

API No. <u>42-105-42194</u> Drilling Permit # <u>824048</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. 028625		2. Operator's Name (as shown on form P-5, Organization Report) APPROACH OPERATING LLC		3. Operator Address (include street, city, state, zip): ONE RIDGMAR CENTRE 6500 WEST FREEWAY SUITE 800 FORT WORTH, TX 76116-0000			
4. Lease Name UNIVERSITY 42		5. Well No. 1216HC					
GENERAL INFORMATION							
6. Purpose of filing (mark ALL appropriate boxes): <div style="display: flex; justify-content: space-between;"> <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;"> <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;"> <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 7800		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. 7C		12. County CROCKETT		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>18</u> miles in a <u>NW</u> direction from <u>OZONA</u> which is the nearest town in the county of the well site.							
15. Section 12		16. Block 42		17. Survey UL		18. Abstract No. A-U362	
				19. Distance to nearest lease line: 100 ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: 7780.12	
21. Lease Perpendiculars: <u>10547</u> ft from the <u>N</u> line and <u>1650</u> ft from the <u>W</u> line. 22. Survey Perpendiculars: <u>330</u> ft from the <u>S</u> line and <u>1650</u> ft from the <u>W</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			
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	42341300	HOLT RANCH (CONSOLIDATED)		Oil or Gas Well	7800	350.00	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
Remarks See W1 Comments attached				Certificate: 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>Erin Childs, Sr Engineering Technician</u> Name of filer <u>(817)9899000</u> Phone </div> <div> <u>Mar 03, 2017</u> Date submitted <u>echilds@approachresources.com</u> E-mail Address (OPTIONAL) </div> </div>			
RRC Use Only Data Validation Time Stamp: Apr 5, 2017 1:51 PM(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

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Permit #	824048
Approved Date:	Mar 31, 2017

1. RRC Operator No. 028625	2. Operator's Name (exactly as shown on form P-5, Organization Report) APPROACH OPERATING LLC	3. Lease Name UNIVERSITY 42	4. Well No. 1216HC
Lateral Drainhole Location Information			
5. Field as shown on Form W-1 HOLT RANCH (CONSOLIDATED) (Field # 42341300, RRC District 7C)			
6. Section 24	7. Block 42	8. Survey UL	9. Abstract
		10. County of BHL CROCKETT	
11. Terminus Lease Line Perpendiculars 20 ft. from the S line. and 1380 ft. from the W line			
12. Terminus Survey Line Perpendiculars 20 ft. from the S line. and 1380 ft. from the W line			
13. Penetration Point Lease Line Perpendiculars 10547 ft. from the N line. and 1380 ft. from the W line			

Permit Status:	Approved
<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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APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

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W-1 Comments

Permit #	824048
Approved Date:	Mar 31, 2017

[Feb 28, 2017 3:03 PM]: Created from expired Permit #802221; [RRC STAFF Mar 10, 2017 3:40 PM]: Changed GPS coordinates on W-1 to match plat.; [RRC STAFF Mar 13, 2017 9:02 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Mar 29, 2017 1:07 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Mar 29, 2017 1:27 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Mar 30, 2017 12:13 PM]: Lease plat attached. This is not a pooled unit.; [RRC STAFF Mar 31, 2017 7:45 AM]: Revised P16 attached. Changed well count to match P16. This is a UFT field and vertical wells are not included in the well count.; [RRC STAFF Mar 31, 2017 7:45 AM]: Problems identified with this permit are resolved.

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 824048	DATE PERMIT ISSUED OR AMENDED Mar 31, 2017	DISTRICT * 7C	
API NUMBER 42-105-42194	FORM W-1 RECEIVED Mar 03, 2017	COUNTY CROCKETT	
TYPE OF OPERATION NEW DRILL	WELLBORE PROFILE(S) Horizontal	ACRES 7780.12	
OPERATOR APPROACH OPERATING LLC ONE RIDGMAR CENTRE 6500 WEST FREEWAY SUITE 800 FORT WORTH, TX 76116-0000		028625 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: (325) 657-7450	
LEASE NAME UNIVERSITY 42		WELL NUMBER 1216HC	
LOCATION 18 miles NW direction from OZONA		TOTAL DEPTH 7800	
Section, Block and/or Survey SECTION ◀ 12 BLOCK ◀ 42 ABSTRACT ◀ U362 SURVEY ◀ UL			
DISTANCE TO SURVEY LINES 330 ft. S 1650 ft. W		DISTANCE TO NEAREST LEASE LINE 100 ft.	
DISTANCE TO LEASE LINES 10547 ft. N 1650 ft. W		DISTANCE TO NEAREST WELL ON LEASE See FIELD(s) Below	
FIELD(s) and LIMITATIONS: <p align="center">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</p>			
FIELD NAME LEASE NAME		ACRES NEAREST LEASE	DEPTH NEAREST WE
----- HOLT RANCH (CONSOLIDATED) UNIVERSITY 42 -----		7780.12 100	7,800 350
----- WELLBORE PROFILE(s) FOR FIELD: Horizontal -----			
RESTRICTIONS: Lateral: TH1 Penetration Point Location Lease Lines: 10547.0 F N L 1380.0 F W L Terminus Location BH County: CROCKETT Section: 24 Block: 42 Abstract: Survey: UL Lease Lines: 20.0 F S L 1380.0 F W L Survey Lines: 20.0 F S L 1380.0 F W L			
<p align="center">THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS</p> <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;">824048</div>	DATE PERMIT ISSUED OR AMENDED <div style="text-align: right;">Mar 31, 2017</div>	DISTRICT <div style="text-align: right;">* 7C</div>										
API NUMBER <div style="text-align: right;">42-105-42194</div>	FORM W-1 RECEIVED <div style="text-align: right;">Mar 03, 2017</div>	COUNTY <div style="text-align: right;">CROCKETT</div>										
TYPE OF OPERATION <div style="text-align: right;">NEW DRILL</div>	WELLBORE PROFILE(S) <div style="text-align: right;">Horizontal</div>	ACRES <div style="text-align: right;">7780.12</div>										
OPERATOR <div style="text-align: right;">028625</div> APPROACH OPERATING LLC ONE RIDGMAR CENTRE 6500 WEST FREEWAY SUITE 800 FORT WORTH, TX 76116-0000		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: (325) 657-7450										
LEASE NAME <div style="text-align: right;">UNIVERSITY 42</div>		WELL NUMBER <div style="text-align: right;">1216HC</div>										
LOCATION <div style="text-align: right;">18 miles NW direction from OZONA</div>		TOTAL DEPTH <div style="text-align: right;">7800</div>										
Section, Block and/or Survey SECTION ◀ 12 BLOCK ◀ 42 ABSTRACT ◀ U362 SURVEY ◀ UL												
DISTANCE TO SURVEY LINES <div style="text-align: right;">330 ft. S 1650 ft. W</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: right;">100 ft.</div>										
DISTANCE TO LEASE LINES <div style="text-align: right;">10547 ft. N 1650 ft. W</div>		DISTANCE TO NEAREST WELL ON LEASE <div style="text-align: right;">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: 10%;">ACRES</td> <td style="width: 10%;">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**

CROCKETT (105) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
QUEEN	1,000	2,300		1	12/17/2013
SAN ANDRES	1,000	3,700		2	12/17/2013
LEONARD	3,100	4,200		3	12/17/2013
WOLFCAMP	3,400	6,300		4	12/17/2013
CANYON	4,000	8,800		5	12/17/2013
STRAWN	7,100	11,600		6	12/17/2013
DEVONIAN	8,900	11,900		7	12/17/2013
ELLENBURGER	6,500	13,400		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
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Date **January 20, 2015**

GAU File No.: **15803**

***** EXPEDITED APPLICATION *****

API Number **10542194**

Attention: **CAROL ADLER**

RRC Lease No. **000000**

SC_028625_10542194_000000_15803.pdf

APPROACH OPERATING LLC
6500 WEST FRWY
STE 800
FORT WORTH TX 76116

P-5# 028625

--Measured--

1650 ft FWL

330 ft FSL

MRL:SECTION

Digital Map Location:

X-coord/Long **1725990**

Y-coord/Lat **464398**

Datum **27** Zone **C**

County **CROCKETT**

Lease & Well No. **UNIVERSITY 42 #1216HC&RAD**

Purpose **ND**

Location **SUR-UL,BLK-42,SEC-12,-- [TD=7800] , [RRC 7C] ,**

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 750 feet must be protected.

This recommendation is applicable to all wells within a radius of 300 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 intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

If you have any questions, please contact us at 512-463-2741 gau@rrc.state.tx.us, or by mail.

Sincerely,

George Dunfield, P.G.

Geologist, Groundwater Advisory Unit
Oil & Gas Division

Form GW-2
Rev. 02/2014

P.O. Box 12967

Austin, Texas 78711-2967

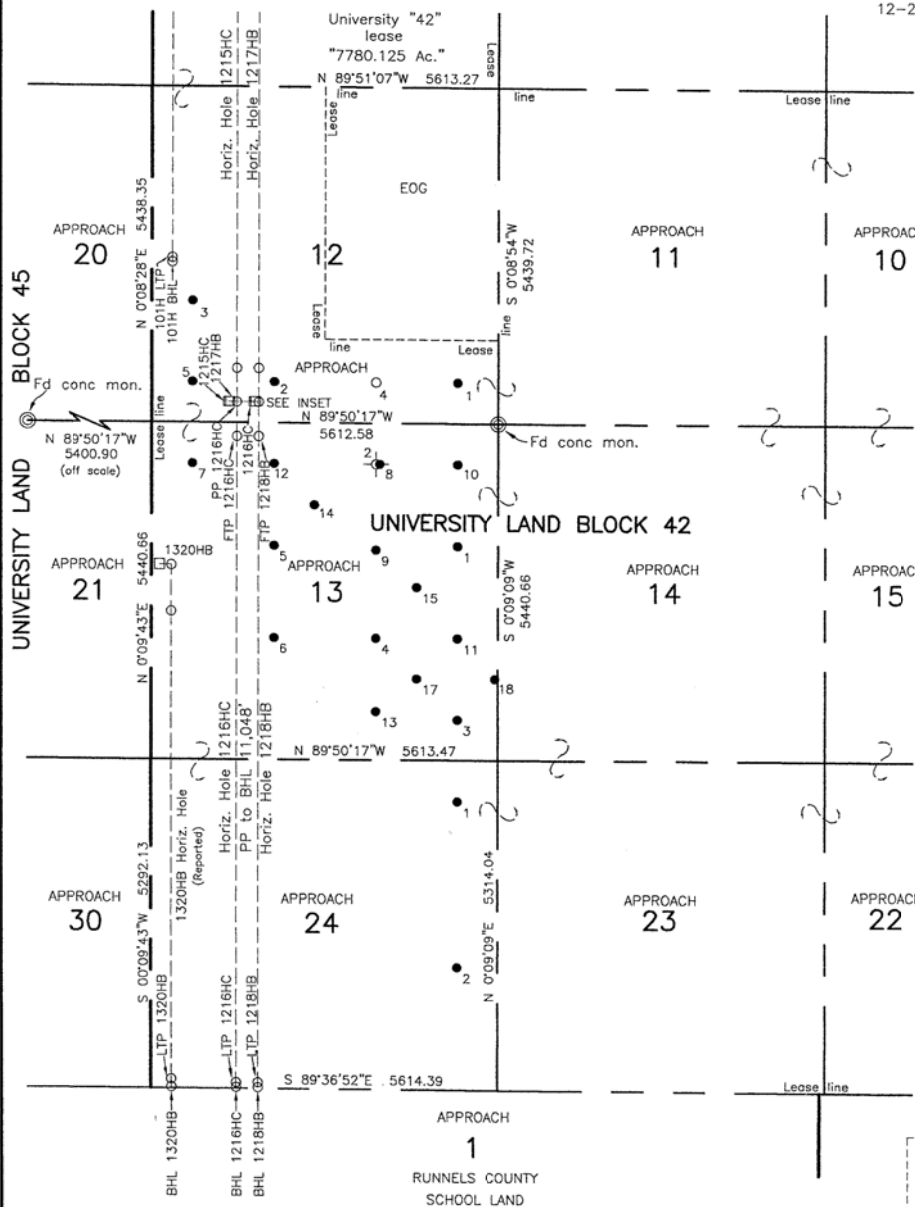
512-463-2741

Internet address: www.rrc.state.tx.us

GEOLOGIST SEAL



The seal appearing on this document was authorized by George Dunfield on 1/20/2015
Note: Alteration of this electronic document will invalidate the digital signature.

**LEGEND**

- = Surface Location (S.L.)
 PP = Penetration Point
 ● = Surface well (as drilled)
 FTP = 1st Take Point
 LTP = Last Take Point
 BHL = Bottom Hole Location

SURFACE LOCATION

Y = 464,398 ft.
 X = 1,725,990 ft.
 Latitude : 30.9406° N.
 Longitude : 101.2074° W.
 330 ft. FSL and 1650 ft. FWL
 University Land Survey 12, Block 42
 10,547 ft. FNL and 1650 ft. FWL of lease

PROPOSED PENETRATION POINT

270 ft. from Surf. 1216HC
 Y = 464,398 ft.
 X = 1,725,720 ft.
 Latitude : 30.9406° N.
 Longitude : 101.2082° W.
 330 ft. FSL and 1380 ft. FWL
 University Land Survey 12, Block 42
 10,547 ft. FNL and 1380 ft. FWL of lease

PROPOSED 1st TAKE POINT

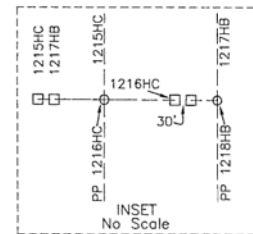
550 ft. from PP 1216HC
 10,518 ft. FSL and 1380 ft. FWL of lease
 220 ft. FNL and 1380 ft. FWL
 University Land Survey 13, Block 42
 Y = 463,848 ft.
 X = 1,725,719 ft.
 Latitude : 30.9391° N.
 Longitude : 101.2082° W.

PROPOSED LAST TAKE POINT

80 ft. from BHL 1216HC
 100 ft. FSL and 1380 ft. FWL of lease
 100 ft. FSL and 1380 ft. FWL
 University Land Survey 24, Block 42
 Y = 453,430 ft.
 X = 1,725,689 ft.
 Latitude : 30.9105° N.
 Longitude : 101.2081° W.

PROPOSED BOTTOMHOLE LOC.

Y = 453,350 ft.
 X = 1,725,689 ft.
 Latitude : 30.9103° N.
 Longitude : 101.2081° W.
 20 ft. FSL and 1380 ft. FWL
 University Land Survey 24, Block 42
 20 ft. FSL and 1380 ft. FWL of lease



Located: N 10°W 18 miles from Ozona, Texas.

"Ac" = Acreage claimed by operator to be in lease.

0 2000 4000

SCALE: 1"=2000'



FIELD COUNTY : Crockett
 OPERATOR : Approach Operating, LLC
 LEASE : University "42"
 WELL NO. : 1216HC
 ELEVATION : 2593 ft. grd.
 LOCATION : 330 ft. FSL and 1650 ft. FWL of University Land Survey 12, Block 42, Crockett County, Texas.

NOTES

Courses, distances and coordinates shown hereon are of the Texas Coordinate System of 1927 - Central Zone.

The survey construction shown hereon is sufficient for staking this location and no other purpose.

The lease information shown hereon is based on information provided by operator or its representatives and was relied upon by surveyor for the purpose of staking this location. Said surveyor was not requested to verify lease and accepts no responsibility for the accuracy or status of this information.

Position of surveys shown hereon is based on Frank Friends survey of University Lands Blocks 38 to 57 dated July 24, 1937 on file in the General Land Office.

Perpendicular distances off 1216HC Univ. "42" horizontal hole

FTP 1218HB (proposed) = 350'
 LTP 1218HB (proposed) = 350'
 BHL 1218HB (proposed) = 350'
 Well 5 = 600'
 Well 6 = 600'
 Well 12 = 600'

The above sketch represents the location as staked on the ground and is for permit purposes only.

Staked the 2nd day of December, 2014.



Thomas J. Houston
 Registered Professional Land Surveyor No. 4261

FIRM NO. 10045600

OFFICE OF

WILSON LAND SURVEYING, INC.

1514 W. BEAUREGARD AVE.
 P. O. BOX 3326 PH. 325-653-3916
 SAN ANGELO, TEXAS 76902

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