



RAILROAD COMMISSION OF TEXAS

Form W-2

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 01/14/2020
Tracking No.: 223594

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: LIME ROCK RESOURCES IV-A, L.P. Operator No.: 500794
Operator Address: 1111 BAGBY STREET SUITE 4600 HOUSTON, TX 77002-0000

WELL INFORMATION

API No.: 42-003-47488 County: ANDREWS
Well No.: 2H RRC District No.: 08
Lease Name: UNIVERSITY LANDS 31 Field Name: EMMA (DEVONIAN)
RRC Lease No.: 49619 Field No.: 28899166
Location: Section: 42, Block: 9, Survey: UL, Abstract: U278

Latitude: Longitude:
This well is located 13.7 miles in a SW
direction from ANDREWS,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: Other/Recompletion
Well Type: Producing Completion or Recompletion Date: 10/02/2019

Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 02/10/2017 822882
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 05/10/2017 Date of first production after rig released: 10/02/2019
Date plug back, deepening, recompletion, or drilling operation commenced: 09/18/2019 Date plug back, deepening, recompletion, or drilling operation ended: 10/02/2019
Number of producing wells on this lease in this field (reservoir) including this well: 1 Distance to nearest well in lease & reservoir (ft.): 0.0
Total number of acres in lease: 241.70 Elevation (ft.): 3148 GR
Total depth TVD (ft.): 10537 Total depth MD (ft.): 15058
Plug back depth TVD (ft.): Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? No Rotation time within surface casing (hours):
Is Cementing Affidavit (Form W-15) attached? No
Recompletion or reclass? Yes Multiple completion? No
Type(s) of electric or other log(s) run: None
Electric Log Other Description:
Location of well, relative to nearest lease boundaries Off Lease : No
of lease on which this well is located: 113.0 Feet from the North Line and
376.0 Feet from the West Line of the
UNIVERSITY LANDS 31 Lease.

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir Gas ID or Oil Lease No. Well No. Prior Service Type

PACKET: N/A

W2:	N/A			
FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:				
GAU Groundwater Protection Determination		Depth (ft.):	1500.0	Date: 02/06/2017
SWR 13 Exception		Depth (ft.):		

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION		
Date of test:		Production method:
Number of hours tested: 24		Choke size:
Was swab used during this test? No		Oil produced prior to test:
PRODUCTION DURING TEST PERIOD:		
Oil (BBLS):		Gas (MCF):
Gas - Oil Ratio: 0		Flowing Tubing Pressure:
Water (BBLS):		
CALCULATED 24-HOUR RATE		
Oil (BBLS):		Gas (MCF):
Oil Gravity - API - 60.:		Casing Pressure:
Water (BBLS):		

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1642			C	1560	2666.0	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	5794			H	700	1400.0	3487	Calculation
3	Intermediate	9 5/8	12 1/4	5794	3487		C	1000	2125.0	0	Circulated to Surface
4	Conventional Production	7	8 3/4	10543			H	660	1535.0	9077	Calculation
5	Conventional Production	7	8 3/4	10543	9077		C	900	1978.0	0	Circulated to Surface

LINER RECORD									
Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	4 1/2	6 1/8	9842	18077	ULTRA	500	860.0	9842	Circulated to Surface

TUBING RECORD			
Row	Size (in.)	Depth	Size (ft.)
1	2 7/8	9656	
			9656 / HALLIBURTON VERSASE PLT

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11890	15058.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment performed?		No	
Is well equipped with a downhole actuation sleeve?		No	
If yes, actuation pressure (PSIG):			
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:		Actual maximum pressure (PSIG) during hydraulic fracturing:	
Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)?		No	
Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)
1	Cast Iron Bridge Plug	CIBP (NO CMT)	15075 15076

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
YATES	Yes	2792.0	2792.0	Yes	
SEVEN RIVERS	No			No	DID NOT ENCOUNTER
QUEEN	No			No	DID NOT ENCOUNTER
GRAYBURG	Yes	3992.0	3992.0	Yes	
SAN ANDRES - CO2 FLOOD, HIGH FLOWS, H2S, CORROSIVE	Yes	4257.0	4257.0	Yes	
HOLT	No			No	DID NOT ENCOUNTER
GLORIETA	Yes	5359.0	5359.0	Yes	
TUBB	Yes	6500.0	6500.0	Yes	
CLEARFORK	Yes	5419.0	5419.0	Yes	
PERMIAN DETRITAL	No			No	DID NOT ENCOUNTER
LEON	No			No	DID NOT ENCOUNTER
WICHITA ALBANY	No			No	DID NOT ENCOUNTER
SPRABERRY	No			No	DID NOT ENCOUNTER
DEAN	No			No	DID NOT ENCOUNTER
WOLFCAMP	Yes	8202.0	8202.0	Yes	
CANYON	Yes	8859.0	8859.0	Yes	
PENNSYLVANIAN	No			No	DID NOT ENCOUNTER
MCKEE	No			No	DID NOT ENCOUNTER
STRAWN	Yes	9025.0	9025.0	Yes	
FUSSELMAN	No			No	DID NOT ENCOUNTER
DEVONIAN	Yes	10270.0	10270.0	Yes	
SILURIAN	No			No	DID NOT ENCOUNTER
ELLENBURGER	No			No	DID NOT ENCOUNTER
Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)?					No
Is the completion being downhole commingled (SWR 10)?					No

REMARKS
KOP @ 9827. FILING "WELL RECORD" TO DOCUMENT SETTING A CIBP/PKR DOWNHOLE TO SHUT OFF WATER ZONE, CORRECT PERFS & AMND "AS DRLD" PLAT

RRC REMARKS	
PUBLIC COMMENTS: [RRC Staff 2020-01-02 07:48:39.934] EDL=3168 feet, max acres=180, EMMA (DEVONIAN) Field; take points: 11890-15058"	
CASING RECORD :	
TUBING RECORD:	
PRODUCING/INJECTION/DISPOSAL INTERVAL :	
ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :	
POTENTIAL TEST DATA:	

OPERATOR'S CERTIFICATION	
Printed Name: Carla Martin	Title:
Telephone No.: (713) 292-9510	Date Certified: 10/11/2019

Tracking No.: 223594

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:

- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:

- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:

- with the appropriate Commission district office

Filling out Form L-1:

- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:

- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: LIME ROCK RESOURCES IV-A, L.P.	District No. 08	Completion Date: 10/02/2019
Field Name EMMA (DEVONIAN)	Drilling Permit No. 822882	
Lease Name UNIVERSITY LANDS 31	Lease/ID No. 49619	Well No. 2H
County ANDREWS	API No. 42- 003-47488	

SECTION II. LOG STATUS (Complete either A or B)

☒ A. BASIC ELECTRIC LOG NOT RUN

☐ B. BASIC ELECTRIC LOG RUN. (Select one)

- ☐ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
- ☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
- ☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
- ☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Carla Martin

Signature

LIME ROCK RESOURCES IV-A, L.P.

Name (print)

Title

(713) 292-9510 EXT 5720

Phone

10/10/2019

Date

-FOR RAILROAD COMMISSION USE ONLY-

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.

A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 223594

1. Field name exactly as shown on proration schedule EMMA (DEVONIAN)		2. Lease name as shown on proration schedule UNIVERSITY LANDS 31					
3. Current operator name exactly as shown on P-5 Organization Report LIME ROCK RESOURCES IV-A, L.P.		4. Operator P-5 no. 500794	5. Oil Lse/Gas ID no 49619	6. County ANDREWS	7. RRC district 08		
8. Operator address including city, state, and zip code 1111 BAGBY STREET SUITE 4600 HOUSTON, TX 77002		9. Well no(s) (see instruction E) 2H					
12. Purpose of Filing. (Complete section a or b below.) (See instructions B and G) a. Change of: <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code <input type="checkbox"/> field name from _____ <input type="checkbox"/> lease name from _____ --- OR --- b. New RRC Number for: <input checked="" type="checkbox"/> oil lease <input type="checkbox"/> gas well Due to: <input type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil <input type="checkbox"/> other well (specify) _____ <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)		10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)		11. Effective Date 10/02/2019			
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). (See instruction G).							
Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left (Attach an additional sheet in same format if more space is needed)			Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	DCP OPERATING COMPANY, LP(195959)			0001	100.0	
14. Authorized OIL or CONDENSATE Gatherer(s). (See instruction G).							
Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First (Attach an additional sheet in same format if more space is needed)						Percent of Take	
CONCORD CRUDE OIL MARKETING LLC(170262)						100.0	
RRC USE ONLY: Reviewer's initials: <u>RRC Staff</u> Approval date: <u>01/14/2020</u>							
15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.							
Name of Previous Operator _____ Name (print) _____ Title _____				Signature <input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator (see instruction G) _____ Date _____ Phone with area code _____			
16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.							
LIME ROCK RESOURCES IV-A, L.P. Name (print) _____ Title <u>cmartin@limerockresources.com</u> E-mail Address (optional)				Carla Martin Signature <input checked="" type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator (see instruction G) _____ Date _____ Phone with area code _____			

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s) Emma (Devonian)	2. Lease/ID Number (if assigned) 49619	3. RRC District Number 08
4. Operator Name Lime Rock Resources IV-A, LP	5. Operator P-5 Number 500794	6. Well Number 2H
7. Pooled Unit Name University Lands	8. API Number 42-003-47488	9. Purpose of Filing <input type="checkbox"/> Drilling Permit (W-1) <input checked="" type="checkbox"/> Completion Report
10. County Andrews	11. Total acres in pooled unit 241.70	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT (See inst. #7 below)	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
1	University Lands	80.6	<input type="checkbox"/>	<input type="checkbox"/>
2	University Lands	80.6	<input type="checkbox"/>	<input type="checkbox"/>
3	University Lands	80.5	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Carla Martin

Carla Martin

Signature

Print Name

Regulatory Tech

10/10/2019

(713) 292-9510

Title

E-mail (if available)

Date

Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

- When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
- The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
- If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
- If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
- If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
- Identify the drill site tract with an * to the left of the tract identifier.
- The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

Clear Form

Form P-16

Page 1

Acreage Designation

SECTION I. OPERATOR INFORMATION			
Operator Name:	Lime Rock Resources IV-A, LP	Operator P-5 No.:	500794
Operator Address:	1111 Bagby St., Ste. 4600; Houston, TX 77002		

District No.:	08	API No.:	42-003-47488	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.:	2H	Drilling Permit No.:	822882	
Lease Name:	University Lands	RRC ID or Lease No.:	49619	
Total Lease Acres:	241.700	Field Name:	Emma (Devonian)	
Proration Acres:	241.700	Field No.:	28899166	
Wellbore Profile	Horizontal Well	Is this a UFT field?	Yes	
SL Record (Parent) Well Drilling Permit No.:		County:	Andrews	

[illegible]

C. Total Assigned Acreage	=	
Total Remaining Acreage	=	

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☐ **Additional Pages:** _____ (No. of additional pages)

Carla Mauter

Email
(include email address *only* if you affirmatively consent to its public release)

Date: 10/10/19 mo. day yr.

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 06 February 2017**GAU Number:** 166977**Attention:** GREYSTONE PETROLEUM,
5555 E 71ST ST STE 8350
TULSA, OK 74136**Operator No.:** 333762**API Number:**
County: ANDREWS
Lease Name: University Lands 31
Lease Number:
Well Number: 2H
Total Vertical Depth: 18500
Latitude: 32.131281
Longitude: -102.619927
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UL; Abstract-U278; Block-9; Section-42

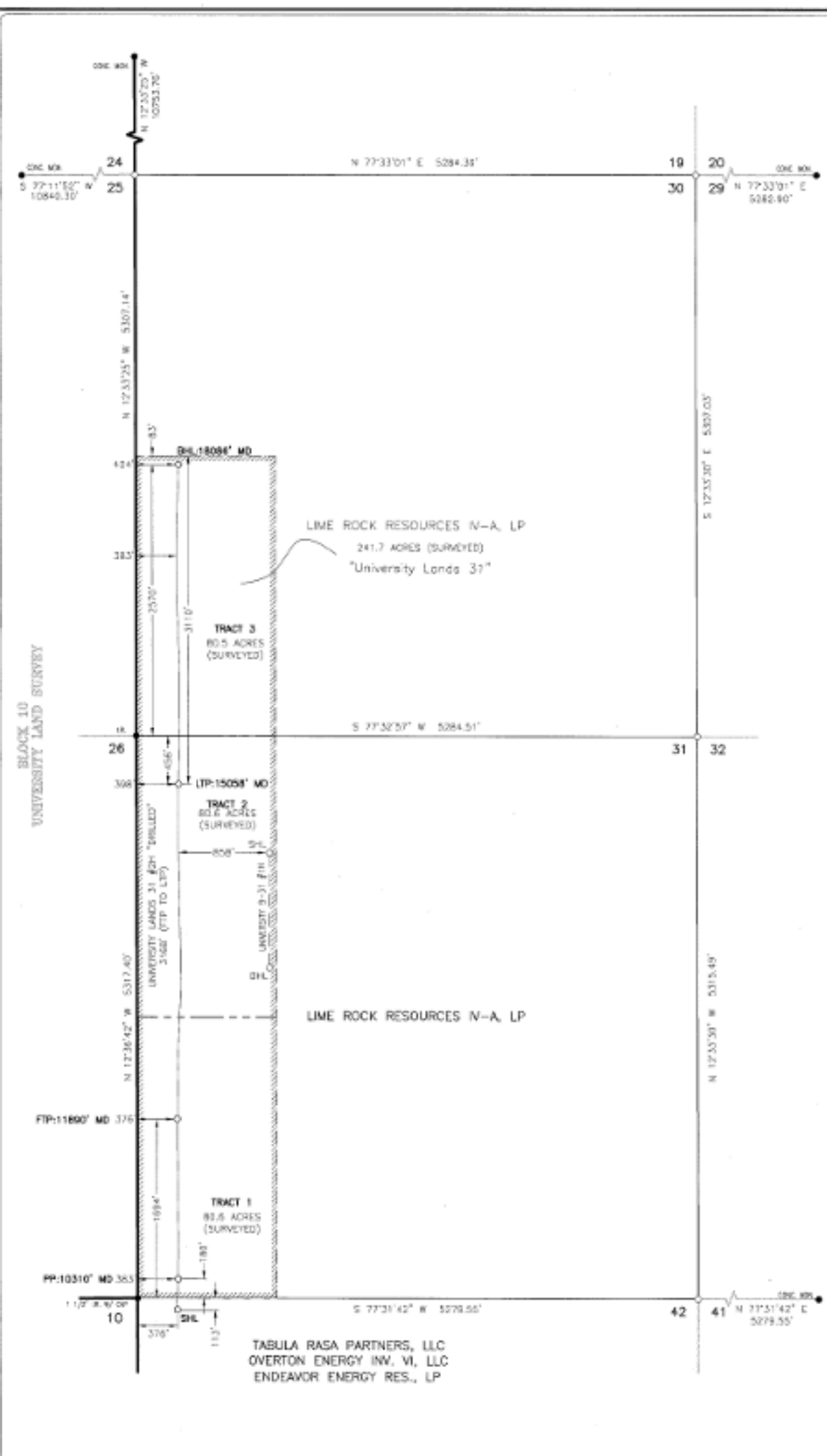
To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to a depth of 250 feet, and the zone from 850 to 1500 feet must be protected.

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 02/03/2017. 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



Surface Hole Location:
113' FNL & 376' FNL (SEC. 42)
SHL Ground Elevation: 3148'
X = 415598 Y = 207848
LAT: N 32.1312813 LONG: W 102.6159274
NAD 83 TX-MC ZONE
X = 693272 Y = 8755756
LAT: N 32.1313927 LONG: W 102.6203609

Penetration Point:
180' FSL & 383' FNL (SEC. 31)
X = 415541 Y = 207937
LAT: N 32.1320649 LONG: W 102.6201563

First Take Point:
1694' FSL & 376' FNL (SEC. 31)
X = 415204 Y = 209413
LAT: N 32.1360719 LONG: W 102.6214762

Last Take Point:
456' FNL & 398' FNL (SEC. 31)
X = 414534 Y = 212507
LAT: N 32.1444792 LONG: W 102.6241250

Bottom Hole Location:
2570' FSL & 404' FNL (SEC. 30)
X = 413891 Y = 215453
LAT: N 32.1525060 LONG: W 102.6266987

All Coordinates are in NAD 83 TX-MC Zone unless otherwise noted.

REV#	BY	DATE	REV#	BY	DATE
1	MR	11/28/2017	1	MR	11/28/2017
2	MR	11/30/2017			
3	MR	12/01/2017			

SPECIAL NOTES:

Section Line	---
Block Line	---
Hard Line	---
Frost Line	---
Unit/Lease Boundary	---
Found Monument	●
Calculated Corner	○

CERTIFICATION:
This well location shown on this permit plat was surveyed under my direct supervision. All As-Drilled information provided by client. This plat is for Texas Railroad Commission permit purposes only and should not be considered a boundary survey.

William J. Keating
Texas Reg. No. 5041

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
2802 NORTH BIG SPRING - MIDLAND TEXAS 79701
TELEPHONE: (409) 840-1800 OR (800) 761-1800 - FAX: (409) 840-1742
WWW.TOPOGRAFIC.COM
Texas FIRM Registration No. 10042500
FILE NAME: AD_UNIVERSITY_LANDS_31_SHL_REV3

STATE OF TEXAS
REGISTERED
WILLIAM J. KEATING
5041
PROFESSIONAL
LAND SURVEYOR

LIME ROCK RESOURCES IV-A, LP

UNIVERSITY LANDS 31 #2H "AS-DRILLED"
TOPOGRAPHY & VEGETATION
NATURAL MESQUITE PASTURE
NEAREST TOWN IN COUNTY:
±13.7 MILES SOUTHWEST OF ANDREWS, TEXAS

LOCATION DESCRIPTION:
SHL: SECTION 42, BLOCK 9, UNIVERSITY LAND
FP/FTP/LTP: SECTION 31, BLOCK 9, UNIVERSITY LAND
DHL: SECTION 30, BLOCK 9, UNIVERSITY LAND
ANDREWS COUNTY, TEXAS

Scale: 1" = 1000' Surveyed: 12-29-2016 ORIGINAL DOC. SIZE: 11"x17"
COGO: 726-44138 Drawn By: MR: 06/12/2017