

API No. <u>42-301-33030</u> Drilling Permit # <u>818863</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>020528</b>		2. Operator's Name (as shown on form P-5, Organization Report) <b>ANADARKO E&amp;P ONSHORE LLC</b>		3. Operator Address (include street, city, state, zip): <b>ATTN FRANK A. DAVIS</b> <b>PO BOX 1330</b> <b>HOUSTON, TX 77251-1330</b>			
4. Lease Name <b>YOKUM UL UNIT 19-4</b>		5. Well No. <b>3H</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 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>13000</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>LOVING</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>9.1</u> miles in a <u>E</u> direction from <u>MENTONE</u> which is the nearest town in the county of the well site.							
15. Section <b>45</b>	16. Block <b>29</b>	17. Survey <b>PSL/FERGUSON, J L</b>		18. Abstract No. <b>A-1046</b>	19. Distance to nearest lease line: <b>200</b> ft.	20. Number of contiguous acres in lease, pooled unit, or unitized tract: <b>640.7</b>	
21. Lease Perpendiculars: <u>2360</u> ft from the <u>WEST</u> line and <u>774</u> ft from the <u>SOUTH</u> line. 22. Survey Perpendiculars: <u>2360</u> ft from the <u>WEST</u> line and <u>774</u> ft from the <u>SOUTH</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			
<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 or Gas Well	13000	200.00	
<b>BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)</b>							
<b>Remarks</b> [RRC STAFF Oct 7, 2016 2:01 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Oct 10, 2016 1:09 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Oct 10, 2016 1:43 PM]: Problems identified with this permit are resolved.; [RRC STAFF Oct 10, 2016 1:43 PM]: Revised P16 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>Fatma Abdallah, Sr. Regulatory Analyst</u>            Name of filer         </div> <div> <u>Sep 27, 2016</u>            Date submitted         </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>(832)6363654</u>            Phone         </div> <div> <u>fatma.abdallah@anadarko.com</u>            E-mail Address (OPTIONAL)         </div> </div>			
<b>RRC Use Only</b> Data Validation Time Stamp:    Oct 18, 2016 8:15 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 #	818863
Approved Date:	Oct 12, 2016

1. RRC Operator No. 020528	2. Operator's Name (exactly as shown on form P-5, Organization Report) ANADARKO E&P ONSHORE LLC	3. Lease Name YOKUM UL UNIT 19-4	4. Well No. 3H
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**Lateral Drainhole Location Information**

5. Field as shown on Form W-1	PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)
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6. Section 4	7. Block 19	8. Survey UNIVERSITY LAND SURVEY	9. Abstract	10. County of BHL LOVING
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	11. Terminus Lease Line Perpendiculars 60 ft. from the SOUTH line. and 1630 ft. from the WEST line			
	12. Terminus Survey Line Perpendiculars 60 ft. from the SOUTH line. and 1630 ft. from the WEST line			
	13. Penetration Point Lease Line Perpendiculars 2360 ft. from the WEST line. and 774 ft. from the SOUTH 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 <b>818863</b>	DATE PERMIT ISSUED OR AMENDED <b>Oct 12, 2016</b>	DISTRICT <b>* 08</b>																																				
API NUMBER <b>42-301-33030</b>	FORM W-1 RECEIVED <b>Sep 27, 2016</b>	COUNTY <b>LOVING</b>																																				
TYPE OF OPERATION <b>NEW DRILL</b>	WELLBORE PROFILE(S) <b>Horizontal</b>	ACRES <b>640.7</b>																																				
OPERATOR  <b>ANADARKO E&amp;P ONSHORE LLC</b>  ATTN FRANK A. DAVIS PO BOX 1330 HOUSTON, TX 77251-1330		020528	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> <b>(432) 684-5581</b>																																			
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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.  Lateral: TH1 Penetration Point Location Lease Lines:            2360.0 F WEST L 774.0 F SOUTH L  Terminus Location BH County: LOVING Section: 4                      Block: 19                      Abstract: Survey: UNIVERSITY LAND SURVEY Lease Lines:                60.0 F SOUTH L 1630.0 F WEST L Survey Lines:              60.0 F SOUTH L 1630.0 F WEST L																																						
<b>THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS</b>																																						

**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 <b>818863</b>	DATE PERMIT ISSUED OR AMENDED <b>Oct 12, 2016</b>	DISTRICT <b>* 08</b>
API NUMBER <b>42-301-33030</b>	FORM W-1 RECEIVED <b>Sep 27, 2016</b>	COUNTY <b>LOVING</b>
TYPE OF OPERATION <b>NEW DRILL</b>	WELLBORE PROFILE(S) <b>Horizontal</b>	ACRES <b>640.7</b>
OPERATOR <b>ANADARKO E&amp;P ONSHORE LLC</b> ATTN: FRANK A. DAVIS PO BOX 1330 HOUSTON, TX 77251-1330		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> <b>(432) 684-5581</b>
LEASE NAME <b>YOKUM UL UNIT 19-4</b>		WELL NUMBER <b>3H</b>
LOCATION <b>9.1 miles E direction from MENTONE</b>		TOTAL DEPTH <b>13000</b>
Section, Block and/or Survey SECTION <b>◀ 45</b> BLOCK <b>◀ 29</b> ABSTRACT <b>◀ 1046</b> SURVEY <b>◀ PSL/FERGUSON, J L</b>		
DISTANCE TO SURVEY LINES <b>2360 ft. WEST    774 ft. SOUTH</b>		DISTANCE TO NEAREST LEASE LINE <b>200 ft.</b>
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FIELD(s) and LIMITATIONS: <p align="center"><b>* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</b></p>		
FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH NEAREST WE
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. 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. Delaware Basin Caveat 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.		

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

**LOVING (301) County**

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RED BLUFF	3,900	3,900		1	12/17/2013
BELL CANYON	4,700	4,700		2	12/17/2013
BRUSHY CANYON	6,000	6,000		3	12/17/2013
DELAWARE	3,000	6,500		4	12/17/2013
CHERRY CANYON	3,700	7,800		5	12/17/2013
BONE SPRINGS	8,200	9,800		6	12/17/2013
WOLFCAMP	11,000	12,900		7	12/17/2013
PENNSYLVANIAN	14,900	15,000		8	12/17/2013
STRAWN	14,700	15,000		9	12/17/2013
ATOKA	15,200	16,000	high pressure	10	12/17/2013
MORROW	15,700	17,000		11	12/17/2013
DEVONIAN	17,800	17,800		12	12/17/2013
FUSSELMAN	18,900	19,000		13	12/17/2013
ELLENBURGER	21,000	21,000		14	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: 02 July 2015

GAU Number:

10751

Attention: ANADARKO E&amp;P ONSHORE LLC

ATTN FRANK A. DAVIS

HOUSTON, TX 77251

P-5#: 020528

API Number:

County:

LOVING

Lease Name:

YOKUM UL UNIT 19-4

RRC Lease Number:

Well Number:

1H

Total Vertical Depth:

13000

Latitude:

31.721660

Longitude:

-103.441610

Datum:

NAD27

Purpose: New Drill

Location: Survey-PSL; Block-29; Section-45

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

Water-bearing strata from the land surface to a depth of 300 feet and the Rustler, which is estimated to occur from 550 to 1000 feet must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

This determination is based on information provided when the application was submitted on 06/30/2015. 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](mailto: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

Rev. 02/2014

Internet address: [www.rrc.texas.gov](http://www.rrc.texas.gov)

# EXHIBIT A

## ANADARKO E&P ONSHORE LLC THE WOODLANDS, TEXAS

### Revisions

Project:

**SURFACE EXHIBIT**  
**YOKUM UL UNIT 19-4 2H WELL**  
**YOKUM UL UNIT 19-4 3H WELL**

FIRM NO. 100327-00

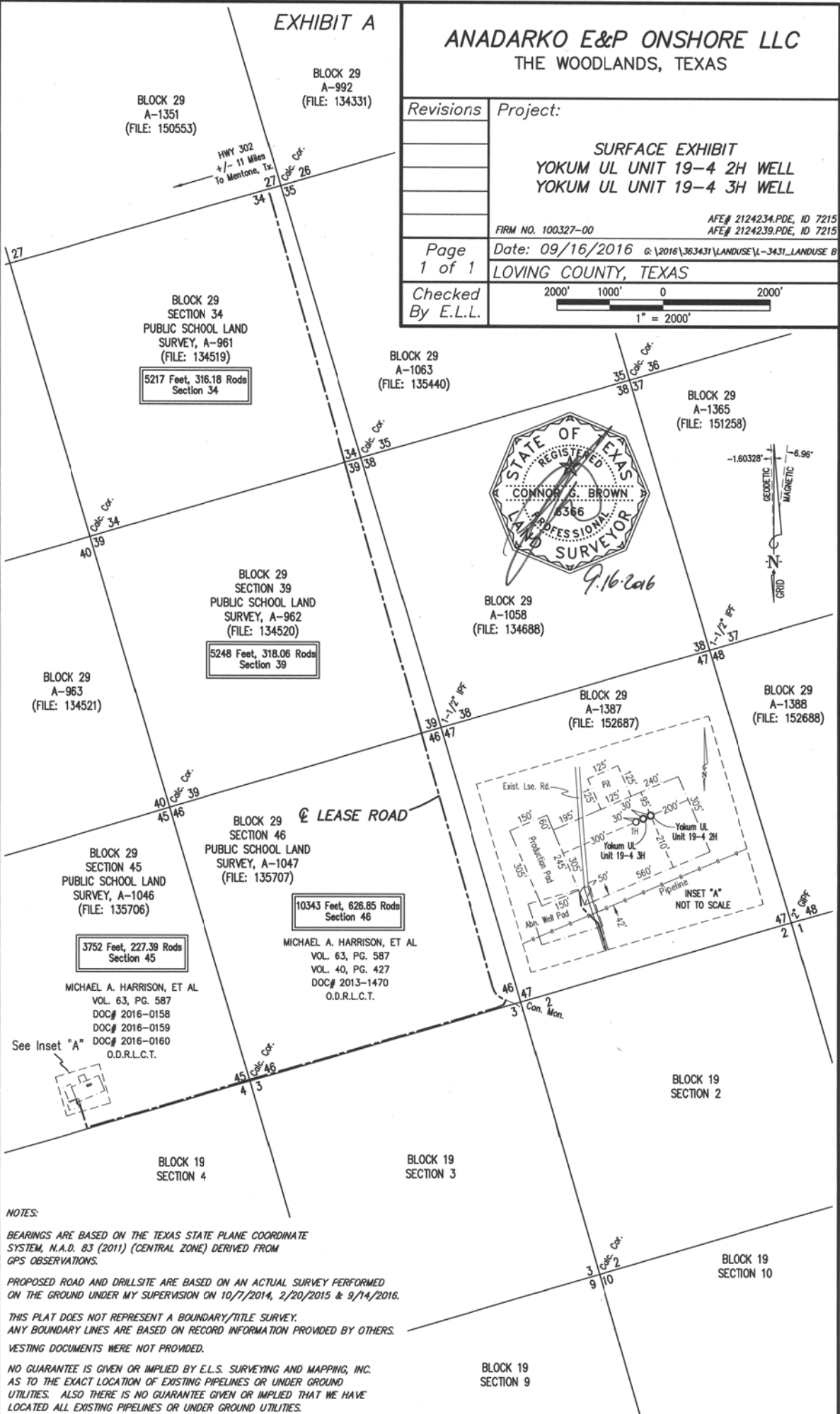
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AFE# 2124239.PDE, ID 7215

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1 of 1

Date: 09/16/2016 G:\2016\363431\LANDUSE\L-3431\_LANDUSE.B

Checked  
By E.L.L.

2000' 1000' 0 2000'  
1" = 2000'



### NOTES:

BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, N.A.D. 83 (2011) (CENTRAL ZONE) DERIVED FROM GPS OBSERVATIONS.

PROPOSED ROAD AND DRILLSITE ARE BASED ON AN ACTUAL SURVEY PERFORMED ON THE GROUND UNDER MY SUPERVISION ON 10/7/2014, 2/20/2015 & 9/14/2016.

THIS PLAT DOES NOT REPRESENT A BOUNDARY/TITLE SURVEY. ANY BOUNDARY LINES ARE BASED ON RECORD INFORMATION PROVIDED BY OTHERS. VESTING DOCUMENTS WERE NOT PROVIDED.

NO GUARANTEE IS GIVEN OR IMPLIED BY E.L.S. SURVEYING AND MAPPING, INC. AS TO THE EXACT LOCATION OF EXISTING PIPELINES OR UNDER GROUND UTILITIES. ALSO THERE IS NO GUARANTEE GIVEN OR IMPLIED THAT WE HAVE LOCATED ALL EXISTING PIPELINES OR UNDER GROUND UTILITIES.