

API No. <u>42-495-34183</u> Drilling Permit # <u>841786</u> SWR Exception Case/Docket No. _____		<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. <b>774719</b>		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 20 PW</b>		5. Well No. <b>2503H</b>					
<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 <b>11950</b>		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. <b>08</b>		12. County <b>WINKLER</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>7.5</u> miles in a <u>SW</u> direction from <u>Wink</u> which is the nearest town in the county of the well site.							
15. Section <b>36</b>		16. Block <b>20</b>		17. Survey <b>UL</b>		18. Abstract No. <b>A-U31</b>	
				19. Distance to nearest lease line: <b>200</b> ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: <b>640.46</b>	
21. Lease Perpendiculars: <u>1318</u> ft from the <u>NE</u> line and <u>489</u> ft from the <u>NW</u> line. 22. Survey Perpendiculars: <u>1318</u> ft from the <u>NE</u> line and <u>489</u> ft from the <u>NW</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</b> List all fields of anticipated completion including Wildcat. List one zone per line.							
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	
08	71052900	PHANTOM (WOLFCAMP)		Oil Well	11750	660.00	
<b>BOTTOMHOLE LOCATION INFORMATION</b> is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
<b>Remarks</b> [FILER Oct 18, 2018 1:31 PM]: Amended Permit needed to change Total Depth from 9500' to 11950'.				<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>           Name of filer  <u>(832)337-0549</u>            Phone         </div> <div>           Date submitted  <b>Oct 18, 2018</b>  <u>george.mullen@shell.com</u>            E-mail Address (OPTIONAL)         </div> </div>			
<b>RRC Use Only</b>							
Data Validation Time Stamp: Oct 22, 2018 12:25 PM( 'As Approved' Version )							

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**

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

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A certification of the automated data is available in the RRC's Austin office.*

Permit #	841786
Approved Date:	Oct 22, 2018

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 20 PW</b>	4. Well No. <b>2503H</b>
<b>Lateral Drainhole Location Information</b>			
5. Field as shown on Form W-1 <b>PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)</b>			
6. Section <b>25</b>	7. Block <b>20</b>	8. Survey <b>UL</b>	9. Abstract
		10. County of BHL <b>WINKLER</b>	
11. Terminus Lease Line Perpendiculars <b>1650</b> ft. from the <b>NE</b> line. and <b>200</b> ft. from the <b>NW</b> line			
12. Terminus Survey Line Perpendiculars <b>1650</b> ft. from the <b>NE</b> line. and <b>200</b> ft. from the <b>NW</b> line			
13. Penetration Point Lease Line Perpendiculars <b>1650</b> ft. from the <b>NE</b> line. and <b>200</b> ft. from the <b>SE</b> line			

**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 align="center">841786</div>	DATE PERMIT ISSUED OR AMENDED (AMENDED)    Oct 22, 2018	DISTRICT <div align="center">*    08</div>																
API NUMBER <div align="center">42-495-34183</div>	FORM W-1 RECEIVED <div align="center">Oct 18, 2018</div>	COUNTY <div align="center">WINKLER</div>																
TYPE OF OPERATION <div align="center">NEW DRILL</div>	WELLBORE PROFILE(S) <div align="center">Horizontal</div>	ACRES <div align="center">640.46</div>																
OPERATOR <div align="center">           SHELL WESTERN E&amp;P            PO BOX 576            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 align="center">(432) 684-5581</div>																
LEASE NAME <div align="center">UNIVERSITY 20 PW</div>		WELL NUMBER <div align="center">2503H</div>																
LOCATION <div align="center">7.5 miles SW direction from WINK</div>		TOTAL DEPTH <div align="center">11950</div>																
Section, Block and/or Survey <div>           SECTION    36                      BLOCK    20                      ABSTRACT    U31            SURVEY    UL         </div>																		
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<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;">FIELD NAME LEASE NAME</th> <th style="width:10%;">ACRES NEAREST LEASE</th> <th style="width:10%;">DEPTH</th> <th style="width:10%;">WELL # NEAREST WE</th> <th style="width:10%;">DIST</th> </tr> </thead> <tbody> <tr> <td>PHANTOM (WOLFCAMP)</td> <td align="center">640.46</td> <td align="center">11,750</td> <td align="center">2503H</td> <td align="center">08</td> </tr> <tr> <td>UNIVERSITY 20 PW</td> <td align="center">200</td> <td></td> <td align="center">660</td> <td></td> </tr> </tbody> </table>				FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH	WELL # NEAREST WE	DIST	PHANTOM (WOLFCAMP)	640.46	11,750	2503H	08	UNIVERSITY 20 PW	200		660	
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UNIVERSITY 20 PW	200		660															
WELLBORE PROFILE(s) FOR FIELD: Horizontal																		
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:            1650.0 F NE L 200.0 F SE L  Terminus Location BH County: WINKLER Section: 25                      Block: 20                      Abstract: Survey: UL Lease Lines:            1650.0 F NE L 200.0 F NW L Survey Lines:        1650.0 F NE L 200.0 F NW L																		
<b>THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS</b>																		

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**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;">841786</div>	DATE PERMIT ISSUED OR AMENDED (AMENDED)    Oct 22, 2018	DISTRICT <div style="text-align: center;">*    08</div>
API NUMBER <div style="text-align: right;">42-495-34183</div>	FORM W-1 RECEIVED <div style="text-align: center;">Oct 18, 2018</div>	COUNTY <div style="text-align: center;">WINKLER</div>
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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 20 PW</div>		WELL NUMBER <div style="text-align: center;">2503H</div>
LOCATION <div style="text-align: center;">7.5 miles SW direction from WINK</div>		TOTAL DEPTH <div style="text-align: center;">11950</div>
Section, Block and/or Survey <div style="display: flex; justify-content: space-between;"> <div>SECTION    36</div> <div>BLOCK    20</div> <div>ABSTRACT    U31</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>1318 ft. NE</div> <div>489 ft. NW</div> </div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: center;">200 ft.</div>
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FIELD(s) and LIMITATIONS: <div style="text-align: center;">*    SEE FIELD DISTRICT FOR REPORTING PURPOSES    *</div>		
<div style="display: flex; justify-content: space-between;"> <div>                     FIELD NAME                      LEASE NAME                 </div> <div>                     ACRES                      NEAREST LEASE                 </div> <div>                     DEPTH                      NEAREST LEASE                 </div> <div>                     WELL #                      NEAREST WE                 </div> <div>                     DIST                 </div> </div>		
<p>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.</p> <p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p>		

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

**WINKLER (495) County**

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	725	725	possible flow; possible usable quality water	1	12/17/2013
COLBY-QUEEN	2,900	3,200		2	12/17/2013
YATES	2,280	3,200		3	12/17/2013
QUEEN-SEVEN RIVERS	2,700	3,400		4	12/17/2013
SAN ANDRES	3,600	4,400	high flows, H2S, corrosive	5	12/17/2013
HOLT	4,500	4,800		6	12/17/2013
DELAWARE	4,300	5,000		7	12/17/2013
GLORIETA	4,900	5,600		8	12/17/2013
CLEARFORK	4,750	6,200		9	12/17/2013
WICHITA ALBANY	6,600	6,850		10	12/17/2013
BRUSHY CANYON	7,300	7,300		11	12/17/2013
CHERRY CANYON	6,000	7,800		12	12/17/2013
CANYON	8,400	8,400		13	12/17/2013
BONE SPRINGS	9,000	9,800		14	12/17/2013
MONTOYA	10,300	10,300		15	12/17/2013
WADDELL	11,000	11,000		16	12/17/2013
WOLFCAMP	7,600	12,400		17	12/17/2013
ATOKA	12,900	12,900		18	12/17/2013
STRAWN	8,100	14,800		19	12/17/2013
PENNSYLVANIAN	8,000	15,500		20	12/17/2013
MISSISSIPPIAN	10,200	17,300		21	12/17/2013
DEVONIAN	7,900	17,800		22	12/17/2013
SILURIAN	8,500	18,000		23	12/17/2013
FUSSELMAN	9,700	18,800		24	12/17/2013
ELLENBURGER	9,500	21,400		25	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>



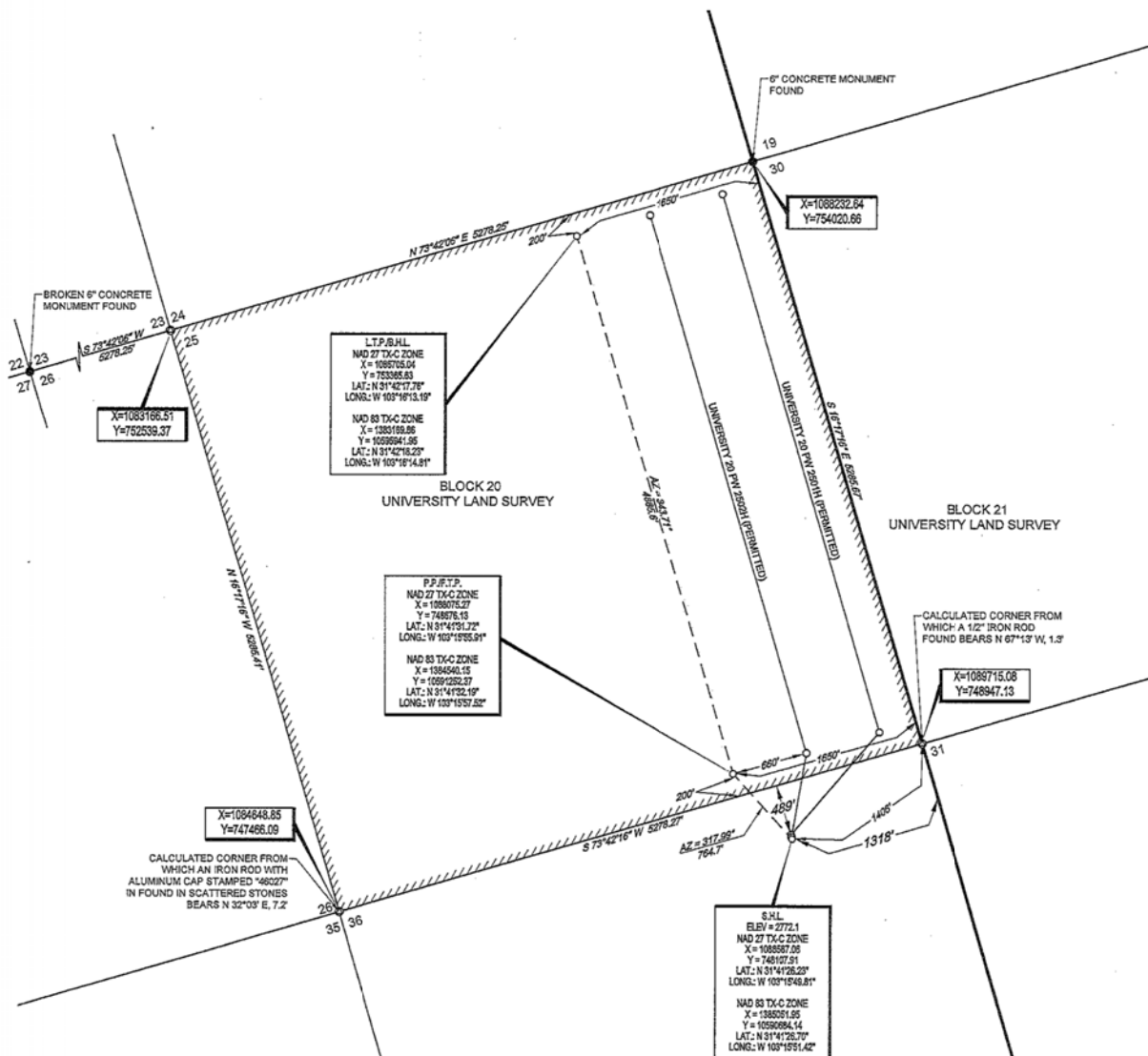
SHELL WESTERN  
E&P

WELL LOCATION  
LEASE NAME & WELL NO.:  
UNIVERSITY 20 PW 2503H

UNRELEASED ACREAGE:  
640.46 ACRES (MEASURED)

NEAREST TOWN IN COUNTY:  
±7.5 MILES SOUTHWEST OF WINK, TEXAS

DESCRIPTION:  
SECTION 25, BLOCK 20, UNIVERSITY LAND SURVEY  
WINKLER COUNTY, TEXAS



TIES TABLE		
POINT	UNIT	SURVEY/SECTION
S.H.L.	489 FSEL	1316' FNEL & 489' FNVL
P.P./	1650' FSEL	1650' FNEL & 200' FSEL
F.T.P.	200' FSEL	200' FSEL
L.T.P./	1650' FSEL	1650' FNEL & 200' FNVL
B.H.L.	200' FNVL	200' FNVL

**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY  
1400 EVERMAN PARKWAY, Ste. 148 • FT. WORTH, TEXAS 76142  
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7554  
TEXAS FIRM REGISTRATION NO. 1042654  
WWW.TOPOGRAPHIC.COM

**LEGEND:**

- Unit Boundary
- Block/Township Line
- Section line
- Proposed Well Path
- Existing/Permitted Well Path
- Monument Found
- Calculated Corner
- Well Path



*John R. Anderson* 5/4/10  
John R. Anderson, R.P.L.S. No. 6442

REVISION:	DATE	
	INT	DATE
UL-20-36-P1 UNIVERSITY 20 PW 2503H		
DATE: 05/04/2018		
FILE: U:\UL-20-36-P1\UNIVERSITY 20 PW 2503H.DWG		
DRAWN BY: O.M./A.C.L.		
SHEET: 1 OF 1		

**NOTES:**

1. ORIGINAL DOCUMENT SIZE: 11" X 17"
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.
3. THIS LOCATION AND/OR UNRELEASED ACREAGE 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 WAS 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.B.P.L.S. MINIMUM STANDARDS OF PROCEEDURES 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.
4. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET.
5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES.

**NOTES CONT'D:**

6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF MARCH 7, 2018.
7. S.H.L. = SURFACE HOLE LOCATION
8. P.P. = POINT OF PENETRATION
9. F.T.P. = FIRST TAKE POINT
10. L.T.P. = LAST TAKE POINT
11. B.H.L. = BOTTOM HOLE LOCATION