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WV GEOLOGICAL SURVEY  
MORGANTHAU, WV

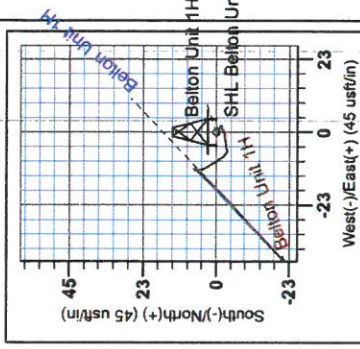


**Antero Resources**  
Belton Unit 1H  
Dodridge County WW  
Northing: 14242026.79  
Easting: 1747828.49  
As Drilled

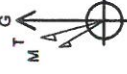
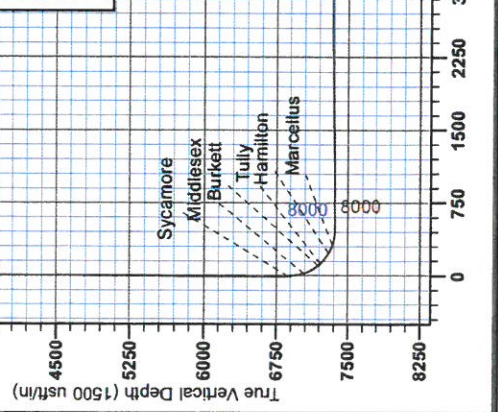
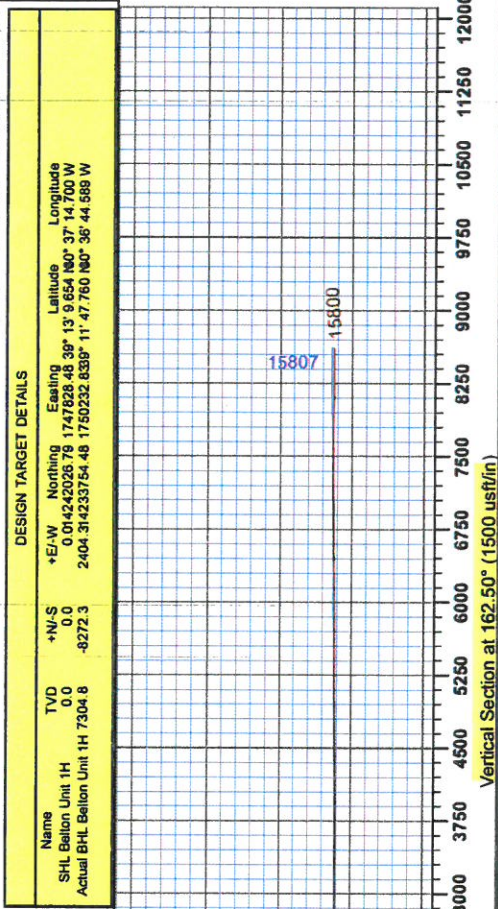
**WELL DETAILS:** Belton Unit 1H  
Ground Level: 1331.0  
Northing: 14242026.79  
Easting: 1747828.49  
39° 13' 9.654" N 80° 37' 14.700" W

**PROJECT DETAILS:** Doddridge County WW  
Geodetic System: Universal Transverse Mercator (US Survey Feet)  
Datum: NAD 1987 (NAD80 CONUS)  
Ellipsoid: Clarke 1866  
Zone: Zone 17N (84 W to 78 W)  
System Datum: Mean Sea Level

Genie Lightfoot  
14:08, April 08 2014  
Scientific Drilling  
421 South Eagle Lane  
Oklahoma City, OK



**LEGEND**  
□ Belton Unit 1H, Original Wellpath, Plan 4 V0  
■ As Drilled



To convert Magnetic North to Grid, Subtract 8.70°  
To convert True North to Grid, Subtract 0.24°

Admin: In Grid North  
True North: 0.24°  
Magnetic North: -8.70°  
Magnetic Field  
Strength: 52287 GauT  
Dip Angle: 66.75°  
Year: 2015  
Model: IGRF2010



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MORGANTOWN, WV

# Antero Resources

Doddridge County WV  
Hughes Pad  
Belton Unit 1H  
Original Wellpath

Design: As Drilled

## EOW Completion Report

08 April, 2014





JUL 27 2015



WV GEOLOGICAL SURVEY EOW Completion Report  
MORGANTOWN, WV



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Belton Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13
<b>Site:</b>	Hughes Pad	<b>MD Reference:</b>	Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13
<b>Well:</b>	Belton Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

<b>Project</b>	Doddridge County WV, McClellan District		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 17N (84 W to 78 W)		

<b>Site</b>	Hughes Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,242,041.55 usft	<b>Latitude:</b>	39° 13' 9.801 N
<b>From:</b>	Map	<b>Easting:</b>	1,747,814.24 usft	<b>Longitude:</b>	80° 37' 14.880 W
<b>Position Uncertainty:</b>	2.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.24 °

<b>Well</b>	Belton Unit 1H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,242,026.79 usft	<b>Latitude:</b>	39° 13' 9.654 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,747,828.49 usft	<b>Longitude:</b>	80° 37' 14.700 W
<b>Position Uncertainty</b>	2.0 usft		<b>Wellhead Elevation:</b>	1,356.0 usft	<b>Ground Level:</b>	1,331.0 usft

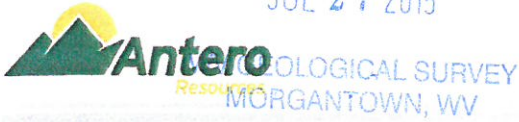
<b>Wellbore</b>	Original Wellpath				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/19/2013	-8.55	66.78	52,298

<b>Design</b>	As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	162.50	

<b>Survey Program</b>	Date 4/8/2014			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
112.0	6,714.1	Survey #2 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
6,815.0	15,800.0	Survey #3 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

<b>Survey</b>										
<b>MD (usft)</b>	<b>Inc (°)</b>	<b>Azi (azimuth) (°)</b>	<b>TVD (usft)</b>	<b>N/S (usft)</b>	<b>E/W (usft)</b>	<b>V. Sec (usft)</b>	<b>DLeg (°/100usft)</b>			
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0			
112.0	0.31	246.31	112.0	-0.1	-0.3	0.0	0.28			
212.0	0.06	215.07	212.0	-0.3	-0.6	0.1	0.26			
312.0	0.18	130.48	312.0	-0.4	-0.5	0.3	0.18			
412.0	0.30	103.93	412.0	-0.6	-0.1	0.5	0.16			
512.0	0.31	108.76	512.0	-0.7	0.4	0.8	0.03			
612.0	0.35	100.85	612.0	-0.9	1.0	1.1	0.06			
712.0	0.25	113.29	712.0	-1.0	1.5	1.4	0.12			
812.0	0.13	120.52	812.0	-1.2	1.8	1.6	0.12			
912.0	0.15	151.81	912.0	-1.3	1.9	1.9	0.08			
1,012.0	0.02	285.02	1,012.0	-1.4	2.0	2.0	0.16			

JUL 27 2015



## EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Hughes Pad  
**Well:** Belton Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Belton Unit 1H  
**TVD Reference:** Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
**MD Reference:** Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

### Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,112.0	0.08	179.73	1,112.0	-1.5	2.0	2.0	0.09
1,212.0	0.17	257.94	1,212.0	-1.6	1.8	2.1	0.17
1,312.0	0.12	277.95	1,312.0	-1.6	1.6	2.0	0.07
1,412.0	0.17	243.76	1,412.0	-1.7	1.3	2.0	0.10
1,512.0	0.12	242.54	1,512.0	-1.8	1.1	2.0	0.05
1,612.0	0.18	222.97	1,612.0	-2.0	0.9	2.1	0.08
1,712.0	0.17	300.03	1,712.0	-2.0	0.7	2.1	0.22
1,812.0	0.08	259.84	1,812.0	-1.9	0.5	2.0	0.12
1,912.0	0.03	257.52	1,912.0	-2.0	0.4	2.0	0.05
2,012.0	0.08	286.94	2,012.0	-1.9	0.3	1.9	0.06
2,112.0	0.03	142.86	2,112.0	-1.9	0.2	1.9	0.11
2,212.0	0.08	193.64	2,212.0	-2.0	0.2	2.0	0.07
2,312.0	0.09	9.19	2,312.0	-2.0	0.2	2.0	0.17
2,412.0	0.10	80.83	2,412.0	-1.9	0.3	1.9	0.11
2,512.0	0.04	257.90	2,512.0	-1.9	0.4	1.9	0.14
2,612.0	0.11	146.25	2,612.0	-2.0	0.4	2.0	0.13
2,712.0	0.16	225.91	2,712.0	-2.2	0.4	2.2	0.18
2,812.0	0.12	264.78	2,812.0	-2.3	0.1	2.2	0.10
2,912.0	0.24	243.30	2,912.0	-2.4	-0.1	2.2	0.14
3,012.0	0.33	266.72	3,012.0	-2.5	-0.6	2.2	0.15
3,112.0	0.26	258.00	3,112.0	-2.6	-1.1	2.1	0.08
3,212.0	0.26	271.14	3,212.0	-2.6	-1.6	2.0	0.06
3,312.0	0.32	256.40	3,312.0	-2.7	-2.1	1.9	0.10
3,412.0	0.29	268.85	3,412.0	-2.7	-2.6	1.8	0.07
3,512.0	0.19	250.01	3,512.0	-2.8	-3.0	1.8	0.13
3,612.0	0.12	293.25	3,612.0	-2.8	-3.3	1.7	0.13
3,712.0	0.19	241.27	3,712.0	-2.9	-3.5	1.7	0.15
3,812.0	0.15	272.08	3,812.0	-2.9	-3.8	1.7	0.10
3,912.0	0.24	262.18	3,912.0	-3.0	-4.1	1.6	0.10
4,012.0	0.13	253.25	4,012.0	-3.0	-4.4	1.5	0.11
4,112.0	0.17	284.93	4,112.0	-3.0	-4.7	1.5	0.09
4,212.0	0.26	242.95	4,212.0	-3.1	-5.0	1.4	0.18
4,312.0	0.20	259.90	4,312.0	-3.2	-5.4	1.4	0.09
4,412.0	0.23	263.64	4,412.0	-3.3	-5.8	1.4	0.03
4,512.0	0.26	282.77	4,512.0	-3.2	-6.2	1.2	0.09
4,612.0	0.23	316.87	4,612.0	-3.0	-6.6	0.9	0.15
4,712.0	0.28	297.30	4,712.0	-2.8	-6.9	0.6	0.10
4,812.0	0.34	316.52	4,812.0	-2.5	-7.3	0.1	0.12
4,912.0	0.32	318.87	4,912.0	-2.0	-7.7	-0.4	0.02
5,012.0	0.38	327.91	5,012.0	-1.5	-8.1	-1.0	0.08
5,112.0	0.49	330.23	5,112.0	-0.9	-8.5	-1.7	0.11
5,212.0	0.40	320.46	5,212.0	-0.2	-8.9	-2.4	0.12
5,312.0	0.46	334.54	5,312.0	0.4	-9.3	-3.2	0.12
5,412.0	0.43	326.94	5,412.0	1.1	-9.7	-3.9	0.07



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WYOMING GEOLOGICAL SURVEY  
MORGANTOWN, WV

## EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Hughes Pad  
**Well:** Belton Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Belton Unit 1H  
**TVD Reference:** Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
**MD Reference:** Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

### Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,512.0	0.42	329.99	5,512.0	1.7	-10.1	-4.6	0.02
5,612.0	0.43	324.61	5,612.0	2.3	-10.5	-5.4	0.04
5,712.0	0.54	322.36	5,711.9	3.0	-11.0	-6.2	0.11
5,812.0	0.52	344.79	5,811.9	3.8	-11.4	-7.0	0.21
5,912.0	0.45	347.41	5,911.9	4.6	-11.6	-7.9	0.07
6,012.0	0.43	352.57	6,011.9	5.4	-11.7	-8.7	0.04
6,112.0	0.31	346.14	6,111.9	6.0	-11.8	-9.3	0.13
6,212.0	0.25	21.31	6,211.9	6.5	-11.8	-9.7	0.18
6,312.0	0.07	12.34	6,311.9	6.7	-11.7	-10.0	0.18
6,412.0	0.06	47.72	6,411.9	6.8	-11.7	-10.0	0.04
6,512.0	0.08	134.86	6,511.9	6.8	-11.6	-10.0	0.10
6,612.0	0.20	34.16	6,611.9	6.9	-11.4	-10.0	0.23
6,712.0	0.15	149.78	6,711.9	7.0	-11.3	-10.0	0.30
6,714.1	0.15	148.81	6,714.0	6.9	-11.3	-10.0	0.12
6,815.0	3.30	221.81	6,814.9	4.7	-13.1	-8.4	3.23
6,847.0	7.81	221.50	6,846.7	2.4	-15.2	-6.8	14.09
6,871.0	10.79	225.77	6,870.4	-0.4	-17.9	-5.0	12.73
<b>Sycamore</b>							
6,879.0	11.79	226.72	6,878.2	-1.5	-19.0	-4.3	12.73
6,911.0	14.85	227.21	6,909.4	-6.5	-24.4	-1.1	9.57
6,943.0	16.75	226.73	6,940.2	-12.5	-30.8	2.7	5.95
6,975.0	20.11	226.93	6,970.5	-19.4	-38.1	7.0	10.50
7,007.0	23.27	225.65	7,000.3	-27.6	-46.7	12.3	9.98
7,039.0	25.04	219.43	7,029.5	-37.2	-55.5	18.8	9.68
7,048.0	25.46	216.52	7,037.6	-40.3	-57.9	21.0	14.58
<b>Middlesex</b>							
7,071.0	26.79	209.52	7,058.3	-48.8	-63.4	27.4	14.58
7,104.0	29.56	202.17	7,087.3	-62.8	-70.1	38.8	13.44
7,136.0	32.93	196.92	7,114.7	-78.4	-75.6	52.0	13.53
7,168.0	36.40	192.04	7,141.0	-96.0	-80.1	67.5	13.88
7,200.0	39.41	187.46	7,166.3	-115.4	-83.4	85.0	12.87
7,228.0	41.93	185.44	7,187.5	-133.5	-85.5	101.6	10.14
<b>Burkett</b>							
7,232.0	42.29	185.17	7,190.5	-136.2	-85.7	104.1	10.14
7,261.0	45.08	183.10	7,211.5	-156.2	-87.2	122.7	10.80
<b>Tully</b>							
7,264.0	45.37	182.90	7,213.6	-158.3	-87.3	124.7	10.80
7,296.0	48.66	180.24	7,235.4	-181.7	-87.9	146.8	11.94
7,328.0	52.43	178.62	7,255.7	-206.4	-87.6	170.5	12.41
7,360.0	55.95	177.27	7,274.4	-232.3	-86.7	195.5	11.52
7,392.0	60.39	176.49	7,291.3	-259.5	-85.2	221.8	14.03
7,401.0	61.47	176.06	7,295.7	-267.3	-84.7	229.5	12.67
<b>Hamilton</b>							
7,424.0	64.22	174.99	7,306.2	-287.7	-83.1	249.4	12.67
7,456.0	68.28	173.52	7,319.1	-316.8	-80.2	278.1	13.37

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EOW Completion Report



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 Project: Doddridge County WV  
 Site: Hughes Pad  
 Well: Belton Unit 1H  
 Wellbore: Original Wellpath  
 Design: As Drilled

Local Co-ordinate Reference: Well Belton Unit 1H  
 TVD Reference: Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
 MD Reference: Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,489.0	72.30	172.43	7,330.2	-347.7	-76.4	308.6	12.57
7,498.0	73.11	172.13	7,332.9	-356.2	-75.2	317.1	9.53
<b>Marcellus</b>							
7,521.0	75.18	171.39	7,339.2	-378.1	-72.0	338.9	9.53
7,553.0	78.16	170.11	7,346.5	-408.8	-67.0	369.7	10.09
7,585.0	82.55	169.31	7,351.9	-439.8	-61.4	401.0	13.94
7,595.0	83.80	169.10	7,353.1	-449.6	-59.5	410.9	12.67
7,651.0	90.84	166.31	7,355.7	-504.2	-47.6	466.5	13.52
7,687.0	90.84	165.38	7,355.2	-539.1	-38.8	502.5	2.58
7,784.0	90.44	163.89	7,354.1	-632.6	-13.1	599.4	1.59
7,880.0	90.03	164.70	7,353.7	-725.0	12.8	695.4	0.95
7,977.0	90.24	163.15	7,353.5	-818.2	39.7	792.3	1.61
8,073.0	89.43	161.99	7,353.7	-909.8	68.5	888.3	1.47
8,169.0	90.37	161.72	7,353.9	-1,001.1	98.4	984.3	1.02
8,266.0	90.74	162.61	7,353.0	-1,093.4	128.1	1,081.3	0.99
8,362.0	90.50	162.10	7,351.9	-1,184.9	157.2	1,177.3	0.59
8,458.0	91.41	161.90	7,350.3	-1,276.2	186.8	1,273.3	0.97
8,555.0	91.41	161.81	7,347.9	-1,368.3	217.0	1,370.2	0.09
8,651.0	90.34	160.24	7,346.5	-1,459.1	248.2	1,466.2	1.98
8,748.0	92.00	161.64	7,344.5	-1,550.7	279.9	1,563.1	2.24
8,838.0	91.75	163.17	7,341.6	-1,636.5	307.1	1,653.1	1.72
8,929.0	90.50	163.77	7,339.8	-1,723.7	333.0	1,744.0	1.52
9,019.0	88.82	161.07	7,340.3	-1,809.5	360.2	1,834.0	3.53
9,111.0	91.01	163.25	7,340.4	-1,897.0	388.3	1,926.0	3.36
9,201.0	91.28	162.14	7,338.6	-1,983.0	415.1	2,016.0	1.27
9,292.0	88.96	158.33	7,338.4	-2,068.6	445.9	2,106.9	4.90
9,382.0	91.88	162.06	7,337.8	-2,153.2	476.4	2,196.8	5.26
9,472.0	91.61	161.08	7,335.0	-2,238.6	504.8	2,286.8	1.13
9,563.0	93.29	163.49	7,331.2	-2,325.2	532.5	2,377.7	3.23
9,654.0	90.17	164.00	7,328.4	-2,412.5	557.9	2,468.6	3.47
9,745.0	90.13	163.22	7,328.2	-2,499.8	583.6	2,559.6	0.86
9,836.0	89.76	163.74	7,328.3	-2,587.0	609.5	2,650.6	0.70
9,933.0	89.09	162.73	7,329.2	-2,679.9	637.4	2,747.5	1.25
10,029.0	90.07	162.96	7,329.9	-2,771.6	665.8	2,843.5	1.05
10,125.0	89.73	162.88	7,330.1	-2,863.4	694.0	2,939.5	0.36
10,222.0	88.99	162.17	7,331.2	-2,955.9	723.1	3,036.5	1.06
10,319.0	91.65	163.74	7,330.6	-3,048.6	751.5	3,133.5	3.18
10,415.0	91.48	163.21	7,328.0	-3,140.6	778.8	3,229.5	0.58
10,512.0	89.80	163.44	7,326.9	-3,233.5	806.6	3,326.4	1.75
10,608.0	89.09	163.16	7,327.9	-3,325.5	834.2	3,422.4	0.80
10,704.0	88.49	160.59	7,329.9	-3,416.7	864.1	3,518.4	2.75
10,801.0	90.67	162.63	7,330.6	-3,508.7	894.7	3,615.4	3.08
10,897.0	90.50	163.72	7,329.6	-3,600.6	922.5	3,711.3	1.15
10,993.0	89.93	163.50	7,329.3	-3,692.7	949.5	3,807.3	0.64
11,090.0	89.40	161.56	7,329.8	-3,785.2	978.7	3,904.3	2.07



JUL 27 2015



EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Hughes Pad  
**Well:** Belton Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Belton Unit 1H  
**TVD Reference:** Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
**MD Reference:** Frontier 22: Belton Unit 1H 1331' + 25' RKB @ 13  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
11,186.0	91.44	162.83	7,329.1	-3,876.6	1,008.0	4,000.3	2.50
11,283.0	91.54	161.79	7,326.6	-3,969.0	1,037.5	4,097.3	1.08
11,379.0	89.13	160.93	7,326.0	-4,060.0	1,068.2	4,193.2	2.67
11,475.0	90.50	162.18	7,326.4	-4,151.0	1,098.5	4,289.2	1.93
11,572.0	90.75	162.51	7,325.3	-4,243.4	1,127.9	4,386.2	0.43
11,668.0	90.40	160.86	7,324.3	-4,334.6	1,158.1	4,482.2	1.76
11,764.0	90.81	162.79	7,323.3	-4,425.8	1,188.1	4,578.2	2.06
11,861.0	91.11	163.09	7,321.7	-4,518.5	1,216.5	4,675.2	0.44
11,957.0	89.70	161.23	7,321.0	-4,609.9	1,245.9	4,771.2	2.43
12,053.0	90.74	162.35	7,320.6	-4,701.1	1,275.9	4,867.1	1.59
12,150.0	90.91	164.42	7,319.3	-4,794.0	1,303.6	4,964.1	2.14
12,246.0	91.04	164.74	7,317.6	-4,886.5	1,329.2	5,060.0	0.36
12,342.0	89.83	164.55	7,316.9	-4,979.1	1,354.6	5,156.0	1.28
12,438.0	89.56	163.33	7,317.4	-5,071.3	1,381.1	5,251.9	1.30
12,534.0	90.50	163.08	7,317.3	-5,163.2	1,408.9	5,347.9	1.01
12,631.0	90.30	163.82	7,316.7	-5,256.2	1,436.5	5,444.9	0.79
12,727.0	89.87	163.06	7,316.5	-5,348.2	1,463.9	5,540.9	0.91
12,824.0	89.50	162.03	7,317.1	-5,440.8	1,493.0	5,637.9	1.13
12,920.0	89.90	161.16	7,317.6	-5,531.9	1,523.3	5,733.9	1.00
13,016.0	90.40	161.32	7,317.3	-5,622.8	1,554.2	5,829.9	0.55
13,112.0	90.44	160.53	7,316.6	-5,713.5	1,585.5	5,925.8	0.82
13,209.0	91.28	162.21	7,315.2	-5,805.4	1,616.5	6,022.8	1.94
13,305.0	91.01	161.32	7,313.2	-5,896.5	1,646.5	6,118.8	0.97
13,402.0	91.34	163.24	7,311.2	-5,988.9	1,676.1	6,215.7	2.01
13,497.0	91.11	163.09	7,309.2	-6,079.8	1,703.6	6,310.7	0.29
13,593.0	90.24	163.29	7,308.1	-6,171.7	1,731.3	6,406.7	0.93
13,689.0	90.84	161.61	7,307.2	-6,263.2	1,760.3	6,502.7	1.86
13,785.0	91.65	162.88	7,305.1	-6,354.6	1,789.5	6,598.7	1.57
13,882.0	89.40	159.74	7,304.2	-6,446.5	1,820.6	6,695.6	3.98
13,978.0	91.71	161.64	7,303.3	-6,537.1	1,852.4	6,791.5	3.12
14,074.0	91.91	162.93	7,300.2	-6,628.5	1,881.5	6,887.5	1.36
14,171.0	91.28	164.16	7,297.5	-6,721.5	1,909.0	6,984.4	1.42
14,267.0	89.36	164.36	7,297.0	-6,813.9	1,935.1	7,080.4	2.01
14,364.0	88.59	164.18	7,298.7	-6,907.2	1,961.3	7,177.3	0.82
14,460.0	91.48	165.89	7,298.7	-7,000.0	1,986.1	7,273.2	3.50
14,557.0	90.27	163.48	7,297.2	-7,093.5	2,011.7	7,370.1	2.78
14,653.0	89.87	163.26	7,297.1	-7,185.5	2,039.2	7,466.1	0.48
14,749.0	90.07	162.82	7,297.1	-7,277.3	2,067.2	7,562.1	0.50
14,846.0	90.47	163.18	7,296.7	-7,370.1	2,095.6	7,659.1	0.55
14,942.0	89.93	163.92	7,296.3	-7,462.1	2,122.8	7,755.1	0.95
15,038.0	88.79	162.92	7,297.4	-7,554.1	2,150.2	7,851.1	1.58
15,135.0	87.79	160.80	7,300.3	-7,646.3	2,180.3	7,948.0	2.42
15,231.0	88.99	159.72	7,303.0	-7,738.6	2,212.8	8,043.9	1.68
15,328.0	90.10	161.44	7,303.8	-7,828.1	2,245.0	8,140.8	2.11



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**Database:** Oklahoma District

**Survey**

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
15,424.0	89.73	160.73	7,303.9	-7,918.9	2,276.1	8,236.8	0.83
15,521.0	90.17	160.59	7,304.0	-8,010.4	2,308.2	8,333.8	0.48
15,617.0	90.03	159.45	7,303.8	-8,100.6	2,341.1	8,429.7	1.20
15,713.0	89.36	159.46	7,304.3	-8,190.5	2,374.7	8,525.5	0.70
15,745.0	89.77	160.25	7,304.6	-8,220.5	2,385.8	8,557.5	2.78
15,800.0	89.77	160.25	7,304.8	-8,272.3	2,404.3	8,612.4	0.00

**Design Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
6,871.0	6,870.4	-0.4	-17.9	Sycamore
7,048.0	7,037.6	-40.3	-57.9	Middlesex
7,228.0	7,187.5	-133.5	-85.5	Burkett
7,261.0	7,211.5	-156.2	-87.2	Tully
7,401.0	7,295.7	-267.3	-84.7	Hamilton
7,498.0	7,332.9	-356.2	-75.2	Marcellus

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

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