

Kingsley Directional LLC



**Rail Road Commission Of Texas
Attn: Oil Conservation Division
PO Box 12967
Austin, TX 78711**

**Re Continental Resources, INC
UTL War University 2324K #2211H
Phantom (Wolfcamp)
Ward County, Texas
API# 42-475-38416**

7/13/2022

Enclosed please find a copy of the survey performed on the reference well by Kingsley Directional LLC
Other information required by your office is as followed:

<u>Name</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Survey Type</u>
Val Ionkin	Original Hole	129' to 1,453'	07/08/2022 - 07/09/2022	MWD Survey


Amber Sewell

**Kingsley Directional LLC
RRC Operator # 467192**

Enclosures

CC:

**Continental Resources, INC
ATTN: Robert Sandbo
PO Box 268870
Oklahoma City, OK 73126**

**Kingsley Directional LLC
8812 Fawn Trl
Conroe, TX 77385
(936) 224 - 7975**

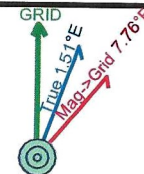


Job Number: KD221208
Company: Continental Resources, INC
Lease/Well: UTL War University 2324K #2211H
Location: 10.3 Miles NW direction from Pyote
Rig Name: Transcend Rig 12
State/County: Texas/ Ward
Country: USA
API Number: 42-475-38416

Elev. GL: 2820.00 ft **RKB:** 13.00 ft
System: US State Plane 1927 (Exact solution)
Group: Texas Central 4203
Datum: CLARKE 1866
Mag. Decl.: 6.25° (C:\HawkEye\IGRF2020.mif)
Grid Conv.: -1.51420 W
Date: Tuesday, July 12, 2022

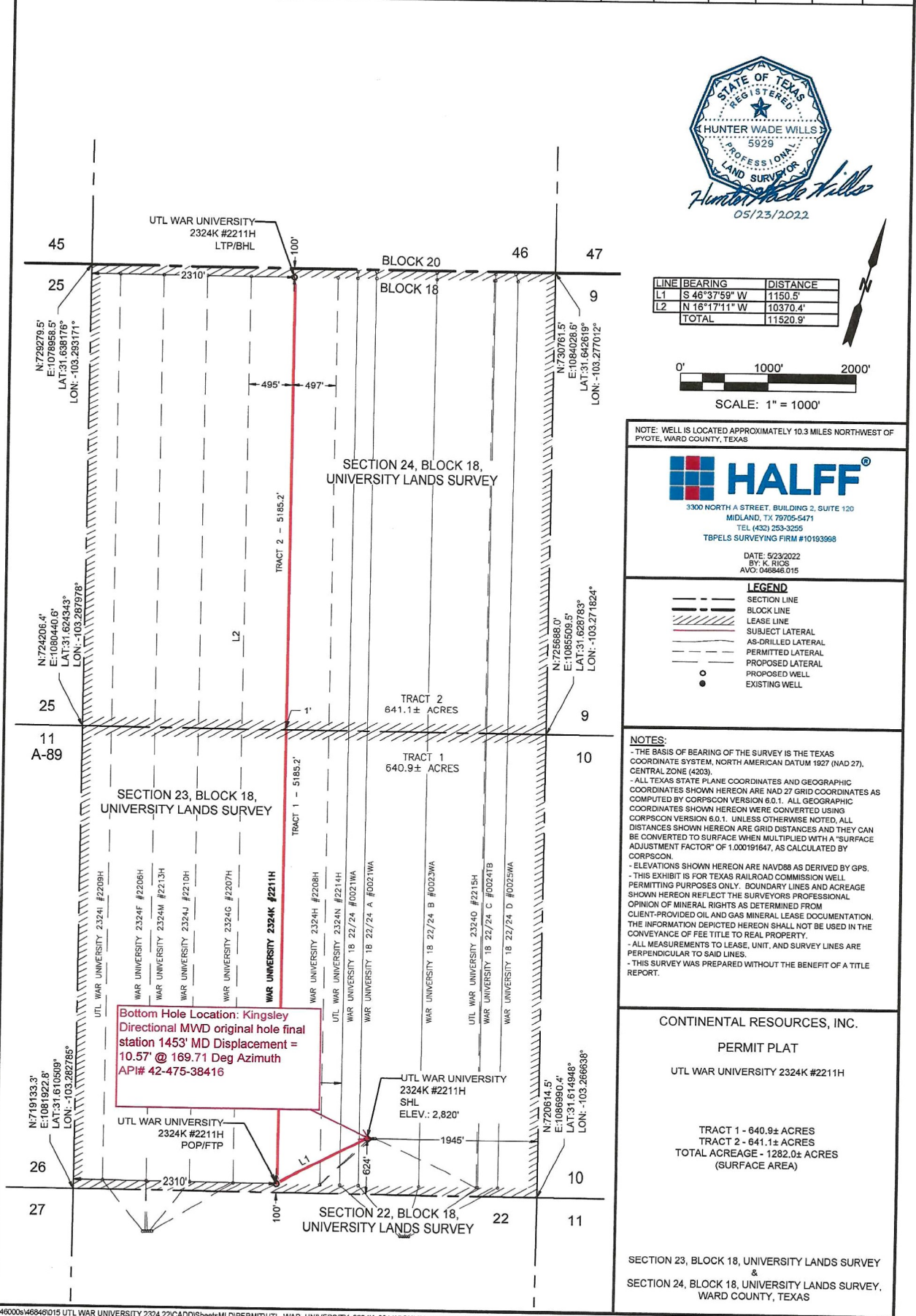


Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 0.00°
Northing (US ft): 720667.40 Easting (US ft): 1084948.40
Latitude: 31°36'53.8020" N Longitude: -103°16'23.5198" W
Direction Reference: Grid North



#	Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Closure Dir Deg	Closure (Ft)
Tie-In Data									
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	129.00	0.40	173.90	129.00	-0.45	-0.45	0.05	173.90	0.45
3	249.00	0.50	258.40	249.00	-0.97	-0.97	-0.42	203.45	1.06
4	376.00	0.30	222.00	375.99	-1.33	-1.33	-1.19	221.76	1.78
5	501.00	0.30	212.00	500.99	-1.85	-1.85	-1.58	220.49	2.43
6	628.00	0.10	331.70	627.99	-2.03	-2.03	-1.81	221.63	2.72
7	750.00	0.30	208.90	749.99	-2.22	-2.22	-2.01	222.20	3.00
8	874.00	0.80	189.50	873.98	-3.36	-3.36	-2.31	214.55	4.08
9	1000.00	1.40	167.20	999.96	-5.73	-5.73	-2.12	200.28	6.10
10	1126.00	0.90	150.00	1125.94	-8.08	-8.08	-1.28	189.00	8.18
11	1252.00	0.70	126.40	1251.92	-9.40	-9.40	-0.17	181.01	9.40
12	1378.00	0.60	120.10	1377.92	-10.18	-10.18	1.02	174.26	10.24
13	1453.00	0.80	92.10	1452.91	-10.40	-10.40	1.89	169.71	10.57
TD Projection to BIT									
14	1523.00	0.80	92.10	1522.90	-10.44	-10.44	2.86	164.65	10.82

UTL WAR UNIVERSITY 2324K #2211H	EASTING (X)	NORTHING (Y)	LATITUDE	LONGITUDE	SECTION LINE		SECTION LINE		LEASE LINE		LEASE LINE		SECTION
					FOOTAGE	FNU/FSL	FOOTAGE	FEL/FWL	FOOTAGE	FNU/FSL	FOOTAGE	FEL/FWL	
SURFACE HOLE LOCATION (SHL)	1084948.4	720667.4	31.614945	-103.273200	624'	FSL	1945'	FEL	624'	FSL	1945'	FEL	23
POINT OF PENETRATION/FIRST TAKE POINT (POP/FTP)	1084112.0	719877.3	31.612713	-103.275819	100'	FSL	2310'	FWL	100'	FSL	2310'	FWL	23
LAST TAKE POINT/BOTTOM HOLE LOCATION (LTP/BHL)	1081203.7	729831.6	31.639858	-103.286006	100'	FNL	2310'	FWL	100'	FNL	2310'	FWL	24





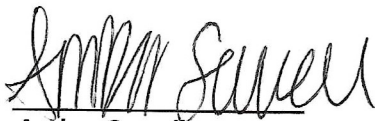
Survey Certification Report

STATE OF TEXAS

7/13/2022

COUNTY OF MONTGOMERY

I, Amber Sewell, certify that I am employed by Kingsley Directional LLC, and that I did on the day(s) of July 08, 2022 through July 09, 2022 conduct or supervise the taking of a MWD Survey from the depth of 129 feet MD. to a depth of 1,453 feet MD.; that the data is true, complete, and within the limitations set forth by Kingsley Directional, LLC, that I am authorized and qualified to make this report; that this survey was conducted at the request of Continental Resources, INC for the UTL War University 2324K #2211H well.
API# 42-475-38416


Amber Sewell

Kingsley Directional LLC
RRC Operator # 467192

Rail Road Commission Of Texas
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Continental Resources, INC
UTL War University 2324K #2211H
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Ward County, Texas
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Kingsley Directional LLC
8812 Fawn Trl
Conroe, TX 77385
(936) 224 - 7975



Directional Survey Report

Company Name: CONTINENTAL

Well Name: UTL WAR UNIVERSITY 2324K 2211H

Field: PHANTOM WOLFCAMP

Rig ID: SCAN DISCOVERER

Survey Company: LEGACY DIRECTIONAL

Job Number: MD220221

Survey Calc: Minimum Curvature

State/Prov: TEXAS

County: WARD

Location: UTL WAR UNIVERSITY

API/UWI: 42475384160000

MWD Operators: John Plourde

Derrick Reynolds

Latitude: 31.61499

Longitude: -103.27301

Y (Northing): 720684.2

X (Easting): 108006.00

Datum: NAD 1927

Permanent Datum: Mean Sea Level

Depth Reference: Rotary Table

Proposed Azimuth: 343.71

Total Correction: 7.75

North Reference: Grid North

Mag Declination: 6.24

RKB: 2847.0

Ground Elevation: 2820

Report Date: 28Sep2022

Survey	Depth	Inc	Azm	TVD	N/S	E/W	Vertical Section	DLS	Course Length	Closure Distance	Closure Direction	Temp
Tie In	1453	0.80	92.10	1452.91	-10.40	1.89	-10.51	0.00	0	10.57	169.70	0.0
1	1600	2.54	167.73	1599.85	-13.62	3.61	-14.09	1.68	147	14.09	165.16	96.8
2	1695	2.59	195.06	1694.76	-17.75	3.50	-18.02	1.28	95	18.10	168.86	100.4
3	1790	3.46	217.50	1789.63	-22.10	1.20	-21.55	1.53	95	22.13	176.90	96.8
4	1884	4.74	235.12	1883.39	-26.57	-3.72	-24.46	1.90	94	26.83	187.96	102.2
5	1979	7.45	247.83	1977.85	-31.14	-12.64	-26.34	3.17	95	33.60	202.09	104.0
6	2073	9.35	251.16	2070.84	-35.90	-25.51	-27.31	2.09	94	44.04	215.39	107.6
7	2168	12.57	247.17	2164.10	-42.41	-42.35	-28.83	3.47	95	59.93	224.96	109.4
8	2262	13.71	246.98	2255.63	-50.73	-62.02	-31.30	1.22	94	80.13	230.72	109.4
9	2357	13.68	242.68	2347.94	-60.29	-82.36	-34.76	1.07	95	102.07	233.80	111.2
10	2452	13.18	238.21	2440.34	-71.15	-101.55	-39.81	1.21	95	124.00	234.98	111.2
11	2546	12.12	234.84	2532.06	-82.48	-118.73	-45.86	1.37	94	144.57	235.21	102.2
12	2641	11.75	227.72	2625.01	-94.73	-134.05	-53.33	1.60	95	164.14	234.75	105.8
13	2735	10.60	226.52	2717.22	-107.12	-147.40	-61.47	1.25	94	182.21	233.99	107.6
14	2830	10.83	227.69	2810.57	-119.14	-160.34	-69.38	0.33	95	199.76	233.39	111.2
15	2924	10.82	229.73	2902.90	-130.78	-173.60	-76.84	0.41	94	217.35	233.01	113.0
16	3019	10.89	229.60	2996.20	-142.36	-187.24	-84.13	0.08	95	235.21	232.75	114.8
17	3113	10.93	228.72	3088.50	-153.99	-200.70	-91.52	0.18	94	252.97	232.50	116.6
18	3208	10.80	226.74	3181.80	-166.04	-213.95	-99.36	0.41	95	270.82	232.19	118.4
19	3303	11.29	222.89	3275.04	-178.95	-226.76	-108.16	0.93	95	288.87	231.72	120.2
20	3397	11.07	224.60	3367.25	-192.12	-239.36	-117.27	0.42	94	306.93	231.25	120.2
21	3492	11.10	225.28	3460.48	-205.06	-252.27	-126.06	0.14	95	325.09	230.89	122.0
22	3586	11.12	224.28	3552.72	-217.91	-265.03	-134.82	0.21	94	343.11	230.57	111.2
23	3681	9.98	222.02	3646.11	-230.59	-276.93	-143.65	1.27	95	360.37	230.22	111.2
24	3775	9.71	223.53	3738.72	-242.39	-287.85	-151.92	0.40	94	376.31	229.90	111.2
25	3870	9.36	225.49	3832.41	-253.62	-298.88	-159.60	0.50	95	391.99	229.68	114.8
26	3964	9.35	218.62	3925.16	-264.94	-309.10	-167.61	1.19	94	407.11	229.40	116.6
27	4059	10.59	209.63	4018.73	-278.56	-318.23	-178.11	2.09	95	422.92	228.80	118.4
28	4153	12.35	211.14	4110.85	-294.67	-327.70	-190.92	1.90	94	440.70	228.04	120.2

Survey	Depth	Inc	Azm	TVD	N/S	E/W	Vertical Section	DLS	Course Length	Closure Distance	Closure Direction	Temp
29	4248	10.36	209.02	4203.99	-310.83	-337.09	-203.80	2.14	95	458.53	227.32	122.0
30	4342	9.55	210.74	4296.57	-324.93	-345.18	-215.06	0.91	94	474.06	226.73	123.8
31	4436	10.84	217.98	4389.09	-338.61	-354.61	-225.54	1.93	94	490.31	226.32	125.6
32	4531	10.78	220.53	4482.40	-352.40	-365.89	-235.63	0.51	95	508.00	226.08	118.4
33	4626	11.69	223.28	4575.58	-366.17	-378.26	-245.37	1.11	95	526.46	225.93	118.4
34	4720	11.24	219.83	4667.71	-380.14	-390.66	-255.30	0.88	94	545.09	225.78	122.0
35	4814	11.42	223.42	4759.88	-393.94	-402.93	-265.10	0.77	94	563.50	225.65	123.8
36	4908	10.99	222.36	4852.08	-407.32	-415.36	-274.46	0.50	94	581.75	225.56	125.6
37	5003	11.57	226.89	4945.25	-420.52	-428.42	-283.47	1.11	95	600.32	225.53	125.6
38	5098	10.87	229.22	5038.44	-432.88	-442.15	-291.48	0.87	95	618.78	225.61	127.4
39	5192	11.09	233.37	5130.72	-444.06	-456.12	-298.29	0.87	94	636.58	225.77	127.4
40	5287	11.45	233.82	5223.88	-455.08	-471.07	-304.68	0.39	95	654.98	225.99	129.2
41	5381	15.84	233.44	5315.21	-468.24	-488.91	-312.30	4.67	94	676.96	226.24	129.2
42	5476	16.91	234.10	5406.35	-484.06	-510.52	-321.43	1.14	95	703.52	226.52	122.0
43	5570	16.45	234.34	5496.40	-499.84	-532.40	-330.43	0.49	94	730.26	226.81	123.8
44	5665	14.55	233.57	5587.94	-514.77	-552.93	-339.00	2.01	95	755.46	227.05	123.8
45	5759	14.21	231.89	5678.99	-528.90	-571.51	-347.36	0.57	94	778.69	227.22	125.6
46	5854	13.34	231.83	5771.26	-542.87	-589.30	-355.78	0.92	95	801.24	227.35	127.4
47	5948	12.87	232.31	5862.81	-555.97	-606.11	-363.63	0.51	94	822.48	227.47	127.4
48	6043	11.78	232.82	5955.62	-568.30	-622.21	-370.95	1.15	95	842.68	227.59	129.2
49	6137	10.45	232.10	6047.86	-579.33	-636.58	-377.51	1.42	94	860.73	227.70	129.2
50	6232	10.11	231.47	6141.33	-589.82	-649.91	-383.85	0.37	95	877.65	227.77	129.2
51	6327	9.49	231.74	6234.94	-599.87	-662.58	-389.93	0.66	95	893.79	227.84	131.0
52	6421	9.01	231.51	6327.72	-609.25	-674.42	-395.61	0.51	94	908.86	227.91	129.2
53	6516	9.19	230.06	6421.53	-618.74	-686.06	-401.47	0.31	95	923.86	227.95	125.6
54	6610	10.51	221.38	6514.14	-630.00	-697.49	-409.06	2.11	94	939.89	227.91	123.8
55	6705	10.68	221.64	6607.52	-643.08	-709.06	-418.37	0.18	95	957.25	227.79	120.2
56	6799	11.27	222.93	6699.81	-656.31	-721.11	-427.70	0.68	94	975.06	227.69	122.0
57	6894	10.88	220.66	6793.04	-669.91	-733.27	-437.33	0.61	95	993.21	227.59	122.0
58	6988	10.42	218.54	6885.42	-683.29	-744.35	-447.07	0.64	94	1010.42	227.45	122.0
59	7083	9.90	217.03	6978.93	-696.53	-754.62	-456.90	0.61	95	1026.94	227.29	122.0
60	7177	9.11	215.52	7071.64	-709.04	-763.81	-466.33	0.89	94	1042.18	227.13	122.0
61	7271	8.37	215.59	7164.54	-720.65	-772.11	-475.15	0.78	94	1056.17	226.97	123.8
62	7365	7.93	214.46	7257.60	-731.57	-779.76	-483.47	0.49	94	1069.21	226.83	122.0
63	7460	7.56	213.37	7351.73	-742.19	-786.91	-491.67	0.42	95	1081.70	226.68	123.8
64	7554	5.88	210.94	7445.08	-751.48	-792.78	-498.94	1.81	94	1092.35	226.53	123.8
65	7648	5.63	208.68	7538.61	-759.65	-797.47	-505.47	0.36	94	1101.38	226.39	122.0
66	7742	4.25	201.45	7632.26	-766.94	-800.96	-511.48	1.61	94	1108.93	226.24	122.0
67	7837	3.77	187.32	7727.03	-773.31	-802.64	-517.12	1.15	95	1114.56	226.07	123.8
68	7931	3.47	195.76	7820.84	-779.11	-803.81	-522.36	0.65	94	1119.42	225.89	122.0
69	8026	2.71	192.96	7915.70	-784.06	-805.09	-526.76	0.81	95	1123.80	225.76	123.8

Survey	Depth	Inc	Azm	TVD	N/S	E/W	Vertical Section	DLS	Course Length	Closure Distance	Closure Direction	Temp
70	8121	2.10	190.33	8010.62	-787.97	-805.91	-530.28	0.65	95	1127.11	225.64	123.8
71	8216	1.83	191.74	8105.56	-791.17	-806.53	-533.18	0.29	95	1129.79	225.55	123.8
72	8310	1.66	188.63	8199.52	-793.98	-807.04	-535.73	0.21	94	1132.13	225.47	125.6
73	8405	1.37	175.57	8294.48	-796.47	-807.16	-538.09	0.47	95	1133.96	225.38	125.6
74	8500	1.38	168.03	8389.46	-798.72	-806.83	-540.34	0.19	95	1135.31	225.29	127.4
75	8594	1.23	161.94	8483.43	-800.80	-806.28	-542.49	0.22	94	1136.38	225.20	127.4
76	8689	1.11	159.51	8578.41	-802.63	-805.64	-544.43	0.14	95	1137.22	225.11	127.4
77	8784	0.78	170.85	8673.40	-804.13	-805.22	-545.99	0.40	95	1137.98	225.04	127.4
78	8879	0.53	189.70	8768.39	-805.21	-805.19	-547.03	0.34	95	1138.72	225.00	127.4
79	8973	0.16	287.97	8862.39	-805.60	-805.39	-547.35	0.62	94	1139.14	224.99	129.2
80	9068	0.45	351.13	8957.39	-805.19	-805.57	-546.91	0.42	95	1138.98	225.01	129.2
81	9162	0.02	11.72	9051.39	-804.82	-805.62	-546.53	0.45	94	1138.75	225.03	131.0
82	9257	1.34	202.72	9146.38	-805.82	-806.05	-547.38	1.43	95	1139.76	225.01	131.0
83	9351	1.17	196.55	9240.36	-807.75	-806.74	-549.04	0.23	94	1141.62	224.96	131.0
84	9446	1.59	169.22	9335.33	-809.98	-806.77	-551.16	0.81	95	1143.22	224.89	132.8
85	9541	2.91	152.75	9430.26	-813.41	-805.42	-554.84	1.53	95	1144.70	224.72	132.8
86	9636	2.72	166.95	9525.14	-817.75	-803.81	-559.45	0.76	95	1146.66	224.51	129.2
87	9730	1.12	148.03	9619.09	-820.71	-802.82	-562.57	1.81	94	1148.08	224.37	132.8
88	9825	1.16	141.62	9714.07	-822.25	-801.73	-564.36	0.14	95	1148.42	224.28	136.4
89	9919	1.73	151.59	9808.04	-824.25	-800.46	-566.63	0.66	94	1148.96	224.16	138.2
90	10013	1.52	155.77	9902.00	-826.63	-799.27	-569.25	0.25	94	1149.85	224.04	131.0
91	10107	0.14	175.12	9995.99	-827.89	-798.75	-570.61	1.48	94	1150.39	223.97	134.6
92	10202	0.87	5.52	10090.99	-827.29	-798.67	-570.05	1.07	95	1149.91	223.99	132.8
93	10296	1.40	10.09	10184.97	-825.45	-798.40	-568.36	0.57	94	1148.40	224.05	132.8
94	10390	1.07	25.99	10278.95	-823.53	-797.82	-566.69	0.50	94	1146.61	224.09	136.4
95	10485	1.88	77.27	10373.92	-822.39	-795.91	-566.13	1.55	95	1144.46	224.06	136.4
96	10579	3.61	95.43	10467.81	-822.33	-791.46	-567.32	2.03	94	1141.33	223.90	136.4
97	10674	3.66	87.11	10562.62	-822.46	-785.46	-569.12	0.56	95	1137.27	223.68	138.2
98	10768	3.22	93.82	10656.45	-822.49	-779.83	-570.72	0.64	94	1133.41	223.48	140.0
99	10863	3.37	94.17	10751.29	-822.87	-774.39	-572.62	0.16	95	1129.95	223.26	138.2
100	10958	2.48	99.59	10846.17	-823.41	-769.58	-574.49	0.98	95	1127.06	223.06	141.8
101	11052	1.60	52.70	10940.11	-822.95	-766.53	-574.90	1.93	94	1124.64	222.97	138.2
102	11147	1.53	50.29	11035.08	-821.34	-764.50	-573.93	0.10	95	1122.08	222.95	140.0
103	11176	0.75	71.27	11064.07	-821.03	-764.03	-573.76	3.00	29	1121.53	222.94	141.8
104	11271	0.63	88.33	11159.06	-820.82	-762.91	-573.87	0.25	95	1120.62	222.91	138.2
105	11318	1.24	350.66	11206.06	-820.31	-762.74	-573.43	3.12	47	1120.12	222.92	140.0
106	11366	7.95	343.21	11253.88	-816.61	-763.78	-569.59	14.01	48	1118.13	223.09	140.0
107	11460	25.33	347.79	11343.60	-790.54	-769.96	-542.83	18.52	94	1103.53	224.24	143.6
108	11554	38.85	350.85	11423.06	-741.55	-778.94	-493.29	14.48	94	1075.48	226.41	147.2
109	11648	54.32	345.85	11487.49	-675.00	-793.06	-425.45	16.90	94	1041.43	229.60	149.0
110	11742	59.48	343.13	11538.81	-599.17	-814.17	-346.75	6.00	94	1010.88	233.65	152.6

Survey	Depth	Inc	Azm	TVD	N/S	E/W	Vertical Section	DLS	Course Length	Closure Distance	Closure Direction	Temp
111	11836	65.64	342.75	11582.10	-519.46	-838.64	-263.37	6.56	94	986.49	238.23	152.6
112	11930	73.95	342.42	11614.55	-435.37	-865.03	-175.25	8.85	94	968.41	243.28	152.6
113	12025	87.46	341.50	11629.85	-346.44	-894.01	-81.76	14.26	95	958.79	248.82	156.2
114	12119	90.18	341.64	11631.78	-257.29	-923.73	12.15	2.89	94	958.89	254.44	158.0
115	12213	88.98	340.03	11632.47	-168.50	-954.58	106.02	2.14	94	969.34	259.99	154.4
116	12307	89.54	335.37	11633.69	-81.56	-990.23	199.47	5.00	94	993.59	265.29	159.8
117	12401	89.71	331.67	11634.31	2.56	-1032.14	291.97	3.94	94	1032.14	270.14	161.6
118	12495	87.69	331.95	11636.45	85.38	-1076.53	383.92	2.17	94	1079.91	274.53	163.4
119	12564	91.02	334.73	11637.23	147.03	-1107.48	451.77	6.30	69	1117.20	277.56	154.4
120	12658	89.09	335.19	11637.13	232.19	-1147.26	544.68	2.11	94	1170.52	281.44	158.0
121	12752	89.54	340.35	11638.26	319.17	-1182.81	638.13	5.51	94	1225.11	285.10	159.8
122	12846	90.66	344.79	11638.10	408.83	-1210.96	732.09	4.87	94	1278.11	288.66	159.8
123	12940	90.69	351.17	11637.00	500.71	-1230.52	825.77	6.79	94	1328.50	292.14	163.4
124	13034	90.91	351.98	11635.69	593.69	-1244.29	918.88	0.89	94	1378.67	295.51	165.2
125	13129	90.07	347.66	11634.87	687.17	-1261.07	1013.31	4.63	95	1436.14	298.59	163.4
126	13223	89.62	347.53	11635.13	778.97	-1281.27	1107.10	0.50	94	1499.48	301.30	167.0
127	13317	89.26	343.84	11636.05	870.03	-1304.51	1201.02	3.94	94	1568.03	303.70	159.8
128	13412	89.37	338.49	11637.19	959.91	-1335.17	1295.88	5.63	95	1644.42	305.71	163.4
129	13506	89.90	346.44	11637.78	1049.46	-1363.48	1389.78	8.48	94	1720.59	307.59	168.8
130	13600	88.44	344.82	11639.14	1140.50	-1386.81	1483.72	2.32	94	1795.55	309.43	170.6
131	13695	91.14	347.75	11639.49	1232.78	-1409.33	1578.60	4.19	95	1872.42	311.18	172.4
132	13789	88.70	342.79	11639.62	1323.65	-1433.22	1672.53	5.88	94	1950.94	312.72	172.4
133	13884	88.72	341.43	11641.76	1414.03	-1462.39	1767.47	1.43	95	2034.23	314.04	174.2
134	13979	89.85	342.36	11642.95	1504.32	-1491.91	1862.41	1.53	95	2118.67	315.24	176.0
135	14073	90.07	341.95	11643.02	1593.80	-1520.72	1956.37	0.49	94	2202.90	316.34	176.0
136	14167	88.87	339.28	11643.89	1682.46	-1551.91	2050.22	3.12	94	2288.90	317.31	179.6
137	14262	90.77	344.81	11644.19	1772.79	-1581.19	2145.14	6.15	95	2375.49	318.27	168.8
138	14356	89.99	342.94	11643.57	1863.08	-1607.29	2239.13	2.15	94	2460.58	319.22	174.2
139	14451	90.74	346.56	11642.97	1954.72	-1632.28	2334.10	3.89	95	2546.62	320.14	176.0
140	14546	90.49	346.46	11641.94	2047.09	-1654.44	2428.98	0.29	95	2632.06	321.06	179.6
141	14641	90.71	349.99	11640.94	2140.07	-1673.82	2523.66	3.72	95	2716.91	321.97	177.8
142	14735	91.81	355.46	11638.87	2233.26	-1685.72	2616.44	5.93	94	2798.05	322.95	176.0
143	14829	89.48	352.15	11637.81	2326.68	-1695.86	2708.96	4.31	94	2879.13	323.91	177.8
144	14923	88.02	347.98	11639.86	2419.23	-1712.07	2802.34	4.69	94	2963.76	324.71	170.6
145	15018	87.29	344.96	11643.74	2511.51	-1734.27	2897.14	3.27	95	3052.11	325.37	177.8
146	15112	86.11	341.58	11649.15	2601.36	-1761.28	2990.97	3.80	94	3141.53	325.90	179.6
147	15207	87.58	341.63	11654.38	2691.37	-1791.20	3085.76	1.54	95	3232.94	326.35	181.4
148	15301	86.65	339.89	11659.12	2780.00	-1822.14	3179.51	2.10	94	3323.94	326.76	181.4
149	15396	89.40	338.44	11662.39	2868.73	-1855.90	3274.14	3.27	95	3416.72	327.10	181.4
150	15490	89.59	335.24	11663.22	2955.14	-1892.86	3367.45	3.41	94	3509.38	327.36	183.2
151	15584	88.03	334.06	11665.17	3040.07	-1933.10	3460.25	2.09	94	3602.62	327.55	181.4

Survey	Depth	Inc	Azm	TVD	N/S	E/W	Vertical Section	DLS	Course Length	Closure Distance	Closure Direction	Temp
152	15679	89.29	334.43	11667.40	3125.61	-1974.36	3553.93	1.38	95	3696.96	327.72	179.6
153	15773	88.98	334.29	11668.83	3210.34	-2015.03	3646.67	0.36	94	3790.33	327.88	176.0
154	15868	89.20	334.48	11670.34	3295.99	-2056.10	3740.41	0.31	95	3884.73	328.04	174.2
155	15962	88.11	337.02	11672.55	3381.67	-2094.69	3833.47	2.94	94	3977.86	328.22	174.2
156	16057	90.04	342.60	11674.08	3470.78	-2127.45	3928.19	6.22	95	4070.92	328.49	172.4
157	16152	88.30	343.26	11675.45	3561.58	-2155.33	4023.17	1.96	95	4162.97	328.82	177.8
158	16246	90.49	346.43	11676.44	3652.29	-2179.90	4117.13	4.10	94	4253.38	329.17	177.8
159	16340	88.33	343.99	11677.41	3743.16	-2203.89	4211.08	3.46	94	4343.78	329.51	179.6
160	16435	90.55	351.22	11678.34	3835.87	-2224.26	4305.78	7.96	95	4434.10	329.89	179.6
161	16529	90.43	350.39	11677.54	3928.66	-2239.28	4399.06	0.89	94	4522.03	330.32	179.6
162	16624	90.52	348.71	11676.75	4022.08	-2256.52	4493.56	1.77	95	4611.83	330.71	179.6
163	16718	85.30	342.99	11680.18	4113.10	-2279.46	4587.36	8.23	94	4702.50	331.01	181.4
164	16813	86.31	342.18	11687.13	4203.50	-2307.81	4682.09	1.37	95	4795.35	331.23	177.8
165	16907	91.44	342.98	11688.96	4293.14	-2335.94	4776.02	5.52	94	4887.50	331.45	179.6
166	17001	90.94	342.33	11687.01	4382.84	-2363.96	4869.98	0.87	94	4979.72	331.66	179.6
167	17096	86.98	339.84	11688.73	4472.67	-2394.74	4964.84	4.92	95	5073.42	331.83	174.2
168	17191	85.84	343.16	11694.68	4562.58	-2424.82	5059.57	3.69	95	5166.90	332.01	179.6
169	17285	88.87	344.52	11699.02	4652.75	-2450.95	5153.45	3.53	94	5258.83	332.22	179.6
170	17380	88.61	342.99	11701.11	4743.93	-2477.52	5248.43	1.63	95	5351.92	332.42	176.0
171	17474	88.92	339.26	11703.14	4832.84	-2507.92	5342.29	3.97	94	5444.82	332.57	177.8
172	17569	89.03	336.79	11704.83	4920.92	-2543.46	5436.80	2.60	95	5539.37	332.67	181.4
173	17663	90.57	337.53	11705.15	5007.55	-2579.94	5530.19	1.81	94	5633.08	332.74	174.2
174	17757	88.03	337.57	11706.30	5094.41	-2615.84	5623.63	2.71	94	5726.74	332.82	177.8
175	17850	88.81	339.02	11708.87	5180.78	-2650.22	5716.18	1.77	93	5819.29	332.91	176.0
176	17944	87.69	341.27	11711.75	5269.14	-2682.13	5809.94	2.68	94	5912.50	333.02	174.2
177	18038	89.34	346.42	11714.18	5359.37	-2708.26	5903.88	5.75	94	6004.79	333.19	172.4
178	18133	88.19	345.49	11716.23	5451.50	-2731.31	5998.78	1.56	95	6097.45	333.39	170.6
179	18227	92.85	346.76	11715.38	5542.73	-2753.84	6092.66	5.14	94	6189.14	333.58	177.8
180	18322	92.98	346.18	11710.54	5634.97	-2776.04	6187.43	0.63	95	6281.67	333.77	183.2
181	18417	93.10	346.32	11705.50	5727.12	-2798.60	6282.20	0.19	95	6374.33	333.96	185.0
182	18511	92.74	345.66	11700.72	5818.20	-2821.33	6376.01	0.79	94	6466.17	334.13	185.0
183	18606	91.89	345.76	11696.89	5910.19	-2844.76	6470.87	0.90	95	6559.19	334.30	186.8
184	18700	91.86	344.59	11693.81	6001.01	-2868.79	6564.79	1.24	94	6651.47	334.45	188.6
185	18795	92.01	345.14	11690.60	6092.66	-2893.58	6659.71	0.59	95	6744.87	334.60	185.0
186	18890	87.77	341.86	11690.79	6183.71	-2920.56	6754.68	5.64	95	6838.71	334.72	181.4
187	18984	87.77	340.95	11694.44	6272.74	-2950.52	6848.53	0.97	94	6932.01	334.81	183.2
188	19079	88.00	341.42	11697.95	6362.60	-2981.14	6943.37	0.55	95	7026.37	334.90	181.4
189	19173	89.90	342.81	11699.68	6452.04	-3009.99	7037.31	2.51	94	7119.61	334.99	188.6
190	19267	87.44	339.13	11701.86	6540.85	-3040.62	7131.16	4.71	94	7213.05	335.07	183.2
191	19362	89.15	341.32	11704.69	6630.21	-3072.74	7225.93	2.92	95	7307.62	335.13	181.4
192	19456	87.94	342.65	11707.08	6719.57	-3101.79	7319.85	1.91	94	7400.93	335.22	185.0

Survey	Depth	Inc	Azm	TVD	N/S	E/W	Vertical Section	DLS	Course Length	Closure Distance	Closure Direction	Temp
193	19550	90.94	344.58	11708.00	6809.73	-3128.30	7413.84	3.79	94	7493.91	335.33	179.6
194	19644	87.44	345.07	11709.33	6900.43	-3152.91	7507.79	3.76	94	7586.61	335.44	186.8
195	19738	90.35	345.62	11711.15	6991.34	-3176.68	7601.73	3.15	94	7679.20	335.56	181.4
196	19833	88.08	344.27	11712.45	7083.06	-3201.35	7696.69	2.78	95	7772.93	335.68	186.8
197	19928	89.03	345.37	11714.84	7174.72	-3226.22	7791.64	1.53	95	7866.71	335.79	183.2
198	20022	90.01	351.98	11715.62	7266.83	-3244.67	7885.23	7.10	94	7958.31	335.94	181.4
199	20117	88.75	346.79	11716.64	7360.17	-3262.17	7979.72	5.62	95	8050.70	336.10	188.6
200	20211	88.67	344.46	11718.76	7451.19	-3285.50	8073.64	2.47	94	8143.39	336.21	190.4
201	20306	89.12	337.11	11720.60	7540.83	-3316.73	8168.43	7.75	95	8238.01	336.26	183.2
202	20400	88.19	336.80	11722.81	7627.30	-3353.52	8261.76	1.04	94	8331.97	336.27	185.0
203	20473	88.22	335.47	11725.09	7694.02	-3383.04	8334.08	1.83	73	8404.94	336.27	177.8
204	20567	89.09	331.09	11727.30	7777.94	-3425.29	8426.48	4.75	94	8498.76	336.23	172.4
205	20661	92.12	338.50	11726.31	7862.91	-3465.29	8519.26	8.51	94	8592.65	336.22	181.4
206	20756	91.61	340.37	11723.22	7951.81	-3498.64	8613.94	2.04	95	8687.45	336.25	181.4
207	20850	92.03	343.26	11720.23	8041.06	-3527.96	8707.83	3.11	94	8780.95	336.31	177.8
208	20944	92.82	348.02	11716.25	8132.01	-3551.25	8801.67	5.12	94	8873.61	336.41	181.4
209	21038	92.23	348.67	11712.12	8223.98	-3570.22	8895.27	0.93	94	8965.51	336.53	185.0
210	21132	91.47	348.72	11709.08	8316.11	-3588.64	8988.86	0.81	94	9057.37	336.66	186.8
211	21227	90.35	348.86	11707.57	8409.28	-3607.10	9083.48	1.19	95	9150.26	336.78	190.4
212	21321	90.38	349.86	11706.97	8501.67	-3624.45	9177.02	1.07	94	9242.02	336.91	186.8
213	21416	88.98	347.57	11707.51	8594.82	-3643.03	9271.64	2.83	95	9335.02	337.03	190.4
214	21510	88.39	346.72	11709.67	8686.44	-3663.94	9365.45	1.10	94	9427.55	337.13	186.8
215	21605	87.94	347.01	11712.71	8778.91	-3685.52	9460.26	0.56	95	9521.15	337.23	190.4
216	21699	89.82	348.77	11714.55	8870.79	-3705.24	9553.98	2.74	94	9613.51	337.33	192.2
217	21794	88.33	344.95	11716.08	8963.27	-3726.83	9648.80	4.31	95	9707.18	337.42	194.0
218	21888	89.34	346.94	11717.99	9054.43	-3749.65	9742.71	2.37	94	9800.13	337.50	194.0
219	21923	89.73	347.49	11718.27	9088.56	-3757.40	9777.64	1.93	35	9834.63	337.54	194.0
PTB	21987	89.73	347.49	11718.57	9151.04	-3771.27	9841.50	0.01	64	9897.67	337.60	0.0



MWD SURVEY CERTIFICATION
Legacy Directional Drilling, LLC.

State of TEXAS

County of Ward

I, John Plourde certify that; I am employed by Legacy Directional Drilling, LLC.;
that I did on the day(s) of 2022:09:01:00:01:47 through 2022:09:26:22:37:50 conduct or supervise
the taking of a MWD survey from a depth of 1600 Feet to a depth of 21987 Feet;
that the data is true, correct, complete and within the limitations of the tool set forth by
Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report; that this survey was
conducted at the request of CONTINENTAL RESOURCES for the
UTL WAR UNIVERSITY 2324K 2211H Well, A.P.I No. 42-475-38416 in
Phantom (Wolfcamp) Field and that I have reviewed this report and find that it conforms
to the principles and procedures set forth by Legacy Directional Drilling, LLC.

John Plourde

Surveyor's Signature

MWD Field Operator

Title

Cameron Stevens

Supervisor's Signature

Cameron Stevens

Printed Name

MWD Manager

Title



Legacy Directional Drilling, LLC.
MWD Survey Data Certification

OPERATOR:	CONTINENTAL RESOURCES	JOB NUMBER:	MD220221
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WELL NAME:	UTL WAR UNIVERSITY 2324K 2211H	COUNTY & STATE:	WARD Co., TX
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FIELD:	PHANTOM (WOLFCAMP)	API NUMBER:	4.24754E+13
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TIE-IN DATA							
DEPTH (FT)	INC (°)	AZM (°)	TVD (FT)	N/S (FT)	E/W (FT)	PROPOSED DIRECTION	DATA SOURCE
1453	0.8	92.1	1452.91	-10.4	1.89	343.71	Gyro

FIRST SURVEY			
DATE	DEPTH (FT)	INC (°)	AZM (°)
22:09:01:00:01	1600	2.54	167.73

SURVEY INSTRUMENT TYPE:	Legacy MWD
TOTAL CORRECTION USED:	7.75
NORTH REFERENCE:	GRID

LAST SURVEY			
DATE	DEPTH (FT)	INC (°)	AZM (°)
22:09:26:22:37	21923	89.73	347.49

TO THE BEST OF MY KNOWLEDGE I CERTIFY THIS SURVEY DATA TO
BE TRUE AND CORRECT

PROJECTION TO TD			
DATE	DEPTH (FT)	INC (°)	AZM (°)
22:09:26:22:37	21987	89.73	347.49

John Plourde

Print Name

TOTAL # OF SURVEYS RECORDED	219
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MWD OPERATOR(S) PERFORMING SURVEYS:

JOHN PLOURDE

DERRICK REYNOLDS

John Plourde

Signature

September 27, 2022

Today's Date