



# UTL 0708A #0601H



## WELL DETAILS: UTL 0708A #0601H Wellbore #1

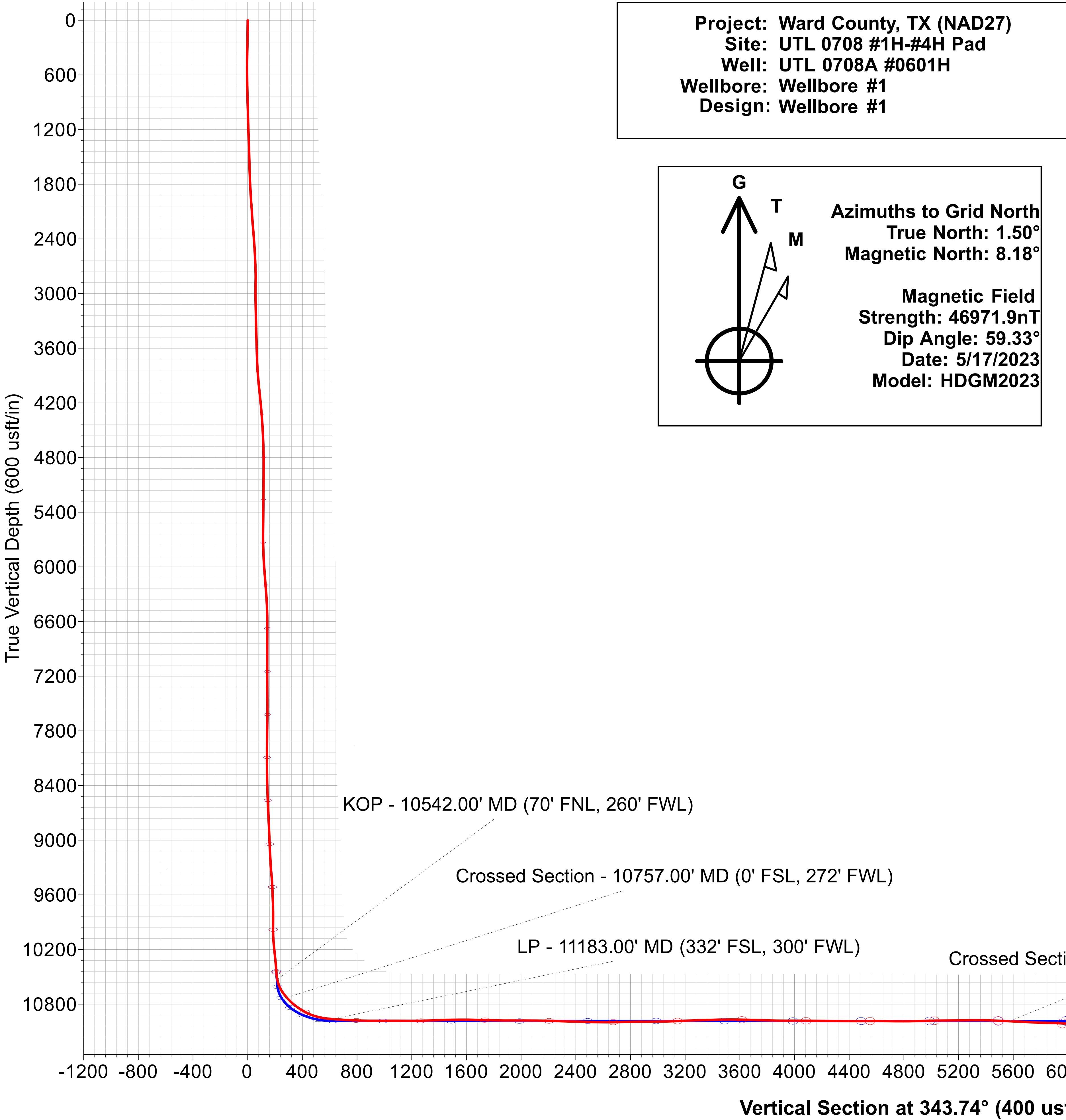
		GL Elev (ft.):		2768.00	
<b>+N/-S</b>	<b>+E/-W</b>	<b>Northing</b>	<b>Easting</b>	<b>Latitude</b>	<b>Longitude</b>
0.00	0.00	721979.80	1092682.10	31.6191112	-103.2484751

### DESIGN TARGET DETAILS

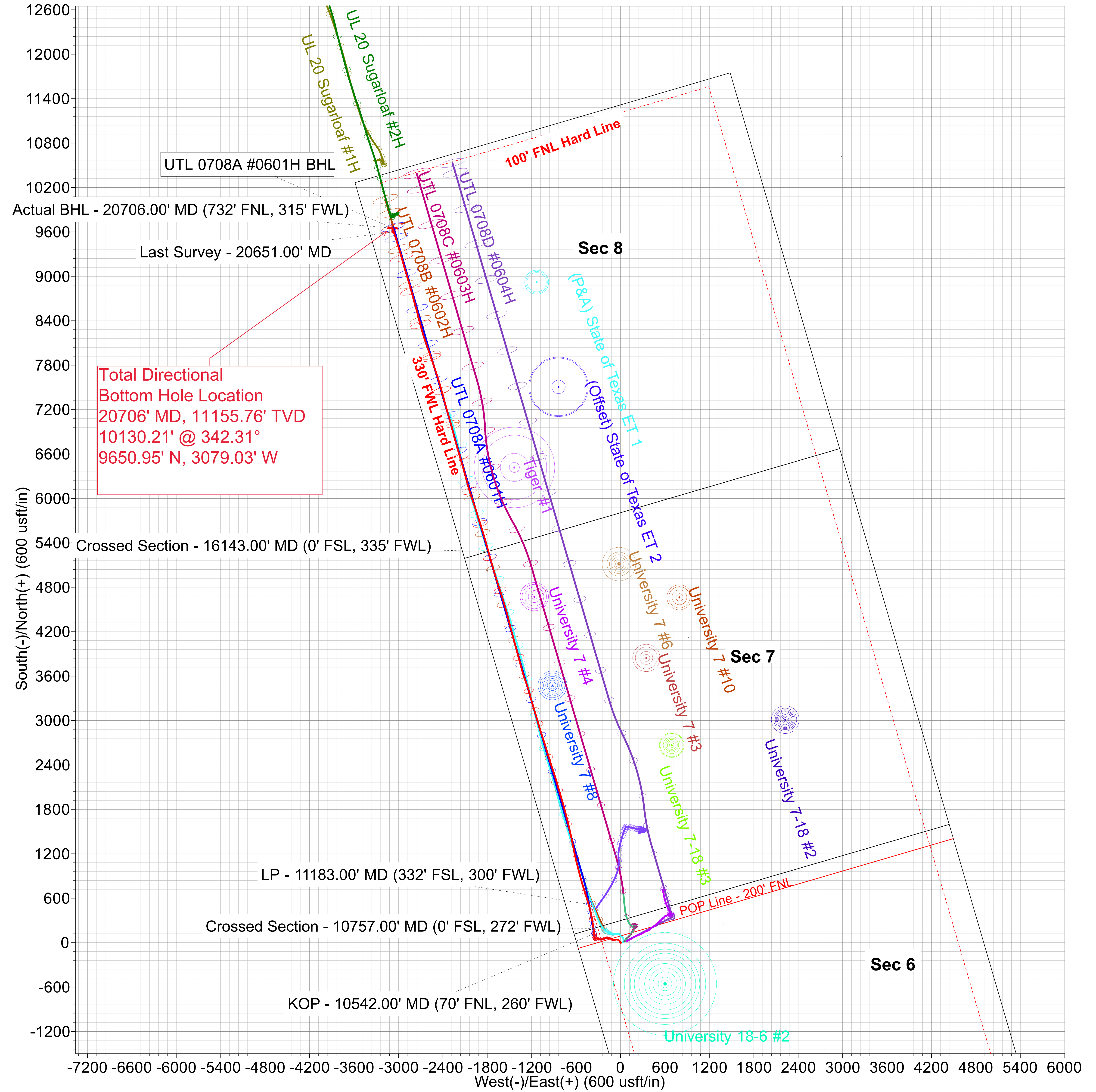
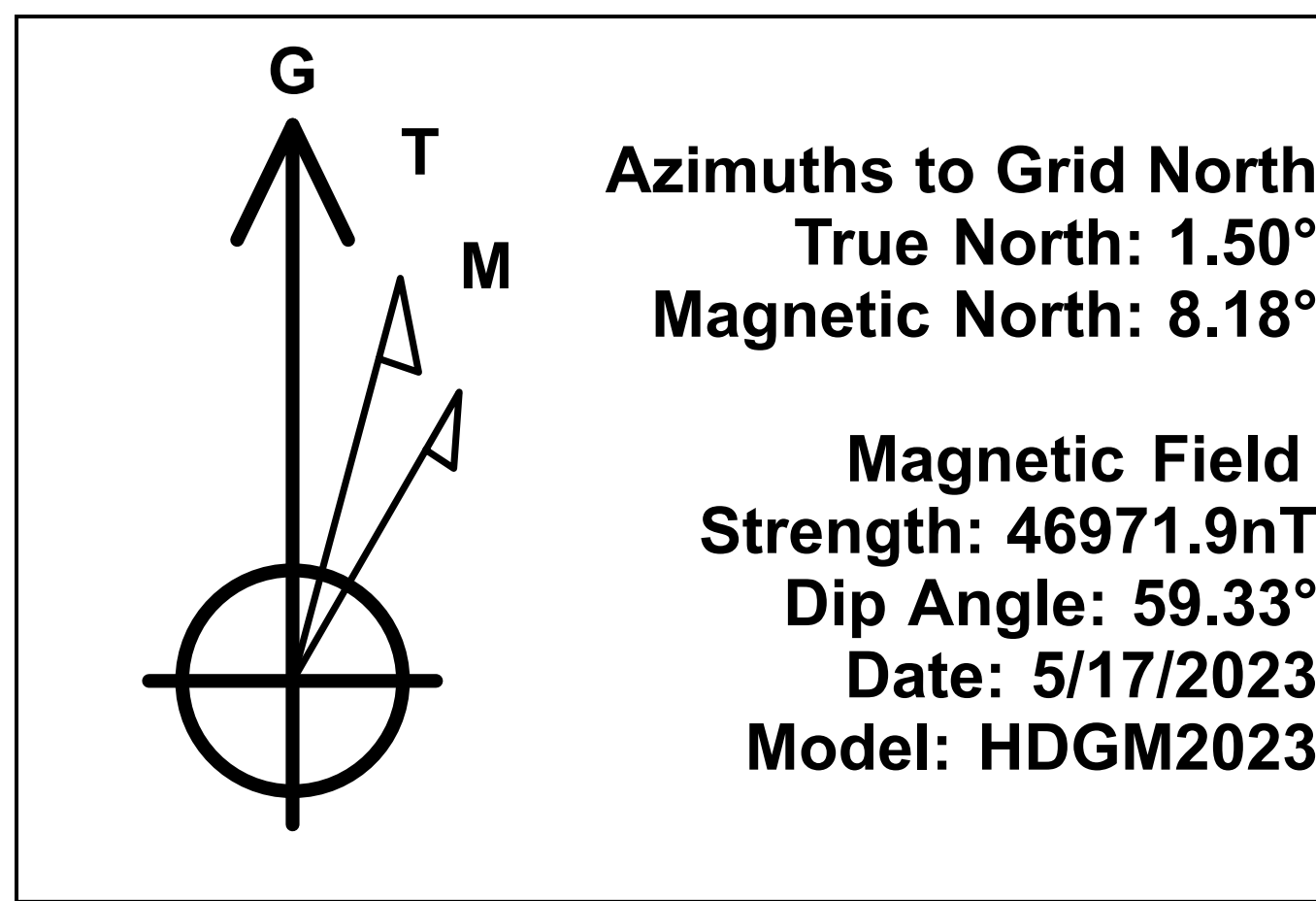
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
UTL 0708A #0601H BHL	11155.76	9650.95	-3079.03	731630.75	1089603.07	31.6454119	-103.2591786

### ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V/Sect	Departure	Annotation
10542.00	7.64	348.05	10526.47	121.72	-357.15	216.86	483.28	KOP - 10542.00' MD (70' FNL, 260' FWL)
10757.00	30.30	351.51	10727.56	191.91	-364.01	286.16	553.00	Crossed Section - 10757.00' MD (0' FSL, 272' FWL)
11183.00	82.95	343.85	10963.65	518.60	-430.96	618.52	886.15	LP - 11183.00' MD (332' FSL, 300' FWL)
16143.00	86.63	344.96	10987.61	5284.38	-1784.80	5572.75	5842.89	Crossed Section - 16143.00' MD (0' FSL, 335' FWL)
20651.00	83.56	341.72	11149.59	9599.06	-3061.89	10072.42	10343.85	Last Survey - 20651.00' MD
20706.00	83.56	341.72	11155.76	9650.95	-3079.03	10127.04	10398.50	Actual BHL - 20706.00' MD (732' FNL, 315' FWL)



Project: Ward County, TX (NAD27)  
 Site: UTL 0708 #1H-#4H Pad  
 Well: UTL 0708A #0601H  
 Wellbore: Wellbore #1  
 Design: Wellbore #1



# Continental Resources, Inc.

Ward County, TX (NAD27)

UTL 0708 #1H-#4H Pad

UTL 0708A #0601H

Wellbore #1

Wellbore #1



## Standard Survey Report

29 June, 2023

*Total Report Version 1.50*

*COMPASS 5000.16 Build 97*

# Survey Report

<b>Company:</b> Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b> Well UTL 0708A #0601H
<b>Project:</b> Ward County, TX (NAD27)	<b>TVD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b> UTL 0708 #1H-#4H Pad	<b>MD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b> UTL 0708A #0601H	<b>North Reference:</b> Grid
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Wellbore #1	<b>Database:</b> EDM 5000.1 Single User Db

<b>Project</b> Ward County, TX (NAD27)	<b>System Datum:</b> Mean Sea Level
<b>Map System:</b> US State Plane 1927 (Exact solution)	
<b>Geo Datum:</b> NAD 1927 (NADCON CONUS)	
<b>Map Zone:</b> Texas Central 4203	

<b>Site</b> UTL 0708 #1H-#4H Pad			
<b>Site Position:</b>	<b>Northing:</b> 721,979.80 usft	<b>Latitude:</b>	31.6191112
<b>From:</b> Map	<b>Easting:</b> 1,092,682.10 usft	<b>Longitude:</b>	-103.2484751
<b>Position Uncertainty:</b> 0.00 usft	<b>Slot Radius:</b> 13-3/16 "		

<b>Well</b> UTL 0708A #0601H			
<b>Well Position</b>	<b>+N/-S</b> 0.00 usft	<b>Northing:</b> 721,979.80 usft	<b>Latitude:</b> 31.6191112
	<b>+E/-W</b> 0.00 usft	<b>Easting:</b> 1,092,682.10 usft	<b>Longitude:</b> -103.2484751
<b>Position Uncertainty</b> 0.00 usft	<b>Wellhead Elevation:</b> usft	<b>Ground Level:</b>	2,768.00 usft
<b>Grid Convergence:</b>	-1.50 °		

<b>Wellbore</b> Wellbore #1					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	HDGM2023	5/17/2023	(°) 6.68	(°) 59.33	(nT) 46,971.90000000

<b>Design</b> Wellbore #1				
<b>Audit Notes:</b>				
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft) 0.00	(usft) 0.00	(usft) 0.00	(°) 343.74

<b>Survey Program</b>		<b>Date</b> 6/29/2023
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>
(usft)	(usft)	
158.50	1,026.50	Survey #1 (KB Adjusted) (W
1,147.00	20,706.00	Survey #2 (Wellbore #1)
		<b>Tool Name</b>
		2_MWD+HRGM
		<b>Description</b>
		B001Mb: HRGM declination correction only
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<b>Survey</b>													
Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Dogleg		Build Rate (%)	Turn Rate (%)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)	Section Rate (usft)	Rate (%)		
0.00	0.00	0.00	0.00	0.00	0.00	721,979.80	1,092,682.10	31.6191112	-103.2484751	0.00	0.00	0.00	0.00
158.50	0.60	125.60	158.50	-0.48	0.67	721,979.32	1,092,682.77	31.6191100	-103.2484729	-0.65	0.38	0.38	0.00
243.50	0.80	134.60	243.49	-1.16	1.46	721,978.64	1,092,683.56	31.6191082	-103.2484703	-1.52	0.27	0.24	10.59
334.50	1.10	118.70	334.48	-2.02	2.68	721,977.78	1,092,684.78	31.6191059	-103.2484663	-2.69	0.44	0.33	-17.47
429.50	1.10	102.60	429.46	-2.66	4.37	721,977.14	1,092,686.47	31.6191042	-103.2484608	-3.78	0.32	0.00	-16.95
523.50	0.40	72.30	523.45	-2.76	5.56	721,977.04	1,092,687.66	31.6191041	-103.2484570	-4.20	0.83	-0.74	-32.23

## Survey Report

<b>Company:</b>	Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b>	Well UTL 0708A #0601H
<b>Project:</b>	Ward County, TX (NAD27)	<b>TVD Reference:</b>	GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b>	UTL 0708 #1H-#4H Pad	<b>MD Reference:</b>	GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b>	UTL 0708A #0601H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

### Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
617.50	0.40	339.70	617.45	-2.35	5.76	721,977.45	1,092,687.86	31.6191052	-103.2484564	-3.87	0.62	0.00	-98.51
712.50	0.70	11.00	712.45	-1.47	5.76	721,978.33	1,092,687.86	31.6191076	-103.2484565	-3.02	0.44	0.32	32.95
806.50	0.90	339.30	806.44	-0.22	5.60	721,979.58	1,092,687.70	31.6191111	-103.2484571	-1.78	0.51	0.21	-33.72
900.50	0.80	332.80	900.43	1.06	5.04	721,980.86	1,092,687.14	31.6191145	-103.2484590	-0.40	0.15	-0.11	-6.91
1,026.50	1.10	340.00	1,026.41	2.98	4.23	721,982.78	1,092,686.33	31.6191197	-103.2484618	1.67	0.26	0.24	5.71
1,147.00	1.45	342.78	1,146.88	5.52	3.38	721,985.32	1,092,685.48	31.6191267	-103.2484647	4.35	0.29	0.29	2.31
1,238.00	1.05	350.07	1,237.86	7.44	2.90	721,987.24	1,092,685.00	31.6191319	-103.2484664	6.33	0.47	-0.44	8.01
1,328.00	2.77	281.70	1,327.81	8.69	0.62	721,988.49	1,092,682.72	31.6191352	-103.2484738	8.17	2.86	1.91	-75.97
1,418.00	2.46	282.93	1,417.72	9.57	-3.39	721,989.37	1,092,678.71	31.6191373	-103.2484868	10.13	0.35	-0.34	1.37
1,509.00	1.98	286.62	1,508.65	10.45	-6.80	721,990.25	1,092,675.30	31.6191395	-103.2484978	11.94	0.55	-0.53	4.05
1,598.00	1.14	329.33	1,597.62	11.66	-8.72	721,991.46	1,092,673.38	31.6191426	-103.2485041	13.63	1.55	-0.94	47.99
1,689.00	1.23	2.82	1,688.60	13.41	-9.14	721,993.21	1,092,672.96	31.6191474	-103.2485056	15.43	0.76	0.10	36.80
1,784.00	1.54	352.89	1,783.57	15.70	-9.25	721,995.50	1,092,672.85	31.6191537	-103.2485061	17.66	0.41	0.33	-10.45
1,877.00	2.59	323.53	1,876.51	18.63	-10.65	721,998.43	1,092,671.45	31.6191617	-103.2485108	20.86	1.57	1.13	-31.57
1,972.00	2.77	344.27	1,971.41	22.56	-12.55	722,002.36	1,092,669.55	31.6191723	-103.2485173	25.17	1.03	0.19	21.83
2,065.00	2.95	304.46	2,064.31	26.08	-15.13	722,005.88	1,092,666.97	31.6191818	-103.2485259	29.27	2.10	0.19	-42.81
2,158.00	3.03	309.47	2,157.18	29.00	-19.00	722,008.80	1,092,663.10	31.6191896	-103.2485385	33.16	0.29	0.09	5.39
2,251.00	4.18	299.45	2,250.00	32.22	-23.85	722,012.02	1,092,658.25	31.6191981	-103.2485544	37.61	1.41	1.24	-10.77
2,346.00	4.31	305.78	2,344.73	36.01	-29.76	722,015.81	1,092,652.34	31.6192081	-103.2485737	42.91	0.51	0.14	6.66
2,440.00	4.22	293.65	2,438.48	39.47	-35.79	722,019.27	1,092,646.31	31.6192171	-103.2485934	47.91	0.96	-0.10	-12.90
2,535.00	5.76	270.89	2,533.12	40.94	-43.76	722,020.74	1,092,638.34	31.6192206	-103.2486191	51.56	2.61	1.62	-23.96
2,629.00	4.44	283.01	2,626.75	41.84	-52.03	722,021.64	1,092,630.07	31.6192225	-103.2486457	54.73	1.81	-1.40	12.89
2,724.00	3.78	277.39	2,721.51	43.07	-58.71	722,022.87	1,092,623.39	31.6192254	-103.2486673	57.78	0.81	-0.69	-5.92
2,818.00	3.65	246.01	2,815.32	42.25	-64.52	722,022.05	1,092,617.58	31.6192227	-103.2486858	58.62	2.14	-0.14	-33.38
2,913.00	2.77	241.00	2,910.17	39.91	-69.29	722,019.71	1,092,612.81	31.6192159	-103.2487010	57.71	0.97	-0.93	-5.27
3,008.00	2.15	246.36	3,005.08	38.08	-72.93	722,017.88	1,092,609.17	31.6192106	-103.2487125	56.98	0.70	-0.65	5.64
3,102.00	2.55	286.18	3,099.01	37.95	-76.56	722,017.75	1,092,605.54	31.6192100	-103.2487241	57.87	1.75	0.43	42.36
3,197.00	2.24	273.61	3,193.93	38.66	-80.44	722,018.46	1,092,601.66	31.6192117	-103.2487367	59.64	0.64	-0.33	-13.23
3,291.00	4.09	264.64	3,287.78	38.46	-85.61	722,018.26	1,092,596.49	31.6192108	-103.2487533	60.89	2.03	1.97	-9.54
3,385.00	3.60	268.42	3,381.57	38.07	-91.90	722,017.87	1,092,590.20	31.6192092	-103.2487734	62.28	0.59	-0.52	4.02
3,479.00	3.43	271.50	3,475.39	38.06	-97.66	722,017.86	1,092,584.44	31.6192088	-103.2487919	63.88	0.27	-0.18	3.28
3,574.00	4.35	272.38	3,570.17	38.28	-104.10	722,018.08	1,092,578.00	31.6192090	-103.2488126	65.90	0.97	0.97	0.93
3,668.00	2.95	266.23	3,663.98	38.27	-110.07	722,018.07	1,092,572.03	31.6192085	-103.2488318	67.56	1.54	-1.49	-6.54
3,764.00	2.51	292.15	3,759.87	38.90	-114.49	722,018.70	1,092,567.61	31.6192099	-103.2488460	69.40	1.35	-0.46	27.00
3,858.00	3.12	320.98	3,853.76	41.67	-118.00	722,021.47	1,092,564.10	31.6192173	-103.2488576	73.04	1.62	0.65	30.67
3,954.00	3.69	320.19	3,949.59	46.07	-121.63	722,025.87	1,092,560.47	31.6192291	-103.2488696	78.28	0.60	0.59	-0.82
4,048.00	4.97	305.43	4,043.33	50.75	-126.88	722,030.55	1,092,555.22	31.6192416	-103.2488868	84.25	1.79	1.36	-15.70
4,142.00	5.54	298.66	4,136.93	55.29	-134.18	722,035.09	1,092,547.92	31.6192535	-103.2489107	90.65	0.90	0.61	-7.20

## Survey Report

<b>Company:</b> Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b> Well UTL 0708A #0601H
<b>Project:</b> Ward County, TX (NAD27)	<b>TVD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b> UTL 0708 #1H-#4H Pad	<b>MD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b> UTL 0708A #0601H	<b>North Reference:</b> Grid
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Wellbore #1	<b>Database:</b> EDM 5000.1 Single User Db

### Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
4,237.00	5.05	299.71	4,231.53	59.56	-141.84	722,039.36	1,092,540.26	31.6192647	-103.2489356	96.89	0.53	-0.52	1.11
4,331.00	5.49	287.76	4,325.13	62.98	-149.71	722,042.78	1,092,532.39	31.6192736	-103.2489612	102.38	1.26	0.47	-12.71
4,426.00	5.85	280.03	4,419.67	65.21	-158.81	722,045.01	1,092,523.29	31.6192790	-103.2489906	107.07	0.89	0.38	-8.14
4,521.00	4.53	275.28	4,514.28	66.40	-167.31	722,046.20	1,092,514.79	31.6192817	-103.2490180	110.59	1.46	-1.39	-5.00
4,615.00	4.04	276.60	4,608.01	67.12	-174.30	722,046.92	1,092,507.80	31.6192832	-103.2490405	113.24	0.53	-0.52	1.40
4,708.00	1.63	303.14	4,700.90	68.22	-178.66	722,048.02	1,092,503.44	31.6192859	-103.2490546	115.52	2.88	-2.59	28.54
4,803.00	2.33	255.59	4,795.84	68.48	-181.66	722,048.28	1,092,500.44	31.6192864	-103.2490642	116.61	1.81	0.74	-50.05
4,895.00	6.51	251.28	4,887.55	66.34	-188.42	722,046.14	1,092,493.68	31.6192800	-103.2490858	116.44	4.55	4.54	-4.68
4,989.00	6.86	254.10	4,980.91	63.09	-198.86	722,042.89	1,092,483.24	31.6192703	-103.2491190	116.25	0.51	0.37	3.00
5,084.00	5.80	252.43	5,075.33	60.09	-208.89	722,039.89	1,092,473.21	31.6192613	-103.2491510	116.18	1.13	-1.12	-1.76
5,177.00	5.67	249.97	5,167.87	57.10	-217.69	722,036.90	1,092,464.41	31.6192525	-103.2491790	115.77	0.30	-0.14	-2.65
5,271.00	5.58	250.58	5,261.41	53.99	-226.36	722,033.79	1,092,455.74	31.6192433	-103.2492066	115.21	0.11	-0.10	0.65
5,365.00	5.41	250.58	5,354.98	51.00	-234.85	722,030.80	1,092,447.25	31.6192345	-103.2492336	114.71	0.18	-0.18	0.00
5,460.00	5.10	251.72	5,449.58	48.18	-243.09	722,027.98	1,092,439.01	31.6192261	-103.2492598	114.32	0.34	-0.33	1.20
5,555.00	4.92	249.53	5,544.22	45.43	-250.91	722,025.23	1,092,431.19	31.6192180	-103.2492847	113.87	0.28	-0.19	-2.31
5,650.00	4.92	247.59	5,638.87	42.45	-258.49	722,022.25	1,092,423.61	31.6192093	-103.2493088	113.13	0.18	0.00	-2.04
5,745.00	3.91	267.11	5,733.59	40.74	-265.50	722,020.54	1,092,416.60	31.6192041	-103.2493311	113.45	1.89	-1.06	20.55
5,839.00	3.38	269.04	5,827.40	40.53	-271.47	722,020.33	1,092,410.63	31.6192031	-103.2493503	114.92	0.58	-0.56	2.05
5,933.00	4.22	286.00	5,921.20	41.44	-277.56	722,021.24	1,092,404.54	31.6192051	-103.2493700	117.50	1.48	0.89	18.04
6,028.00	4.57	293.30	6,015.92	43.90	-284.40	722,023.70	1,092,397.70	31.6192114	-103.2493921	121.77	0.69	0.37	7.68
6,122.00	4.35	295.14	6,109.63	46.89	-291.07	722,026.69	1,092,391.03	31.6192191	-103.2494138	126.52	0.28	-0.23	1.96
6,217.00	4.31	293.39	6,204.36	49.84	-297.60	722,029.64	1,092,384.50	31.6192268	-103.2494350	131.18	0.15	-0.04	-1.84
6,312.00	4.26	292.15	6,299.10	52.59	-304.15	722,032.39	1,092,377.95	31.6192339	-103.2494563	135.65	0.11	-0.05	-1.31
6,407.00	4.18	290.13	6,393.84	55.11	-310.67	722,034.91	1,092,371.43	31.6192403	-103.2494774	139.89	0.18	-0.08	-2.13
6,501.00	2.33	281.34	6,487.68	56.67	-315.76	722,036.47	1,092,366.34	31.6192442	-103.2494939	142.81	2.03	-1.97	-9.35
6,595.00	1.27	262.45	6,581.64	56.90	-318.66	722,036.70	1,092,363.44	31.6192447	-103.2495032	143.85	1.28	-1.13	-20.10
6,689.00	0.57	97.56	6,675.63	56.71	-319.23	722,036.51	1,092,362.87	31.6192441	-103.2495051	143.82	1.94	-0.74	-175.41
6,784.00	0.48	101.17	6,770.63	56.57	-318.37	722,036.37	1,092,363.73	31.6192438	-103.2495023	143.45	0.10	-0.09	3.80
6,878.00	0.22	73.75	6,864.62	56.54	-317.81	722,036.34	1,092,364.29	31.6192437	-103.2495005	143.27	0.32	-0.28	-29.17
6,972.00	0.13	106.09	6,958.62	56.56	-317.54	722,036.36	1,092,364.56	31.6192438	-103.2494996	143.21	0.14	-0.10	34.40
7,067.00	0.22	275.81	7,053.62	56.55	-317.62	722,036.35	1,092,364.48	31.6192438	-103.2494999	143.22	0.37	0.09	178.65
7,162.00	0.53	257.00	7,148.62	56.47	-318.23	722,036.27	1,092,363.87	31.6192435	-103.2495018	143.31	0.35	0.33	-19.80
7,256.00	0.84	241.62	7,242.62	56.04	-319.26	722,035.84	1,092,362.84	31.6192423	-103.2495051	143.19	0.38	0.33	-16.36
7,350.00	1.54	268.78	7,336.59	55.69	-321.13	722,035.49	1,092,360.97	31.6192412	-103.2495110	143.38	0.94	0.74	28.89
7,445.00	1.67	270.18	7,431.56	55.67	-323.79	722,035.47	1,092,358.31	31.6192409	-103.2495196	144.10	0.14	0.14	1.47
7,540.00	1.71	259.72	7,526.52	55.42	-326.56	722,035.22	1,092,355.54	31.6192400	-103.2495285	144.64	0.33	0.04	-11.01
7,635.00	1.67	240.74	7,621.48	54.49	-329.17	722,034.29	1,092,352.93	31.6192373	-103.2495368	144.48	0.59	-0.04	-19.98

## Survey Report

<b>Company:</b> Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b> Well UTL 0708A #0601H
<b>Project:</b> Ward County, TX (NAD27)	<b>TVD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b> UTL 0708 #1H-#4H Pad	<b>MD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b> UTL 0708A #0601H	<b>North Reference:</b> Grid
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Wellbore #1	<b>Database:</b> EDM 5000.1 Single User Db

### Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Geo Coordinates (°)		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
7,727.00	1.32	226.85	7,713.44	53.11	-331.11	722,032.91	1,092,350.99	31.6192333	-103.2495429	143.69	0.54	-0.38	-15.10
7,822.00	1.23	223.42	7,808.42	51.62	-332.61	722,031.42	1,092,349.49	31.6192291	-103.2495476	142.69	0.12	-0.09	-3.61
7,916.00	0.62	238.72	7,902.41	50.62	-333.74	722,030.42	1,092,348.36	31.6192263	-103.2495511	142.04	0.69	-0.65	16.28
8,011.00	0.66	258.23	7,997.40	50.25	-334.71	722,030.05	1,092,347.39	31.6192252	-103.2495542	141.95	0.23	0.04	20.54
8,105.00	0.79	253.57	8,091.40	49.95	-335.86	722,029.75	1,092,346.24	31.6192243	-103.2495579	141.99	0.15	0.14	-4.96
8,200.00	1.05	248.47	8,186.38	49.45	-337.30	722,029.25	1,092,344.80	31.6192228	-103.2495625	141.91	0.29	0.27	-5.37
8,294.00	1.32	269.21	8,280.36	49.12	-339.18	722,028.92	1,092,342.92	31.6192218	-103.2495685	142.12	0.53	0.29	22.06
8,388.00	1.05	318.79	8,374.35	49.75	-340.84	722,029.55	1,092,341.26	31.6192234	-103.2495738	143.19	1.09	-0.29	52.74
8,482.00	1.10	0.80	8,468.33	51.30	-341.39	722,031.10	1,092,340.71	31.6192276	-103.2495758	144.84	0.82	0.05	44.69
8,576.00	1.41	357.81	8,562.31	53.36	-341.42	722,033.16	1,092,340.68	31.6192333	-103.2495760	146.82	0.34	0.33	-3.18
8,671.00	1.80	339.44	8,657.27	55.92	-341.99	722,035.72	1,092,340.11	31.6192403	-103.2495781	149.44	0.67	0.41	-19.34
8,766.00	1.98	327.22	8,752.22	58.70	-343.40	722,038.50	1,092,338.70	31.6192478	-103.2495828	152.50	0.46	0.19	-12.86
8,861.00	1.49	349.55	8,847.18	61.29	-344.52	722,041.09	1,092,337.58	31.6192549	-103.2495866	155.30	0.87	-0.52	23.51
8,963.00	1.76	346.30	8,949.14	64.12	-345.13	722,043.92	1,092,336.97	31.6192626	-103.2495888	158.19	0.28	0.26	-3.19
9,057.00	1.80	325.90	9,043.09	66.74	-346.30	722,046.54	1,092,335.80	31.6192697	-103.2495928	161.04	0.67	0.04	-21.70
9,152.00	1.80	324.15	9,138.04	69.19	-348.01	722,048.99	1,092,334.09	31.6192763	-103.2495985	163.86	0.06	0.00	-1.84
9,246.00	2.07	322.65	9,231.99	71.73	-349.90	722,051.53	1,092,332.20	31.6192832	-103.2496048	166.84	0.29	0.29	-1.60
9,340.00	3.34	323.44	9,325.88	75.28	-352.56	722,055.08	1,092,329.54	31.6192927	-103.2496137	170.99	1.35	1.35	0.84
9,434.00	3.52	350.95	9,419.72	80.33	-354.65	722,060.13	1,092,327.45	31.6193065	-103.2496208	176.42	1.74	0.19	29.27
9,529.00	1.41	348.23	9,514.63	84.36	-355.34	722,064.16	1,092,326.76	31.6193175	-103.2496234	180.48	2.22	-2.22	-2.86
9,622.00	1.49	3.52	9,607.60	86.69	-355.50	722,066.49	1,092,326.60	31.6193239	-103.2496241	182.76	0.42	0.09	16.44
9,717.00	1.27	358.78	9,702.57	88.97	-355.45	722,068.77	1,092,326.65	31.6193301	-103.2496241	184.94	0.26	-0.23	-4.99
9,810.00	0.62	24.35	9,795.56	90.46	-355.26	722,070.26	1,092,326.84	31.6193343	-103.2496236	186.31	0.82	-0.70	27.49
9,904.00	0.70	132.19	9,889.56	90.54	-354.63	722,070.34	1,092,327.47	31.6193345	-103.2496216	186.21	1.14	0.09	114.72
9,997.00	0.18	39.56	9,982.55	90.27	-354.12	722,070.07	1,092,327.98	31.6193338	-103.2496199	185.81	0.79	-0.56	-99.60
10,091.00	2.29	356.58	10,076.53	92.26	-354.13	722,072.06	1,092,327.97	31.6193393	-103.2496201	187.72	2.30	2.24	-45.72
10,186.00	4.26	356.14	10,171.37	97.67	-354.48	722,077.47	1,092,327.62	31.6193541	-103.2496217	193.02	2.07	2.07	-0.46
10,281.00	4.22	359.92	10,266.11	104.69	-354.73	722,084.49	1,092,327.37	31.6193734	-103.2496231	199.82	0.30	-0.04	3.98
10,376.00	2.59	356.84	10,360.94	110.33	-354.85	722,090.13	1,092,327.25	31.6193889	-103.2496240	205.27	1.73	-1.72	-3.24
10,465.00	3.12	345.59	10,449.83	114.68	-355.56	722,094.48	1,092,326.54	31.6194008	-103.2496266	209.65	0.86	0.60	-12.64
10,542.00	7.64	348.05	10,526.47	121.72	-357.15	722,101.52	1,092,324.95	31.6194200	-103.2496323	216.86	5.88	5.88	3.20
<b>KOP - 10542.00' MD (70' FNL, 260' FWL)</b>													
10,587.00	10.29	348.49	10,570.91	128.59	-358.57	722,108.39	1,092,323.53	31.6194388	-103.2496374	223.85	5.88	5.88	0.97
10,682.00	25.14	358.51	10,661.17	157.25	-360.80	722,137.05	1,092,321.30	31.6195174	-103.2496470	251.98	15.90	15.63	10.55
10,757.00	30.30	351.51	10,727.56	191.91	-364.01	722,171.71	1,092,318.09	31.6196124	-103.2496602	286.16	8.12	6.87	-9.34
<b>Crossed Section - 10757.00' MD (0' FSL, 272' FWL)</b>													
10,776.00	31.65	350.07	10,743.85	201.56	-365.58	722,181.36	1,092,316.52	31.6196388	-103.2496661	295.86	8.12	7.13	-7.56
10,871.00	41.41	350.78	10,820.10	257.26	-374.93	722,237.06	1,092,307.17	31.6197912	-103.2497008	351.95	10.28	10.27	0.75

## Survey Report

<b>Company:</b>	Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b>	Well UTL 0708A #0601H
<b>Project:</b>	Ward County, TX (NAD27)	<b>TVD Reference:</b>	GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b>	UTL 0708 #1H-#4H Pad	<b>MD Reference:</b>	GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b>	UTL 0708A #0601H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

### Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Geo Coordinates (°)		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
10,965.00	50.55	351.57	10,885.35	323.99	-385.26	722,303.79	1,092,296.84	31.6199739	-103.2497396	418.90	9.74	9.72	0.84
11,057.00	66.64	346.91	10,933.15	400.80	-400.13	722,380.60	1,092,281.97	31.6201839	-103.2497938	496.80	18.01	17.49	-5.07
11,132.00	78.64	345.06	10,955.49	470.11	-417.47	722,449.91	1,092,264.63	31.6203731	-103.2498554	568.20	16.17	16.00	-2.47
11,183.00	82.95	343.85	10,963.65	518.60	-430.96	722,498.40	1,092,251.14	31.6205054	-103.2499028	618.52	8.76	8.44	-2.37
<b>LP - 11183.00' MD (332' FSL, 300' FWL)</b>													
11,195.00	83.96	343.57	10,965.02	530.04	-434.31	722,509.84	1,092,247.79	31.6205366	-103.2499145	630.44	8.76	8.45	-2.34
11,266.00	85.05	342.69	10,971.82	597.67	-454.82	722,577.47	1,092,227.28	31.6207210	-103.2499860	701.11	1.97	1.54	-1.24
11,360.00	86.29	342.43	10,978.91	687.09	-482.91	722,666.89	1,092,199.19	31.6209647	-103.2500838	794.82	1.35	1.32	-0.28
11,453.00	89.14	342.96	10,982.62	775.80	-510.55	722,755.60	1,092,171.55	31.6212065	-103.2501800	887.72	3.12	3.06	0.57
11,548.00	90.86	345.33	10,982.62	867.18	-536.50	722,846.98	1,092,145.60	31.6214558	-103.2502711	982.71	3.08	1.81	2.49
11,642.00	89.23	345.15	10,982.55	958.07	-560.45	722,937.87	1,092,121.65	31.6217039	-103.2503556	1,076.67	1.74	-1.73	-0.19
11,737.00	90.20	346.73	10,983.02	1,050.22	-583.52	723,030.02	1,092,098.58	31.6219554	-103.2504375	1,171.60	1.95	1.02	1.66
11,830.00	89.49	345.77	10,983.27	1,140.56	-605.63	723,120.36	1,092,076.47	31.6222021	-103.2505161	1,264.51	1.28	-0.76	-1.03
11,925.00	96.53	349.20	10,978.28	1,233.10	-626.18	723,212.90	1,092,055.92	31.6224550	-103.2505899	1,359.10	8.24	7.41	3.61
12,019.00	90.77	347.88	10,972.30	1,324.99	-644.81	723,304.79	1,092,037.29	31.6227062	-103.2506575	1,452.54	6.29	-6.13	-1.40
12,113.00	90.99	348.67	10,970.86	1,417.02	-663.91	723,396.82	1,092,018.19	31.6229577	-103.2507266	1,546.23	0.87	0.23	0.84
12,207.00	88.35	347.61	10,971.40	1,509.00	-683.23	723,488.80	1,091,998.87	31.6232091	-103.2507964	1,639.95	3.03	-2.81	-1.13
12,301.00	87.25	345.59	10,975.01	1,600.37	-704.99	723,580.17	1,091,977.11	31.6234586	-103.2508740	1,733.75	2.45	-1.17	-2.15
12,396.00	88.31	346.21	10,978.69	1,692.44	-728.12	723,672.24	1,091,953.98	31.6237100	-103.2509560	1,828.61	1.29	1.12	0.65
12,490.00	90.37	345.86	10,979.77	1,783.65	-750.80	723,763.45	1,091,931.30	31.6239590	-103.2510365	1,922.53	2.22	2.19	-0.37
12,583.00	89.80	343.39	10,979.63	1,873.31	-775.46	723,853.11	1,091,906.64	31.6242036	-103.2511233	2,015.51	2.73	-0.61	-2.66
12,677.00	88.79	343.39	10,980.79	1,963.38	-802.33	723,943.18	1,091,879.77	31.6244492	-103.2512171	2,109.50	1.07	-1.07	0.00
12,772.00	88.13	344.01	10,983.34	2,054.53	-828.98	724,034.33	1,091,853.12	31.6246978	-103.2513104	2,204.46	0.95	-0.69	0.65
12,866.00	86.81	344.54	10,987.49	2,144.92	-854.43	724,124.72	1,091,827.67	31.6249444	-103.2513998	2,298.36	1.51	-1.40	0.56
12,960.00	88.48	342.25	10,991.35	2,234.92	-881.27	724,214.72	1,091,800.83	31.6251898	-103.2514936	2,392.27	3.01	1.78	-2.44
13,054.00	87.12	341.37	10,994.96	2,324.15	-910.59	724,303.95	1,091,771.51	31.6254329	-103.2515952	2,486.15	1.72	-1.45	-0.94
13,149.00	88.84	341.90	10,998.31	2,414.25	-940.50	724,394.05	1,091,741.60	31.6256784	-103.2516989	2,581.02	1.89	1.81	0.56
13,242.00	91.91	342.96	10,997.70	2,502.90	-968.57	724,482.70	1,091,713.53	31.6259200	-103.2517965	2,673.98	3.49	3.30	1.14
13,336.00	91.30	343.22	10,995.07	2,592.80	-995.90	724,572.60	1,091,686.20	31.6261651	-103.2518919	2,767.94	0.71	-0.65	0.28
13,431.00	90.99	342.96	10,993.17	2,683.67	-1,023.53	724,663.47	1,091,658.57	31.6264128	-103.2519883	2,862.91	0.43	-0.33	-0.27
13,525.00	89.45	341.29	10,992.81	2,773.13	-1,052.38	724,752.93	1,091,629.72	31.6266566	-103.2520885	2,956.87	2.42	-1.64	-1.78
13,619.00	92.66	342.96	10,991.08	2,862.56	-1,081.22	724,842.36	1,091,600.88	31.6269003	-103.2521886	3,050.80	3.85	3.41	1.78
13,713.00	94.11	343.48	10,985.53	2,952.40	-1,108.31	724,932.20	1,091,573.79	31.6271452	-103.2522832	3,144.63	1.64	1.54	0.55
13,807.00	93.01	343.48	10,979.69	3,042.34	-1,134.99	725,022.14	1,091,547.11	31.6273905	-103.2523765	3,238.44	1.17	-1.17	0.00
13,901.00	93.49	343.75	10,974.36	3,132.38	-1,161.46	725,112.18	1,091,520.64	31.6276360	-103.2524691	3,332.29	0.59	0.51	0.29
13,995.00	90.29	343.22	10,971.26	3,222.44	-1,188.17	725,202.24	1,091,493.93	31.6278816	-103.2525625	3,426.23	3.45	-3.40	-0.56
14,089.00	90.81	345.59	10,970.36	3,312.97	-1,213.43	725,292.77	1,091,468.67	31.6281286	-103.2526512	3,520.21	2.58	0.55	2.52
14,184.00	88.79	343.57	10,970.69	3,404.54	-1,238.69	725,384.34	1,091,443.41	31.6283784	-103.2527401	3,615.19	3.01	-2.13	-2.13

## Survey Report

<b>Company:</b> Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b> Well UTL 0708A #0601H
<b>Project:</b> Ward County, TX (NAD27)	<b>TVD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b> UTL 0708 #1H-#4H Pad	<b>MD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b> UTL 0708A #0601H	<b>North Reference:</b> Grid
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Wellbore #1	<b>Database:</b> EDM 5000.1 Single User Db

### Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,277.00	87.30	340.05	10,973.87	3,492.82	-1,267.70	725,472.62	1,091,414.40	31.6286189	-103.2528407	3,708.07	4.11	-1.60	-3.78
14,371.00	86.77	341.11	10,978.73	3,581.36	-1,298.91	725,561.16	1,091,383.19	31.6288600	-103.2529484	3,801.80	1.26	-0.56	1.13
14,465.00	89.32	344.54	10,981.94	3,671.09	-1,326.64	725,650.89	1,091,355.46	31.6291046	-103.2530450	3,895.71	4.54	2.71	3.65
14,560.00	90.15	344.45	10,982.38	3,762.63	-1,352.04	725,742.43	1,091,330.06	31.6293543	-103.2531343	3,990.70	0.88	0.87	-0.09
14,654.00	89.67	344.98	10,982.52	3,853.31	-1,376.82	725,833.11	1,091,305.28	31.6296017	-103.2532216	4,084.68	0.76	-0.51	0.56
14,747.00	88.79	344.89	10,983.77	3,943.10	-1,400.99	725,922.90	1,091,281.11	31.6298468	-103.2533068	4,177.65	0.95	-0.95	-0.10
14,841.00	89.85	345.24	10,984.89	4,033.92	-1,425.21	726,013.72	1,091,256.89	31.6300946	-103.2533922	4,271.62	1.19	1.13	0.37
14,935.00	89.05	344.27	10,985.79	4,124.60	-1,449.93	726,104.40	1,091,232.17	31.6303421	-103.2534792	4,365.60	1.34	-0.85	-1.03
15,029.00	90.37	345.15	10,986.27	4,215.27	-1,474.71	726,195.07	1,091,207.39	31.6305894	-103.2535665	4,459.58	1.69	1.40	0.94
15,123.00	90.68	346.21	10,985.41	4,306.35	-1,497.96	726,286.15	1,091,184.14	31.6308381	-103.2536488	4,553.52	1.17	0.33	1.13
15,217.00	88.88	345.94	10,985.77	4,397.58	-1,520.58	726,377.38	1,091,161.52	31.6310871	-103.2537292	4,647.44	1.94	-1.91	-0.29
15,310.00	89.01	344.36	10,987.48	4,487.46	-1,544.41	726,467.26	1,091,137.69	31.6313324	-103.2538133	4,740.39	1.70	0.14	-1.70
15,404.00	91.12	343.04	10,987.37	4,577.67	-1,570.79	726,557.47	1,091,111.31	31.6315785	-103.2539057	4,834.39	2.65	2.24	-1.40
15,499.00	91.91	342.60	10,984.86	4,668.40	-1,598.84	726,648.20	1,091,083.26	31.6318258	-103.2540034	4,929.34	0.95	0.83	-0.46
15,593.00	91.87	341.72	10,981.76	4,757.83	-1,627.63	726,737.63	1,091,054.47	31.6320695	-103.2541034	5,023.25	0.94	-0.04	-0.94
15,688.00	90.46	342.16	10,979.83	4,848.13	-1,657.07	726,827.93	1,091,025.03	31.6323155	-103.2542056	5,118.18	1.55	-1.48	0.46
15,782.00	90.51	342.96	10,979.03	4,937.80	-1,685.24	726,917.60	1,090,996.86	31.6325599	-103.2543036	5,212.16	0.85	0.05	0.85
15,875.00	92.35	343.83	10,976.71	5,026.89	-1,711.81	727,006.69	1,090,970.29	31.6328028	-103.2543965	5,305.12	2.19	1.98	0.94
15,969.00	87.30	343.83	10,977.00	5,117.14	-1,737.98	727,096.94	1,090,944.12	31.6330490	-103.2544881	5,399.09	5.37	-5.37	0.00
16,062.00	86.02	344.36	10,982.42	5,206.43	-1,763.42	727,186.23	1,090,918.68	31.6332925	-103.2545774	5,491.93	1.49	-1.38	0.57
16,143.00	86.63	344.96	10,987.61	5,284.38	-1,784.80	727,264.18	1,090,897.30	31.6335052	-103.2546526	5,572.75	1.06	0.76	0.74
<b>Crossed Section - 16143.00' MD (0' FSL, 335' FWL)</b>													
16,156.00	86.73	345.06	10,988.36	5,296.92	-1,788.16	727,276.72	1,090,893.94	31.6335394	-103.2546645	5,585.73	1.06	0.76	0.74
16,249.00	85.58	344.54	10,994.60	5,386.46	-1,812.49	727,366.26	1,090,869.61	31.6337837	-103.2547502	5,678.50	1.36	-1.24	-0.56
16,343.00	85.90	343.13	11,001.58	5,476.49	-1,838.58	727,456.29	1,090,843.52	31.6340293	-103.2548416	5,772.24	1.53	0.34	-1.50
16,438.00	88.40	343.04	11,006.30	5,567.26	-1,866.19	727,547.06	1,090,815.91	31.6342767	-103.2549379	5,867.11	2.63	2.63	-0.09
16,531.00	86.02	342.69	11,010.83	5,656.03	-1,893.55	727,635.82	1,090,788.55	31.6345187	-103.2550333	5,959.98	2.59	-2.56	-0.38
16,625.00	87.47	342.43	11,016.17	5,745.56	-1,921.68	727,725.36	1,090,760.42	31.6347627	-103.2551312	6,053.80	1.57	1.54	-0.28
16,719.00	89.76	342.34	11,018.44	5,835.12	-1,950.12	727,814.92	1,090,731.98	31.6350068	-103.2552301	6,147.74	2.44	2.44	-0.10
16,812.00	86.42	340.76	11,021.54	5,923.27	-1,979.53	727,903.07	1,090,702.57	31.6352470	-103.2553320	6,240.61	3.97	-3.59	-1.70
16,906.00	88.70	341.37	11,025.54	6,012.10	-2,010.00	727,991.90	1,090,672.10	31.6354889	-103.2554374	6,334.41	2.51	2.43	0.65
17,000.00	90.33	343.66	11,026.34	6,101.74	-2,038.24	728,081.54	1,090,643.86	31.6357332	-103.2555356	6,428.38	2.99	1.73	2.44
17,094.00	91.16	344.01	11,025.11	6,192.02	-2,064.40	728,171.82	1,090,617.70	31.6359794	-103.2556273	6,522.37	0.96	0.88	0.37
17,187.00	87.82	345.33	11,025.94	6,281.69	-2,088.99	728,261.49	1,090,593.11	31.6362241	-103.2557138	6,615.34	3.86	-3.59	1.42
17,282.00	85.93	344.54	11,031.12	6,373.29	-2,113.64	728,353.09	1,090,568.46	31.6364740	-103.2558008	6,710.17	2.16	-1.99	-0.83
17,376.00	87.91	344.01	11,036.17	6,463.63	-2,139.08	728,443.43	1,090,543.02	31.6367205	-103.2558901	6,804.03	2.18	2.11	-0.56
17,470.00	88.97	343.39	11,038.73	6,553.82	-2,165.45	728,533.62	1,090,516.65	31.6369664	-103.2559824	6,897.99	1.31	1.13	-0.66

## Survey Report

<b>Company:</b>	Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b>	Well UTL 0708A #0601H
<b>Project:</b>	Ward County, TX (NAD27)	<b>TVD Reference:</b>	GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b>	UTL 0708 #1H-#4H Pad	<b>MD Reference:</b>	GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b>	UTL 0708A #0601H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

### Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Geo Coordinates (°)		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
17,564.00	90.95	343.66	11,038.80	6,643.95	-2,192.11	728,623.75	1,090,489.99	31.6372122	-103.2560756	6,991.99	2.13	2.11	0.29
17,658.00	91.12	344.54	11,037.10	6,734.34	-2,217.85	728,714.14	1,090,464.25	31.6374587	-103.2561660	7,085.97	0.95	0.18	0.94
17,752.00	90.33	344.63	11,035.91	6,824.95	-2,242.84	728,804.75	1,090,439.26	31.6377059	-103.2562539	7,179.95	0.85	-0.84	0.10
17,846.00	92.48	346.21	11,033.60	6,915.89	-2,266.49	728,895.69	1,090,415.61	31.6379541	-103.2563375	7,273.87	2.84	2.29	1.68
17,939.00	90.81	344.63	11,030.93	7,005.85	-2,289.89	728,985.65	1,090,392.21	31.6381997	-103.2564203	7,366.79	2.47	-1.80	-1.70
18,033.00	87.21	343.13	11,032.56	7,096.13	-2,315.98	729,075.93	1,090,366.12	31.6384459	-103.2565117	7,460.76	4.15	-3.83	-1.60
18,127.00	88.09	343.92	11,036.41	7,186.19	-2,342.62	729,165.99	1,090,339.48	31.6386915	-103.2566049	7,554.67	1.26	0.94	0.84
18,221.00	88.62	345.15	11,039.11	7,276.75	-2,367.67	729,256.55	1,090,314.43	31.6389385	-103.2566930	7,648.62	1.42	0.56	1.31
18,314.00	86.02	344.89	11,043.46	7,366.48	-2,391.68	729,346.28	1,090,290.42	31.6391834	-103.2567777	7,741.49	2.81	-2.80	-0.28
18,409.00	85.45	344.10	11,050.52	7,457.77	-2,417.01	729,437.57	1,090,265.09	31.6394325	-103.2568667	7,836.22	1.02	-0.60	-0.83
18,503.00	86.55	343.75	11,057.08	7,547.87	-2,442.97	729,527.67	1,090,239.13	31.6396782	-103.2569578	7,929.99	1.23	1.17	-0.37
18,597.00	87.87	342.52	11,061.66	7,637.72	-2,470.21	729,617.52	1,090,211.89	31.6399232	-103.2570528	8,023.87	1.92	1.40	-1.31
18,691.00	86.29	341.46	11,066.45	7,726.99	-2,499.23	729,706.79	1,090,182.87	31.6401664	-103.2571536	8,117.70	2.02	-1.68	-1.13
18,784.00	85.14	340.93	11,073.39	7,814.78	-2,529.13	729,794.58	1,090,152.97	31.6404055	-103.2572570	8,210.34	1.36	-1.24	-0.57
18,879.00	87.08	341.55	11,079.84	7,904.52	-2,559.61	729,884.32	1,090,122.49	31.6406499	-103.2573625	8,305.03	2.14	2.04	0.65
18,973.00	83.91	339.97	11,087.22	7,992.98	-2,590.48	729,972.78	1,090,091.62	31.6408908	-103.2574692	8,398.60	3.77	-3.37	-1.68
19,066.00	87.82	340.85	11,093.93	8,080.36	-2,621.57	730,060.15	1,090,060.53	31.6411287	-103.2575764	8,491.18	4.31	4.20	0.95
19,160.00	93.14	342.25	11,093.14	8,169.49	-2,651.31	730,149.29	1,090,030.79	31.6413715	-103.2576795	8,585.07	5.85	5.66	1.49
19,254.00	94.11	344.10	11,087.20	8,259.28	-2,678.46	730,239.08	1,090,003.64	31.6416163	-103.2577743	8,678.87	2.22	1.03	1.97
19,348.00	92.75	344.80	11,081.57	8,349.67	-2,703.61	730,329.47	1,089,978.49	31.6418629	-103.2578627	8,772.70	1.63	-1.45	0.74
19,442.00	91.78	346.56	11,077.86	8,440.68	-2,726.84	730,420.47	1,089,955.26	31.6421113	-103.2579450	8,866.56	2.14	-1.03	1.87
19,535.00	91.65	344.54	11,075.07	8,530.69	-2,750.04	730,510.49	1,089,932.06	31.6423570	-103.2580271	8,959.47	2.18	-0.14	-2.17
19,629.00	88.35	344.62	11,075.07	8,621.29	-2,775.03	730,601.09	1,089,907.07	31.6426042	-103.2581150	9,053.45	3.51	-3.51	0.09
19,723.00	87.25	344.27	11,078.68	8,711.78	-2,800.22	730,691.58	1,089,881.88	31.6428511	-103.2582036	9,147.37	1.23	-1.17	-0.37
19,817.00	87.52	344.89	11,082.97	8,802.30	-2,825.19	730,782.10	1,089,856.91	31.6430980	-103.2582915	9,241.26	0.72	0.29	0.66
19,912.00	85.41	343.39	11,088.83	8,893.50	-2,851.09	730,873.30	1,089,831.01	31.6433468	-103.2583824	9,336.07	2.72	-2.22	-1.58
20,006.00	84.84	343.22	11,096.82	8,983.22	-2,878.00	730,963.02	1,089,804.10	31.6435914	-103.2584764	9,429.73	0.63	-0.61	-0.18
20,099.00	86.42	343.39	11,103.90	9,072.03	-2,904.64	731,051.83	1,089,777.46	31.6438336	-103.2585695	9,522.45	1.71	1.70	0.18
20,193.00	86.59	344.80	11,109.63	9,162.26	-2,930.35	731,142.06	1,089,751.75	31.6440797	-103.2586597	9,616.27	1.51	0.18	1.50
20,287.00	85.58	343.83	11,116.05	9,252.55	-2,955.70	731,232.35	1,089,726.40	31.6443260	-103.2587488	9,710.05	1.49	-1.07	-1.03
20,380.00	85.36	343.39	11,123.40	9,341.49	-2,981.86	731,321.29	1,089,700.24	31.6445685	-103.2588403	9,802.75	0.53	-0.24	-0.47
20,537.00	84.31	342.95	11,137.53	9,491.16	-3,027.13	731,470.96	1,089,654.97	31.6449765	-103.2589984	9,959.11	0.72	-0.67	-0.28
20,568.00	84.09	342.24	11,140.66	9,520.58	-3,036.36	731,500.38	1,089,645.74	31.6450568	-103.2590305	9,989.94	2.39	-0.71	-2.29
20,651.00	83.56	341.72	11,149.59	9,599.06	-3,061.89	731,578.86	1,089,620.21	31.6452706	-103.2591191	10,072.42	0.89	-0.64	-0.63

**Last Survey - 20651.00' MD**

20,706.00	83.56	341.72	11,155.76	9,650.95	-3,079.03	731,630.75	1,089,603.07	31.6454119	-103.2591786	10,127.04	0.00	0.00	0.00
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**Actual BHL - 20706.00' MD (732' FNL, 315' FWL)**

## Survey Report

<b>Company:</b> Continental Resources, Inc.	<b>Local Co-ordinate Reference:</b> Well UTL 0708A #0601H
<b>Project:</b> Ward County, TX (NAD27)	<b>TVD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Site:</b> UTL 0708 #1H-#4H Pad	<b>MD Reference:</b> GE 2768 + 21.50 @ 2789.50usft (Unit 407)
<b>Well:</b> UTL 0708A #0601H	<b>North Reference:</b> Grid
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Wellbore #1	<b>Database:</b> EDM 5000.1 Single User Db

### Design Targets

**Target Name**

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
UTL 0708A #0601H B	0.00	360.00	11,155.76	9,650.95	-3,079.03	731,630.75	1,089,603.08	31.6454119	-103.2591786
- actual wellpath hits target center									
- Point									

### Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,542.00	10,526.47	121.72	-357.15	KOP - 10542.00' MD (70' FNL, 260' FWL)
10,757.00	10,727.56	191.91	-364.01	Crossed Section - 10757.00' MD (0' FSL, 272' FWL)
11,183.00	10,963.65	518.60	-430.96	LP - 11183.00' MD (332' FSL, 300' FWL)
16,143.00	10,987.61	5,284.38	-1,784.80	Crossed Section - 16143.00' MD (0' FSL, 335' FWL)
20,651.00	11,149.59	9,599.06	-3,061.89	Last Survey - 20651.00' MD
20,706.00	11,155.76	9,650.95	-3,079.03	Actual BHL - 20706.00' MD (732' FNL, 315' FWL)

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



## Final MWD Survey Certification

Ward County, Texas

Client: Continental Resources

Well Name: UTL 0708A 0601H

Total Job No: SW-230742

API No: 42-475-38539

Start Date: 06/03/2023

End Date: 06/20/2023

Measured Start Depth: 1026'

Measured End Depth with PTB: 20,706'

I, **James Troch**, MWD Operator, hereby certify that; I am employed by Total Directional Services, LLC and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Date: 06/21/2023

Signed: *James troch*