY LAND</b>	9. Abstract	10. County of BHL <b>LOVING</b>
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11. Terminus Lease Line Perpendiculars _____ <b>200</b> _____ ft. from the _____ <b>NW</b> _____ line. and _____ <b>1757</b> _____ ft. from the _____ <b>SW</b> _____ line
12. Terminus Survey Line Perpendiculars _____ <b>2443</b> _____ ft. from the _____ <b>SE</b> _____ line. and _____ <b>1757</b> _____ ft. from the _____ <b>SW</b> _____ line
13. Penetration Point Lease Line Perpendiculars _____ <b>6682</b> _____ ft. from the _____ <b>NW</b> _____ line. and _____ <b>1721</b> _____ ft. from the _____ <b>SW</b> _____ line

5. Field as shown on Form W-1	<b>PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)</b>
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6. Section <b>3</b>	7. Block <b>19</b>	8. Survey <b>UNIVERSITY LAND</b>	9. Abstract	10. County of BHL <b>LOVING</b>
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Permit Status: **Approved**

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**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

**APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER**

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**W-1 Comments**

Permit # 823264

Approved Date: May 01, 2017

[ Apr 13, 2017 4:44 PM]: Commission Staff expresses no opinion as to whether a 100% ownership interest in each of the leases alone or in combination with a "production sharing agreement" confers the right to drill across lease/unit lines or whether a pooling agreement is also required. However, until that issue is directly addressed and ruled upon by a Texas court of competent jurisdiction it appears that a 100% interest in each of the leases and a production sharing agreement constitute a sufficient colorable claim to the right to drill a horizontal well as proposed to authorize the removal of the regulatory bar and the issuance of a drilling permit by the Commission, assuming the proposed well is in compliance with all other relevant Commission requirements.

Issuance of the permit is not an endorsement or approval of the applicant's stated method of allocating production proceeds among component leases or units. All production must be reported to the Commission as production from the lease or pooled unit on which the wellhead is located and reported production volume must be determined by actual measurement of hydrocarbon volumes prior to leaving that tract and may not be based on allocation or estimation. Payment of royalties is a contractual matter between the lessor and lessee. Interpreting the leases and determining whether the proposed proceeds allocation comports with the relevant leases is not a matter within Commission jurisdiction but a matter for the parties to the lease and, if necessary, a Texas court of competent jurisdiction.

The foregoing statements are not, and should not be construed as, a final opinion or decision of the Railroad Commission.; [FILER Apr 13, 2017 5:07 PM]: For the Two Georges (Bone Spring) field this well is an Allocation well made up of University 19 TG Unit and the S/2 of Sec. 3, Blk. 19, University Lands. For the Phantom (Wolfcamp) field this well is an Allocation well made up of the University 19 PW Unit and the S/2 of Sec. 3, Blk. 19, University Lands. Shell is the Operator of both leases and grants itself an exception to SWR 37. The SHL, PP and FTP are located in Sec. 9, Blk. 19, University Land Survey. The LTP and BHL are located in Sec. 3, Blk. 19, University Land Survey. If this well is completed in the correlative interval of the Two Georges (Bone Spring) field it will be assigned to that field, if it is completed below the correlative interval of the Two Georges (Bone Spring) field it will be assigned to the Phantom (Wolfcamp) field.; [RRC STAFF Apr 24, 2017 9:58 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Apr 28, 2017 8:38 AM]: George Miller verified the plat is for both fields.; [RRC STAFF Apr 28, 2017 8:38 AM]: Problems identified with this permit are resolved.; [RRC STAFF Apr 28, 2017 9:11 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF May 1, 2017 1:07 PM]: Problems identified with this permit are resolved.; [RRC STAFF May 1, 2017 1:08 PM]: Revised P16 attached.

**RAILROAD COMMISSION OF TEXAS**  
**OIL & GAS DIVISION**

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER <b>823264</b>	DATE PERMIT ISSUED OR AMENDED (AMENDED) <b>May 01, 2017</b>	DISTRICT <b>* 08</b>	
API NUMBER <b>42-301-33232</b>	FORM W-1 RECEIVED <b>Apr 13, 2017</b>	COUNTY <b>LOVING</b>	
TYPE OF OPERATION <b>NEW DRILL</b>	WELLBORE PROFILE(S) <b>Horizontal</b>	ACRES <b>8547.92</b>	
OPERATOR <b>SHELL WESTERN E&amp;P</b> <b>PO BOX 576</b> <b>HOUSTON, TX 77001-0000</b>		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. <b>District Office Telephone No:</b> <b>(432) 684-5581</b>	
LEASE NAME <b>UNIVERSITY 19 J</b>		WELL NUMBER <b>0910H</b>	
LOCATION <b>10.6 miles SE direction from MENTONE</b>		TOTAL DEPTH <b>12000</b>	
Section, Block and/or Survey SECTION <b>9</b> BLOCK <b>19</b> ABSTRACT <b>U9</b> SURVEY <b>UL</b>			
DISTANCE TO SURVEY LINES <b>1461 ft. SW 1379 ft. SE</b>		DISTANCE TO NEAREST LEASE LINE <b>1 ft.</b>	
DISTANCE TO LEASE LINES <b>1461 ft. SW 6550 ft. NW</b>		DISTANCE TO NEAREST WELL ON LEASE <b>See FIELD(s) Below</b>	
FIELD(s) and LIMITATIONS: <p align="center">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</p> <p align="center">** THIS PERMIT IS GRANTED PURSUANT TO STATEWIDE RULE 37(h)(2)(B) **</p> <p align="center">CASE NO. 0303920</p>			
FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH NEAREST WE	WELL # NEAREST WE
-----	-----	-----	-----
<b>** TWO GEORGES (BONE SPRING)</b>	<b>8547.92</b>	<b>11,500</b>	<b>0910H</b>
<b>UNIVERSITY 19 J</b>	<b>1</b>	<b>1773</b>	<b>08</b>
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WELLBORE PROFILE(s) FOR FIELD: <b>Horizontal</b>			
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RESTRICTIONS: This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office. Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.			
Lateral: TH1 Penetration Point Location Lease Lines: 6682.0 F NW L 1721.0 F SW L			
Terminus Location BH County: LOVING Section: 3 Block: 19 Abstract: Survey: UNIVERSITY LAND Lease Lines: 200.0 F NW L 1757.0 F SW L Survey Lines: 2443.0 F SE L 1757.0 F SW L			
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<b>** PHANTOM (WOLFCAMP)</b>	<b>8908.59</b>	<b>11,600</b>	<b>0910H</b>
<b>UNIVERSITY 19 J</b>	<b>1</b>	<b>505</b>	<b>08</b>
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**RAILROAD COMMISSION OF TEXAS**  
**OIL & GAS DIVISION**

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER <div style="text-align: right;">823264</div>	DATE PERMIT ISSUED OR AMENDED (AMENDED)    May 01, 2017	DISTRICT <div style="text-align: right;">*    08</div>
API NUMBER <div style="text-align: right;">42-301-33232</div>	FORM W-1 RECEIVED <div style="text-align: center;">Apr 13, 2017</div>	COUNTY <div style="text-align: center;">LOVING</div>
TYPE OF OPERATION <div style="text-align: center;">NEW DRILL</div>	WELLBORE PROFILE(S) <div style="text-align: center;">Horizontal</div>	ACRES <div style="text-align: right;">8547.92</div>
OPERATOR <div style="text-align: right;">774719</div> <div style="text-align: center;">SHELL WESTERN E&amp;P</div> <div style="text-align: center;">PO BOX 576</div> <div style="text-align: center;">HOUSTON, TX 77001-0000</div>		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. <b>District Office Telephone No:</b> <div style="text-align: center;">(432) 684-5581</div>
LEASE NAME <div style="text-align: center;">UNIVERSITY 19 J</div>		WELL NUMBER <div style="text-align: right;">0910H</div>
LOCATION <div style="text-align: center;">10.6 miles SE direction from MENTONE</div>		TOTAL DEPTH <div style="text-align: right;">12000</div>
Section, Block and/or Survey <div style="display: flex; justify-content: space-between;"> <div>SECTION    9</div> <div>BLOCK    19</div> <div>ABSTRACT    U9</div> </div> <div style="display: flex; justify-content: space-between;"> <div>SURVEY    UL</div> </div>		
DISTANCE TO SURVEY LINES <div style="display: flex; justify-content: space-around;"> <div>1461 ft. SW</div> <div>1379 ft. SE</div> </div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: center;">1 ft.</div>
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<div style="display: flex; justify-content: space-between;"> <div>           FIELD NAME            LEASE NAME            WELLBORE PROFILE(s) FOR FIELD: Horizontal            -----         </div> <div style="text-align: right;">           ACRES            DEPTH            WELL #            DIST         </div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>           RESTRICTIONS: Permitted for oil only.            This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office. Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.             Lateral: TH1            Penetration Point Location                Lease Lines:            6682.0 F NW L                                             1721.0 F SW L             Terminus Location                BH County: LOVING                Section: 3                      Block: 19                      Abstract:                Survey: UNIVERSITY LAND                Lease Lines:                200.0 F NW L                                             1757.0 F SW L                Survey Lines:            2443.0 F SE L                                             1757.0 F SW L         </div> <div>           NEAREST LEASE            NEAREST WE         </div> </div>		
<div style="text-align: center;">           ' ** '    PRECEDING FIELD NAME INDICATES RULE (R37)         </div>		
<div style="text-align: center;">           THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS         </div>		
This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.		

**RAILROAD COMMISSION OF TEXAS**  
**OIL & GAS DIVISION**

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**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION  
SWR #13 Formation Data**

**LOVING (301) County**

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RED BLUFF	3,900	3,900		1	12/17/2013
BELL CANYON	4,700	4,700		2	12/17/2013
BRUSHY CANYON	6,000	6,000		3	12/17/2013
DELAWARE	3,000	6,500		4	12/17/2013
CHERRY CANYON	3,700	7,800		5	12/17/2013
BONE SPRINGS	8,200	9,800		6	12/17/2013
WOLFCAMP	11,000	12,900		7	12/17/2013
PENNSYLVANIAN	14,900	15,000		8	12/17/2013
STRAWN	14,700	15,000		9	12/17/2013
ATOKA	15,200	16,000	high pressure	10	12/17/2013
MORROW	15,700	17,000		11	12/17/2013
DEVONIAN	17,800	17,800		12	12/17/2013
FUSSELMAN	18,900	19,000		13	12/17/2013
ELLENBURGER	21,000	21,000		14	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.  
<http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>





SHELL WESTERN  
E&P

WELL LOCATION  
LEASE NAME & WELL NO.:  
UNIVERSITY 19 J 0910H

UNITLEASE ACREAGE:  
TG UNIT: 8227.44 ACRES, ALLOCATION UNIT: 320.48 ACRES (MEASURED)

TOTAL ACREAGE:  
8547.92 ACRES (MEASURED)

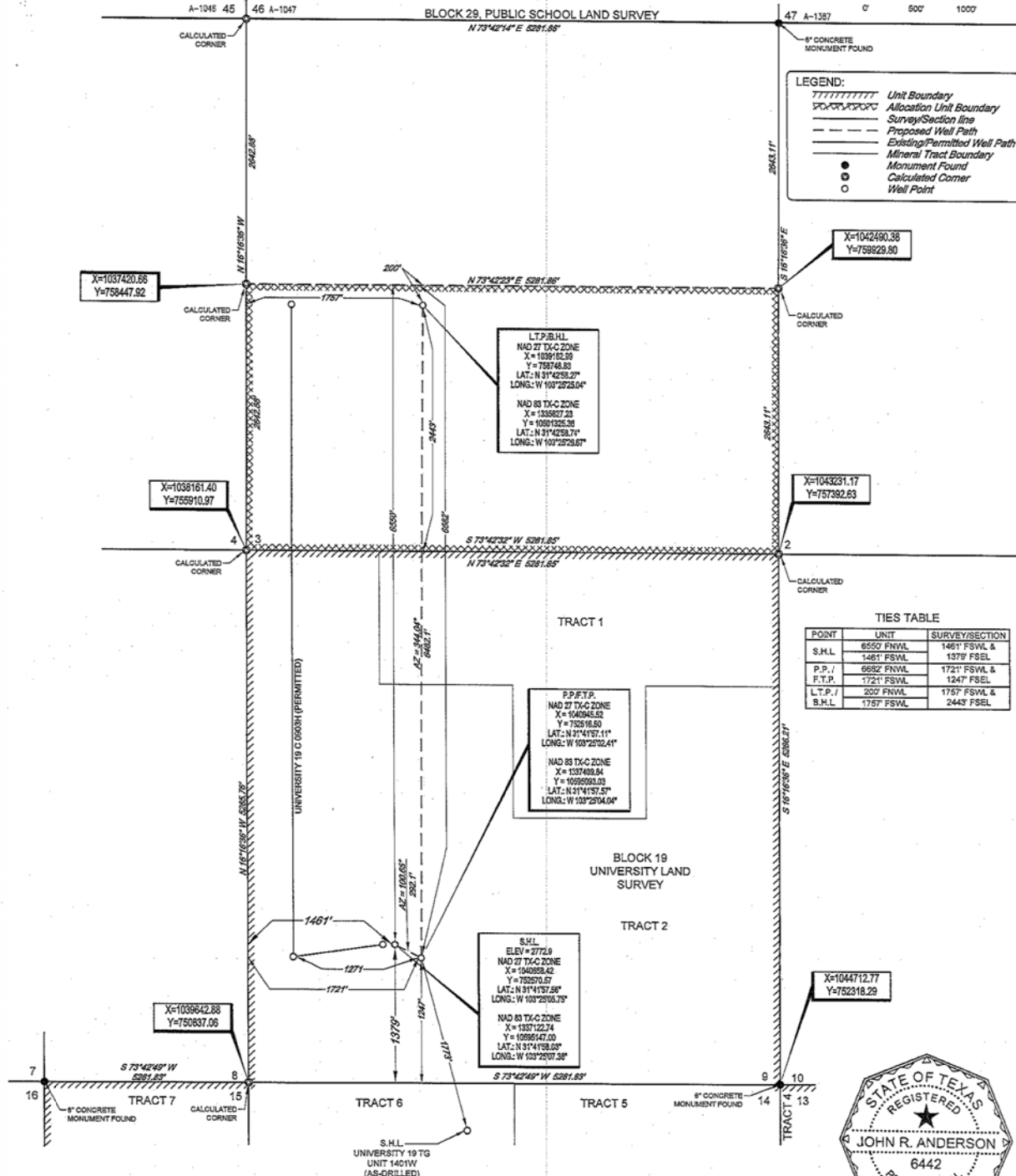
NEAREST TOWN IN COUNTY:  
±10.6 MILES SOUTHEAST OF MENTONE, TEXAS

DESCRIPTION:  
S/2 OF SECTION 3 & SECTION 9, BLOCK 19, UNIVERSITY LAND SURVEY  
LOVING COUNTY, TEXAS

BLOCK 29, PUBLIC SCHOOL LAND SURVEY

SCALE: 1" = 1000'

LEGEND:  
Unit Boundary  
Allocation Unit Boundary  
Survey Section line  
Proposed Well Path  
Existing/Permitted Well Path  
Mineral Tract Boundary  
Monument Found  
Calculated Corner  
Well Point



TOPOGRAPHIC  
LOYALTY INNOVATION LEGACY

1409 EVERMAN PARKWAY, Ste. 197 - FT. WORTH, TEXAS 76140  
TELEPHONE: (817) 744-7512 - FAX: (817) 744-7548  
TEXAS FIRM REGISTRATION NO. 10042504  
WWW.TOPOGRAPHIC.COM



John R. Anderson  
John R. Anderson, R.P.L.S. No. 6442

UNIVERSITY 19 J 0910H	REVISION:		NOTES:	NOTES CONT'D:
	INT	DATE		
	O.M.	02/22/2017	1. ORIGINAL DOCUMENT SIZE: 11" X 17"	6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF NOVEMBER 3, 2016, AT A GROUND LEVEL ELEVATION OF 2772.9 SURVEY FEET.
	O.M.	04/12/2017	2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1983, UNLESS OTHERWISE NOTED.	7. S.H.L. = SURFACE HOLE LOCATION
DATE: 02/07/2017			3. THIS LOCATION AND/OR UNITLEASE BOUNDARY HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED BY SHELL WESTERN E&P. THIS PLAN IS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE RAILROAD COMMISSION OF TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.S.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAN. IT IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.	8. P.P. = POINT OF PENETRATION
FILE: LO_UNIVERSITY_19_J_0910H_REV2			4. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1985 (NAVD 83), U.S. SURVEY FEET.	9. F.T.P. = FIRST TAKE POINT
DRAWN BY: O.M.			5. ALL MINERAL OWNERSHIP DATA SHOWN HEREON IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES.	10. L.T.P. = LAST TAKE POINT
SHEET: 1 OF 1				11. B.H.L. = BOTTOM HOLE LOCATION