



Company: Conoco Phillips

Well: UL 20 Gold Spoon 2905H

API#: 42-301-36073

Rig Name: Production

State/County: Texas/Lovin

VS-Azi: 0.00 Degrees

Latitude: 31.67511, Longitude: -103.32936

Grid North = True North +1.54 degs (NAD 27)

Grid Correction Applied = +1.54 degs



Depth Reference : RKB = 32 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Error Model: VESSI_GYROFLEX.IPM

Filename: ul 20 gold spoon 2905h-de_01.ut

Minimum Curvature Method

Report Date/Time: 11/21/2022 / 10:07

Vaughn Energy Services Inc.

API: 42-301-36073

PO Box 728 Cisco, Texas 76437

817-741-5746

David Miller

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
132.00	0.89	22.69	131.99	0.94	0.39	0.94	1.02	22.69	0.67
232.00	0.81	46.24	231.98	2.14	1.20	2.14	2.46	29.27	0.35
332.00	0.92	40.84	331.97	3.24	2.23	3.24	3.93	34.61	0.13
432.00	0.62	346.88	431.96	4.37	2.63	4.37	5.10	31.09	0.74
532.00	0.76	305.98	531.96	5.28	1.98	5.28	5.64	20.51	0.50
632.00	0.54	307.64	631.95	5.96	1.07	5.96	6.05	10.16	0.22
732.00	0.88	303.39	731.94	6.67	0.05	6.67	6.67	0.43	0.35
832.00	0.97	293.22	831.93	7.43	-1.38	7.43	7.55	349.51	0.19
932.00	1.07	253.87	931.92	7.51	-3.05	7.51	8.10	337.88	0.69
1032.00	1.21	263.08	1031.90	7.12	-4.99	7.12	8.70	324.96	0.23
1125.00	0.90	243.76	1124.88	6.68	-6.62	6.68	9.41	315.24	0.50

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
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HORIZONTAL DISPLACEMENT IS
9.41 FEET AT 315.24 DEGREES



I David Miller certify that I am employed by Vaughn Energy Services Inc.
That I did on the day(s) of 11/16/2022 conduct or supervise the taking of a
Rate Gyro survey from a depth of 0.00 feet to a depth of 1,125.00
feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services
Inc., that I am authorized and qualified to make this report; that this survey was conducted at the request of
Conoco Phillips for the UL 20 Gold Spoon 2905H
API# 42-301-36073 in Texas County/ Parish Loving
; and I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn
Energy Services Inc.

A handwritten signature in blue ink, appearing to be "D. Miller", is written over a horizontal line.

Service Technician
Vaughn Energy Services Inc.

OPERATOR: PDEH LLC

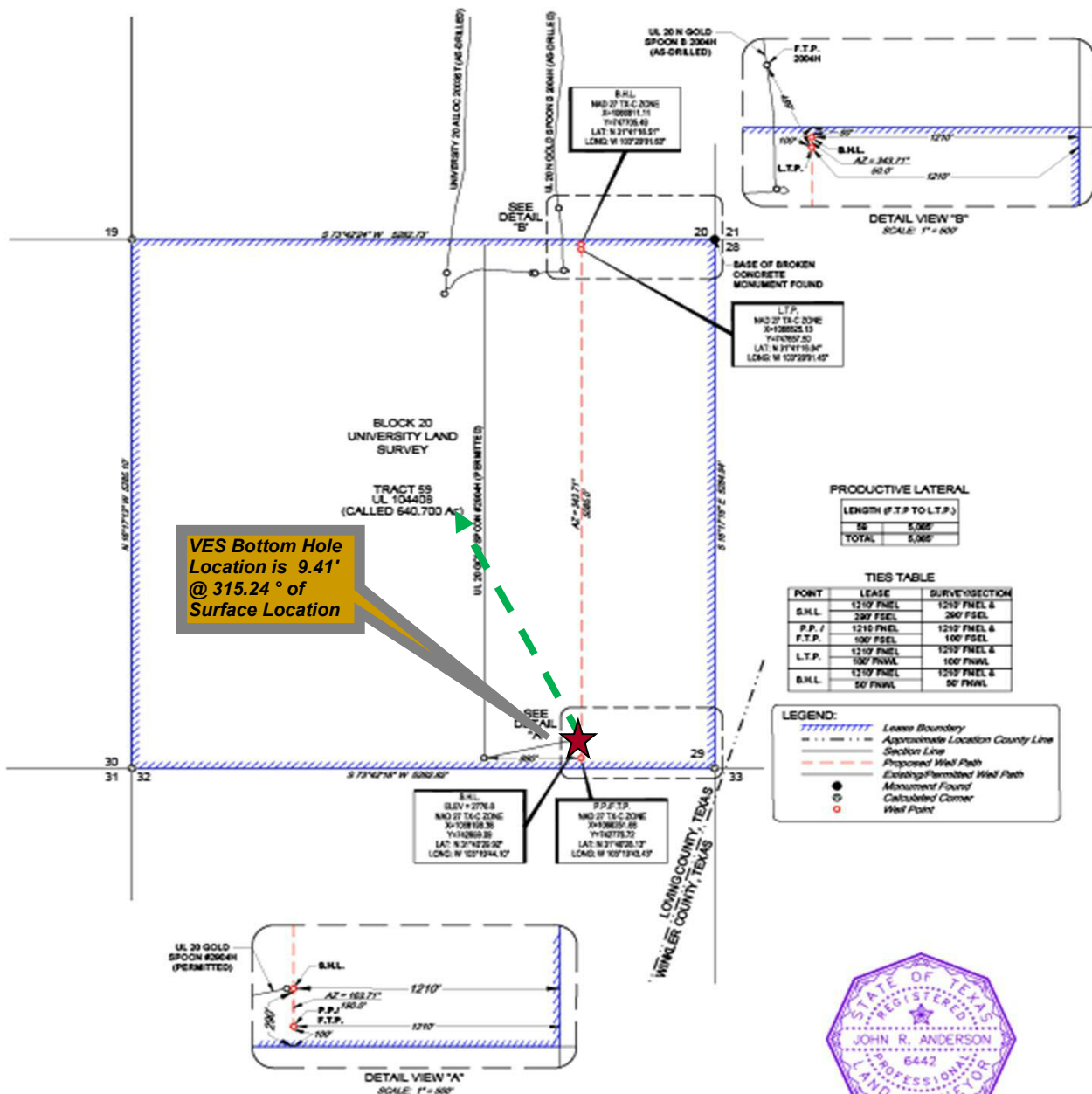
WELL LOCATION

LEASE NAME & WELL NO:
UL 20 GOLD SPOON #2905H

LEASE ACREAGE:
640.700 ACRES (CALLED)

NEAREST TOWN IN COUNTY:
±16.0 MILES SOUTHEAST OF MENTONE, TEXAS

DESCRIPTION:
S.H.L./P.P./F.T.P.: SECTION 29, BLOCK 20, UNIVERSITY LAND SURVEY
L.T./B.H.L.: SECTION 29, BLOCK 20, UNIVERSITY LAND SURVEY
LOVING COUNTY, TEXAS



VES Bottom Hole Location is 9.41' @ 315.24° of Surface Location

PRODUCTIVE LATERAL

LENGTH (F.T.P. TO L.T.P.)	FEET
TS	5,005'
TOTAL	5,005'

TIES TABLE

POINT	LEASE	SURVEY/SECTION
B.H.L.	1210 FSEL	1210 FSEL & 200 FSEL
P.P./F.T.P.	1210 FSEL	1210 FSEL & 100 FSEL
L.T.P.	1210 FSEL	1210 FSEL & 100 FSEL
B.H.L.	1210 FSEL	1210 FSEL & 50 FSEL

LEGEND:

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



John R. Anderson 7/12/2022
John R. Anderson, R.P.L.S. No. 6442



UL-20-29-F4
UL 20 GOLD SPOON #2905H
DATE: 07/11/2022
FILE: LO_UL_20_29_F4_GOLD_SPOON_#2905H
DRAWN BY: A.C.L./O.J.M.
SHEET: 1 OF 1

NOTES:

1. ORIGINAL DOCUMENT SIZE: 11"x17"
2. 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 1983, UNLESS OTHERWISE NOTED.
3. THIS LOCATION AND UNDERLYING 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 PERMAN OIL&GAS ENTERPRISES HOLDINGS, LLC. THIS PLAN 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.S.P.S. MINIMUM STANDARDS OF PRACTICES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND BELIEVED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAN AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.
4. ALL ELEVATION VALUES CONTAINED HEREIN ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAD 83) U.S. SURVEY FEET.
5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY PERMAN OIL&GAS ENTERPRISES HOLDINGS, LLC OR ITS SUBSIDIARIES AND AFFILIATES.

NOTES CONT'D:

6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF APRIL 18, 2022.
7. B.H.L. = SURFACE HOLE LOCATION
8. P.P. = POINT OF PENETRATOR
9. F.T.P. = FIRST TIEB POINT
10. L.T.P. = LAST TIEB POINT
11. B.H.L. = BOTTOM HOLE LOCATION

VES Bottom Hole Location is 9.41' @ 315.24° of Surface Location

MD / FT	1125'		1124.88'	TVD / FT
North / FT	South / FT		East / FT	West / FT
6.68'			6.62'	

OPERATOR: PDEH LLC

WELL LOCATION

LEASE NAME & WELL NO.:

UL 20 GOLD SPOON #2905H

LEASE ACREAGE:

640.700 ACRES (CALLED)

NEAREST TOWN IN COUNTY:

±16.0 MILES SOUTHEAST OF MENTONE, TEXAS

DESCRIPTION:

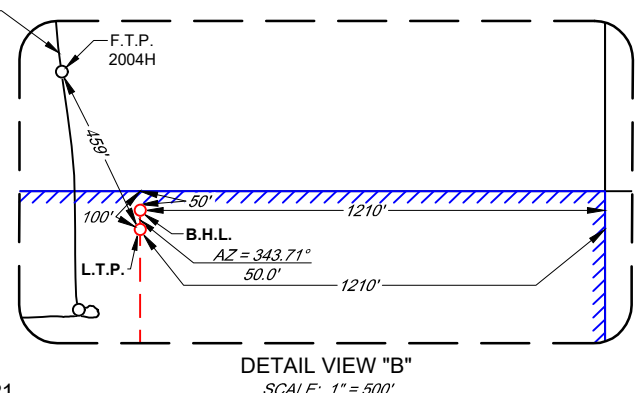
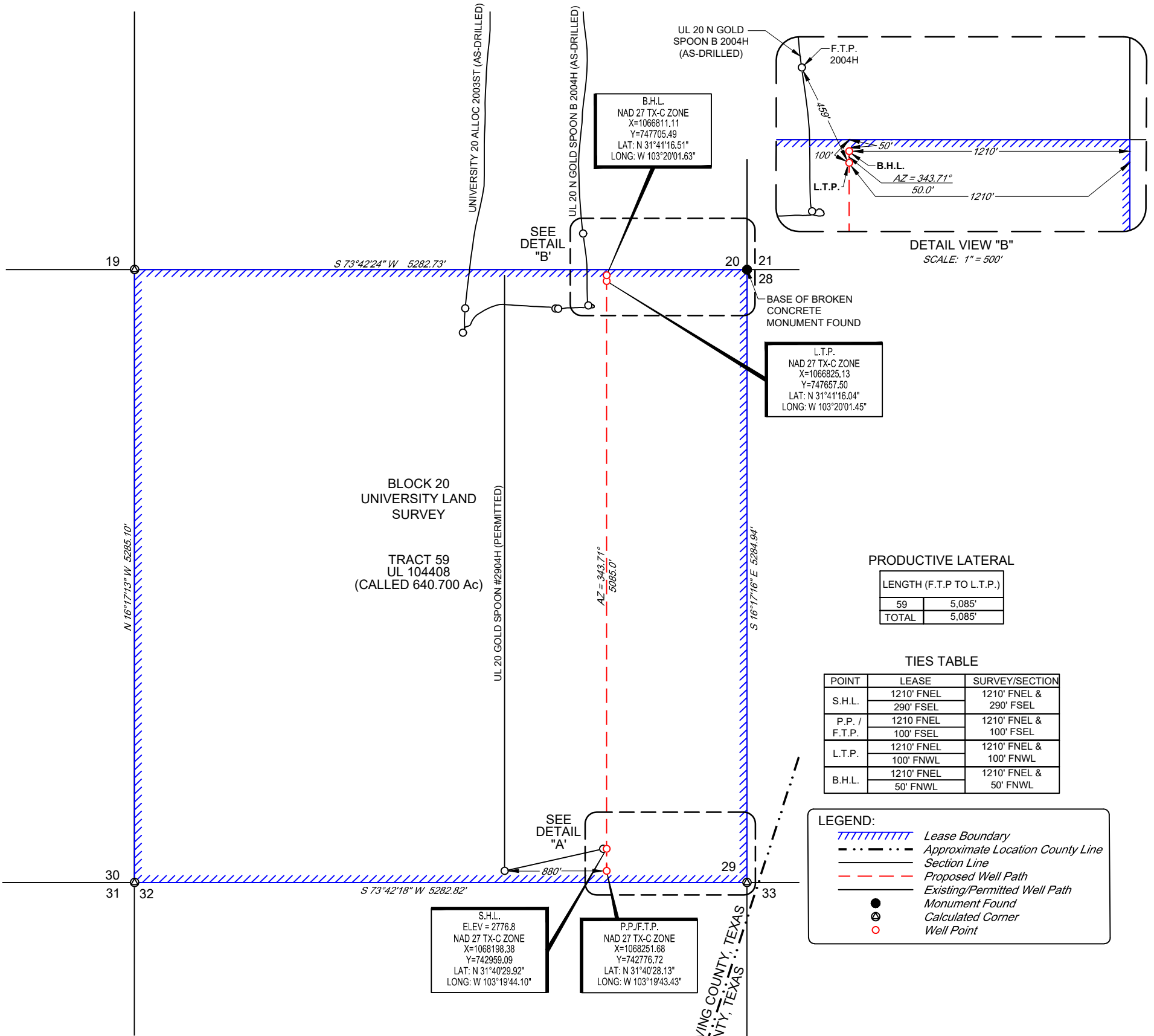
S.H.L./P.P./F.T.P.: SECTION 29, BLOCK 20, UNIVERSITY LAND SURVEY

L.T.P./B.H.L.: SECTION 29, BLOCK 20, UNIVERSITY LAND SURVEY

LOVING COUNTY, TEXAS



SCALE: 1" = 1000'
0' 500' 1000'



L.T.P.
NAD 27 TX-C ZONE
X=1066825.13
Y=747657.50
LAT: N 31°41'16.04"
LONG: W 103°20'01.45"

**BLOCK 20
UNIVERSITY LAND
SURVEY**

**TRACT 59
UL 104408
(CALLED 640.700 Ac)**

PRODUCTIVE LATERAL

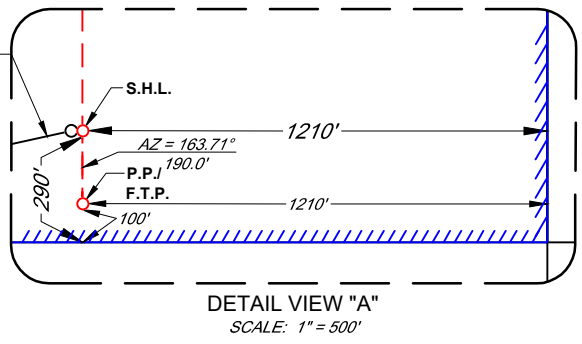
LENGTH (F.T.P. TO L.T.P.)	
59	5.085'
TOTAL	5.085'

TIES TABLE

POINT	LEASE	SURVEY/SECTION
S.H.L.	1210' FNEL	1210' FNEL & 290' FSEL
	290' FSEL	100' FSEL
P.P. / F.T.P.	1210' FNEL	1210' FNEL & 100' FSEL
	100' FSEL	100' FNWL
L.T.P.	1210' FNEL	1210' FNEL & 100' FNWL
	100' FNWL	1210' FNEL & 50' FNWL
B.H.L.	50' FNWL	

LEGEND:

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



S.H.L.
ELEV = 2776.8
NAD 27 TX-C ZONE
X=1068198.38
Y=742959.09
LAT: N 31°40'29.92"
LONG: W 103°19'44.10"

P.P./F.T.P.
NAD 27 TX-C ZONE
X=1068251.68
Y=742776.72
LAT: N 31°40'28.13"
LONG: W 103°19'43.43"



John R. Anderson 7/12/2022
John R. Anderson, R.P.L.S. No. 6442

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

UL-20-29-P4 UL 20 GOLD SPOON #2905H	REVISION:		NOTES:	NOTES CONT'D:
	INT	DATE		
DATE: 07/11/2022			<p>1. ORIGINAL DOCUMENT SIZE: 11" X 17"</p> <p>2. 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.</p> <p>3. 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 PERMIAN DELAWARE ENTERPRISES HOLDINGS, LLC. 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.</p> <p>4. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET.</p> <p>5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY PERMIAN DELAWARE ENTERPRISES HOLDINGS, LLC OR ITS SUBSIDIARIES & AFFILIATES.</p>	<p>6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF JUNE 18, 2022.</p> <p>7. S.H.L. = SURFACE HOLE LOCATION</p> <p>8. P.P. = POINT OF PENETRATION</p> <p>9. F.T.P. = FIRST TAKE POINT</p> <p>10. L.T.P. = LAST TAKE POINT</p> <p>11. B.H.L. = BOTTOM HOLE LOCATION</p>
FILE: LO_UL_20_29_P4_GOLD SPOON_#2905H				
DRAWN BY: A.C.L./O.M.				
SHEET: 1 OF 1				



Survey Certification Letter

November 30, 2022

State of Texas
County of Loving

I, Roger Dubose, certify that; I am employed by **Integrity Services, LLC**; that I did on the day(s) of through 11/04/2022 through 11/12/2022 conducted and / or supervised the MWD survey(s) taken from the depth of 120 feet to depth of 1189 feet; that the data is true, correct, complete and within the specifications and limitations of the survey tool provided by **Integrity Services, LLC**; that I am authorized and qualified to make this survey report; that was requested by **Conoco Phillips** for the surveys performed on the **UL 20 Gold Spoon 2905H**, API No. **42-301-36073**. In **Loving** County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures set forth by **Integrity Services, LLC**.

Roger Dubose

Roger Dubose
Directional Manager
P.O. Box 5989 | Midland, TX 79704
Office: 432-661-6075
roger.dubose@integrity-serv.com