

**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION**

Form W-1H 07/2004
Supplemental Horizontal Well Information

Permit Status: **Approved**
The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.

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 # **865689**
Approved Date: **Jan 20, 2021**

1. RRC Operator No. 774719	2. Operator's Name (exactly as shown on form P-5, Organization Report) SHELL WESTERN E&P	3. Lease Name UNIVERSITY 19 TG UNIT	4. Well No. 1308H
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Lateral Drainhole Location Information

5. Field as shown on Form W-1 **TWO GEORGES (BONE SPRING) (Field # 92100050, RRC District 08)**

6. Section 19	7. Block 19	8. Survey UL / A-U19	9. Abstract	10. County of BHL LOVING
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11. Terminus Lease Line Perpendiculars 3438 ft. from the NE line. and 16057 ft. from the SE line
12. Terminus Survey Line Perpendiculars 797 ft. from the NE line. and 200 ft. from the SE line
13. Penetration Point Lease Line Perpendiculars 3766 ft. from the NE line. and 10326 ft. from the NW line

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

LOVING (301) County

Formation	Remarks	Geological Order	Effective Date
RED BLUFF		1	02/09/2020
DELAWARE		2	02/09/2020
BELL CANYON		3	02/09/2020
CHERRY CANYON		4	02/09/2020
BRUSHY CANYON		5	02/09/2020
BONE SPRING		6	02/09/2020
WOLFCAMP		7	02/09/2020
PENNSYLVANIAN		8	02/09/2020
STRAWN		9	02/09/2020
ATOKA	high pressure	10	02/09/2020
MORROW		11	02/09/2020
DEVONIAN		12	02/09/2020
FUSSELMAN		13	02/09/2020
ELLENBURGER		14	02/09/2020
PRECAMBRIAN (UNDIFFERENTIATED)		15	02/09/2020

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. The listing order of the Formation information reflects the general stratigraphic order and relative geologic age. 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: 04 November 2020**GAU Number:** 289601

Attention: SHELL WESTERN E&P
 PO BOX 576
 HOUSTON, TX 77001

API Number: 30135217**County:** LOVING**Lease Name:** UNIVERSITY 19 TG UNIT**Operator No.:** 774719**Lease Number:****Well Number:** 1309H**Total Vertical:** 11900**Latitude:** 31.701531**Longitude:** -103.392353**Datum:** NAD27**Purpose:** New Production Well**Location:** Survey-UL; Abstract-U13; Block-19; Section-13

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 225 feet and the Rustler, which is estimated to occur from 600 to 1000 feet must be protected.

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

Please send Gamma/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 11/03/2020. 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

Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.
 Rev. 02/2014



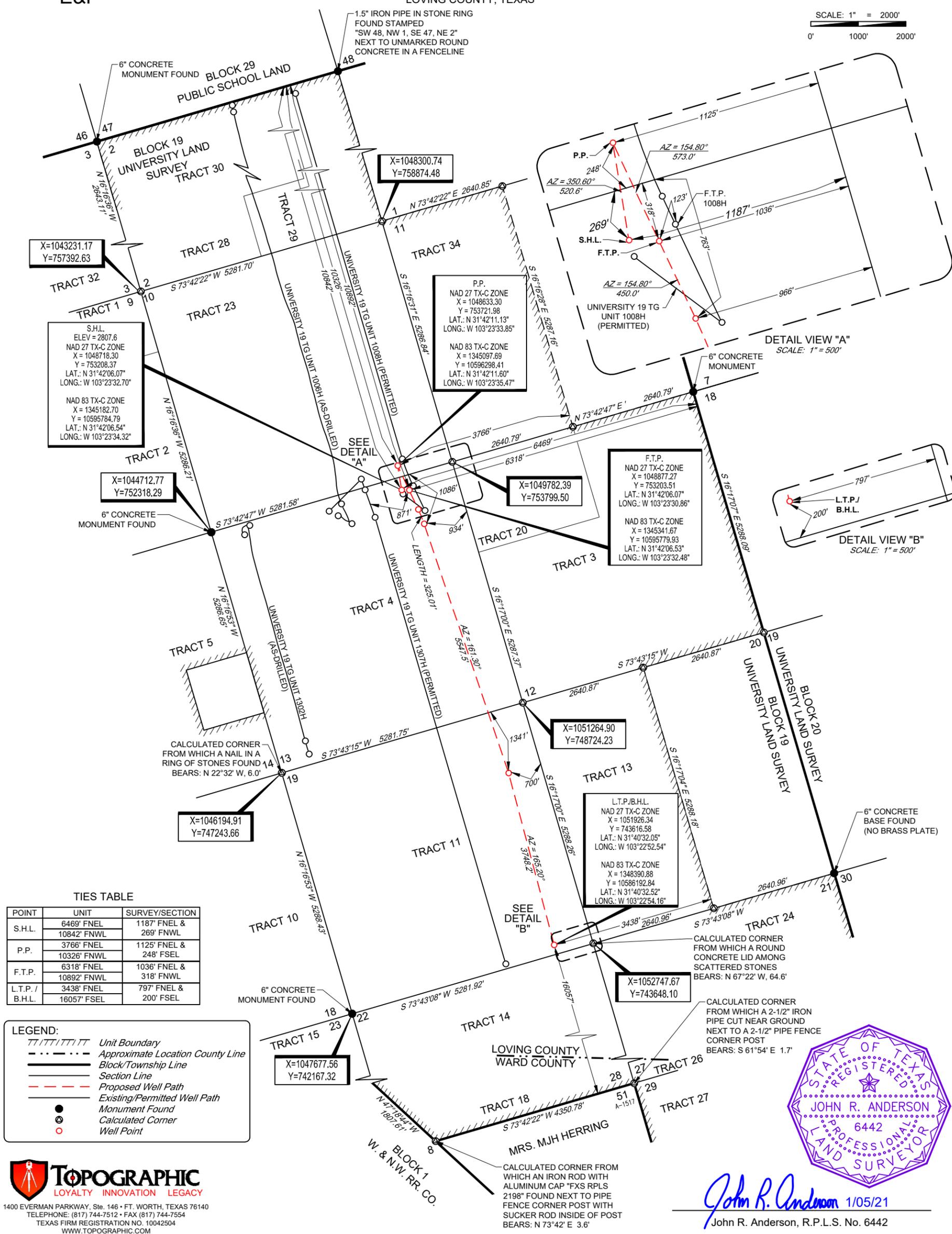
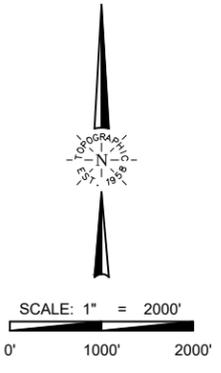
SHELL WESTERN E&P

WELL LOCATION
LEASE NAME & WELL NO.:
UNIVERSITY 19 TG UNIT 1308H

UNIT/LEASE ACREAGE:
12830.08 ACRES (MEASURED)

NEAREST TOWN IN COUNTY:
±12.1 MILES SOUTHEAST OF MENTONE, TEXAS

DESCRIPTION:
SECTIONS 10, 13 & 19 BLOCK 19, UNIVERSITY LAND SURVEY
LOVING COUNTY, TEXAS



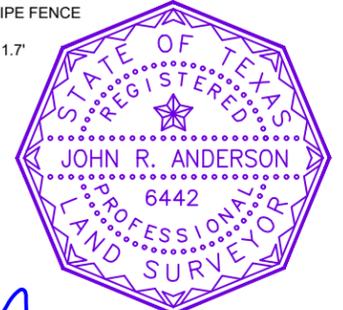
TIES TABLE

POINT	UNIT	SURVEY/SECTION
S.H.L.	6469' FNEL & 10842' FNWL	1187' FNEL & 269' FNWL
P.P.	3766' FNEL & 10326' FNWL	1125' FNEL & 248' FSEL
F.T.P.	6318' FNEL & 10892' FNWL	1036' FNEL & 318' FNWL
L.T.P. / B.H.L.	3438' FNEL & 16057' FSEL	797' FNEL & 200' FSEL

LEGEND:

- Unit Boundary
- Approximate Location County Line
- Block/Township Line
- Section Line
- Proposed Well Path
- Existing/Permitted Well Path
- Monument Found
- Calculated Corner
- Well Point

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM



John R. Anderson 1/05/21
John R. Anderson, R.P.L.S. No. 6442

UL-19-13-P1 UNIVERSITY 19 TG UNIT 1308H
DATE: 12/23/2020
FILE: LO_UNIVERSITY_19_13_UL-19-13-P1_TG_UNIT_1308H
DRAWN BY: O.M.
SHEET: 1 OF 1

REVISION:	
INT	DATE

NOTES:

- ORIGINAL DOCUMENT SIZE: 11" X 17"
- ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927, UNLESS OTHERWISE NOTED.
- THIS LOCATION AND/OR UNIT/LEASE BOUNDARY HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED BY SHELL WESTERN E&P. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE RAILROAD COMMISSION OF TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET.
- ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES.

NOTES CONT'D:

- THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF SEPTEMBER 25, 2020.
- S.H.L. = SURFACE HOLE LOCATION
- P.P. = POINT OF PENETRATION
- F.T.P. = FIRST TAKE POINT
- L.T.P. = LAST TAKE POINT
- B.H.L. = BOTTOM HOLE LOCATION