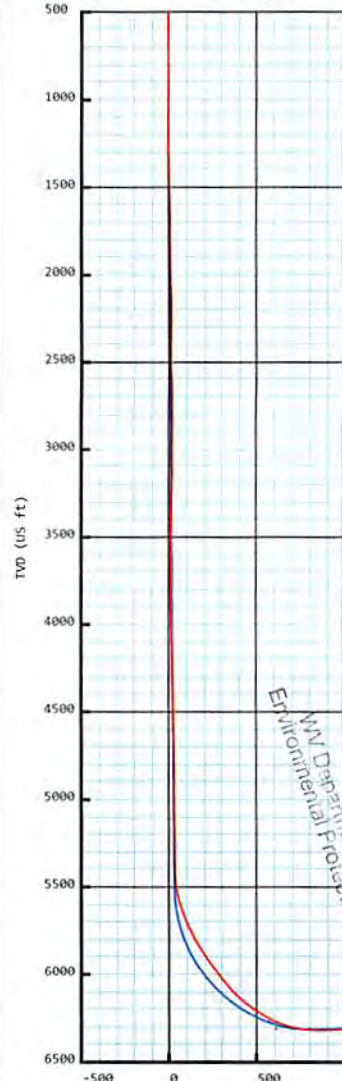




**Southwestern Energy**  
**Melvin Kahle OHI 5H**  
 Ohio Co, WV  
 SDC 41  
**Plan vs Actual**

KB: 1302.6'  
 GL: 1276.6'



**Plan Data for Melvin Kahle OHI 5H**

Dogleg Severity Unit: °/100.00ft

MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface	Comments
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(DLSU)	(°)	(°)
0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.0	0.0
850.60	0.00	0.00	850.60	0.00	-0.00	0.00	0.00	0.0	0.0 Nudge KOP
1200.60	7.00	62.53	1199.73	9.85	18.95	1.28	2.00	62.5	Hold
5543.69	7.00	62.53	5510.45	254.03	488.54	33.07	0.00	0.0	Curve KOP 7° DLS
6545.62	70.00	332.69	6277.24	766.09	302.99	576.31	7.00	267.6	Build/Turn 9° DLS
6778.50	90.93	331.65	6315.60	968.03	196.31	804.19	9.00	357.1	Landing Point
14385.84	90.93	331.65	6191.60	7661.83	-3416.08	8388.88	0.00	0.0	PBHL MKSH

**Target Set Information:**  
 Name: Melvin Kahle OHI 5H  
 Position offsets from Slot centre

Name	TVD	+N/-S	+E/-W	Northing	Easting	Lat	Long
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(°)	(°)
LP MKSH	6315.60	804.52	284.48	14553950.42	1745537.94	40.074133	-80.624229
PBHL MKSH	6191.60	7661.83	-3416.08	14560807.73	1741837.38	40.093006	-80.637357

**Plan Data for Melvin Kahle OHI 5H**

Field: SOUTHWESTERN\_OHIO CO, WV UTM NAD 83 (17N)  
 Map Unit: USft Vertical Reference Datum (VRD): Mean Sea Level  
 Projected Coordinate System: NAD83 / UTM zone 17N

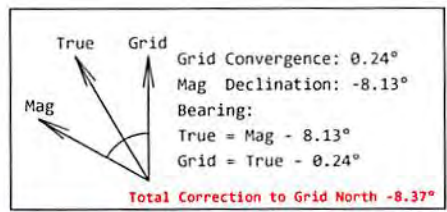
**Site: Melvin Kahle OHI Pad**  
 Unit: USFeet TVD Reference:  
 Company Name: SOUTHWESTERN ENERGY

Position:  
 Northing: 14553145.90USft Latitude: 40.071927°  
 Easting: 1745253.46USft Longitude: -80.625258°  
 North Reference: Grid Grid Convergence: 0.24°  
 Elevation Above VRD: 1276.00USft

**Slot: Melvin Kahle OHI 5H**  
 Position:  
 Offset is from Site centre  
 +N/-S: 0.00USft Northing: 14553145.90USft Latitude: 40.071927°  
 +E/-W: 0.00USft Easting: 1745253.46USft Longitude: -80.625258°  
 Elevation Above VRD: 1276.60USft

**Well: Melvin Kahle OHI 5H**  
 Type: Main-Well  
 File Number:

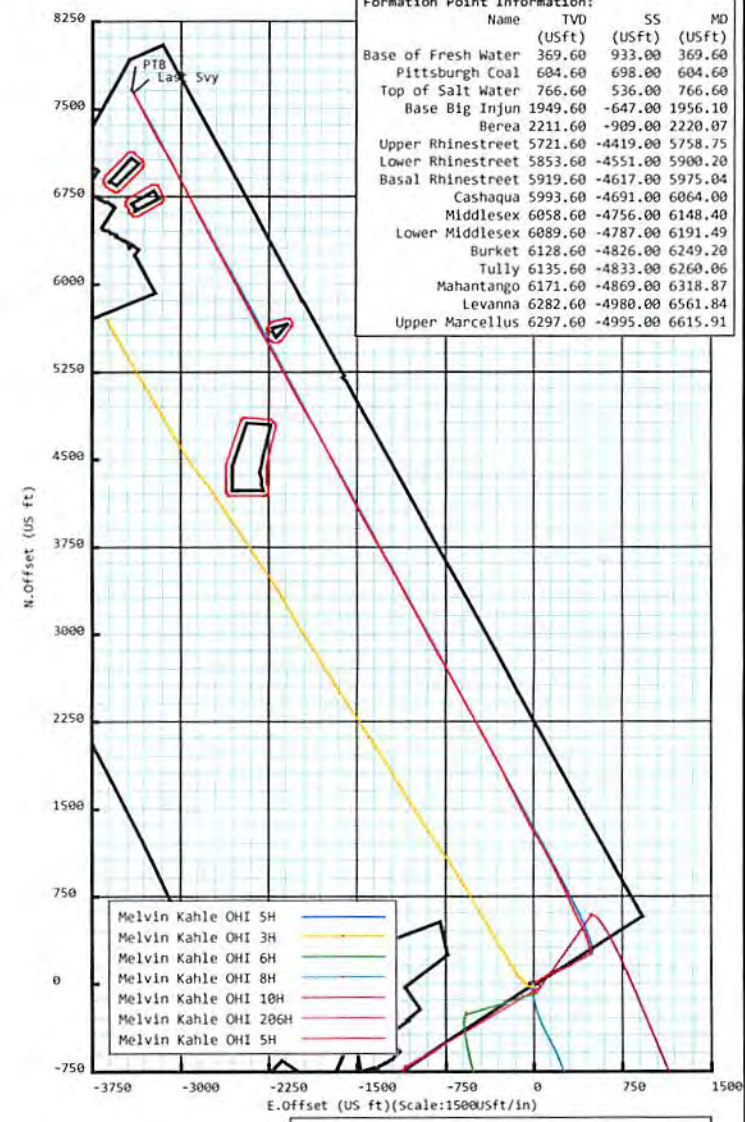
Plan Folder: P1 Plan: P1:V3  
 Vertical Section: Position offset of origin from Slot centre:  
 +N/-S: 0.00USft Azimuth: 335.97°  
 +E/-W: -0.00USft  
 Magnetic Parameters:  
 Model: Field Strength: Declination: Dip: Date:  
 HDGM 52677(NT) -8.13° 67.43° 2018-01-10



**Plan Data for Melvin Kahle OHI 5H**

**Formation Point Information:**

Name	TVD	SS	MD
(USft)	(USft)	(USft)	(USft)
Base of Fresh Water	369.60	933.00	369.60
Pittsburgh Coal	604.60	698.00	604.60
Top of Salt Water	766.60	536.00	766.60
Base Big Injun	1949.60	-647.00	1956.10
Berea	2211.60	-909.00	2220.07
Upper Rhinestreet	5721.60	-4419.00	5758.75
Lower Rhinestreet	5853.60	-4551.00	5900.20
Basal Rhinestreet	5919.60	-4617.00	5975.04
Cashaqua	5993.60	-4691.00	6064.00
Middlesex	6058.60	-4756.00	6148.40
Lower Middlesex	6089.60	-4787.00	6191.49
Burket	6128.60	-4826.00	6249.20
Tully	6135.60	-4833.00	6260.06
Mahantango	6171.60	-4869.00	6318.87
Levanna	6282.60	-4980.00	6561.84
Upper Marcellus	6297.60	-4995.00	6615.91



Drawing By: Gary Rhodes Date: 10 January 2018  
 Office Name: MidCon DS  
 Address: 7725 W. Reno Ave, Ste. #220  
 Oklahoma City, OK 73127  
 Phone: +1.405.720.4257

RECEIVED  
 Office of Oil and Gas  
 AUG 30 2018  
 WV Department of Environmental Protection



**5D Survey Report**

---

**SOUTHWESTERN ENERGY**

**Field Name:** *SOUTHWESTERN\_OHIO CO, WV UTM NAD 83 (17N)*  
**Site Name:** *Melvin Kahle OHI Pad*  
**Well Name:** *Melvin Kahle OHI 5H*  
**Survey:** *Definitive survey*

---

3 February 2018

**Weatherford®**

RECEIVED  
Office of Oil and Gas  
AUG 30 2018  
WV Department of  
Environmental Protection



# Weatherford®

## Melvin Kahle OHI 5H

<b>Field Name:</b>	<b>Map Units:</b> US ft	<b>Company Name:</b> SOUTHWESTERN ENERGY
	<b>Vertical Reference Datum (VRD):</b> Mean Sea Level	
SOUTHWESTER N_OHIO CO, WV UTM NAD 83 (17N)	<b>Projected Coordinate System:</b> NAD83 / UTM zone 17N	
	<b>Comment:</b>	

<b>Site:</b>	<b>Units:</b> US ft	<b>North Reference:</b> Grid	<b>Convergence Angle:</b> 0.24
	<b>Position:</b>	<b>Northing:</b> 14553145.90 US ft	<b>Latitude:</b> 40° 4' 18.94"
Melvin Kahle OHI Pad		<b>Easting:</b> 1745253.46 US ft	<b>Longitude:</b> -80° 37' 30.93"
	<b>Elevation above MSL:</b> 1276.00 US ft		
	<b>Comment:</b>		

<b>Slot:</b>	<b>Position (Relative to Site Centre)</b>		
	<b>+N/-S:</b> 0.00 US ft	<b>Northing:</b> 14553145.90 US ft	<b>Latitude:</b> 40°4'18.94"
Melvin Kahle OHI 5H	<b>+E/-W:</b> 0.00 US ft	<b>Easting:</b> 1745253.46 US ft	<b>Longitude:</b> -80°37'30.93"
	<b>Elevation above MSL:</b> 1276.60 US ft		
	<b>Comment:</b>		

<b>Well:</b>	<b>Type:</b> Main well	<b>UWI:</b>
	<b>File Number:</b>	<b>Comment:</b>
Melvin Kahle OHI 5H	<b>Closure Distance:</b> 8382.18 US ft	<b>Closure Azimuth:</b> 335.98°
	<b>Vertical Section: Position of Origin (Relative to Slot centre)</b>	
	<b>+N/-S:</b> 0.00 US ft	<b>+E/-W:</b> -0.00 US ft
		<b>Az:</b> 335.97°

<b>Drill floor: Survey Name: Definitive Survey</b>			
<b>Rig Height (Drill Floor):</b> 26.00 US ft	<b>Elevation above MSL:</b> 1302.60 US ft	<b>Inclination:</b> 0.00°	<b>Azimuth:</b> 0.00°

RECEIVED  
Office of Oil and Gas

AUG 30 2018

WV Department of  
Environmental Protection

### Survey Name: Definitive Survey

<b>Date:</b> 28/Dec/2017	<b>Survey Tool:</b> See Survey Tool Ranges below.	<b>Comment:</b>	<b>Company:</b>
--------------------------	---	-----------------	-----------------

### Magnetic Model:

<b>Model Name:</b> HDGM	<b>Date:</b> 10/Jan/2018	<b>Field Strength:</b> 52677.0nT	<b>Declination:</b> -8.13°	<b>Dip:</b> 67.43°
-------------------------	--------------------------	----------------------------------	----------------------------	--------------------

### Tie Point:

<b>MD:</b> 0.00 US ft	<b>Inclination:</b> 0.00°	<b>Azimuth:</b> 0.00°	<b>TVD:</b> 0.00 US ft	<b>North Offset:</b> 0.00 US ft	<b>East Offset:</b> -0.00 US ft
-----------------------	---------------------------	-----------------------	------------------------	---------------------------------	---------------------------------

### Survey Tool Ranges:

Name	Start MD(USFt)	End MD(USFt)	Source Survey
MFAC_US_V2	0.00	510.00	WFT MFAC_01
NO SURV 1d	510.00	596.00	NO SURV 1d_01
MWD	596.00	1609.00	WFT MWD_03
MWD	1609.00	1946.00	WFT MWD_04
MWD	1946.00	6015.00	WFT MWD_05

## 50 Survey Report

## Survey Tool Ranges:

Name	Start MD(usft)	End MD(usft)	Source Survey
MWD	6015.00	6443.00	WFT MWD_06
MWD	6443.00	14325.00	WFT MWD_07

Wellpath created using minimum curvature.

## Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	14553145.90	1745253.46	0.00	
166.00	0.12	109.30	166.00	-0.12	-0.06	0.16	14553145.84	1745253.62	0.07	
227.00	0.11	322.90	227.00	-0.11	-0.03	0.19	14553145.87	1745253.64	0.36	
317.00	0.09	311.37	317.00	0.04	0.08	0.08	14553145.98	1745253.54	0.03	
369.60	0.08	308.88	369.60	0.11	0.14	0.02	14553146.03	1745253.48	0.01	Base of Fresh Water :
413.00	0.08	306.57	413.00	0.17	0.17	-0.03	14553146.07	1745253.43	0.01	
510.00	0.19	46.30	510.00	0.28	0.32	0.04	14553146.22	1745253.49	0.23	
596.00	0.23	315.68	596.00	0.49	0.55	0.02	14553146.45	1745253.47	0.35	
604.60	0.22	318.21	604.60	0.52	0.57	-0.01	14553146.47	1745253.45	0.14	Pittsburgh Coal :
743.00	0.21	9.36	743.00	0.99	1.02	-0.14	14553146.92	1745253.31	0.14	
766.60	0.25	33.56	766.60	1.06	1.11	-0.11	14553147.01	1745253.35	0.44	Top of Salt Water :
840.00	0.50	65.93	840.00	1.14	1.37	0.27	14553147.27	1745253.73	0.44	
936.00	1.20	68.79	935.99	1.09	1.91	1.59	14553147.81	1745255.05	0.73	
1032.00	2.25	68.29	1031.94	0.97	2.97	4.28	14553148.87	1745257.73	1.09	
1128.00	3.88	63.91	1127.80	1.01	5.09	8.95	14553150.99	1745262.40	1.71	
1224.00	5.49	61.48	1223.48	1.48	8.71	15.90	14553154.61	1745269.36	1.69	
1321.00	6.92	57.50	1319.91	2.71	14.07	24.91	14553159.97	1745278.36	1.54	
1417.00	7.39	56.28	1415.16	4.60	20.60	34.92	14553166.50	1745288.37	0.51	
1514.00	7.61	55.40	1511.33	6.83	27.71	45.39	14553173.61	1745298.85	0.26	
1609.00	7.76	58.57	1605.48	8.81	34.63	56.04	14553180.53	1745309.50	0.47	
1705.00	8.19	59.25	1700.55	10.44	41.51	67.45	14553187.41	1745320.91	0.46	
1802.00	7.68	59.90	1796.62	11.94	48.29	79.00	14553194.19	1745332.45	0.53	
1898.00	8.06	59.80	1891.71	13.34	54.89	90.36	14553200.79	1745343.82	0.40	
1946.00	8.56	58.15	1939.21	14.19	58.47	96.31	14553204.37	1745349.76	1.15	
1956.51	8.59	57.74	1949.60	14.40	59.30	97.63	14553205.20	1745351.09	0.63	Base Big Injun :
2068.00	8.88	53.58	2059.80	17.44	68.85	111.60	14553214.75	1745365.05	0.63	
2165.00	7.70	57.66	2155.79	19.99	76.77	123.11	14553222.67	1745376.57	1.36	
2221.29	7.24	66.89	2211.60	20.48	80.18	129.56	14553226.08	1745383.02	2.28	Berea :
2261.00	7.04	74.00	2251.00	20.10	81.84	134.20	14553227.74	1745387.66	2.28	
2358.00	7.61	79.41	2347.21	17.77	84.66	146.23	14553230.55	1745399.68	0.92	
2454.00	7.43	66.89	2442.39	16.19	88.26	158.19	14553234.16	1745411.64	1.71	
2550.00	7.29	52.20	2537.61	17.54	94.43	168.71	14553240.33	1745422.16	1.96	
2647.00	6.71	52.32	2633.89	20.35	101.67	178.06	14553247.56	1745431.51	0.60	
2743.00	5.72	54.61	2729.32	22.61	107.86	186.40	14553253.76	1745439.85	1.06	
2840.00	5.29	58.71	2825.87	24.13	112.99	194.16	14553258.89	1745447.61	0.60	
2936.00	5.77	75.07	2921.43	23.93	116.53	202.60	14553262.43	1745456.06	1.71	
3031.00	6.14	72.66	3015.92	22.58	119.27	212.07	14553265.17	1745465.52	0.47	
3128.00	7.82	72.54	3112.20	21.22	122.80	223.31	14553268.70	1745476.77	1.73	
3224.00	7.87	74.09	3207.30	19.54	126.56	235.87	14553272.46	1745489.32	0.23	
3320.00	7.90	70.84	3302.39	18.06	130.53	248.42	14553276.43	1745501.87	0.47	
3416.00	7.30	72.01	3397.55	16.85	134.58	260.45	14553280.48	1745513.91	0.65	
3513.00	6.35	69.72	3493.86	15.85	138.34	271.34	14553284.24	1745524.80	1.02	
3609.00	5.92	68.81	3589.31	15.26	141.97	280.94	14553287.87	1745534.40	0.46	
3705.00	5.45	68.36	3684.84	14.83	145.44	289.79	14553291.34	1745543.25	0.49	
3802.00	5.70	62.01	3781.38	14.97	149.40	298.33	14553295.30	1745551.78	0.69	
3898.00	6.26	58.43	3876.86	15.98	154.38	307.00	14553300.28	1745560.45	0.70	
3995.00	5.77	54.70	3973.32	17.63	159.96	315.48	14553305.86	1745568.94	0.65	
4091.00	6.19	55.44	4068.80	19.52	165.69	323.68	14553311.59	1745577.14	0.44	

RECEIVED  
Office of Oil and Gas  
AUG 30 2018  
WV Department of  
Environmental Protection

## 3D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (#/100US ft)	Comment
4187.00	7.19	59.26	4164.15	21.17	171.69	333.11	14553317.59	1745586.57	1.14	
4283.00	6.88	53.92	4259.42	23.07	178.15	342.92	14553324.05	1745596.38	0.75	
4379.00	7.24	55.04	4354.70	25.42	185.00	352.53	14553330.90	1745605.98	0.40	
4475.00	7.83	58.77	4449.87	27.38	191.86	363.08	14553337.76	1745616.53	0.80	
4571.00	7.77	59.90	4544.98	28.89	198.51	374.28	14553344.41	1745627.74	0.17	
4668.00	7.85	61.20	4641.08	30.13	204.99	385.76	14553350.88	1745639.21	0.20	
4764.00	7.85	57.17	4736.18	31.68	211.70	397.01	14553357.60	1745650.47	0.57	
4861.00	7.95	60.51	4832.26	33.33	218.59	408.42	14553364.49	1745661.87	0.48	
4957.00	7.74	67.15	4927.36	33.83	224.37	420.15	14553370.27	1745673.61	0.97	
5052.00	7.71	64.55	5021.50	33.86	229.59	431.80	14553375.49	1745685.26	0.37	
5148.00	7.35	65.82	5116.68	34.03	234.88	443.22	14553380.77	1745696.68	0.41	
5245.00	6.99	61.98	5212.92	34.46	240.19	454.09	14553386.09	1745707.55	0.62	
5341.00	6.59	58.92	5308.24	35.54	245.78	463.97	14553391.68	1745717.42	0.56	
5437.00	6.61	57.30	5403.61	37.05	251.61	473.33	14553397.51	1745726.79	0.20	
5469.00	7.18	46.17	5435.38	38.01	253.99	476.33	14553399.89	1745729.78	4.53	
5501.00	8.53	26.86	5467.08	40.18	257.49	478.84	14553403.39	1745732.30	9.20	
5534.00	10.53	12.48	5499.63	44.15	262.62	480.60	14553408.52	1745734.05	9.38	
5582.00	14.19	356.72	5546.52	53.18	272.78	481.21	14553418.68	1745734.67	10.30	
5630.00	17.35	350.44	5592.71	65.62	285.72	479.68	14553431.62	1745733.14	7.47	
5678.00	20.10	348.29	5638.17	80.61	300.85	476.82	14553446.75	1745730.28	5.91	
5726.00	22.57	346.11	5682.88	97.74	317.87	472.94	14553463.77	1745726.39	5.40	
5768.27	24.68	345.50	5721.60	114.43	334.29	468.78	14553480.19	1745722.23	5.03	Upper Rhinestreet :
5774.00	24.97	345.42	5726.80	116.80	336.62	468.17	14553482.52	1745721.63	5.03	
5822.00	27.49	343.95	5769.86	137.77	357.08	462.56	14553502.98	1745716.01	5.42	
5870.00	30.04	341.74	5811.93	160.70	379.14	455.73	14553525.04	1745709.19	5.76	
5918.65	32.11	339.01	5853.60	185.73	402.78	447.28	14553548.68	1745700.74	5.16	Lower Rhinestreet :
5919.00	32.13	338.99	5853.89	185.92	402.95	447.21	14553548.85	1745700.67	5.16	
5967.00	33.69	336.56	5894.19	211.98	427.09	437.34	14553572.99	1745690.80	4.26	
5997.67	34.45	335.69	5919.60	229.16	442.80	430.39	14553588.70	1745683.84	2.94	Basal Rhinestreet :
6015.00	34.88	335.21	5933.85	239.02	451.76	426.29	14553597.66	1745679.75	2.94	
6059.00	36.31	334.79	5969.63	264.62	474.97	415.47	14553620.87	1745668.92	3.30	
6088.91	37.15	334.34	5993.60	282.50	491.12	407.78	14553637.02	1745661.24	2.95	Cashaqua :
6107.00	37.66	334.07	6007.97	293.49	501.02	403.00	14553646.92	1745656.46	2.95	
6155.00	38.89	334.15	6045.65	323.21	527.77	390.02	14553673.67	1745643.47	2.56	
6171.75	39.85	334.36	6058.60	333.82	537.33	385.40	14553683.23	1745638.86	5.76	Middlesex :
6203.00	41.63	334.74	6082.28	354.21	555.75	376.64	14553701.65	1745630.10	5.76	
6212.86	42.50	334.92	6089.60	360.82	561.73	373.83	14553707.63	1745627.29	8.96	Lower Middlesex :
6252.00	45.98	335.60	6117.63	388.12	586.53	362.41	14553732.43	1745615.87	8.96	
6267.94	47.06	335.76	6128.60	399.68	597.07	357.65	14553742.97	1745611.11	6.79	Burket :
6278.28	47.75	335.86	6135.60	407.29	604.01	354.53	14553749.91	1745607.99	6.79	Tully :
6300.00	49.22	336.07	6150.00	423.56	618.87	347.91	14553764.77	1745601.36	6.79	
6333.88	51.56	336.50	6171.60	449.66	642.77	337.41	14553788.67	1745590.87	6.98	Mahantongo Office of Oil and Gas
6347.00	52.47	336.66	6179.67	460.00	652.25	333.30	14553798.15	1745586.76	6.98	RECEIVED AUG 30 2018
6395.00	56.88	336.24	6207.42	499.15	688.14	317.65	14553834.04	1745571.11	9.22	
6443.00	59.63	335.61	6232.67	539.96	725.41	301.00	14553871.30	1745554.46	5.84	
6491.00	61.79	334.99	6256.15	581.82	763.44	283.51	14553909.33	1745536.96	4.64	
6539.00	67.19	335.04	6276.81	625.12	802.69	265.22	14553948.59	1745518.67	11.25	WV Department of Environmental Protection
6554.43	68.78	334.97	6282.60	639.42	815.65	259.17	14553961.55	1745512.63	10.32	Levanina :
6587.00	72.14	334.84	6293.49	670.11	843.45	246.16	14553989.35	1745499.61	10.32	
6600.90	73.48	334.66	6297.60	683.38	855.46	240.49	14554001.35	1745493.95	9.72	Upper Marcellus :
6635.00	76.77	334.24	6306.35	716.32	885.19	226.28	14554031.09	1745479.74	9.72	
6683.00	82.51	334.17	6314.98	763.50	927.68	205.74	14554073.58	1745459.20	11.96	
6731.00	87.66	333.44	6319.09	811.27	970.58	184.64	14554116.48	1745438.09	10.84	
6828.00	91.23	332.01	6320.03	908.09	1056.77	140.20	14554202.67	1745393.65	3.96	
6924.00	91.23	330.73	6317.97	1003.76	1141.01	94.21	14554286.91	1745347.67	1.33	



## 5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
12687.00	90.99	332.75	6236.25	6749.13	6212.33	-2640.39	14559358.23	1742613.06	1.48	
12782.00	91.05	331.48	6234.56	6843.90	6296.29	-2684.82	14559442.19	1742568.64	1.34	
12878.00	91.35	331.99	6232.55	6939.62	6380.82	-2730.27	14559526.72	1742523.19	0.62	
12974.00	91.05	331.21	6230.54	7035.32	6465.25	-2775.92	14559611.15	1742477.54	0.87	
13070.00	90.99	332.08	6228.83	7131.03	6549.72	-2821.50	14559695.62	1742431.95	0.91	
13166.00	91.23	333.47	6226.97	7226.86	6635.06	-2865.41	14559780.96	1742388.05	1.47	
13261.00	91.17	332.20	6224.98	7321.69	6719.57	-2908.77	14559865.47	1742344.68	1.34	
13357.00	91.05	332.12	6223.12	7417.46	6804.44	-2953.60	14559950.34	1742299.86	0.15	
13453.00	90.99	332.27	6221.41	7513.24	6889.34	-2998.37	14560035.24	1742255.09	0.17	
13548.00	91.66	332.42	6219.22	7608.02	6973.46	-3042.45	14560119.36	1742211.00	0.72	
13644.00	91.60	330.48	6216.49	7703.68	7057.75	-3088.31	14560203.65	1742165.14	2.02	
13740.00	91.66	329.39	6213.75	7799.11	7140.80	-3136.39	14560286.70	1742117.07	1.14	
13835.00	91.85	330.24	6210.85	7893.52	7222.88	-3184.13	14560368.78	1742069.33	0.92	
13932.00	91.79	331.56	6207.76	7990.09	7307.59	-3231.28	14560453.49	1742022.18	1.36	
14027.00	91.66	332.56	6204.90	8084.82	7391.48	-3275.77	14560537.38	1741977.69	1.06	
14123.00	91.97	332.86	6201.86	8180.62	7476.75	-3319.76	14560622.65	1741933.69	0.45	
14219.00	91.60	332.35	6198.87	8276.40	7561.94	-3363.91	14560707.84	1741889.54	0.66	
14302.00	91.79	332.84	6196.42	8359.22	7635.60	-3402.10	14560781.50	1741851.36	0.63	Last Svy
14325.00	91.79	332.84	6195.70	8382.18	7656.05	-3412.59	14560801.95	1741840.86	0.00	PTB

Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Name	Comment	
369.60	0.08	308.88	369.60	0.14	0.02	14553146.03	1745253.48	Base of Fresh Water		
604.60	0.22	318.21	604.60	0.57	-0.01	14553146.47	1745253.45	Pittsburgh Coal		
766.60	0.25	33.56	766.60	1.11	-0.11	14553147.01	1745253.35	Top of Salt Water		
1956.51	8.59	57.74	1949.60	59.30	97.63	14553205.20	1745351.09	Base Big Injun		
2221.29	7.24	66.89	2211.60	80.18	129.56	14553226.08	1745383.02	Berea		
5768.27	24.68	345.50	5721.60	334.29	468.78	14553480.19	1745722.23	Upper Rhinestreet		
5918.65	32.11	339.01	5853.60	402.78	447.28	14553548.68	1745700.74	Lower Rhinestreet		
5997.67	34.45	335.69	5919.60	442.80	430.39	14553588.70	1745683.84	Basal Rhinestreet		
6088.91	37.15	334.34	5993.60	491.12	407.78	14553637.02	1745661.24	Cashaqua		
6171.75	39.85	334.36	6058.60	537.33	385.40	14553683.23	1745638.86	Middlesex		
6212.86	42.50	334.92	6089.60	561.73	373.83	14553707.63	1745627.29	Lower Middlesex		
6267.94	47.06	335.76	6128.60	597.07	357.65	14553742.97	1745611.11	Burket		
6278.28	47.75	335.86	6135.60	604.01	354.53	14553749.91	1745607.99	Tully		
6333.88	51.56	336.50	6171.60	642.77	337.41	14553788.67	1745590.87	Mahantango		
6554.43	68.78	334.97	6282.60	815.65	259.17	14553961.55	1745512.63	Levanna		
6600.90	73.48	334.66	6297.60	855.46	240.49	14554001.35	1745493.95	Upper Marcellus		