

API No. 42-105-42183		RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER <small>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.</small>				FORM W-1 07/2004		
Drilling Permit # 801440 SWR Exception Case/Docket No.						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. 2111HC						
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 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 14 miles in a NE direction from OZONA which is the nearest town in the county of the well site.								
15. Section 21		16. Block 42	17. Survey UNIVERSITY LAND		18. Abstract No. A-	19. Distance to nearest lease line: 100 ft.	20. Number of contiguous acres in lease, pooled unit, or unitized tract: 7780.13	
21. Lease Perpendiculars: 440 ft from the S line and 3501 ft from the E line.								
22. Survey Perpendiculars: 440 ft from the S line and 1790 ft from the W 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	32. Number of Wells on this lease in this Reservoir
7C	42341300	HOLT RANCH (CONSOLIDATED)			Oil or Gas Well	7800	360.00	121
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)								
Remarks [RRC STAFF Dec 9, 2014 3:59 PM]: Per Carol Adler:"The lease was consolidated in October/2013. P-4's were filed and G-1 WRO's for the gas wells were submitted and approved in March/2014. All wells should be under RRC I.D. # 17265 after consolidation."					Certificate:			
					I certify that information stated in this application is true and complete, to the best of my knowledge.			
RRC Use Only Data Validation Time Stamp: Dec 10, 2014 12:18 PM('As Approved' Version)					Carol Adler, SR Regulatory Specialist Dec 09, 2014			
					Name of filer Date submitted			
					(817)989-9000, x2143 cadler@approachresources.com			
					Phone E-mail Address (OPTIONAL)			

Permit Status: Approved The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.
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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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 A certification of the automated data is available in the RRC's Austin office.

Permit #	801440
Approved Date:	Dec 10, 2014

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. 2111HC
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Lateral Drainhole Location Information

5. Field as shown on Form W-1	HOLT RANCH (CONSOLIDATED) (Field # 42341300, RRC District 7C)
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6. Section 16	7. Block 42	8. Survey UNIVERSITY LAND	9. Abstract	10. County of BHL CROCKETT
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	11. Terminus Lease Line Perpendiculars 20 ft. from the N line. and 3501 ft. from the E line			
	12. Terminus Survey Line Perpendiculars 20 ft. from the N line. and 1790 ft. from the W line			
	13. Penetration Point Lease Line Perpendiculars 440 ft. from the S line. and 3501 ft. from the E 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 style="text-align: right;">801440</div>	DATE PERMIT ISSUED OR AMENDED <div style="text-align: center;">Dec 10, 2014</div>	DISTRICT <div style="text-align: center;">* 7C</div>			
API NUMBER <div style="text-align: right;">42-105-42183</div>	FORM W-1 RECEIVED <div style="text-align: center;">Dec 09, 2014</div>	COUNTY <div style="text-align: center;">CROCKETT</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: center;">7780.13</div>			
OPERATOR <div style="text-align: right;">028625</div> <div style="text-align: center;"> APPROACH OPERATING LLC ONE RIDGMAR CENTRE 6500 WEST FREEWAY SUITE 800 FORT WORTH, TX 76116-0000 </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 42</div>		WELL NUMBER <div style="text-align: center;">2111HC</div>			
LOCATION <div style="text-align: center;">14 miles NE direction from OZONA</div>		TOTAL DEPTH <div style="text-align: center;">7800</div>			
Section, Block and/or Survey SECTION 21 BLOCK 42 ABSTRACT SURVEY UNIVERSITY LAND					
DISTANCE TO SURVEY LINES <div style="text-align: center;">440 ft. S 1790 ft. W</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: center;">100 ft.</div>			
DISTANCE TO LEASE LINES <div style="text-align: center;">440 ft. S 3501 ft. E</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>					
FIELD NAME LEASE NAME		ACRES NEAREST LEASE	DEPTH NEAREST LEASE	WELL # NEAREST WE	DIST
----- HOLT RANCH (CONSOLIDATED) <div style="text-align: center;">UNIVERSITY 42</div> -----		<div style="text-align: center;">7780.13</div> <div style="text-align: center;">100</div>	<div style="text-align: center;">7,800</div>	<div style="text-align: center;">2111HC</div> <div style="text-align: center;">360</div>	<div style="text-align: center;">7C</div>
----- WELLBORE PROFILE(s) FOR FIELD: Horizontal -----					
RESTRICTIONS: Lateral: TH1 Penetration Point Location Lease Lines: 440.0 F S L 3501.0 F E L Terminus Location BH County: CROCKETT Section: 16 Block: 42 Abstract: Survey: UNIVERSITY LAND Lease Lines: 20.0 F N L 3501.0 F E L Survey Lines: 20.0 F N L 1790.0 F W L					
THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS					
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**

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

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DISTANCE TO LEASE LINES <div style="text-align: center;">440 ft. S 3501 ft. E</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> <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>			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE	
FIELD NAME	ACRES	DEPTH	WELL #	DIST								
LEASE NAME	NEAREST LEASE		NEAREST WE									

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.state.tx.us/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>

Groundwater
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Date December 11, 2014

GAU File No.: 15784

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

API Number 10542183

Attention: CAROL ADLER

RRC Lease No. 000000

SC_028625_10542183_000000_15784.pdf

APPROACH OPERATING LLC
6500 W FWY
STE 800
FORT WORTH TX 76116

P-5# 028625

--Measured--

1790 ft FWL

440 ft FSL

MRL:SECTION

Digital Map Location:

X-coord/Long 101.15510

Y-coord/Lat 30.91140

Datum 27 Zone

County CROCKETT

Lease & Well No. UNIVERSITY 42 #2111HC&ALL

Purpose ND

Location SUR-UL,BLK-42,SEC-21,--[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 adequate for wells drilled in this S/2 section 21.

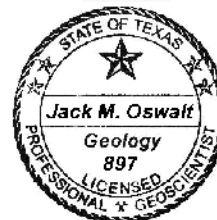
Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form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

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

Sincerely,

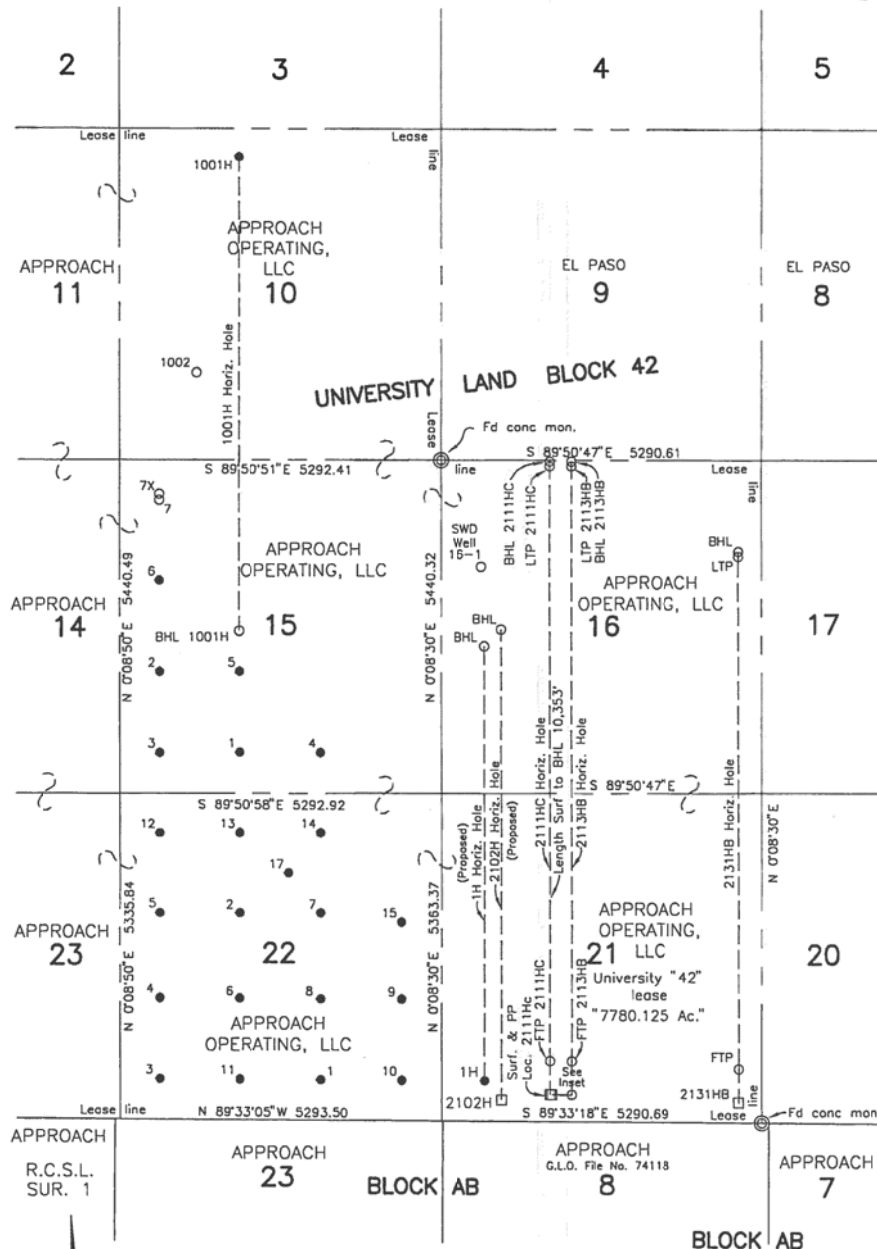
Jack M. Oswalt, P.G.

GEOLOGIST SEAL



Geologist, Groundwater Advisory Unit
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 12/11/2014
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 = 453,651 ft.
X = 1,742,301 ft.
Latitude : 30.9114° N.
Longitude : 101.1551° W.
440 ft. FSL and 1790 ft. FWL
University Land Survey 21, Block 42
440 ft. FSL and 3501 ft. FEL of lease

PROPOSED PENETRATION POINT

Y = 453,651 ft.
X = 1,742,301 ft.
Latitude : 30.9114° N.
Longitude : 101.1551° W.
440 ft. FSL and 1790 ft. FWL
University Land Survey 21, Block 42
440 ft. FSL and 3501 ft. FEL of lease

PROPOSED 1st TAKE POINT

550 ft. from Surf. 2111HC
990 ft. FSL and 3501 ft. FEL of lease
990 ft. FSL and 1790 ft. FWL
University Land Survey 21, Block 42
Y = 454,201 ft.
X = 1,742,303 ft.
Latitude : 30.9128° N.
Longitude : 101.1551° W.

PROPOSED LAST TAKE POINT

80 ft. from BHL 2111HC
100 ft. FNL and 3501 ft. FEL of lease
100 ft. FNL and 1790 ft. FWL
University Land Survey 16, Block 42
Y = 463,923 ft.
X = 1,742,327 ft.
Latitude : 30.9397° N.
Longitude : 101.1553° W.

PROPOSED BOTTOMHOLE LOC.

Y = 464,003 ft.
X = 1,742,327 ft.
Latitude : 30.9399° N.
Longitude : 101.1553° W.
20 ft. FNL and 1790 ft. FWL
University Land Survey 16, Block 42
20 ft. FNL and 3501 ft. FEL of lease

Perpendicular distances off 2111HC
Univ. "42" horizontal hole

FTP 2113HB (proposed) = 360'
LTP 2113HB (proposed) = 360'
BHL 2113HB (proposed) = 360'
BHL 2102H (proposed) = 800'

Located: N 10°E 14 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. : 2111HC
ELEVATION : 2596 ft. grd.
LOCATION : 440 ft. FSL and 1790 ft. FWL of University Land Survey 21,
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.

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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