

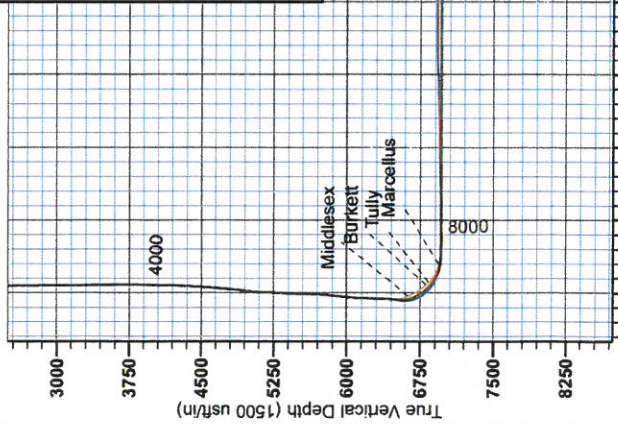
RECEIVED

JUN 15 2015

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV



Antero Resources  
Weich Unit 1H  
Doddridge County WV  
Northing: 14302915.54  
Easting: 1759532.99  
As Drilled ST1



**WELL DETAILS: Weich Unit 1H**

+N/S	+E/W	Nothing	Location	Slot
0.0	0.0	14302915.54	1759532.99 23° 11.175' N 80° 34' 42.321" W	
Ground Level:	880.0			

**PROJECT DETAILS: Doddridge County WV**

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

Scientific Drilling  
Genie Lightfoot  
14:00, November 04 2013  
421 South Eagle Lane  
Oklahoma City, OK

**LEGEND**

- ★ Weich Unit 1H, Original Wellpath, As Drilled V0
- Weich Unit 1H, Original Wellpath, Plan 5 V0
- Weich Unit 1H, Sidetrack 1, Sidetrack Plan 1 Revised V0
- As Drilled ST1

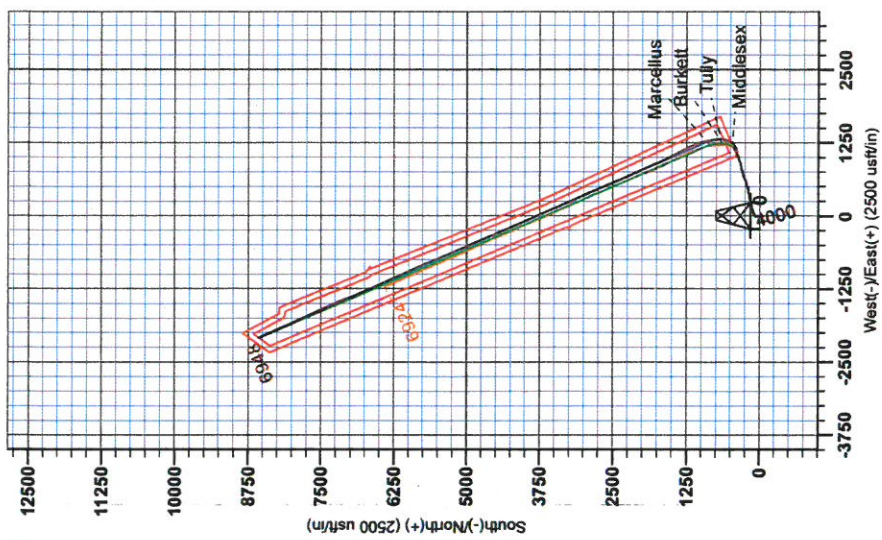
**DESIGN TARGET DETAILS**

Name	+N/S	TVD	+E/W	Northing	Easting	Latitude	Longitude
SHL Weich Unit 1H	0.0	0.0	0.0	14302915.54	1759532.9897	23° 11.175' N 80° 34' 42.321" W	
Actual BR CR Weich Unit 884.1	6418.4		-1218.5	14302915.54	1759532.9897	24° 14.672' N 80° 34' 57.468" W	
Actual BHL ST Weich Unit 847.5	6551.2		-2072.7	14302915.54	1757460.3089	24° 35.818' N 80° 35' 6.229" W	



To convert Magnetic North to Grid, Subtract 8.88°  
To convert True North to Grid, Subtract 0.27°

Magnetic Field  
Strength: 52.04 uT  
Angle: 10.142013  
Date: 10/14/2013  
Model: IGR2010



Vertical Section at 336.37° (1500 usft/in)



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WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

## **Antero Resources**

**Doddridge County WV  
Swiger/Trout/Statler/Welch Pad  
Welch Unit 1H  
Sidetrack 1**

**Design: As Drilled ST1**

## **EOW Completion Report**

**04 November, 2013**





<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Welch Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Welch 1H 880 GL + 28 KB @ 908.0usft
<b>Site:</b>	Swiger/Trout/Statler/Welch Pad	<b>MD Reference:</b>	Welch 1H 880 GL + 28 KB @ 908.0usft
<b>Well:</b>	Welch Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled ST1	<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>	Swiger/Trout/Statler/Welch Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,302,900.75 usft	<b>Latitude:</b>	39° 23' 11.029 N
<b>From:</b>	Map	<b>Easting:</b>	1,759,545.24 usft	<b>Longitude:</b>	80° 34' 42.166 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.27 °

<b>Well</b>	Welch Unit 1H, Marcellus					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,302,915.54 usft	<b>Latitude:</b>	39° 23' 11.175 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,759,532.99 usft	<b>Longitude:</b>	80° 34' 42.321 W
<b>Position Uncertainty</b>	2.0 usft		<b>Wellhead Elevation:</b>	908.0 usft	<b>Ground Level:</b>	880.0 usft

<b>Wellbore</b>	Sidetrack 1				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/14/2013	-8.61	66.93	52,404

<b>Design</b>	As Drilled ST1				
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<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	6,554.0
<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	336.37

Survey Program	From (usft)	To (usft)	Date	Survey (Wellbore)	Tool Name	Description
	184.0	3,642.0	11/4/2013	Survey #1 Gyro SS (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
	3,737.0	5,038.0		Survey #2 Stab/Steer (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
	5,097.0	6,554.0		Survey #3 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1
	6,635.0	15,879.0		Survey #1 ST1 (Sidetrack 1)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
184.0	0.06	21.66	184.0	0.1	0.0	0.1	0.03
275.0	0.08	294.30	275.0	0.2	0.0	0.1	0.11
398.0	0.50	271.94	398.0	0.2	-0.6	0.4	0.35
490.0	1.08	282.05	490.0	0.4	-1.9	1.1	0.65
551.0	0.77	285.97	551.0	0.6	-2.8	1.7	0.52
612.0	0.67	294.40	612.0	0.9	-3.5	2.2	0.24
703.0	0.55	296.43	703.0	1.3	-4.4	3.0	0.13
825.0	0.48	321.33	825.0	2.0	-5.3	3.9	0.19

JUN 15 2015



## EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Swiger/Trout/Statler/Welch Pad  
**Well:** Welch Unit 1H  
**Wellbore:** Sidetrack 1  
**Design:** As Drilled ST1

**Local Co-ordinate Reference:** Well Welch Unit 1H  
**TVD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
**MD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
**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)
950.0	0.39	301.55	950.0	2.6	-6.0	4.8	0.14
1,014.0	0.28	312.70	1,014.0	2.8	-6.3	5.1	0.20
1,070.0	2.00	345.37	1,069.9	3.9	-6.6	6.2	3.16
1,164.0	4.96	347.55	1,163.8	9.4	-7.9	11.8	3.15
1,259.0	6.14	357.00	1,258.3	18.5	-9.0	20.6	1.57
1,355.0	7.01	4.14	1,353.7	29.5	-8.9	30.6	1.24
1,451.0	5.19	355.47	1,449.1	39.6	-8.8	39.9	2.12
1,588.0	4.08	346.18	1,585.7	50.6	-10.5	50.5	0.98
1,682.0	3.34	350.90	1,679.5	56.5	-11.7	56.5	0.85
1,778.0	2.57	351.96	1,775.4	61.4	-12.4	61.2	0.80
1,874.0	1.76	355.84	1,871.3	65.0	-12.8	64.7	0.86
1,970.0	1.28	352.87	1,967.3	67.5	-13.1	67.1	0.51
2,065.0	0.85	352.22	2,062.2	69.3	-13.3	68.8	0.45
2,160.0	0.64	354.55	2,157.2	70.5	-13.5	70.0	0.22
2,255.0	0.42	334.26	2,252.2	71.4	-13.7	70.8	0.30
2,389.0	0.36	325.73	2,386.2	72.1	-14.1	71.8	0.06
2,513.0	0.42	329.72	2,510.2	72.9	-14.6	72.6	0.05
2,672.0	0.41	329.26	2,669.2	73.9	-15.1	73.7	0.01
2,753.0	0.56	320.36	2,750.2	74.4	-15.5	74.4	0.21
2,848.0	0.47	321.10	2,845.2	75.1	-16.1	75.2	0.09
2,944.0	0.49	306.76	2,941.2	75.6	-16.7	76.0	0.13
3,040.0	0.48	307.99	3,037.2	76.1	-17.3	76.7	0.02
3,548.0	0.60	317.46	3,545.2	79.4	-20.8	81.1	0.03
3,642.0	3.58	63.46	3,639.1	81.1	-18.5	81.7	4.03
3,737.0	5.98	67.56	3,733.8	84.3	-11.3	81.7	2.55
3,832.0	9.74	65.20	3,827.9	89.5	0.6	81.8	3.97
3,927.0	12.85	66.42	3,921.0	97.1	17.6	81.9	3.28
4,021.0	14.40	75.37	4,012.4	104.3	38.5	80.1	2.78
4,117.0	16.80	70.66	4,104.9	111.9	63.1	77.2	2.82
4,212.0	18.34	66.63	4,195.4	122.4	89.8	76.1	2.06
4,307.0	18.51	72.23	4,285.6	132.9	117.9	74.5	1.87
4,402.0	20.19	77.25	4,375.2	141.1	148.2	69.9	2.49
4,497.0	22.45	75.83	4,463.7	149.2	181.8	63.8	2.44
4,590.0	25.57	74.96	4,548.6	158.7	218.4	57.9	3.38
4,654.0	25.96	75.80	4,606.3	165.7	245.4	53.5	0.83
4,750.0	24.79	75.45	4,693.0	176.0	285.2	46.9	1.23
4,909.0	24.08	80.40	4,837.8	189.7	349.5	33.8	1.36
5,004.0	18.81	84.58	4,926.2	194.4	383.8	24.3	5.77
5,038.0	18.23	84.78	4,958.4	195.4	394.6	20.9	1.72
5,097.0	21.45	83.89	5,013.9	197.4	414.5	14.7	5.48
5,128.0	22.02	81.15	5,042.7	198.9	425.9	11.5	3.75
5,160.0	21.22	78.76	5,072.5	201.0	437.5	8.7	3.72
5,223.0	20.22	73.68	5,131.4	206.2	459.1	4.9	3.26
5,254.0	20.44	71.99	5,160.5	209.4	469.4	3.7	2.02

JUN 15 2015



## EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Swiger/Trout/Statler/Welch Pad  
**Well:** Welch Unit 1H  
**Wellbore:** Sidetrack 1  
**Design:** As Drilled ST1

**Local Co-ordinate Reference:** Well Welch Unit 1H  
**TVD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
**MD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
**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)
5,286.0	21.05	70.11	5,190.4	213.1	480.1	2.8	2.82
5,318.0	21.71	71.21	5,220.2	217.0	491.2	1.9	2.41
5,349.0	21.83	71.14	5,249.0	220.7	502.0	0.9	0.40
5,381.0	22.69	71.21	5,278.6	224.6	513.5	-0.1	2.69
5,413.0	23.80	71.38	5,308.0	228.6	525.5	-1.2	3.48
5,444.0	24.49	74.17	5,336.3	232.4	537.6	-2.6	4.30
5,476.0	25.24	76.52	5,365.3	235.8	550.6	-4.7	3.88
5,508.0	24.74	79.30	5,394.3	238.6	563.8	-7.4	3.99
5,539.0	24.30	75.84	5,422.5	241.4	576.4	-9.9	4.84
5,571.0	24.03	71.68	5,451.7	245.0	588.9	-11.6	5.39
5,603.0	24.50	68.07	5,480.9	249.6	601.3	-12.4	4.86
5,635.0	24.44	64.18	5,510.0	254.9	613.4	-12.3	5.04
5,666.0	23.93	65.18	5,538.3	260.4	624.9	-11.9	2.11
5,698.0	24.18	68.09	5,567.5	265.5	636.8	-12.0	3.79
5,729.0	25.02	69.13	5,595.7	270.2	648.9	-12.5	3.05
5,761.0	25.46	69.03	5,624.6	275.1	661.6	-13.1	1.38
5,793.0	26.20	69.00	5,653.5	280.1	674.6	-13.8	2.31
5,825.0	27.12	69.93	5,682.0	285.1	688.1	-14.6	3.16
5,856.0	27.20	73.62	5,709.6	289.6	701.5	-15.9	5.44
5,888.0	27.59	76.90	5,738.0	293.3	715.7	-18.2	4.87
5,920.0	28.26	77.27	5,766.3	296.7	730.4	-21.0	2.16
5,952.0	29.53	75.50	5,794.3	300.3	745.4	-23.6	4.78
5,983.0	30.50	74.63	5,821.2	304.3	760.4	-26.0	3.43
6,015.0	30.15	74.54	5,848.8	308.6	775.9	-28.3	1.10
6,047.0	29.74	76.45	5,876.5	312.6	791.4	-30.8	3.24
6,078.0	29.90	77.61	5,903.4	316.1	806.4	-33.7	1.93
6,110.0	29.95	78.72	5,931.2	319.3	822.0	-36.9	1.74
6,142.0	29.48	79.07	5,959.0	322.4	837.6	-40.4	1.57
6,173.0	28.23	79.21	5,986.1	325.2	852.3	-43.7	4.04
6,205.0	26.34	79.29	6,014.5	327.9	866.7	-47.0	5.91
6,237.0	24.93	75.61	6,043.4	330.9	880.2	-49.6	6.64
6,268.0	25.05	71.01	6,071.5	334.7	892.8	-51.2	6.28
6,300.0	25.79	67.88	6,100.4	339.5	905.6	-51.9	4.79
6,332.0	26.27	71.20	6,129.2	344.4	918.8	-52.7	4.79
6,363.0	24.81	74.68	6,157.1	348.4	931.5	-54.2	6.75
6,395.0	24.05	75.12	6,186.3	351.8	944.3	-56.2	2.44
6,427.0	24.55	71.20	6,215.4	355.6	956.9	-57.8	5.28
6,459.0	25.52	68.19	6,244.4	360.3	969.6	-58.5	5.00
6,490.0	25.65	68.27	6,272.4	365.3	982.0	-59.0	0.43
6,522.0	26.29	66.32	6,301.1	370.7	995.0	-59.2	3.33
6,554.0	27.15	67.13	6,329.7	376.4	1,008.2	-59.3	2.92
6,635.0	25.97	73.66	6,402.2	388.6	1,042.2	-61.8	3.89
6,667.0	27.48	76.48	6,430.8	392.3	1,056.1	-64.0	6.16
6,698.0	30.31	80.91	6,457.9	395.2	1,070.8	-67.2	11.44



JUN 15 2015

## EOW Completion Report



**Company:** Antero Resources  
**Project:** Morgantown, WV  
**Site:** Doddridge County WV  
**Well:** Swiger/Trout/Statler/Welch Pad  
**Wellbore:** Welch Unit 1H  
**Design:** Sidetrack 1  
 As Drilled ST1

**Local Co-ordinate Reference:** Well Welch Unit 1H  
**TVD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
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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)
6,730.0	33.50	82.91	6,485.1	397.5	1,087.6	-71.7	10.50
6,761.0	35.44	78.88	6,510.6	400.3	1,104.9	-76.1	9.66
6,792.0	36.17	71.52	6,535.8	405.0	1,122.4	-78.9	14.08
6,824.0	38.31	67.02	6,561.3	411.8	1,140.5	-79.8	10.82
6,856.0	40.46	63.18	6,586.0	420.4	1,158.9	-79.4	10.15
6,887.0	42.83	58.51	6,609.2	430.4	1,176.8	-77.4	12.59
6,919.0	44.53	54.07	6,632.3	442.7	1,195.2	-73.5	10.95
6,950.0	45.55	48.63	6,654.2	456.4	1,212.3	-67.8	12.84
6,982.0	46.53	43.33	6,676.5	472.4	1,228.9	-59.8	12.31
7,013.0	47.38	37.78	6,697.6	489.6	1,243.6	-49.9	13.37
7,044.0	49.69	33.54	6,718.2	508.5	1,257.1	-38.0	12.67
7,076.0	50.74	29.74	6,738.6	529.4	1,270.0	-24.0	9.70
7,107.0	51.27	25.12	6,758.2	550.8	1,281.1	-8.9	11.71
7,139.0	50.99	20.08	6,778.2	573.8	1,290.6	8.3	12.29
7,171.0	51.04	14.77	6,798.4	597.5	1,298.1	27.1	12.90
7,203.0	51.12	9.55	6,818.5	621.8	1,303.3	47.3	12.69
7,234.0	52.95	5.39	6,837.6	646.0	1,306.5	68.2	12.11
7,265.0	55.21	2.67	6,855.8	671.1	1,308.3	90.4	10.18
7,297.0	57.19	359.64	6,873.6	697.7	1,308.8	114.6	10.01
7,329.0	60.32	357.46	6,890.2	725.0	1,308.1	139.9	11.38
7,360.0	61.29	354.08	6,905.3	752.0	1,306.1	165.4	10.02
7,392.0	64.75	350.68	6,919.8	780.2	1,302.3	192.8	14.37
7,423.0	69.04	350.14	6,932.0	808.3	1,297.5	220.5	13.93
7,454.0	73.99	349.31	6,941.8	837.3	1,292.3	249.1	16.17
7,486.0	79.28	348.96	6,949.2	867.8	1,286.4	279.4	16.57
7,510.0	83.50	348.42	6,952.8	891.1	1,281.8	302.6	17.72
7,558.0	90.04	345.68	6,955.5	937.8	1,271.0	349.7	14.77
7,652.0	89.76	343.35	6,955.6	1,028.3	1,245.9	442.7	2.50
7,747.0	88.11	339.26	6,957.4	1,118.3	1,215.5	537.3	4.64
7,841.0	89.16	333.46	6,959.7	1,204.3	1,177.8	631.2	6.27
7,935.0	90.48	332.76	6,959.9	1,288.2	1,135.3	725.1	1.59
8,029.0	90.84	331.62	6,958.9	1,371.3	1,091.5	818.8	1.27
8,123.0	91.45	333.29	6,957.0	1,454.6	1,048.0	912.6	1.89
8,217.0	89.87	331.79	6,955.9	1,538.0	1,004.7	1,006.4	2.32
8,311.0	91.54	334.43	6,954.7	1,621.9	962.2	1,100.2	3.32
8,406.0	92.76	336.04	6,951.2	1,708.0	922.4	1,195.1	2.13
8,500.0	90.66	336.80	6,948.4	1,794.2	884.8	1,289.1	2.38
8,595.0	90.84	335.84	6,947.1	1,881.2	846.7	1,384.1	1.03
8,689.0	90.31	334.61	6,946.2	1,966.5	807.3	1,478.0	1.42
8,783.0	91.01	335.49	6,945.1	2,051.7	767.6	1,572.0	1.20
8,877.0	90.04	334.08	6,944.2	2,136.7	727.6	1,666.0	1.82
8,972.0	90.40	334.69	6,943.9	2,222.4	686.5	1,760.9	0.75
9,066.0	92.86	336.28	6,941.2	2,307.9	647.5	1,854.8	3.12
9,161.0	92.24	336.45	6,937.0	2,394.8	609.5	1,949.7	0.68

JUN 15 2015



EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Swiger/Trout/Statler/Welch Pad  
**Well:** Welch Unit 1H  
**Wellbore:** Sidetrack 1  
**Design:** As Drilled ST1

**Local Co-ordinate Reference:** Well Welch Unit 1H  
**TVD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
**MD Reference:** Welch 1H 880 GL + 28 KB @ 908.0usft  
**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)
9,255.0	92.33	336.36	6,933.2	2,480.9	571.9	2,043.7	0.14
9,349.0	91.63	338.03	6,930.0	2,567.5	535.5	2,137.6	1.93
9,443.0	91.54	336.80	6,927.4	2,654.3	499.4	2,231.5	1.31
9,538.0	91.89	337.95	6,924.5	2,741.9	462.9	2,326.5	1.26
9,632.0	91.19	337.51	6,922.0	2,828.9	427.3	2,420.4	0.88
9,726.0	91.28	337.68	6,920.0	2,915.8	391.4	2,514.4	0.20
9,821.0	89.87	335.57	6,919.0	3,002.9	353.7	2,609.4	2.67
9,915.0	89.52	334.96	6,919.5	3,088.3	314.4	2,703.3	0.75
10,010.0	90.84	335.31	6,919.2	3,174.5	274.5	2,798.3	1.44
10,104.0	90.75	334.87	6,917.9	3,259.8	234.9	2,892.3	0.48
10,198.0	90.92	334.69	6,916.6	3,344.8	194.8	2,986.2	0.26
10,289.0	90.57	335.92	6,915.4	3,427.5	156.8	3,077.2	1.41
10,380.0	90.92	337.42	6,914.2	3,511.0	120.8	3,168.2	1.69
10,474.0	91.01	338.21	6,912.6	3,598.0	85.3	3,262.2	0.85
10,565.0	90.13	337.68	6,911.7	3,682.4	51.1	3,353.1	1.13
10,656.0	90.84	337.95	6,910.9	3,766.6	16.8	3,444.1	0.83
10,746.0	90.04	336.19	6,910.2	3,849.5	-18.3	3,534.1	2.15
10,836.0	90.84	335.05	6,909.6	3,931.5	-55.4	3,624.1	1.55
10,927.0	90.48	335.57	6,908.5	4,014.2	-93.5	3,715.0	0.69
11,017.0	91.28	336.36	6,907.1	4,096.3	-130.1	3,805.0	1.25
11,108.0	88.37	335.40	6,907.4	4,179.4	-167.3	3,896.0	3.37
11,198.0	89.16	336.89	6,909.3	4,261.7	-203.7	3,986.0	1.87
11,289.0	88.55	337.59	6,911.2	4,345.6	-238.9	4,077.0	1.02
11,383.0	88.90	337.95	6,913.3	4,432.6	-274.4	4,170.9	0.53
11,477.0	88.46	337.24	6,915.4	4,519.4	-310.2	4,264.9	0.89
11,571.0	89.87	336.80	6,916.8	4,606.0	-346.9	4,358.8	1.57
11,665.0	89.25	335.75	6,917.5	4,692.0	-384.8	4,452.8	1.30
11,759.0	91.80	337.16	6,916.6	4,778.2	-422.3	4,546.8	3.10
11,853.0	91.01	336.72	6,914.3	4,864.6	-459.1	4,640.8	0.96
11,947.0	90.57	335.49	6,913.0	4,950.6	-497.2	4,734.8	1.39
12,043.0	90.48	334.78	6,912.2	5,037.7	-537.5	4,830.7	0.75
12,138.0	91.45	337.68	6,910.6	5,124.6	-575.8	4,925.7	3.22
12,235.0	90.04	338.03	6,909.3	5,214.4	-612.4	5,022.7	1.50
12,330.0	88.99	336.89	6,910.1	5,302.2	-648.8	5,117.7	1.63
12,426.0	89.34	336.98	6,911.5	5,390.5	-686.4	5,213.6	0.38
12,522.0	89.87	337.42	6,912.2	5,479.0	-723.6	5,309.6	0.72
12,619.0	88.55	337.95	6,913.5	5,568.7	-760.4	5,406.6	1.47
12,714.0	88.99	336.63	6,915.5	5,656.3	-797.1	5,501.6	1.46
12,810.0	90.22	337.16	6,916.2	5,744.6	-834.8	5,597.5	1.40
12,905.0	88.81	335.75	6,917.0	5,831.7	-872.7	5,692.5	2.10
13,000.0	89.16	334.96	6,918.7	5,918.0	-912.3	5,787.5	0.91
13,095.0	90.13	335.05	6,919.3	6,004.1	-952.5	5,882.5	1.03
13,191.0	88.02	336.63	6,920.8	6,091.7	-991.7	5,978.5	2.75
13,286.0	87.76	336.80	6,924.3	6,178.9	-1,029.3	6,073.4	0.33



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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
13,381.0	87.32	335.05	6,928.4	6,265.6	-1,068.0	6,168.3	1.90
13,475.0	87.14	335.13	6,933.0	6,350.7	-1,107.5	6,262.2	0.21
13,571.0	88.11	336.36	6,936.9	6,438.2	-1,146.9	6,358.1	1.63
13,666.0	87.65	335.71	6,940.4	6,524.9	-1,185.5	6,453.0	0.84
13,762.0	89.43	335.05	6,942.9	6,612.1	-1,225.5	6,548.9	1.98
13,856.0	89.87	334.34	6,943.5	6,697.1	-1,265.7	6,642.9	0.89
13,952.0	91.01	335.66	6,942.7	6,784.1	-1,306.2	6,738.9	1.82
14,048.0	91.01	337.77	6,941.0	6,872.3	-1,344.2	6,834.8	2.20
14,144.0	90.40	340.50	6,939.9	6,962.0	-1,378.4	6,930.7	2.91
14,240.0	90.22	340.41	6,939.3	7,052.4	-1,410.5	7,026.5	0.21
14,335.0	90.13	337.33	6,939.0	7,141.0	-1,444.7	7,121.4	3.24
14,431.0	90.44	337.05	6,938.6	7,229.5	-1,481.9	7,217.4	0.44
14,527.0	89.34	335.40	6,938.8	7,317.4	-1,520.6	7,313.4	2.07
14,622.0	89.43	335.31	6,939.8	7,403.7	-1,560.2	7,408.3	0.13
14,718.0	89.60	334.08	6,940.6	7,490.5	-1,601.3	7,504.3	1.29
14,813.0	89.78	335.75	6,941.1	7,576.5	-1,641.5	7,599.3	1.77
14,910.0	90.48	335.66	6,940.9	7,665.0	-1,681.5	7,696.2	0.73
15,006.0	89.08	335.22	6,941.2	7,752.3	-1,721.4	7,792.2	1.53
15,102.0	89.52	335.75	6,942.4	7,839.6	-1,761.2	7,888.2	0.72
15,198.0	88.90	335.22	6,943.7	7,926.9	-1,801.0	7,984.2	0.85
15,294.0	90.66	336.19	6,944.1	8,014.4	-1,840.5	8,080.2	2.09
15,390.0	88.81	335.49	6,944.6	8,102.0	-1,879.8	8,176.2	2.06
15,485.0	89.16	334.34	6,946.2	8,188.0	-1,920.1	8,271.1	1.27
15,580.0	89.52	337.59	6,947.3	8,274.8	-1,958.8	8,366.1	3.44
15,676.0	89.78	338.12	6,947.9	8,363.7	-1,994.9	8,462.1	0.61
15,772.0	90.13	337.59	6,948.0	8,452.6	-2,031.1	8,558.0	0.66
15,828.0	90.31	336.98	6,947.8	8,504.3	-2,052.8	8,614.0	1.14
15,879.0	90.31	336.98	6,947.5	8,551.2	-2,072.7	8,665.0	0.00

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

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JUN 15 2015

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