

API No. <u>42-383-39597</u> Drilling Permit # <u>814404</u> SWR Exception Case/Docket No. _____		RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER <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>				FORM W-1 07/2004 Permit Status: Approved	
1. RRC Operator No. <div style="text-align: center;">017996</div>		2. Operator's Name (as shown on form P-5, Organization Report) <div style="text-align: center;">AMERICAN ENERGY-PERM BASIN, LLC</div>			3. Operator Address (include street, city, state, zip): <div style="text-align: center;">PO BOX 13710 OKLAHOMA CITY, OK 73113-0000</div>		
4. Lease Name <div style="text-align: center;">UNIVERSITY 10 RE</div>			5. Well No. <div style="text-align: center;">0606HS</div>				
GENERAL INFORMATION							
6. Purpose of filing (mark ALL appropriate boxes): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input checked="" type="checkbox"/> New Drill <input type="checkbox"/> Recompletion <input type="checkbox"/> Reclass <input type="checkbox"/> Field Transfer <input type="checkbox"/> Re-Enter </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input type="checkbox"/> Amended <input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D) </div>							
7. Wellbore Profile (mark ALL appropriate boxes): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <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 </div>							
8. Total Depth <div style="text-align: center;">7700</div>		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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
SURFACE LOCATION AND ACREAGE INFORMATION							
11. RRC District No. <div style="text-align: center;">7C</div>		12. County <div style="text-align: center;">REAGAN</div>		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>6.74</u> miles in a <u>N</u> direction from <u>Big Lake</u> which is the nearest town in the county of the well site.							
15. Section <div style="text-align: center;">6</div>	16. Block <div style="text-align: center;">10</div>	17. Survey <div style="text-align: center;">UNIVERSITY LANDS</div>		18. Abstract No. <div style="text-align: center;">A-</div>	19. Distance to nearest lease line: <div style="text-align: center;">100 ft.</div>	20. Number of contiguous acres in lease, pooled unit, or unitized tract: <div style="text-align: center;">630.9</div>	
21. Lease Perpendiculars: <u>674</u> ft from the <u>SOUTH</u> line and <u>1282</u> ft from the <u>EAST</u> line. 22. Survey Perpendiculars: <u>674</u> ft from the <u>SOUTH</u> line and <u>1282</u> ft from the <u>EAST</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 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	
7C	53613750	LIN (WOLFCAMP)		Oil or Gas Well	7700	319.00	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
Remarks [RRC STAFF Mar 15, 2016 2:14 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Mar 15, 2016 3:32 PM]: Problems identified with this permit are resolved.; [RRC STAFF Mar 16, 2016 7:44 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Mar 16, 2016 7:46 AM]: Problems identified with this permit are resolved.; [RRC STAFF Mar 16, 2016 7:46 AM]: This permit is in the Lin (wolfcamp) field and the 2H is in the Spraberry field.				Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="text-align: center; margin-top: 10px;"> Rena Carter, Senior Regulatory Specialist </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> Name of filer <u>(405)6075559</u> Phone </div> <div> Date submitted <u>Mar 15, 2016</u> E-mail Address (OPTIONAL) <u>rena.carter@aep-lp.com</u> </div> </div>			
RRC Use Only Data Validation Time Stamp: Mar 16, 2016 11:10 AM(Current 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

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 #	814404
Approved Date:	Mar 16, 2016

1. RRC Operator No. 017996	2. Operator's Name (exactly as shown on form P-5, Organization Report) AMERICAN ENERGY-PERM BASIN, LLC	3. Lease Name UNIVERSITY 10 RE	4. Well No. 0606HS
Lateral Drainhole Location Information			
5. Field as shown on Form W-1 LIN (WOLFCAMP) (Field # 53613750, RRC District 7C)			
6. Section 1	7. Block	8. Survey GC&SF RR CO	9. Abstract 163
10. County of BHL REAGAN			
11. Terminus Lease Line Perpendiculars 15 ft. from the north line. and 969 ft. from the west line			
12. Terminus Survey Line Perpendiculars 15 ft. from the north line. and 1607 ft. from the east line			
13. Penetration Point Lease Line Perpendiculars 15 ft. from the south line. and 969 ft. from the west 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">814404</div>	DATE PERMIT ISSUED OR AMENDED <div align="center">Mar 16, 2016</div>	DISTRICT <div align="center">* 7C</div>	
API NUMBER <div align="center">42-383-39597</div>	FORM W-1 RECEIVED <div align="center">Mar 15, 2016</div>	COUNTY <div align="center">REAGAN</div>	
TYPE OF OPERATION <div align="center">NEW DRILL</div>	WELLBORE PROFILE(S) <div align="center">Horizontal</div>	ACRES <div align="center">630.9</div>	
OPERATOR <div align="center">AMERICAN ENERGY-PERM BASIN, LLC PO BOX 13710 OKLAHOMA CITY, OK 73113-0000</div>		<div align="right">017996</div>	NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: <div align="center">(325) 657-7450</div>
LEASE NAME <div align="center">UNIVERSITY 10 RE</div>		WELL NUMBER <div align="center">0606HS</div>	
LOCATION <div align="center">6.74 miles N direction from BIG LAKE</div>		TOTAL DEPTH <div align="center">7700</div>	
Section, Block and/or Survey SECTION ⚡ 6 BLOCK ⚡ 10 ABSTRACT ⚡ SURVEY ⚡ UNIVERSITY LANDS			
DISTANCE TO SURVEY LINES <div align="center">674 ft. SOUTH 1282 ft. EAST</div>		DISTANCE TO NEAREST LEASE LINE <div align="center">100 ft.</div>	
DISTANCE TO LEASE LINES <div align="center">674 ft. SOUTH 1282 ft. EAST</div>		DISTANCE TO NEAREST WELL ON LEASE <div align="center">See FIELD(s) Below</div>	
FIELD(s) and LIMITATIONS: <div align="center">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</div>			
FIELD NAME LEASE NAME		ACRES NEAREST LEASE	DEPTH NEAREST LEASE
----- LIN (WOLFCAMP) UNIVERSITY 10 RE -----		630.90 100	7,700 319
----- WELLBORE PROFILE(s) FOR FIELD: Horizontal -----			
RESTRICTIONS: Lateral: TH1 Penetration Point Location Lease Lines: 15.0 F SOUTH L 969.0 F WEST L Terminus Location BH County: REAGAN Section: 1 Block: Abstract: 163 Survey: GC&SF RR CO Lease Lines: 15.0 F NORTH L 969.0 F WEST L Survey Lines: 15.0 F NORTH L 1607.0 F EAST L			
<div align="center">THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS</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>			

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;">814404</div>	DATE PERMIT ISSUED OR AMENDED <div style="text-align: center;">Mar 16, 2016</div>	DISTRICT <div style="text-align: center;">* 7C</div>										
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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: center;">630.9</div>										
OPERATOR <div style="text-align: right;">017996</div> <div style="text-align: center;">AMERICAN ENERGY-PERM BASIN, LLC</div> <div style="text-align: center;">PO BOX 13710</div> <div style="text-align: center;">OKLAHOMA CITY, OK 73113-0000</div>		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: <div style="text-align: center;">(325) 657-7450</div>										
LEASE NAME <div style="text-align: center;">UNIVERSITY 10 RE</div>		WELL NUMBER <div style="text-align: center;">0606HS</div>										
LOCATION <div style="text-align: center;">6.74 miles N direction from BIG LAKE</div>		TOTAL DEPTH <div style="text-align: center;">7700</div>										
Section, Block and/or Survey SECTION ⚡ 6 BLOCK ⚡ 10 ABSTRACT ⚡ SURVEY ⚡ UNIVERSITY LANDS												
DISTANCE TO SURVEY LINES <div style="text-align: center;">674 ft. SOUTH 1282 ft. EAST</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: center;">100 ft.</div>										
DISTANCE TO LEASE LINES <div style="text-align: center;">674 ft. SOUTH 1282 ft. EAST</div>		DISTANCE TO NEAREST WELL ON LEASE <div style="text-align: center;">See FIELD(s) Below</div>										
FIELD(s) and LIMITATIONS: <div style="text-align: center;">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</div>												
<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">FIELD NAME</td> <td style="width: 15%;">ACRES</td> <td style="width: 15%;">DEPTH</td> <td style="width: 10%;">WELL #</td> <td style="width: 10%;">DIST</td> </tr> <tr> <td>LEASE NAME</td> <td>NEAREST LEASE</td> <td></td> <td>NEAREST WE</td> <td></td> </tr> </table>			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE	
FIELD NAME	ACRES	DEPTH	WELL #	DIST								
LEASE NAME	NEAREST LEASE		NEAREST WE									
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.												

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

REAGAN (383) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
GRAYBURG	1,500	2,500		1	12/17/2013
QUEEN	1,900	2,500		2	12/17/2013
SAN ANDRES	2,000	5,000	saltwater flow, possibly heavy	3	12/17/2013
CLEARFORK	3,300	4,000		4	12/17/2013
SPRABERRY	3,300	10,000		5	12/17/2013
STRAWN	9,300	10,200		6	12/17/2013
FUSSELMAN	8,800	11,000		7	12/17/2013
ELLENBURGER	8,700	10,500		8	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 March 2016**GAU Number:** 152286**Attention:** AMERICAN ENERGY-PERM
PO BOX 13710
OKLAHOMA CITY, OK 73113**Operator No.:** 017996**API Number:**
County: REAGAN
Lease Name: University 10 RE
Lease Number:
Well Number: 0620HD
Total Vertical Depth: 13000
Latitude: 31.288955
Longitude: -101.470382
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UL; Block-10; Section-6

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 a depth of 550 feet must be protected.

This recommendation is applicable to all wells within a radius of 500 feet of this location.

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

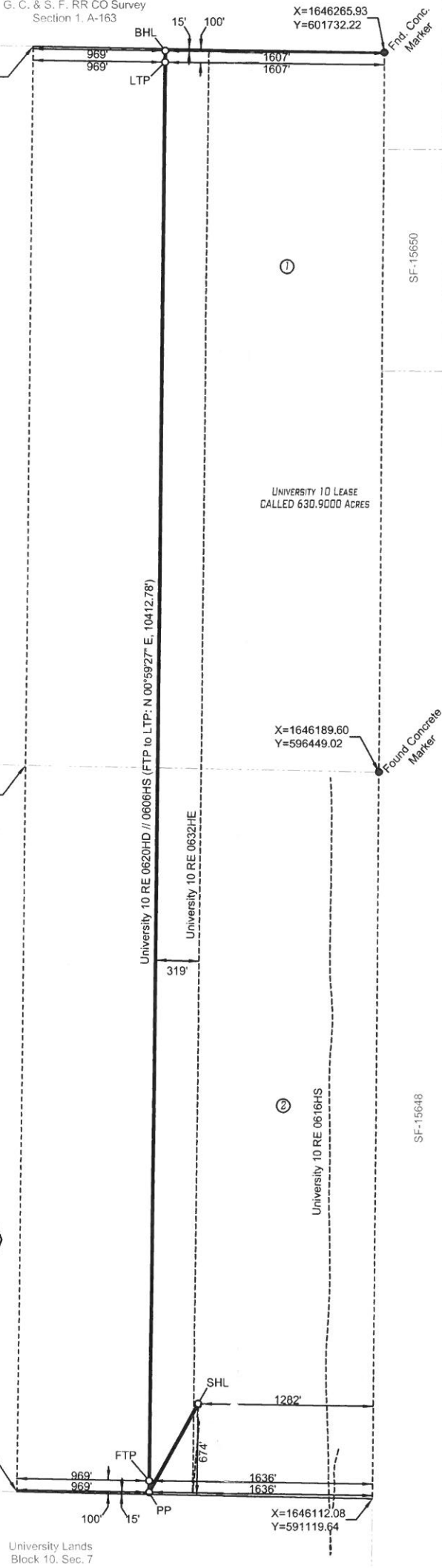
This determination is based on information provided when the application was submitted on 03/14/2016. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

NAD 27, Central Zone 4203
Surface Hole Location (SEC. 6)
Latitude: 31.288955° N
Longitude: 101.470382° W
X=1644839.60
Y=591819.33
Elev.=2538'
674' FSL & 1282' FEL
Point of Penetration (SEC. 6)
Latitude: 31.287153° N
Longitude: 101.471524° W
X=1644476.24
Y=591167.59
15' FSL & 1636' FEL
First Take Point (SEC. 6)
Latitude: 31.287387° N
Longitude: 101.471522° W
X=1644477.71
Y=591252.58
100' FSL & 1636' FEL
Last Take Point (SEC. 32)
Latitude: 31.316015° N
Longitude: 101.471286° W
X=1644657.78
Y=601663.80
100' FNL & 1607' FEL
Bottom Hole Location (SEC. 32)
Latitude: 31.316249° N
Longitude: 101.471285° W
X=1644659.25
Y=601748.79
15' FNL & 1607' FEL

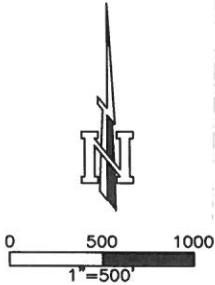
Unit Boundary Distance	
SHL	674' FSL & 1282' FEL
PP	15' FSL & 969' FWL
FTP	100' FSL & 969' FWL
LTP	100' FNL & 969' FWL
BHL	15' FNL & 969' FWL

Tract	Lessor	Called Acreage	% of Total
1	University Lands	313.1000 Acres	49.6275
2	University Lands	317.8000 Acres	50.3725
Total		630.9000 Acres	100.0000



University Lands
Block 58, Sec. 31

University Lands
Block 10, Sec. 5



**AMERICAN ENERGY
PERMIAN BASIN**
Well Name
UNIVERSITY 10 RE 0606HS
Drilling Field
LIN (WOLFCAMP) FIELD
Nearest Town
6.74 MILES NORTH OF BIG LAKE, TEXAS



NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.B.P.L.S. Minimum Standards of Procedures for Boundary Survey. Shown Acreages were furnished by others. The information contained on this plat is intended for the sole use of AMERICAN ENERGY - PERM BASIN, LLC.

NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, **Damian M. Jagers** do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.
Damian M. Jagers 03/15/2016
Damian M. Jagers
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269

XTS
CROSS TIMBERS SURVEYING, LLC
1503 Dartmouth St. Longview, TX 75601
Phone: 254-965-8886
email: cross@xtssurvey.com
web: www.xtssurvey.net

Well Plat
for
American Energy-Perm Basin, LLC

UNIVERSITY 10 RE 0606HS
University Lands Block 10, Section 6
University Lands Block 58, Section 32
Reagan County, Texas