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PROFILE VIEW (Gaskins Unit 1H)

WV GEOLOGICAL SURVEY
MORGANTOWN, WV



Antero Resources
Gaskins Unit 1H
Doddridge County WV
Northing: 14295919.09
Easting: 1712845.07
As Drilled

WELL DETAILS: Gaskins Unit 1H

+N/S +E/W Northing Easting Longitude
0.0 0.0 14295919.09 1712845.07 39° 22' 3.731 N60° 44' 37.425 W

Spot

PROJECT DETAILS: Doddridge County WV

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1983 (NAD83 CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 17N (84 W to 78 W)
System Datum: Mean Sea Level

Genie Lightfoot
14:29, October 21 2013

Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK

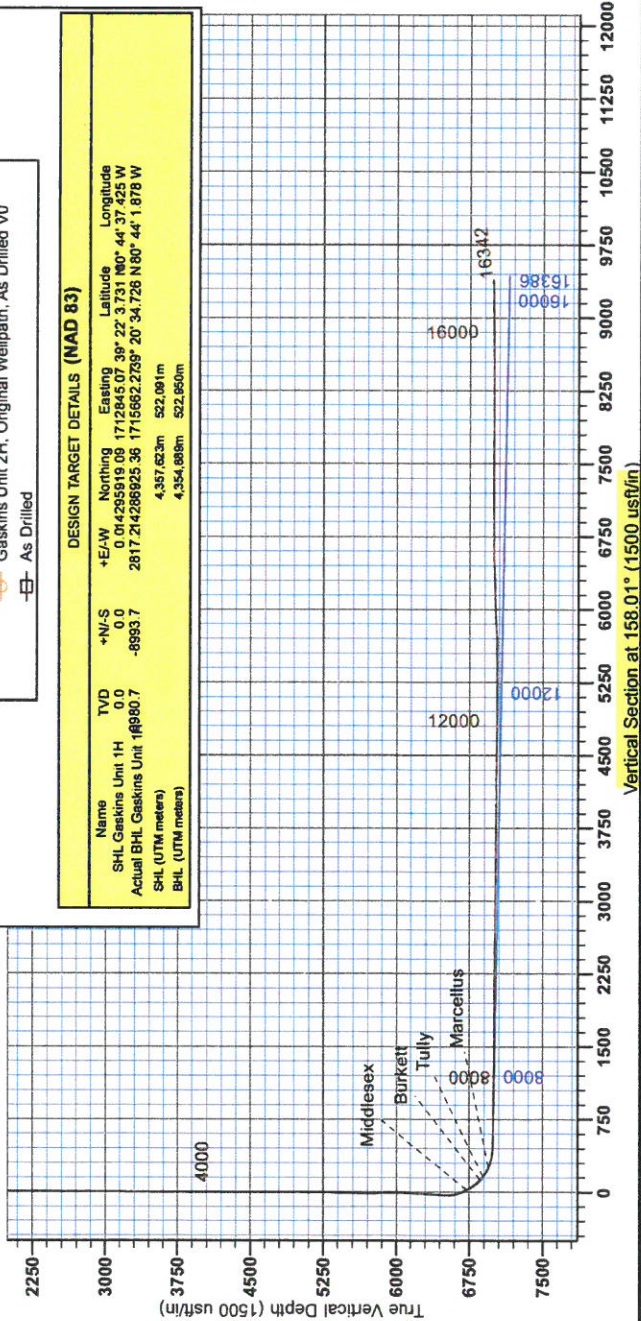


LEGEND

- Costlow Unit 1H, Original Wellpath, As Drilled V0
- Gaskins Unit 1H, Original Wellpath, Plan 3 V0
- Gaskins Unit 2H, Sidetrack 1, As Drilled ST1 V0
- Gaskins Unit 2H, Original Wellpath, As Drilled V0
- As Drilled

DESIGN TARGET DETAILS (NAD 83)

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
SHL Gaskins Unit 1H	0.0	0.0	0.0	14295919.09	1712845.07	39° 22' 3.731 N60° 44' 37.425 W	2817.214268925 36 1716662.2789° 20 34.726 N60° 44' 1.878 W
Actual BHL Gaskins Unit 1H	19960.7	-8993.7					
SHL (UTM meters)				4,357,623m	522,091m		
BHL (UTM meters)				4,354,898m	522,950m		

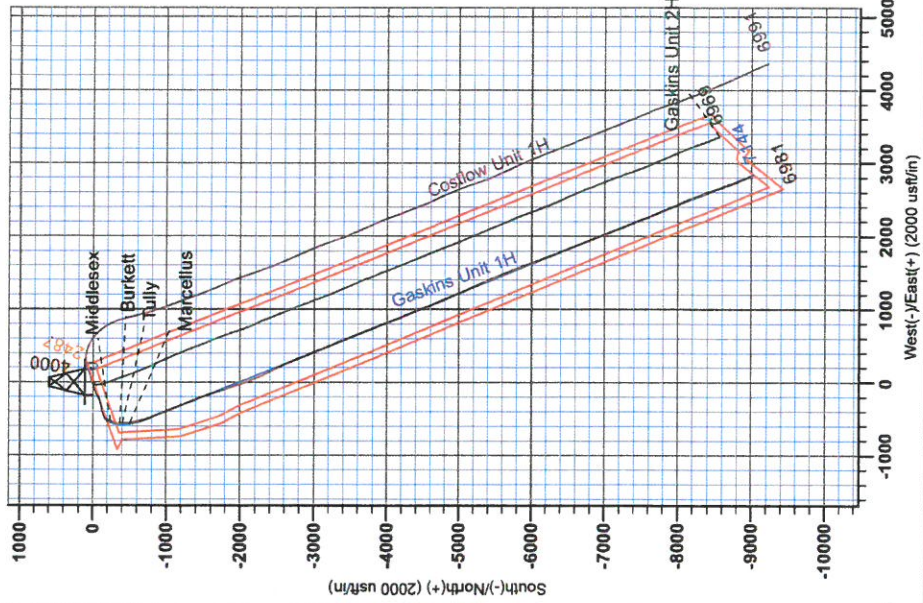


Vertical Section at 158.01° (1500 usf/m)

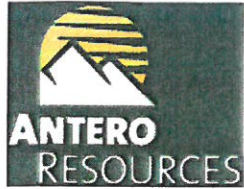


To convert Magnetic North to Grid, Subtract 8.65°
To convert True North to Grid, Subtract 0.18°

Admiralty to Grid North
True North: 0.18°
Magnetic North: -8.65°
Magnetic Field
Strength: 52429.3nT
Dip Angle: 66.95°
Magnetic Declination: 8.65°
Model: IGRF2010



DEVIATION SURVEY (Gaskins Unit 1H)



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MORGANTOWN, WV

Antero Resources

Doddridge County WV
Costlow/Gaskins/Haskins/Knight Pad
Gaskins Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

21 October, 2013



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WV GEOLOGICAL SURVEY MORGANTOWN, WV

EOW Completion Report



Company: Antero Resources
Project: Doddridge County WV
Site: Costlow/Gaskins/Haskins/Knight Pad
Well: Gaskins Unit 1H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Gaskins Unit 1H
TVD Reference: Gaskins Unit 1H GL 1157' + 19' KB @ 1176.0usft
MD Reference: Gaskins Unit 1H GL 1157' + 19' KB @ 1176.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

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

Site	Costlow/Gaskins/Haskins/Knight Pad				
Site Position:	Northing:	14,295,936.28 usft	Latitude:	39° 22' 3.901 N	
From: Map	Easting:	1,712,856.78 usft	Longitude:	80° 44' 37.275 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.16 °

Well	Gaskins Unit 1H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,295,919.09 usft	Latitude:	39° 22' 3.731 N
	+E/-W	0.0 usft	Easting:	1,712,845.07 usft	Longitude:	80° 44' 37.425 W
Position Uncertainty	2.0 usft	Wellhead Elevation:	1,176.0 usft	Ground Level:	1,157.0 usft	

Wellbore Original Wellpath

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/22/2013	-8.49	66.95	52,429

Design As Drilled

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	158.01

Survey Program	Date	10/21/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	2,528.0	Survey #2 Def Gyro to Int (Original Wellpa	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
2,600.0	6,491.5	Survey #3 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
6,566.0	16,342.0	Survey #4 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
100.0	0.63	81.54	100.0	0.1	0.5	0.1	0.63
200.0	0.68	82.66	200.0	0.2	1.7	0.4	0.05
300.0	0.54	80.59	300.0	0.4	2.7	0.7	0.14
400.0	0.45	89.15	400.0	0.5	3.6	0.9	0.12
500.0	0.37	83.33	500.0	0.5	4.3	1.1	0.09
600.0	0.29	92.40	600.0	0.5	4.9	1.3	0.10
700.0	0.34	93.57	700.0	0.5	5.4	1.6	0.05
800.0	0.26	110.08	800.0	0.4	5.9	1.8	0.12
900.0	0.31	111.25	900.0	0.2	6.4	2.2	0.05

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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)
1,000.0	0.24	119.37	1,000.0	0.0	6.8	2.5	0.08
1,100.0	0.15	135.39	1,100.0	-0.2	7.1	2.8	0.10
1,200.0	0.20	157.38	1,200.0	-0.4	7.3	3.1	0.08
1,300.0	0.29	174.59	1,300.0	-0.8	7.4	3.5	0.12
1,400.0	0.19	223.56	1,400.0	-1.2	7.3	3.8	0.22
1,500.0	0.22	225.17	1,500.0	-1.4	7.0	4.0	0.03
1,600.0	0.25	254.81	1,600.0	-1.6	6.7	4.0	0.12
1,700.0	0.31	246.72	1,700.0	-1.8	6.2	4.0	0.07
1,800.0	0.26	246.28	1,800.0	-2.0	5.8	4.0	0.05
1,900.0	0.25	218.63	1,900.0	-2.3	5.4	4.1	0.12
2,000.0	0.34	230.15	2,000.0	-2.6	5.0	4.3	0.11
2,100.0	0.31	220.76	2,100.0	-3.0	4.6	4.5	0.06
2,200.0	0.30	236.44	2,200.0	-3.4	4.2	4.7	0.08
2,300.0	0.22	220.46	2,300.0	-3.7	3.9	4.9	0.11
2,400.0	0.35	288.52	2,400.0	-3.7	3.5	4.7	0.34
2,500.0	0.51	268.37	2,500.0	-3.6	2.8	4.4	0.22
2,528.0	0.56	262.40	2,528.0	-3.6	2.5	4.3	0.27
2,600.0	0.34	277.13	2,600.0	-3.7	1.9	4.1	0.34
2,700.0	0.40	265.26	2,700.0	-3.7	1.3	3.9	0.10
2,800.0	0.46	271.81	2,799.9	-3.7	0.5	3.6	0.08
2,900.0	0.65	271.30	2,899.9	-3.7	-0.4	3.2	0.19
3,000.0	0.58	268.05	2,999.9	-3.7	-1.5	2.8	0.08
3,100.0	0.70	274.92	3,099.9	-3.6	-2.6	2.4	0.14
3,200.0	0.77	275.11	3,199.9	-3.5	-3.9	1.8	0.07
3,300.0	0.78	276.13	3,299.9	-3.4	-5.2	1.2	0.02
3,400.0	0.70	278.29	3,399.9	-3.2	-6.5	0.5	0.08
3,500.0	0.67	277.32	3,499.9	-3.1	-7.7	-0.1	0.03
3,600.0	0.71	276.66	3,599.9	-2.9	-8.9	-0.6	0.04
3,700.0	0.65	274.63	3,699.9	-2.8	-10.1	-1.2	0.06
3,800.0	0.66	276.47	3,799.9	-2.7	-11.2	-1.7	0.02
3,900.0	0.53	279.87	3,899.9	-2.5	-12.2	-2.2	0.13
4,000.0	0.58	275.97	3,999.9	-2.4	-13.2	-2.7	0.06
4,100.0	0.60	274.27	4,099.9	-2.3	-14.2	-3.2	0.03
4,200.0	0.33	248.57	4,199.9	-2.4	-15.0	-3.4	0.33
4,300.0	0.37	244.07	4,299.9	-2.6	-15.6	-3.4	0.05
4,400.0	0.37	245.70	4,399.9	-2.9	-16.2	-3.4	0.01
4,500.0	0.50	247.04	4,499.9	-3.2	-16.9	-3.3	0.13
4,600.0	0.42	243.12	4,599.8	-3.5	-17.6	-3.3	0.09
4,700.0	0.49	246.68	4,699.8	-3.9	-18.3	-3.3	0.08
4,800.0	0.52	246.88	4,799.8	-4.2	-19.1	-3.2	0.03
4,900.0	0.49	245.26	4,899.8	-4.6	-19.9	-3.2	0.03
5,000.0	0.53	244.68	4,999.8	-5.0	-20.7	-3.2	0.04
5,100.0	2.83	246.30	5,099.8	-6.1	-23.4	-3.1	2.30
5,200.0	4.11	249.62	5,199.6	-8.4	-29.0	-3.1	1.30
5,300.0	6.40	257.49	5,299.2	-10.8	-37.8	-4.1	2.40

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5,400.0	10.06	260.00	5,398.1	-13.6	-51.9	-6.8	3.68
5,500.0	13.62	254.25	5,496.0	-18.3	-71.8	-9.9	3.75
5,600.0	17.86	253.29	5,592.2	-25.9	-97.8	-12.6	4.25
5,700.0	20.91	247.36	5,686.5	-37.2	-129.0	-13.8	3.63
5,800.0	23.79	245.62	5,779.0	-52.4	-163.9	-12.8	2.95
5,900.0	23.44	243.35	5,870.7	-69.6	-200.0	-10.3	0.97
6,000.0	22.63	243.09	5,962.7	-87.2	-234.9	-7.1	0.82
6,100.0	24.13	251.05	6,054.5	-102.6	-271.4	-6.5	3.49
6,200.0	23.76	256.38	6,145.9	-114.0	-310.4	-10.5	2.19
6,300.0	24.35	256.72	6,237.2	-123.5	-350.0	-16.6	0.61
6,400.0	24.93	254.54	6,328.1	-133.8	-390.4	-22.1	1.08
6,491.5	24.59	254.88	6,411.2	-143.9	-427.4	-26.6	0.40
6,566.0	23.93	255.66	6,479.1	-151.7	-456.9	-30.4	0.99
6,611.0	23.61	247.72	6,520.3	-157.4	-474.1	-31.6	7.14
6,656.0	23.78	232.57	6,561.5	-166.3	-489.7	-29.1	13.50
6,702.0	25.28	218.46	6,603.4	-179.7	-503.2	-21.8	13.11
6,746.0	27.90	209.97	6,642.8	-195.9	-514.2	-10.8	10.48
6,792.0	31.48	204.66	6,682.8	-216.2	-524.6	4.0	9.65
6,836.0	36.03	202.73	6,719.3	-238.6	-534.4	21.1	10.62
6,844.0	36.84	202.46	6,725.8	-243.0	-536.2	24.5	10.35
Middlesex							
6,882.0	40.71	201.32	6,755.4	-265.0	-545.0	41.7	10.35
6,926.0	43.94	197.40	6,787.9	-293.0	-554.8	63.9	9.48
6,971.0	46.70	189.26	6,819.6	-324.1	-562.1	90.0	14.24
7,015.0	48.88	183.11	6,849.2	-356.5	-565.6	118.7	11.47
7,031.0	50.05	181.81	6,859.6	-368.6	-566.1	129.8	9.59
Burkett							
7,061.0	52.29	179.49	6,878.4	-392.0	-566.4	151.4	9.59
7,077.0	53.97	178.14	6,888.0	-404.8	-566.1	163.3	12.48
Tully							
7,105.0	56.94	175.90	6,903.8	-427.8	-564.9	185.1	12.48
7,150.0	63.02	173.52	6,926.3	-466.6	-561.3	222.4	14.26
7,190.0	67.60	172.35	6,943.0	-502.6	-556.8	257.6	11.76
Marcellus							
7,194.0	68.06	172.24	6,944.6	-506.3	-556.3	261.1	11.76
7,240.0	73.24	169.15	6,959.8	-549.1	-549.3	303.5	12.92
7,284.0	77.37	166.97	6,971.0	-590.7	-540.5	345.4	10.54
7,330.0	82.31	164.94	6,979.1	-634.6	-529.5	390.2	11.58
7,384.0	83.78	163.68	6,985.6	-686.2	-515.0	443.5	3.57
7,440.0	87.65	160.59	6,989.8	-739.4	-497.9	499.2	8.83
7,517.0	89.26	159.02	6,991.9	-811.6	-471.3	576.1	2.92
7,607.0	89.60	158.85	6,992.8	-895.6	-439.0	666.1	0.42
7,696.0	89.76	158.28	6,993.3	-978.4	-406.4	755.1	0.67
7,786.0	89.69	158.52	6,993.7	-1,062.1	-373.3	845.1	0.28
7,876.0	89.70	158.23	6,994.2	-1,145.8	-340.1	935.1	0.32

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7,965.0	89.56	157.48	6,994.7	-1,228.2	-306.6	1,024.0	0.86
8,055.0	89.60	157.17	6,995.4	-1,311.2	-271.9	1,114.0	0.35
8,144.0	89.46	156.12	6,996.1	-1,392.9	-236.6	1,203.0	1.19
8,234.0	88.49	157.98	6,997.7	-1,475.8	-201.5	1,293.0	2.33
8,323.0	89.87	162.53	6,999.0	-1,559.5	-171.5	1,381.9	5.34
8,413.0	90.54	163.52	6,998.7	-1,645.6	-145.2	1,471.5	1.33
8,503.0	88.76	161.50	6,999.3	-1,731.4	-118.2	1,561.2	2.99
8,592.0	90.91	164.47	6,999.5	-1,816.5	-92.1	1,649.9	4.12
8,682.0	89.63	162.29	6,999.1	-1,902.8	-66.4	1,739.5	2.81
8,771.0	88.72	157.80	7,000.4	-1,986.4	-36.0	1,828.4	5.15
8,861.0	89.33	157.98	7,001.9	-2,069.8	-2.2	1,918.4	0.71
8,951.0	89.16	156.94	7,003.1	-2,152.9	32.3	2,008.4	1.17
9,040.0	90.71	158.89	7,003.2	-2,235.3	65.8	2,097.4	2.80
9,130.0	90.07	154.31	7,002.6	-2,317.9	101.5	2,187.3	5.14
9,219.0	88.25	150.11	7,003.9	-2,396.6	143.0	2,275.8	5.14
9,309.0	89.19	154.04	7,005.9	-2,476.1	185.1	2,365.3	4.49
9,399.0	89.70	157.58	7,006.8	-2,558.2	222.0	2,455.2	3.97
9,488.0	89.53	156.21	7,007.4	-2,640.0	256.9	2,544.2	1.55
9,578.0	90.17	156.74	7,007.6	-2,722.6	292.9	2,634.2	0.92
9,667.0	90.37	156.32	7,007.2	-2,804.2	328.3	2,723.1	0.52
9,757.0	88.36	154.82	7,008.2	-2,886.1	365.5	2,813.0	2.79
9,846.0	88.59	157.41	7,010.5	-2,967.5	401.5	2,901.9	2.92
9,936.0	90.50	160.27	7,011.3	-3,051.4	434.0	2,991.9	3.82
10,031.0	90.34	158.08	7,010.6	-3,140.2	467.8	3,086.9	2.31
10,126.0	88.15	155.41	7,011.8	-3,227.4	505.3	3,181.8	3.63
10,220.0	88.72	156.52	7,014.4	-3,313.3	543.6	3,275.7	1.33
10,315.0	90.81	159.22	7,014.8	-3,401.2	579.3	3,370.7	3.59
10,410.0	89.19	158.19	7,014.8	-3,489.8	613.8	3,465.7	2.02
10,505.0	89.19	157.58	7,016.1	-3,577.8	649.6	3,560.7	0.64
10,600.0	89.43	157.85	7,017.3	-3,665.7	685.6	3,655.7	0.38
10,694.0	89.63	157.70	7,018.0	-3,752.7	721.2	3,749.7	0.27
10,789.0	88.96	158.66	7,019.2	-3,840.9	756.5	3,844.7	1.23
10,884.0	88.89	158.89	7,021.0	-3,929.4	790.9	3,939.7	0.25
10,979.0	90.31	161.33	7,021.6	-4,018.7	823.2	4,034.6	2.97
11,042.0	90.91	161.53	7,021.0	-4,078.4	843.3	4,097.5	1.00
11,132.0	90.27	158.80	7,020.0	-4,163.1	873.8	4,187.4	3.12
11,221.0	88.65	155.24	7,020.9	-4,245.0	908.5	4,276.4	4.39
11,311.0	88.66	156.95	7,023.0	-4,327.2	945.0	4,366.3	1.90
11,401.0	90.64	159.76	7,023.5	-4,410.9	978.2	4,456.3	3.82
11,490.0	91.07	160.00	7,022.2	-4,494.4	1,008.8	4,545.2	0.55
11,580.0	88.09	158.26	7,022.9	-4,578.5	1,040.8	4,635.2	3.83
11,669.0	88.64	158.61	7,025.4	-4,661.3	1,073.5	4,724.1	0.73
11,759.0	88.90	156.06	7,027.3	-4,744.3	1,108.2	4,814.1	2.85
11,849.0	91.07	157.29	7,027.4	-4,826.9	1,143.8	4,904.1	2.77

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WV GEOLOGICAL SURVEY MORGANTOWN, WV

EOW Completion Report



Company: Antero Resources
Project: Doddridge County WV
Site: Costlow/Gaskins/Haskins/Knight Pad
Well: Gaskins Unit 1H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Gaskins Unit 1H
TVD Reference: Gaskins Unit 1H GL 1157' + 19' KB @ 1176.0usft
MD Reference: Gaskins Unit 1H GL 1157' + 19' KB @ 1176.0usft
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)
11,938.0	90.81	156.44	7,025.9	-4,908.8	1,178.8	4,993.0	1.00
12,028.0	89.76	155.23	7,025.5	-4,990.9	1,215.7	5,083.0	1.78
12,118.0	89.56	155.23	7,026.0	-5,072.6	1,253.4	5,172.9	0.22
12,208.0	90.64	157.30	7,025.8	-5,155.0	1,289.6	5,262.8	2.59
12,297.0	90.34	157.34	7,025.1	-5,237.1	1,323.9	5,351.8	0.34
12,387.0	90.57	156.33	7,024.4	-5,319.8	1,359.3	5,441.8	1.15
12,476.0	90.07	155.44	7,023.9	-5,401.1	1,395.7	5,530.7	1.15
12,566.0	88.72	156.45	7,024.8	-5,483.2	1,432.3	5,620.7	1.87
12,657.0	92.52	158.75	7,023.8	-5,567.3	1,467.0	5,711.6	4.88
12,745.0	93.36	158.51	7,019.3	-5,649.2	1,499.0	5,799.5	0.99
12,835.0	92.85	158.42	7,014.4	-5,732.8	1,532.0	5,889.4	0.58
12,925.0	91.65	158.46	7,010.9	-5,816.4	1,565.1	5,979.3	1.33
13,014.0	91.17	158.76	7,008.7	-5,899.3	1,597.5	6,068.3	0.64
13,104.0	91.88	160.22	7,006.3	-5,983.5	1,629.0	6,158.2	1.80
13,193.0	92.18	159.92	7,003.2	-6,067.1	1,659.4	6,247.1	0.48
13,283.0	91.95	159.69	6,999.9	-6,151.5	1,690.4	6,337.0	0.36
13,373.0	91.58	158.50	6,997.2	-6,235.6	1,722.5	6,426.9	1.38
13,462.0	91.41	158.12	6,994.8	-6,318.2	1,755.4	6,515.9	0.47
13,552.0	89.90	159.38	6,993.8	-6,402.1	1,788.0	6,605.9	2.19
13,642.0	90.10	159.39	6,993.8	-6,486.4	1,819.7	6,695.8	0.22
13,731.0	90.94	159.87	6,993.0	-6,569.8	1,850.7	6,784.8	1.09
13,821.0	90.30	158.60	6,992.0	-6,653.9	1,882.6	6,874.8	1.58
13,910.0	90.10	158.65	6,991.7	-6,736.8	1,915.0	6,963.8	0.23
14,000.0	89.46	157.08	6,992.1	-6,820.2	1,948.9	7,053.8	1.88
14,090.0	89.53	158.04	6,992.9	-6,903.4	1,983.3	7,143.8	1.07
14,179.0	91.54	159.16	6,992.0	-6,986.2	2,015.7	7,232.7	2.59
14,269.0	90.54	158.86	6,990.4	-7,070.2	2,048.0	7,322.7	1.16
14,358.0	90.07	160.33	6,989.9	-7,153.6	2,079.0	7,411.7	1.73
14,448.0	89.26	158.06	6,990.4	-7,237.8	2,111.0	7,501.6	2.68
14,538.0	90.03	157.37	6,991.0	-7,321.0	2,145.1	7,591.6	1.15
14,627.0	89.53	156.16	6,991.3	-7,402.8	2,180.2	7,680.6	1.47
14,717.0	90.54	159.21	6,991.3	-7,486.1	2,214.4	7,770.6	3.57
14,806.0	90.40	158.21	6,990.6	-7,569.0	2,246.7	7,859.6	1.13
14,896.0	90.27	158.97	6,990.0	-7,652.8	2,279.5	7,949.6	0.86
14,986.0	89.23	155.72	6,990.4	-7,735.8	2,314.2	8,039.6	3.79
15,075.0	89.16	155.27	6,991.7	-7,816.8	2,351.1	8,128.5	0.51
15,165.0	90.23	156.35	6,992.2	-7,898.9	2,388.0	8,218.4	1.69
15,254.0	89.73	155.56	6,992.2	-7,980.2	2,424.3	8,307.3	1.05
15,344.0	90.03	156.13	6,992.4	-8,062.3	2,461.1	8,397.3	0.72
15,434.0	89.56	155.61	6,992.7	-8,144.4	2,497.9	8,487.2	0.78
15,523.0	89.40	156.60	6,993.5	-8,225.8	2,533.9	8,576.2	1.13
15,613.0	90.94	159.86	6,993.2	-8,309.3	2,567.3	8,666.1	4.01
15,703.0	91.55	159.62	6,991.3	-8,393.8	2,598.5	8,756.1	0.73
15,792.0	90.17	160.00	6,989.9	-8,477.3	2,629.2	8,845.0	1.61
15,882.0	90.64	161.09	6,989.3	-8,562.1	2,659.1	8,934.9	1.32

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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)
15,971.0	91.55	163.55	6,987.6	-8,646.9	2,686.2	9,023.7	2.95
16,061.0	90.70	160.51	6,985.8	-8,732.5	2,713.9	9,113.4	3.51
16,151.0	90.50	157.98	6,984.9	-8,816.6	2,745.8	9,203.4	2.82
16,240.0	91.24	157.55	6,983.5	-8,899.0	2,779.5	9,292.4	0.96
16,288.0	91.71	158.52	6,982.3	-8,943.5	2,797.4	9,340.3	2.24
16,342.0	91.71	158.52	6,980.7	-8,993.7	2,817.2	9,394.3	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,844.0	6,725.8	-243.0	-536.2	Middlesex
7,031.0	6,859.6	-368.6	-566.1	Burkett
7,077.0	6,888.0	-404.8	-566.1	Tully
7,190.0	6,943.0	-502.6	-556.8	Marcellus

Checked By: _____ Approved By: _____ Date: _____