

API No. <u>42-495-34008</u> Drilling Permit # <u>833905</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>276868</b>		2. Operator's Name (as shown on form P-5, Organization Report) <b>FORGE ENERGY, LLC</b>			3. Operator Address (include street, city, state, zip): <b>15727 ANTHEM PKWY STE 501</b> <b>SAN ANTONIO, TX 78249-0000</b>		
4. Lease Name <b>UL 21 BIGHORN</b>			5. Well No. <b>4H</b>				
GENERAL INFORMATION							
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 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>12500</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			
SURFACE LOCATION AND ACREAGE INFORMATION							
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</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>31</b>		16. Block <b>21</b>		17. Survey <b>UL</b>		18. Abstract No. <b>A-U71</b>	
				19. Distance to nearest lease line: <b>200</b> ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: <b>1281.4</b>	
21. Lease Perpendiculars: <u>331</u> ft from the <u>EAST</u> line and <u>297</u> ft from the <u>NORTH</u> line.							
22. Survey Perpendiculars: <u>331</u> ft from the <u>EAST</u> line and <u>297</u> ft from the <u>NORTH</u> line.							
23. Is this a pooled unit? <input checked="" type="checkbox"/> Yes <input 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							
FIELD INFORMATION <b>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	
08	71052900	PHANTOM (WOLFCAMP)			Oil or Gas Well	12500	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
<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="display: flex; justify-content: space-between;"> <div> <u>Katrina Boyd, Operations Assistant</u>            Name of filer         </div> <div> <u>Dec 05, 2017</u>            Date submitted         </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>(432)5241301</u>            Phone         </div> <div> <u>kboyd@forgenergy.com</u>            E-mail Address (OPTIONAL)         </div> </div>		
RRC Use Only      Data Validation Time Stamp: Dec 26, 2017 9:09 AM( Current 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**

**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 #	833905
Approved Date:	Dec 22, 2017

1. RRC Operator No. <b>276868</b>	2. Operator's Name (exactly as shown on form P-5, Organization Report) <b>FORGE ENERGY, LLC</b>	3. Lease Name <b>UL 21 BIGHORN</b>	4. Well No. <b>4H</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>19</b>	7. Block <b>21</b>	8. Survey <b>UL / A-U59</b>	9. Abstract
		10. County of BHL <b>WINKLER</b>	
11. Terminus Lease Line Perpendiculars <b>330</b> ft. from the <b>EAST</b> line. and <b>200</b> ft. from the <b>NORTH</b> line			
12. Terminus Survey Line Perpendiculars <b>330</b> ft. from the <b>EAST</b> line. and <b>200</b> ft. from the <b>NORTH</b> line			
13. Penetration Point Lease Line Perpendiculars <b>331</b> ft. from the <b>EAST</b> line. and <b>297</b> ft. from the <b>NORTH</b> line			

Permit Status:      **Approved**

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**W-1 Comments**

Permit #                      **833905**

Approved Date:    **Dec 22, 2017**

[RRC STAFF Dec 6, 2017 2:44 PM]: Changed off lease PP resolution from 'Own offset' to 'Notice' per phone call with Katrina Boyd. An off lease PP notice has been attached, along with the return receipt for the notice. The last notification date was 11/21/2017.; [RRC STAFF Dec 7, 2017 2:28 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Dec 7, 2017 2:35 PM]: SHL and BHL abstracts corrected per plat.; [RRC STAFF Dec 20, 2017 3:22 PM]: Problems identified with this permit are resolved.; [RRC STAFF Dec 20, 2017 3:22 PM]: Revised P16 submitted.; [RRC STAFF Dec 20, 2017 3:55 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Dec 21, 2017 4:01 PM]: Problems identified with this permit are resolved.; [RRC STAFF Dec 21, 2017 4:01 PM]: Katrina Boyd sent revised plat.

**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">833905</div>	DATE PERMIT ISSUED OR AMENDED <div align="center">Dec 22, 2017</div>	DISTRICT <div align="center">* 08</div>																					
API NUMBER <div align="center">42-495-34008</div>	FORM W-1 RECEIVED <div align="center">Dec 05, 2017</div>	COUNTY <div align="center">WINKLER</div>																					
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OPERATOR <div align="center"> <b>FORGE ENERGY, LLC</b>  <b>15727 ANTHEM PKWY STE 501</b>  <b>SAN ANTONIO, TX 78249-0000</b> </div>		276868																					
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Section, Block and/or Survey <div>           SECTION ◀ 31                      BLOCK ◀ 21                      ABSTRACT ◀ U71            SURVEY ◀ UL         </div>																							
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WELLBORE PROFILE(s) FOR FIELD: Horizontal																							
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.  <div>           Lateral: TH1            Penetration Point Location                Lease Lines:            331.0 F EAST L                                             297.0 F NORTH L             Terminus Location                BH County: WINKLER                Section: 19              Block: 21                      Abstract:                Survey: UL / A-U59                Lease Lines:            330.0 F EAST L                                             200.0 F NORTH L                Survey Lines:        330.0 F EAST L                                             200.0 F NORTH L         </div>																							
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**OIL & GAS DIVISION**

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

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LEASE NAME <div style="text-align: center;">UL 21 BIGHORN</div>		WELL NUMBER <div style="text-align: center;">4H</div>															
LOCATION <div style="text-align: center;">7 miles SW direction from WINK</div>		TOTAL DEPTH <div style="text-align: center;">12500</div>															
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**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>

## GROUNDWATER PROTECTION DETERMINATION

Form GW-2



## Groundwater Advisory Unit

**Date Issued:** 14 December 2017**GAU Number:** 185102**Attention:** FORGE ENERGY, LLC  
15727 ANTHEM PKWY STE 501  
SAN ANTONIO, TX 78249**API Number:**  
**County:** WINKLER  
**Lease Name:** UL 21 BIGHORN**Operator No.:** 276868**Lease Number:**  
**Well Number:** 4H  
**Total Vertical Depth:** 12500  
**Latitude:** 31.696390  
**Longitude:** -103.244835  
**Datum:** NAD27**Purpose:** New Drill**Location:** Survey-UL; Block-21; Section-31

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 650 feet, must be protected.

This recommendation is applicable for all wells drilled in this Section 31.

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

This determination is based on information provided when the application was submitted on 12/07/2017. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

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

