



Schmidle Unit 1H
Ritchie County WV
 Northing: 14275942.07
 Easting: 1640945.79
 As Drilled



To convert Magnetic North to Grid, Subtract 8.35°
 To convert True North to Grid, Subtract 0.00°

Azimuths to Grid North
 True North: 0.00°
 Magnetic North: -8.35°
 Magnetic Field
 Strength: 52189.4snT
 Dip Angle: 66.85°
 Date: 4/16/2015
 Model: BGGM2014

Patterson 347: GL 1120' + KB 25' @ 1145.0usft
 Gr: 1120.0

		WELL DETAILS Schmidle Unit 1H			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14275942.07	1640945.79	39° 18' 47.222 N	80° 59' 53.265 W

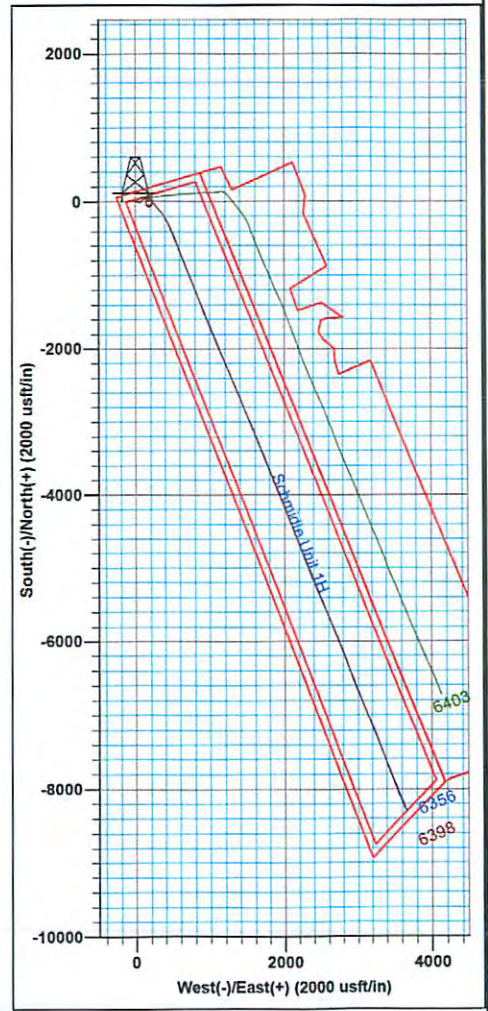
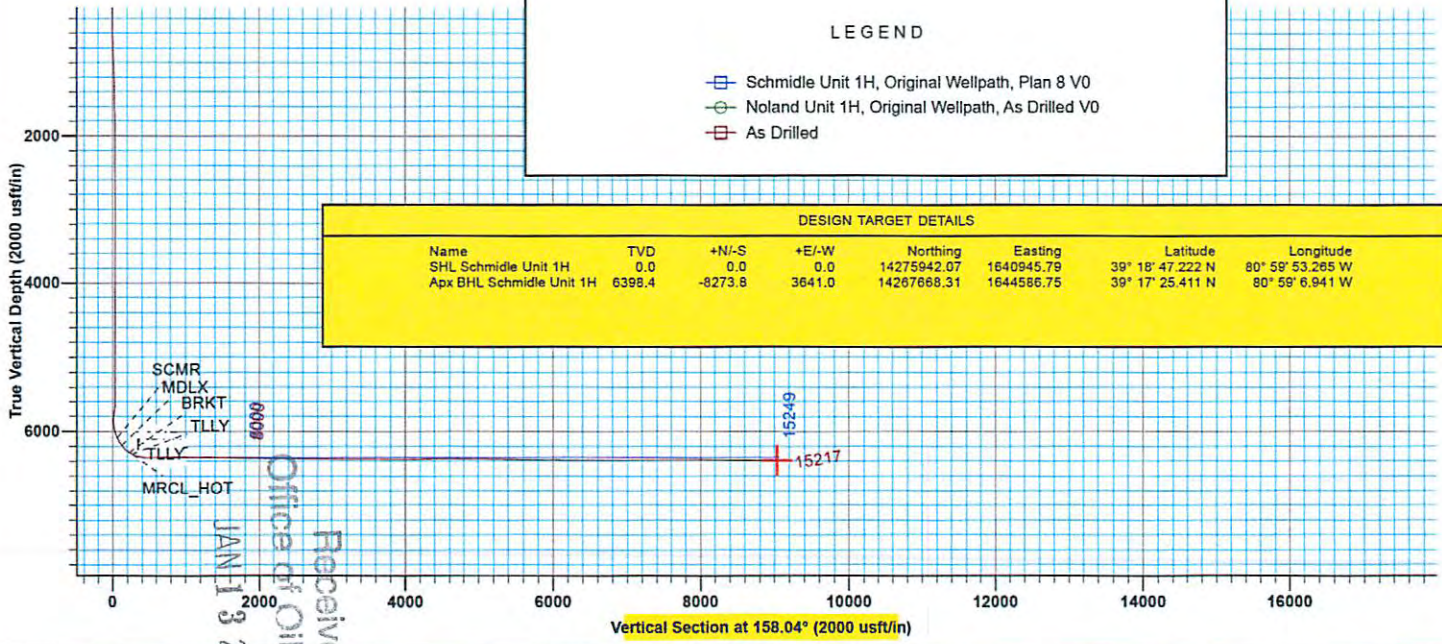
Genie Lightfoot
 10:24, May 11 2015
 Scientific Drilling
 11220 NW 10th Street
 Yukon OK 73099

PROJECT DETAILS: Ritchie County WV
 Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level

SITE DETAILS: Walnut West Pad: Noland/Musgrave/Schmidle
 Site Centre Northing: 14275952.12
 Easting: 1640948.63
 Positional Uncertainty: 0.0
 Convergence: 0.00
 Local North: Grid

LEGEND	
	Schmidle Unit 1H, Original Wellpath, Plan 8 V0
	Noland Unit 1H, Original Wellpath, As Drilled V0
	As Drilled

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Schmidle Unit 1H	0.0	0.0	0.0	14275942.07	1640945.79	39° 18' 47.222 N	80° 59' 53.265 W
ApX BHL Schmidle Unit 1H	6398.4	-8273.8	3641.0	14267668.31	1644586.75	39° 17' 25.411 N	80° 59' 6.941 W





Antero

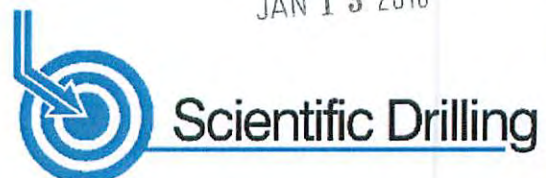
Ritchie County WV
Walnut West Pad: Noland/Musgrave/Schmidle
Schmidle Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

11 May, 2015

Received
Office of Oil & Gas
JAN 13 2016



02/05/2016



Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

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

Site	Walnut West Pad: Noland/Musgrave/Schmidle				
Site Position:	Northing:	14,275,952.12 usft	Latitude:	39° 18' 47.322 N	
From: Map	Easting:	1,640,948.63 usft	Longitude:	80° 59' 53.229 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.00 °

Well	Schmidle Unit 1H, Marcellus				
Well Position	+N/-S	0.0 usft	Northing:	14,275,942.07 usft	
	+E/-W	0.0 usft	Easting:	1,640,945.79 usft	
Position Uncertainty	2.0 usft	Wellhead Elevation:	1,145.0 usft	Ground Level:	1,120.0 usft

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	4/16/2015	-8.35	66.85	52,189

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	158.04	

Survey Program	Date 5/11/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
112.0	5,460.0	Survey #6 Gyro to KOP (Original Wellpath)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
5,502.0	15,217.0	Survey #7 SDI MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

Survey									
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	0.00	
112.0	0.04	243.92	112.0	0.0	0.0	0.0	0.04	0.04	
137.0	0.05	243.92	137.0	0.0	-0.1	0.0	0.04	0.04	
162.0	0.07	277.59	162.0	0.0	-0.1	0.0	0.16	0.16	
187.0	0.05	8.86	187.0	0.0	-0.1	0.0	0.35	0.35	
212.0	0.17	288.13	212.0	0.0	-0.1	-0.1	0.68	0.68	
237.0	0.02	243.02	237.0	0.0	-0.2	-0.1	0.63	0.63	
262.0	0.06	313.07	262.0	0.0	-0.2	-0.1	0.23	0.23	
287.0	0.09	6.24	287.0	0.1	-0.2	-0.1	0.29	0.29	
312.0	0.19	310.28	312.0	0.1	-0.2	-0.2	0.63	0.63	
337.0	0.06	7.83	337.0	0.1	-0.2	-0.2	0.66	0.66	

Received
Office of Oil & Gas
JAN 13 2016



Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
362.0	0.17	356.96	362.0	0.2	-0.2	-0.3	0.45	
387.0	0.10	50.21	387.0	0.2	-0.2	-0.3	0.54	
412.0	0.11	295.92	412.0	0.3	-0.2	-0.3	0.71	
437.0	0.17	10.67	437.0	0.3	-0.2	-0.4	0.71	
462.0	0.21	12.00	462.0	0.4	-0.2	-0.4	0.16	
487.0	0.18	19.24	487.0	0.5	-0.2	-0.5	0.16	
512.0	0.23	9.33	512.0	0.6	-0.2	-0.6	0.24	
537.0	0.37	67.78	537.0	0.6	-0.1	-0.6	1.27	
562.0	0.67	86.03	562.0	0.7	0.1	-0.6	1.36	
587.0	1.61	99.26	587.0	0.6	0.6	-0.4	3.88	
612.0	2.63	93.07	612.0	0.5	1.5	0.1	4.18	
637.0	3.21	99.66	636.9	0.4	2.8	0.7	2.68	
662.0	4.09	99.10	661.9	0.1	4.4	1.5	3.52	
687.0	4.42	101.95	686.8	-0.2	6.2	2.5	1.57	
712.0	4.54	100.01	711.7	-0.6	8.1	3.6	0.77	
737.0	4.58	101.17	736.7	-0.9	10.1	4.6	0.40	
762.0	4.59	101.12	761.6	-1.3	12.0	5.7	0.04	
787.0	4.62	100.65	786.5	-1.7	14.0	6.8	0.19	
812.0	4.74	98.94	811.4	-2.0	16.0	7.9	0.74	
837.0	4.69	100.40	836.3	-2.4	18.0	9.0	0.52	
862.0	4.75	99.54	861.3	-2.8	20.0	10.0	0.37	
887.0	4.64	99.90	886.2	-3.1	22.1	11.1	0.46	
912.0	4.73	98.37	911.1	-3.4	24.1	12.2	0.62	
937.0	4.74	99.08	936.0	-3.7	26.1	13.2	0.24	
962.0	4.72	97.71	960.9	-4.0	28.2	14.3	0.46	
987.0	4.02	97.11	985.8	-4.3	30.0	15.2	2.81	
1,012.0	3.83	96.39	1,010.8	-4.5	31.7	16.0	0.79	
1,037.0	3.65	96.61	1,035.7	-4.7	33.4	16.8	0.72	
1,062.0	3.53	97.03	1,060.7	-4.9	34.9	17.6	0.49	
1,087.0	3.41	95.90	1,085.6	-5.0	36.4	18.3	0.55	
1,112.0	3.32	94.97	1,110.6	-5.2	37.9	19.0	0.42	
1,137.0	3.20	95.96	1,135.6	-5.3	39.3	19.6	0.53	
1,162.0	3.11	94.15	1,160.5	-5.4	40.7	20.2	0.54	
1,187.0	2.95	94.65	1,185.5	-5.5	42.0	20.8	0.65	
1,212.0	2.82	94.51	1,210.4	-5.6	43.2	21.4	0.52	
1,237.0	2.63	96.04	1,235.4	-5.7	44.4	21.9	0.81	
1,262.0	2.56	95.59	1,260.4	-5.8	45.6	22.5	0.29	
1,287.0	2.58	90.99	1,285.4	-5.9	46.7	22.9	0.83	
1,312.0	2.49	92.25	1,310.3	-5.9	47.8	23.4	0.42	
1,337.0	2.23	96.98	1,335.3	-6.0	48.8	23.8	1.30	
1,362.0	2.21	97.09	1,360.3	-6.1	49.8	24.3	0.08	
1,387.0	2.25	93.84	1,385.3	-6.2	50.7	24.7	0.53	
1,412.0	2.16	91.25	1,410.3	-6.3	51.7	25.1	0.54	
1,437.0	2.11	94.87	1,435.3	-6.3	52.6	25.5	0.58	

Received
Office of Oil & Gas
JAN 17 2016

Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
1,462.0	1.91	96.47	1,460.2	-6.4	53.5	25.9	0.83	
1,487.0	1.89	97.27	1,485.2	-6.5	54.3	26.3	0.13	
1,512.0	1.83	98.56	1,510.2	-6.6	55.1	26.8	0.29	
1,537.0	1.81	98.73	1,535.2	-6.7	55.9	27.2	0.08	
1,562.0	1.75	100.14	1,560.2	-6.9	56.7	27.6	0.30	
1,587.0	1.64	101.47	1,585.2	-7.0	57.4	28.0	0.47	
1,612.0	1.68	100.13	1,610.2	-7.1	58.1	28.4	0.22	
1,637.0	1.62	99.20	1,635.2	-7.3	58.8	28.7	0.26	
1,662.0	1.49	100.69	1,660.1	-7.4	59.5	29.1	0.54	
1,687.0	1.43	99.60	1,685.1	-7.5	60.1	29.4	0.26	
1,712.0	1.45	104.00	1,710.1	-7.6	60.7	29.8	0.45	
1,737.0	1.38	105.27	1,735.1	-7.8	61.3	30.1	0.31	
1,762.0	1.26	101.59	1,760.1	-7.9	61.9	30.5	0.59	
1,787.0	1.23	99.08	1,785.1	-8.0	62.4	30.8	0.25	
1,812.0	1.15	99.58	1,810.1	-8.1	62.9	31.0	0.32	
1,837.0	1.11	95.18	1,835.1	-8.2	63.4	31.3	0.38	
1,862.0	1.06	103.53	1,860.1	-8.2	63.9	31.5	0.66	
1,887.0	1.03	106.95	1,885.1	-8.3	64.3	31.8	0.28	
1,912.0	1.13	107.71	1,910.1	-8.5	64.8	32.1	0.40	
1,937.0	1.19	108.17	1,935.1	-8.6	65.3	32.4	0.24	
1,962.0	1.19	106.32	1,960.1	-8.8	65.8	32.7	0.15	
1,987.0	1.09	104.02	1,985.1	-8.9	66.2	33.1	0.44	
2,012.0	1.02	103.54	2,010.1	-9.0	66.7	33.3	0.28	
2,037.0	1.02	99.16	2,035.1	-9.1	67.1	33.6	0.31	
2,062.0	1.00	98.53	2,060.1	-9.2	67.6	33.8	0.09	
2,087.0	0.96	100.72	2,085.1	-9.3	68.0	34.0	0.22	
2,112.0	0.97	103.01	2,110.0	-9.4	68.4	34.2	0.16	
2,137.0	0.91	97.43	2,135.0	-9.4	68.8	34.5	0.44	
2,162.0	0.91	95.31	2,160.0	-9.5	69.2	34.7	0.13	
2,187.0	0.86	99.68	2,185.0	-9.5	69.6	34.8	0.34	
2,212.0	0.71	102.72	2,210.0	-9.6	69.9	35.0	0.62	
2,237.0	0.60	117.59	2,235.0	-9.7	70.2	35.2	0.81	
2,262.0	0.67	102.14	2,260.0	-9.8	70.4	35.4	0.74	
2,287.0	0.66	102.52	2,285.0	-9.8	70.7	35.6	0.04	
2,312.0	0.52	97.62	2,310.0	-9.9	71.0	35.7	0.59	
2,337.0	0.56	103.86	2,335.0	-9.9	71.2	35.8	0.28	
2,362.0	0.47	108.53	2,360.0	-10.0	71.4	36.0	0.40	
2,387.0	0.51	105.76	2,385.0	-10.0	71.6	36.1	0.19	
2,412.0	0.52	124.94	2,410.0	-10.1	71.8	36.3	0.69	
2,437.0	0.55	100.09	2,435.0	-10.2	72.0	36.4	0.93	
2,462.0	0.47	111.81	2,460.0	-10.3	72.2	36.6	0.52	
2,487.0	0.47	99.47	2,485.0	-10.3	72.4	36.7	0.40	
2,512.0	0.52	81.75	2,510.0	-10.3	72.6	36.8	0.64	
2,537.0	0.44	90.95	2,535.0	-10.3	72.9	36.8	0.44	
2,562.0	0.13	85.45	2,560.0	-10.3	73.0	36.9	1.24	

Received
Office of Oil & Gas
JAN 12 2016



Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,587.0	0.19	279.06	2,585.0	-10.3	73.0	36.9	1.27
2,612.0	0.25	99.17	2,610.0	-10.3	73.0	36.9	1.76
2,637.0	0.19	112.39	2,635.0	-10.3	73.1	36.9	0.31
2,662.0	0.26	107.80	2,660.0	-10.4	73.2	37.0	0.29
2,687.0	0.42	104.00	2,685.0	-10.4	73.3	37.1	0.65
2,712.0	0.36	94.31	2,710.0	-10.4	73.5	37.2	0.36
2,737.0	0.38	91.84	2,735.0	-10.5	73.6	37.2	0.10
2,762.0	0.28	76.21	2,760.0	-10.4	73.8	37.3	0.53
2,787.0	0.21	74.54	2,785.0	-10.4	73.9	37.3	0.28
2,812.0	0.11	70.04	2,810.0	-10.4	73.9	37.3	0.40
2,837.0	0.07	77.77	2,835.0	-10.4	74.0	37.3	0.17
2,862.0	0.09	112.94	2,860.0	-10.4	74.0	37.3	0.21
2,887.0	0.17	126.85	2,885.0	-10.4	74.1	37.4	0.34
2,912.0	0.15	111.24	2,910.0	-10.5	74.1	37.4	0.19
2,937.0	0.14	75.18	2,935.0	-10.5	74.2	37.4	0.36
2,962.0	0.12	79.79	2,960.0	-10.4	74.2	37.5	0.09
2,987.0	0.11	355.05	2,985.0	-10.4	74.3	37.4	0.62
3,012.0	0.07	326.13	3,010.0	-10.4	74.3	37.4	0.24
3,037.0	0.13	257.03	3,035.0	-10.4	74.2	37.4	0.49
3,062.0	0.08	213.80	3,060.0	-10.4	74.2	37.4	0.36
3,087.0	0.06	126.25	3,085.0	-10.4	74.2	37.4	0.39
3,112.0	0.10	354.05	3,110.0	-10.4	74.2	37.4	0.59
3,137.0	0.09	11.95	3,135.0	-10.4	74.2	37.4	0.12
3,162.0	0.07	308.02	3,160.0	-10.3	74.2	37.3	0.35
3,187.0	0.14	253.15	3,185.0	-10.3	74.1	37.3	0.46
3,212.0	0.15	210.08	3,210.0	-10.4	74.1	37.3	0.43
3,237.0	0.13	269.92	3,235.0	-10.4	74.1	37.3	0.56
3,262.0	0.17	308.19	3,260.0	-10.4	74.0	37.3	0.42
3,287.0	0.13	281.07	3,285.0	-10.3	73.9	37.2	0.32
3,312.0	0.25	263.78	3,310.0	-10.3	73.9	37.2	0.53
3,337.0	0.23	245.54	3,335.0	-10.4	73.8	37.2	0.31
3,362.0	0.11	265.62	3,360.0	-10.4	73.7	37.2	0.53
3,387.0	0.11	316.54	3,385.0	-10.4	73.6	37.2	0.38
3,412.0	0.22	288.18	3,410.0	-10.4	73.6	37.1	0.54
3,437.0	0.27	275.76	3,435.0	-10.3	73.5	37.1	0.29
3,462.0	0.17	219.20	3,460.0	-10.4	73.4	37.0	0.91
3,487.0	0.08	182.92	3,485.0	-10.4	73.4	37.1	0.46
3,512.0	0.10	306.96	3,510.0	-10.4	73.4	37.1	0.64
3,537.0	0.19	292.31	3,535.0	-10.4	73.3	37.0	0.39
3,562.0	0.25	275.63	3,560.0	-10.4	73.2	37.0	0.35
3,587.0	0.18	241.46	3,585.0	-10.4	73.1	37.0	0.57
3,612.0	0.12	240.70	3,610.0	-10.4	73.1	37.0	0.24
3,637.0	0.11	301.91	3,635.0	-10.4	73.0	36.9	0.47
3,662.0	0.19	305.89	3,660.0	-10.4	73.0	36.9	0.32

Received
Office of Oil & Gas
JAN 13 2016



EOW Completion Report



Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
3,687.0	0.21	274.85	3,685.0	-10.3	72.9	36.8	0.44
3,712.0	0.24	255.09	3,710.0	-10.3	72.8	36.8	0.33
3,737.0	0.23	210.49	3,735.0	-10.4	72.7	36.8	0.71
3,762.0	0.06	273.97	3,760.0	-10.4	72.7	36.9	0.84
3,787.0	0.14	316.46	3,785.0	-10.4	72.6	36.8	0.42
3,812.0	0.23	303.82	3,810.0	-10.4	72.6	36.8	0.39
3,837.0	0.21	296.30	3,835.0	-10.3	72.5	36.7	0.14
3,862.0	0.19	316.76	3,860.0	-10.3	72.4	36.6	0.29
3,887.0	0.22	279.33	3,885.0	-10.2	72.3	36.5	0.54
3,912.0	0.18	269.75	3,910.0	-10.2	72.3	36.5	0.21
3,937.0	0.08	242.28	3,935.0	-10.2	72.2	36.5	0.46
3,962.0	0.06	337.95	3,960.0	-10.2	72.2	36.5	0.42
3,987.0	0.19	331.41	3,985.0	-10.2	72.2	36.4	0.52
4,012.0	0.19	312.13	4,010.0	-10.1	72.1	36.3	0.25
4,037.0	0.25	288.68	4,035.0	-10.1	72.0	36.3	0.43
4,062.0	0.22	282.73	4,060.0	-10.0	71.9	36.2	0.15
4,087.0	0.12	291.40	4,085.0	-10.0	71.9	36.2	0.41
4,112.0	0.09	246.11	4,110.0	-10.0	71.8	36.2	0.34
4,137.0	0.03	233.62	4,135.0	-10.0	71.8	36.2	0.24
4,162.0	0.13	299.80	4,160.0	-10.0	71.8	36.1	0.48
4,187.0	0.26	277.56	4,185.0	-10.0	71.7	36.1	0.59
4,212.0	0.20	312.64	4,210.0	-10.0	71.6	36.0	0.60
4,237.0	0.21	312.78	4,235.0	-9.9	71.5	35.9	0.04
4,262.0	0.24	300.94	4,260.0	-9.8	71.5	35.9	0.22
4,287.0	0.23	288.32	4,285.0	-9.8	71.4	35.8	0.21
4,312.0	0.16	278.42	4,310.0	-9.8	71.3	35.7	0.31
4,337.0	0.20	270.20	4,335.0	-9.8	71.2	35.7	0.19
4,362.0	0.27	278.33	4,360.0	-9.8	71.1	35.6	0.31
4,387.0	0.19	268.80	4,385.0	-9.8	71.0	35.6	0.35
4,412.0	0.17	269.16	4,410.0	-9.8	70.9	35.6	0.08
4,437.0	0.17	277.75	4,435.0	-9.8	70.8	35.5	0.10
4,462.0	0.15	260.53	4,460.0	-9.8	70.8	35.5	0.21
4,487.0	0.15	282.51	4,485.0	-9.8	70.7	35.5	0.23
4,512.0	0.15	279.52	4,510.0	-9.7	70.6	35.5	0.03
4,537.0	0.18	274.36	4,535.0	-9.7	70.6	35.4	0.13
4,562.0	0.17	287.68	4,560.0	-9.7	70.5	35.4	0.17
4,587.0	0.06	292.02	4,585.0	-9.7	70.5	35.3	0.44
4,612.0	0.07	268.49	4,610.0	-9.7	70.4	35.3	0.11
4,637.0	0.12	304.59	4,635.0	-9.7	70.4	35.3	0.30
4,662.0	0.08	296.42	4,660.0	-9.7	70.4	35.3	0.17
4,687.0	0.09	320.26	4,685.0	-9.6	70.3	35.2	0.15
4,712.0	0.09	326.14	4,710.0	-9.6	70.3	35.2	0.04
4,737.0	0.19	331.34	4,735.0	-9.6	70.3	35.1	0.40
4,762.0	0.15	318.89	4,760.0	-9.5	70.2	35.1	0.22

Received
Office of Oil & Gas
JAN 13 2016



Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,787.0	0.09	326.59	4,785.0	-9.5	70.2	35.0	0.25
4,812.0	0.06	355.88	4,810.0	-9.4	70.2	35.0	0.19
4,837.0	0.11	18.53	4,835.0	-9.4	70.2	35.0	0.24
4,862.0	0.04	26.77	4,860.0	-9.4	70.2	34.9	0.28
4,887.0	0.09	11.03	4,885.0	-9.3	70.2	34.9	0.21
4,912.0	0.08	325.78	4,910.0	-9.3	70.2	34.9	0.26
4,937.0	0.07	348.70	4,935.0	-9.3	70.2	34.8	0.13
4,962.0	0.15	346.17	4,960.0	-9.2	70.2	34.8	0.32
4,987.0	0.12	49.64	4,985.0	-9.2	70.2	34.8	0.58
5,012.0	0.08	332.80	5,010.0	-9.1	70.2	34.7	0.51
5,037.0	0.13	28.88	5,035.0	-9.1	70.2	34.7	0.43
5,062.0	0.11	39.21	5,060.0	-9.1	70.2	34.7	0.12
5,087.0	0.12	322.95	5,085.0	-9.0	70.2	34.6	0.57
5,112.0	0.08	36.51	5,110.0	-9.0	70.2	34.6	0.50
5,137.0	0.18	62.36	5,135.0	-8.9	70.3	34.6	0.45
5,162.0	0.14	28.20	5,160.0	-8.9	70.3	34.6	0.41
5,187.0	0.20	36.54	5,185.0	-8.8	70.4	34.5	0.26
5,212.0	0.18	91.06	5,210.0	-8.8	70.4	34.5	0.70
5,237.0	0.08	87.85	5,235.0	-8.8	70.5	34.5	0.40
5,262.0	0.09	84.68	5,260.0	-8.8	70.5	34.5	0.04
5,287.0	0.07	98.41	5,285.0	-8.8	70.6	34.6	0.11
5,312.0	0.11	12.45	5,310.0	-8.8	70.6	34.5	0.50
5,337.0	0.19	39.47	5,335.0	-8.7	70.6	34.5	0.42
5,362.0	0.20	38.58	5,360.0	-8.7	70.7	34.5	0.04
5,387.0	0.24	36.94	5,385.0	-8.6	70.7	34.4	0.16
5,412.0	0.35	47.94	5,410.0	-8.5	70.8	34.4	0.49
5,437.0	0.42	61.77	5,435.0	-8.4	71.0	34.3	0.46
5,460.0	0.33	67.45	5,458.0	-8.3	71.1	34.3	0.42
5,502.0	0.48	76.60	5,500.0	-8.2	71.4	34.3	0.39
5,533.0	0.53	100.16	5,531.0	-8.2	71.6	34.4	0.68
5,596.0	0.80	60.20	5,594.0	-8.1	72.3	34.5	0.83
5,627.0	4.80	44.68	5,625.0	-7.0	73.4	34.0	13.02
5,658.0	9.56	40.71	5,655.7	-4.2	76.0	32.3	15.43
5,690.0	13.21	36.84	5,687.1	0.8	79.9	29.2	11.65
5,721.0	15.99	34.97	5,717.1	7.1	84.5	25.0	9.09
5,752.0	18.97	39.23	5,746.6	14.5	90.1	20.2	10.46
5,784.0	21.22	43.38	5,776.7	22.8	97.4	15.3	8.32
5,815.0	21.52	46.98	5,805.6	30.7	105.4	10.9	4.34
5,846.0	20.68	58.02	5,834.5	37.5	114.2	7.9	13.08
5,878.0	20.99	73.04	5,864.4	42.2	124.5	7.5	16.68
5,909.0	21.93	81.98	5,893.3	44.6	135.5	9.3	10.97
5,941.0	21.70	90.84	5,923.0	45.3	147.4	13.1	10.31
5,972.0	21.52	97.74	5,951.8	44.5	158.7	18.1	8.21
6,003.0	21.72	105.33	5,980.6	42.2	169.9	24.4	9.04

Received
Office of Oil & Gas
JAN 13 2016

Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
6,035.0	23.28	113.76	6,010.2	38.1	181.4	32.5	11.19	
6,066.0	24.74	121.59	6,038.5	32.2	192.6	42.1	11.29	
6,097.0	26.19	127.62	6,066.5	24.6	203.5	53.2	9.58	
6,121.0	27.41	131.95	6,088.0	17.7	211.8	62.8	9.58	
SCMR								
6,129.0	27.84	133.31	6,095.0	15.2	214.5	66.1	9.58	
6,160.0	30.69	137.76	6,122.1	4.4	225.1	80.1	11.56	
6,191.0	33.61	139.78	6,148.3	-8.0	236.0	95.7	10.04	
6,223.0	36.93	140.22	6,174.5	-22.2	247.9	113.3	10.41	
6,242.0	39.04	139.84	6,189.4	-31.1	255.4	124.4	11.20	
MDLX								
6,254.0	40.38	139.61	6,198.7	-37.0	260.3	131.7	11.20	
6,285.0	44.10	140.61	6,221.6	-53.0	273.7	151.5	12.19	
6,317.0	48.15	139.65	6,243.8	-70.7	288.5	173.4	12.84	
6,348.0	52.49	140.19	6,263.6	-88.9	303.8	196.1	14.06	
6,379.0	56.60	140.27	6,281.5	-108.3	320.0	220.1	13.26	
6,388.0	57.83	140.15	6,286.4	-114.2	324.8	227.3	13.73	
BRKT								
6,411.0	60.98	139.86	6,298.1	-129.3	337.5	246.2	13.73	
6,431.0	63.60	141.35	6,307.4	-143.0	348.8	263.1	14.67	
TLLY								
6,442.0	65.05	142.14	6,312.2	-150.8	354.9	272.6	14.67	
6,448.0	65.69	142.86	6,314.7	-155.1	358.2	277.8	15.24	
MRCL_HOT								
6,473.0	68.37	145.80	6,324.4	-173.8	371.6	300.2	15.24	
6,505.0	71.71	148.27	6,335.4	-199.0	388.0	329.7	12.71	
6,536.0	74.23	150.46	6,344.5	-224.6	403.1	359.0	10.57	
6,568.0	78.25	152.26	6,352.1	-251.8	418.0	389.9	13.70	
6,599.0	83.33	153.02	6,357.0	-279.0	432.0	420.3	16.56	
6,626.0	88.69	154.56	6,358.9	-303.1	443.9	447.2	20.65	
6,657.0	92.75	156.56	6,358.5	-331.4	456.8	478.1	14.60	
6,688.0	92.92	158.15	6,357.0	-359.9	468.7	509.1	5.15	
6,782.0	90.13	157.40	6,354.5	-446.9	504.2	603.0	3.07	
6,876.0	90.54	157.51	6,353.9	-533.7	540.3	697.0	0.45	
6,970.0	90.64	158.00	6,353.0	-620.7	575.8	791.0	0.53	
7,065.0	89.93	157.77	6,352.5	-708.7	611.6	886.0	0.79	
7,159.0	89.56	158.32	6,352.9	-795.9	646.8	980.0	0.71	
7,253.0	89.06	158.56	6,354.0	-883.3	681.3	1,074.0	0.59	
7,347.0	89.23	158.22	6,355.4	-970.7	715.9	1,168.0	0.40	
7,441.0	90.13	159.21	6,356.0	-1,058.3	750.0	1,262.0	1.42	
7,535.0	90.27	159.15	6,355.6	-1,146.2	783.4	1,356.0	0.16	
7,629.0	89.03	158.94	6,356.2	-1,233.9	817.1	1,450.0	1.34	
7,723.0	88.26	158.80	6,358.4	-1,321.6	850.9	1,543.9	0.83	
7,817.0	88.49	159.75	6,361.1	-1,409.5	884.2	1,637.9	1.04	
7,911.0	89.30	159.89	6,362.9	-1,497.7	916.6	1,731.8	0.87	

Received
Office of Oil & Gas
JAN 13 2016

Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
8,006.0	88.32	159.19	6,364.9	-1,586.7	949.8	1,826.7	1.27
8,100.0	89.53	157.35	6,366.6	-1,674.0	984.6	1,920.7	2.34
8,194.0	89.09	157.14	6,367.8	-1,760.7	1,021.0	2,014.7	0.52
8,288.0	89.33	157.47	6,369.1	-1,847.4	1,057.2	2,108.7	0.43
8,382.0	89.40	157.39	6,370.1	-1,934.2	1,093.3	2,202.7	0.11
8,476.0	89.29	157.25	6,371.2	-2,020.9	1,129.5	2,296.7	0.19
8,570.0	89.77	157.86	6,372.0	-2,107.8	1,165.4	2,390.7	0.83
8,665.0	89.36	156.53	6,372.7	-2,195.3	1,202.2	2,485.6	1.46
8,759.0	88.82	156.15	6,374.2	-2,281.4	1,240.0	2,579.6	0.70
8,853.0	87.65	157.24	6,377.1	-2,367.7	1,277.1	2,673.5	1.70
8,947.0	90.04	158.03	6,379.0	-2,454.6	1,312.9	2,767.5	2.68
9,041.0	89.80	156.68	6,379.1	-2,541.4	1,349.1	2,861.5	1.46
9,135.0	89.66	159.26	6,379.5	-2,628.5	1,384.3	2,955.5	2.75
9,229.0	90.00	158.22	6,379.8	-2,716.1	1,418.4	3,049.5	1.16
9,324.0	89.33	159.17	6,380.4	-2,804.6	1,452.9	3,144.4	1.22
9,418.0	90.67	157.24	6,380.4	-2,891.9	1,487.8	3,238.4	2.50
9,512.0	88.39	154.90	6,381.1	-2,977.8	1,526.0	3,332.4	3.48
9,606.0	90.44	156.71	6,382.1	-3,063.5	1,564.5	3,426.3	2.91
9,700.0	89.70	159.15	6,382.0	-3,150.6	1,599.8	3,520.3	2.71
9,794.0	90.84	157.72	6,381.5	-3,238.0	1,634.3	3,614.3	1.95
9,888.0	88.22	158.27	6,382.3	-3,325.2	1,669.6	3,708.3	2.85
9,982.0	91.95	160.56	6,382.2	-3,413.1	1,702.6	3,802.2	4.66
10,076.0	87.41	155.11	6,382.7	-3,500.1	1,738.0	3,896.1	7.54
10,170.0	89.16	159.00	6,385.5	-3,586.6	1,774.7	3,990.1	4.54
10,264.0	92.02	161.18	6,384.6	-3,675.0	1,806.7	4,084.0	3.83
10,358.0	91.28	159.42	6,381.8	-3,763.5	1,838.3	4,177.9	2.03
10,452.0	92.42	159.64	6,378.8	-3,851.5	1,871.2	4,271.8	1.24
10,546.0	90.27	157.89	6,376.6	-3,939.1	1,905.2	4,365.7	2.95
10,641.0	89.90	157.90	6,376.5	-4,027.1	1,941.0	4,460.7	0.39
10,735.0	88.46	156.00	6,377.8	-4,113.6	1,977.8	4,554.7	2.54
10,829.0	90.17	158.43	6,378.9	-4,200.2	2,014.2	4,648.7	3.16
10,923.0	89.76	158.21	6,379.0	-4,287.6	2,048.9	4,742.7	0.49
11,017.0	89.60	158.37	6,379.5	-4,374.9	2,083.7	4,836.7	0.24
11,111.0	89.09	158.76	6,380.6	-4,462.4	2,118.0	4,930.7	0.68
11,205.0	90.91	159.13	6,380.6	-4,550.1	2,151.8	5,024.7	1.98
11,299.0	90.57	159.21	6,379.4	-4,638.0	2,185.2	5,118.6	0.37
11,394.0	90.07	160.19	6,378.8	-4,727.1	2,218.2	5,213.6	1.16
11,488.0	89.50	160.22	6,379.2	-4,815.5	2,250.0	5,307.5	0.61
11,582.0	88.99	158.23	6,380.4	-4,903.4	2,283.3	5,401.5	2.09
11,676.0	89.16	158.11	6,382.0	-4,990.6	2,318.3	5,495.5	0.22
11,770.0	88.76	158.81	6,383.7	-5,078.0	2,352.8	5,589.4	0.86
11,864.0	88.46	157.72	6,385.9	-5,165.3	2,387.6	5,683.4	1.20
11,958.0	89.56	156.99	6,387.6	-5,252.1	2,423.8	5,777.4	1.40
12,053.0	89.40	156.83	6,388.4	-5,339.5	2,461.0	5,872.4	0.24

Received
Office of Oil & Gas
JAN 13 2016



EOW Completion Report



Company:	Antero	Local Co-ordinate Reference:	Well Schmidle Unit 1H
Project:	Ritchie County WV	TVD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site:	Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference:	Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well:	Schmidle Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
12,147.0	88.66	155.51	6,390.0	-5,425.4	2,499.0	5,966.3	1.61	
12,241.0	90.10	156.49	6,391.0	-5,511.3	2,537.2	6,060.2	1.85	
12,335.0	90.13	156.49	6,390.8	-5,597.5	2,574.7	6,154.2	0.03	
12,429.0	89.97	155.41	6,390.8	-5,683.3	2,613.0	6,248.1	1.16	
12,523.0	89.50	157.32	6,391.2	-5,769.4	2,650.7	6,342.1	2.09	
12,617.0	90.64	157.79	6,391.1	-5,856.3	2,686.6	6,436.1	1.31	
12,711.0	90.50	157.24	6,390.1	-5,943.2	2,722.6	6,530.1	0.60	
12,805.0	90.27	155.61	6,389.5	-6,029.3	2,760.1	6,624.0	1.75	
12,900.0	89.73	158.87	6,389.5	-6,116.9	2,796.9	6,719.0	3.48	
12,993.0	89.66	159.20	6,390.0	-6,203.7	2,830.2	6,812.0	0.36	
13,088.0	90.03	160.60	6,390.3	-6,293.0	2,862.8	6,906.9	1.52	
13,182.0	89.66	160.44	6,390.5	-6,381.6	2,894.2	7,000.9	0.43	
13,276.0	89.87	161.71	6,390.9	-6,470.5	2,924.6	7,094.7	1.37	
13,370.0	89.87	158.64	6,391.1	-6,558.9	2,956.5	7,188.6	3.27	
13,464.0	89.19	156.83	6,391.9	-6,645.9	2,992.1	7,282.6	2.06	
13,558.0	89.56	156.31	6,392.9	-6,732.1	3,029.5	7,376.6	0.68	
13,652.0	89.97	157.40	6,393.3	-6,818.6	3,066.5	7,470.6	1.24	
13,746.0	89.83	156.84	6,393.5	-6,905.2	3,103.0	7,564.6	0.61	
13,840.0	90.20	157.13	6,393.4	-6,991.7	3,139.8	7,658.6	0.50	
13,934.0	89.33	154.94	6,393.8	-7,077.6	3,177.9	7,752.5	2.51	
14,029.0	91.01	155.94	6,393.5	-7,164.0	3,217.4	7,847.4	2.06	
14,123.0	90.94	159.45	6,391.9	-7,250.9	3,253.1	7,941.4	3.73	
14,217.0	90.44	160.01	6,390.8	-7,339.1	3,285.6	8,035.3	0.80	
14,311.0	90.10	159.53	6,390.4	-7,427.3	3,318.1	8,129.3	0.63	
14,405.0	89.73	159.69	6,390.5	-7,515.4	3,350.9	8,223.2	0.43	
14,499.0	89.23	159.95	6,391.4	-7,603.6	3,383.3	8,317.2	0.60	
14,594.0	89.03	158.93	6,392.8	-7,692.6	3,416.7	8,412.1	1.09	
14,688.0	89.77	159.22	6,393.8	-7,780.4	3,450.3	8,506.1	0.85	
14,782.0	89.23	158.78	6,394.6	-7,868.1	3,483.9	8,600.1	0.74	
14,876.0	89.13	158.98	6,396.0	-7,955.8	3,517.8	8,694.1	0.24	
14,970.0	90.23	158.88	6,396.5	-8,043.5	3,551.6	8,788.1	1.18	
15,064.0	89.70	158.98	6,396.5	-8,131.2	3,585.4	8,882.0	0.57	
15,157.0	89.16	158.73	6,397.5	-8,218.0	3,618.9	8,975.0	0.64	
15,217.0	89.00	158.20	6,398.4	-8,273.8	3,641.0	9,035.0	0.92	

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Company: Antero	Local Co-ordinate Reference: Well Schmidle Unit 1H
Project: Ritchie County WV	TVD Reference: Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Site: Walnut West Pad: Noland/Musgrave/Schmidle	MD Reference: Patterson 347: GL 1120' + KB 25' @ 1145.0usft
Well: Schmidle Unit 1H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,121.0	6,088.0	17.7	211.8	SCMR
6,242.0	6,189.4	-31.1	255.4	MDLX
6,388.0	6,286.4	-114.2	324.8	BRKT
6,431.0	6,307.4	-143.0	348.8	TLLY
6,448.0	6,314.7	-155.1	358.2	MRCL_HOT

Checked By: _____ Approved By: _____ Date: _____

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