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Office of Oil and Gas  
AUG 04 2020  
WV Department of  
Environmental Protection

REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Well	Edward Dremak OHI 210H
Field	Ohio	API/ Legal	
Facility	Edward Dremak OHI Pad	Wellbore	Edward Dremak OHI 210H AWB
Slot	Slot #210H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Atenjen
Scale	0.999611	Report Generated	1/27/2020 at 8:58:29 AM
Converge at slot	0.22° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION					
Slot Location	North [ft]	-18.08	East [ft]	14.72	Geographic coordinates
	Easting [US ft]	1737755.54	Northing [US ft]	14584686.26	
Facility Reference Pt			1737740.83	14584704.33	Geographic coordinates
Field Reference Pt			0.00	0.00	
Field Reference Pt					0°00'0.0000"
					85°29'19.4780"W

WELLPATH DATUM					
Calculation method	Minimum curvature	SDC 42 (KB) to Facility Vertical Datum	1114.00ft		
Horizontal Reference Pt	Slot	SDC 42 (KB) to Mean Sea Level	1114.00ft		
Vertical Reference Pt	SDC 42 (KB)	SDC 42 (KB) to Ground Level at Slot (Slot #210H)	26.00ft		
MD Reference Pt	SDC 42 (KB)	Section Origin	N 0.00, E 0.00 ft		
Field Vertical Reference	Mean Sea Level	Section Azimuth	162.58°		



Southwestern Energy

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Actual Wellpath Report

Edward Dremak OHI 210H AWP Proj: 21694



MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(ft)	(ft)	(ft)	(°)	(ft/100ft)	(°/100ft)	(°/100ft)
0.00	0.00	30.140	26.00	0.00	0.00	0.00	1737755.54	14584686.26	40°09'31.0438"N	80°39'5.8223"W	0.00	0.00	0.00	0.00	0.00
26.00	0.000	30.140	26.00	0.00	0.00	0.05	1737755.59	14584686.34	40°09'31.0446"N	80°39'5.8217"W	0.09	0.09	30.140	1.83	0.00
50.00	0.440	30.140	50.00	-0.06	0.08	0.05	1737755.68	14584686.51	40°09'31.0463"N	80°39'5.8205"W	0.29	0.29	29.611	0.09	0.08
75.00	0.460	28.620	75.00	-0.20	0.25	0.14	1737755.79	14584686.68	40°09'31.0480"N	80°39'5.8191"W	0.49	0.49	30.569	0.23	0.08
100.00	0.480	35.080	100.00	-0.33	0.42	0.25	1737755.90	14584686.82	40°09'31.0493"N	80°39'5.8176"W	0.67	0.67	32.592	0.60	-0.56
125.00	0.340	42.580	125.00	-0.43	0.56	0.36	1737755.97	14584686.90	40°09'31.0501"N	80°39'5.8168"W	0.77	0.77	33.580	0.81	-0.80
150.00	0.140	33.500	150.00	-0.49	0.64	0.43	1737756.02	14584686.97	40°09'31.0508"N	80°39'5.8161"W	0.86	0.86	34.045	0.41	0.40
175.00	0.240	41.260	175.00	-0.53	0.71	0.48	1737756.10	14584687.00	40°09'31.0510"N	80°39'5.8151"W	0.92	0.92	37.156	0.97	-0.12
200.00	0.210	106.020	200.00	-0.54	0.74	0.56	1737756.23	14584686.94	40°09'31.0509"N	80°39'5.8142"W	0.96	0.96	41.078	0.36	-0.32
225.00	0.130	91.020	225.00	-0.50	0.72	0.63	1737756.28	14584686.71	40°09'31.0482"N	80°39'5.8127"W	0.87	0.87	58.616	0.13	-0.04
250.00	0.230	146.370	250.00	-0.44	0.68	0.69	1737756.29	14584686.67	40°09'31.0478"N	80°39'5.8127"W	0.85	0.85	61.263	0.52	-0.50
275.00	0.290	168.680	275.00	-0.33	0.58	0.73	1737756.29	14584686.64	40°09'31.0475"N	80°39'5.8127"W	0.84	0.84	63.043	0.34	0.14
300.00	0.280	174.220	300.00	-0.21	0.45	0.74	1737756.23	14584686.82	40°09'31.0433"N	80°39'5.8187"W	0.28	0.28	100.403	0.75	0.53
310.00	0.230	178.250	310.00	-0.17	0.41	0.75	1737756.23	14584686.84	40°09'31.0438"N	80°39'5.8187"W	0.28	0.28	100.403	0.75	0.53
310.00	0.280	174.720	310.00	-0.17	0.45	0.74	1737756.28	14584686.84	40°09'31.0482"N	80°39'5.8127"W	0.87	0.87	58.616	0.13	-0.04
310.00	0.230	178.250	310.00	-0.17	0.41	0.75	1737756.29	14584686.64	40°09'31.0475"N	80°39'5.8127"W	0.84	0.84	63.043	0.34	0.14
317.00	0.240	173.000	317.00	-0.14	0.38	0.75	1737756.29	14584686.64	40°09'31.0475"N	80°39'5.8127"W	0.84	0.84	63.043	0.34	0.14
317.00	0.240	173.000	317.00	-0.14	0.38	0.75	1737756.29	14584686.64	40°09'31.0475"N	80°39'5.8127"W	0.84	0.84	63.043	0.34	0.14
378.00	0.790	245.370	786.89	0.32	-2.77	-7.74	1737747.80	14584683.49	40°09'31.0167"N	80°39'5.9222"W	8.22	8.22	250.321	0.62	-0.62
877.00	0.640	245.280	876.89	0.47	-3.24	-8.76	1737746.78	14584683.02	40°09'31.0121"N	80°39'5.9353"W	9.34	9.34	249.722	0.17	-0.17
967.00	0.950	231.010	966.88	0.80	-3.92	-9.80	1737745.75	14584682.35	40°09'31.0055"N	80°39'5.9487"W	10.55	10.55	248.210	0.41	0.34
1056.00	0.050	159.980	1055.87	1.11	-4.42	-10.36	1737745.19	14584681.84	40°09'31.0005"N	80°39'5.9659"W	11.26	11.26	246.903	1.05	-1.01
1146.00	1.110	121.270	1145.87	1.81	-4.91	-9.60	1737745.95	14584681.36	40°09'30.9957"N	80°39'5.9482"W	10.78	10.78	242.925	1.19	1.18
1236.00	1.740	109.070	1235.84	3.28	-5.81	-7.56	1737747.98	14584680.46	40°09'30.9867"N	80°39'5.9200"W	9.53	9.53	232.485	0.77	0.70
1326.00	2.410	111.730	1325.78	5.28	-6.95	-4.51	1737751.03	14584679.31	40°09'30.9753"N	80°39'5.8808"W	8.29	8.29	212.986	0.75	0.74
1415.00	2.690	107.410	1414.69	7.66	-8.27	-0.78	1737754.76	14584677.99	40°09'30.9621"N	80°39'5.8328"W	8.31	8.31	185.398	0.38	0.31
1505.00	3.490	103.600	1504.56	10.27	-9.55	3.90	1737759.43	14584676.72	40°09'30.9493"N	80°39'5.7726"W	10.31	10.31	157.796	0.92	0.89
1595.00	4.510	97.700	1594.34	13.19	-10.66	10.07	1737765.60	14584675.60	40°09'30.9380"N	80°39'5.6932"W	14.66	14.66	136.654	1.22	1.13
1690.00	4.670	95.390	1689.04	16.27	-11.53	17.62	1737773.15	14584674.74	40°09'30.9292"N	80°39'5.5960"W	21.05	21.05	123.199	0.26	0.17

WELLPATH DATA (252 stations) † = interpolated, ‡ = extrapolated station

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(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(ft)	(ft)	(ft)	(°)	(°/100ft)	(°/100ft)	(°/100ft)
1779.00	6.650	81.820	1777.60	18.51	-11.14	26.33	1737781.86	14584675.13	40°09'30.9327"N	80°39'5.4838"W	28.58	112.927	2.67	2.22	-15.25
1869.00	8.520	77.350	1866.81	19.90	-8.93	37.99	1737793.52	14584677.33	40°09'30.9540"N	80°39'5.3335"W	39.03	103.233	2.18	2.08	-4.97
1957.00	10.300	76.220	1953.62	20.94	-5.63	51.99	1737807.51	14584680.63	40°09'30.9861"N	80°39'5.1530"W	52.30	96.182	2.03	2.02	-1.26
2046.00	10.900	78.160	2041.10	22.26	-2.01	67.96	1737823.47	14584684.25	40°09'31.0213"N	80°39'4.9472"W	67.99	91.694	0.78	0.67	2.18
2135.00	12.560	78.810	2128.24	24.13	1.59	85.69	1737841.19	14584687.85	40°09'31.0562"N	80°39'4.7187"W	85.70	88.934	1.87	1.87	0.73
2225.00	13.970	81.690	2215.84	26.91	5.06	106.04	1737861.54	14584691.32	40°09'31.0897"N	80°39'4.4564"W	106.16	87.266	1.73	1.57	3.20
2315.00	14.740	81.340	2303.03	30.38	8.36	128.11	1737883.60	14584694.62	40°09'31.1214"N	80°39'4.1720"W	128.38	86.267	0.86	0.86	-0.39
2405.00	16.870	78.750	2389.62	33.52	12.63	152.24	1737907.72	14584698.89	40°09'31.1627"N	80°39'3.8610"W	152.76	85.257	2.49	2.37	-2.88
2495.00	18.690	76.480	2475.32	35.91	18.55	179.07	1737934.54	14584704.80	40°09'31.2201"N	80°39'3.5151"W	180.03	84.086	2.16	2.02	-2.52
2584.00	20.140	76.100	2559.26	37.82	25.56	207.81	1737963.27	14584711.81	40°09'31.2884"N	80°39'3.1446"W	209.37	82.987	1.64	1.63	-0.43
2674.00	21.890	74.700	2643.27	39.39	33.71	239.03	1737994.48	14584719.96	40°09'31.3677"N	80°39'2.7420"W	241.40	81.972	2.02	1.94	-1.56
2762.00	23.260	74.250	2726.69	40.53	42.85	271.95	1738027.39	14584729.10	40°09'31.4567"N	80°39'2.3176"W	275.31	81.045	1.55	1.54	-0.47
2852.00	24.910	72.560	2806.55	41.04	53.24	306.77	1738062.19	14584739.48	40°09'31.5580"N	80°39'1.8686"W	311.36	80.154	2.05	1.89	-1.93
2944.00	26.910	73.840	2889.43	41.49	64.85	345.28	1738100.68	14584751.08	40°09'31.6712"N	80°39'1.3721"W	351.32	79.363	2.23	2.14	1.39
3034.00	28.250	74.910	2969.20	42.81	76.06	385.41	1738140.80	14584762.29	40°09'31.7805"N	80°39'0.8546"W	392.84	78.836	1.59	1.49	1.19
3124.00	30.220	74.430	3047.73	44.40	87.69	427.80	1738183.17	14584773.91	40°09'31.8937"N	80°39'0.3081"W	436.69	78.416	2.20	2.19	-0.53
3213.00	31.040	74.930	3124.31	46.07	99.67	471.53	1738226.89	14584785.89	40°09'32.0104"N	80°38'59.7443"W	481.95	78.065	0.96	0.92	0.56
3306.00	30.130	76.460	3204.38	48.63	111.37	517.38	1738272.71	14584797.58	40°09'32.1242"N	80°38'59.1532"W	529.23	77.852	1.29	-0.98	1.65
3396.00	31.790	75.160	3281.55	51.23	122.73	562.26	1738317.58	14584808.94	40°09'32.2347"N	80°38'58.5746"W	575.49	77.687	1.99	1.84	-1.44
3485.00	32.900	74.020	3356.74	52.89	135.39	608.16	1738363.46	14584821.59	40°09'32.3580"N	80°38'57.9828"W	623.04	77.450	1.42	1.25	-1.28
3578.00	30.360	75.690	3435.92	54.80	148.15	655.22	1738410.50	14584834.35	40°09'32.4823"N	80°38'57.3760"W	671.76	77.259	2.89	-2.73	1.80
3670.00	30.360	78.490	3515.31	58.45	158.54	700.53	1738455.80	14584844.74	40°09'32.5832"N	80°38'56.7918"W	718.25	77.248	1.54	0.00	3.04
3759.00	31.160	79.470	3591.79	63.53	167.23	745.21	1738500.46	14584853.43	40°09'32.6674"N	80°38'56.2160"W	763.75	77.352	1.06	0.90	1.10
3851.00	30.250	75.080	3670.90	67.40	177.55	791.01	1738546.24	14584863.74	40°09'32.7676"N	80°38'55.6256"W	810.69	77.349	2.63	-0.99	4.77
3944.00	31.180	73.710	3750.85	68.90	190.34	836.76	1738591.97	14584876.52	40°09'32.8921"N	80°38'55.0357"W	858.13	77.185	1.25	1.00	-1.47
4037.00	32.030	70.790	3830.06	68.60	205.20	883.16	1738638.35	14584891.38	40°09'33.0372"N	80°38'54.4374"W	906.68	76.919	1.88	0.91	-3.14
4129.00	32.570	67.860	3907.83	65.80	222.57	929.14	1738684.31	14584908.74	40°09'33.2070"N	80°38'53.8443"W	955.42	76.529	1.80	0.59	-3.18
4222.00	32.580	71.486	3986.21	63.26	239.95	976.07	1738731.23	14584926.12	40°09'33.3770"N	80°38'53.2389"W	1005.13	76.188	2.10	0.01	3.89
4315.00	33.500	73.290	4064.17	63.10	255.29	1024.39	1738779.53	14584941.45	40°09'33.5266"N	80°38'52.6157"W	1055.73	76.006	1.45	0.99	1.95
4407.00	34.280	73.240	4148.54	63.71	270.06	1073.52	1738828.64	14584956.21	40°09'33.6707"N	80°38'51.9823"W	1106.97	75.879	0.85	0.85	-0.05

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(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	(ft/100ft)	(°/100ft)	(°/100ft)
4500.00	33.470	4217.76	65.15	284.19	1123.39	1738878.49	14584970.34	40°09'33.8084"N	80°38'51.3393"W	1158.78	75.803	1.43	-0.87	2.03	
4493.00	32.380	4295.82	67.68	296.90	1172.31	1738927.39	14584983.04	40°09'33.9320"N	80°38'50.7085"W	1209.32	75.788	1.23	-1.17	0.68	
4486.00	31.340	4374.81	70.83	308.56	1219.99	1738975.06	14584994.70	40°09'34.0454"N	80°38'50.0938"W	1258.41	75.807	1.26	-1.12	1.10	
4478.00	31.600	4453.28	73.70	320.17	1266.59	1739021.64	14585006.31	40°09'34.1583"N	80°38'49.4930"W	1306.43	75.814	0.92	-1.67		
4471.00	31.410	4532.57	75.68	332.82	1313.52	1739068.54	14585018.95	40°09'34.2815"N	80°38'48.8880"W	1355.03	75.782	0.42	-0.20	-0.71	
4964.00	31.000	4612.11	77.05	345.93	1359.88	1739114.89	14585032.05	40°09'34.4092"N	80°38'48.2901"W	1403.19	75.728	0.60	-0.44	-0.78	
5057.00	31.340	4691.69	78.98	358.48	1406.35	1739161.34	14585044.60	40°09'34.5314"N	80°38'47.6911"W	1451.32	75.700	1.19	0.37	2.19	
5150.00	31.550	4771.03	81.34	370.74	1453.29	1739208.26	14585056.85	40°09'34.6507"N	80°38'47.0859"W	1499.83	75.689	0.63	0.23	-1.12	
5242.00	30.600	4849.83	83.16	383.21	1499.11	1739254.06	14585069.32	40°09'34.7721"N	80°38'46.4951"W	1547.31	75.661	1.04	-1.03	-0.16	
5335.00	30.310	4930.00	84.66	395.88	1544.51	1739299.44	14585081.99	40°09'34.8956"N	80°38'45.9097"W	1594.44	75.624	0.45	-0.31	-0.65	
5428.00	30.460	5010.22	85.86	408.81	1589.74	1739344.65	14585094.91	40°09'35.0215"N	80°38'45.3265"W	1641.46	75.578	0.17	0.16	-0.11	
5521.00	31.090	5090.13	87.90	421.10	1635.70	1739390.60	14585107.19	40°09'35.1411"N	80°38'44.7339"W	1689.04	75.563	1.32	0.68	2.20	
5613.00	28.970	79.930	5169.78	92.19	1680.70	1739435.58	14585116.81	40°09'35.2345"N	80°38'44.1538"W	1735.02	75.626	3.12	-2.30	4.22	
5706.00	31.190	89.800	5250.30	102.21	1726.99	1739481.86	14585120.84	40°09'35.2724"N	80°38'43.6574"W	1780.87	75.870	5.82	2.39	10.61	
5799.00	31.360	105.050	5329.91	122.36	1774.52	1739529.36	14585114.63	40°09'35.2092"N	80°38'42.9456"W	1825.53	76.423	8.50	0.18	16.40	
5892.00	31.330	119.010	5409.45	152.91	1819.09	1739573.92	14585096.60	40°09'35.05292"N	80°38'42.3724"W	1864.83	77.283	7.79	-0.03	15.01	
5984.00	33.040	132.740	5487.41	192.05	1858.49	1739613.30	14585067.95	40°09'34.7444"N	80°38'41.8665"W	1897.31	78.390	8.15	1.86	14.92	
6074.00	35.360	142.670	5561.90	237.86	1892.33	1739647.13	14585030.57	40°09'34.3736"N	80°38'41.4326"W	1923.42	79.684	6.71	2.58	11.03	
6143.00	38.440	148.420	5617.09	277.45	1915.68	1739670.47	14584996.42	40°09'34.0350"N	80°38'41.1336"W	1940.65	80.800	6.70	4.46	8.33	
6233.00	45.620	157.730	5683.96	336.76	1942.58	1739697.36	14584942.72	40°09'33.5031"N	80°38'40.7899"W	1959.45	82.476	10.55	7.98	10.34	
6323.00	57.630	162.450	5739.75	407.10	1966.33	1739721.10	14584876.48	40°09'32.8473"N	80°38'40.4875"W	1975.51	84.472	13.96	13.34	5.24	
6413.00	68.520	168.750	5780.48	487.04	1986.03	1739740.79	14584798.91	40°09'32.0797"N	80°38'40.2377"W	1989.23	86.752	13.61	12.10	7.00	
6502.00	78.790	172.090	5805.50	571.51	2000.16	1739754.92	14584714.84	40°09'31.2481"N	80°38'40.0601"W	2000.36	89.181	12.09	11.54	3.75	
6592.00	86.370	175.420	5817.12	658.98	2009.84	1739764.59	14584626.24	40°09'30.3717"N	80°38'39.9400"W	2010.73	91.711	9.19	8.42	3.70	
6682.00	88.920	171.540	5820.82	747.26	2020.05	1739774.80	14584536.96	40°09'29.4887"N	80°38'39.8131"W	2025.56	94.229	5.16	2.83	4.31	
6771.00	88.550	164.170	5822.78	835.80	2038.75	1739793.50	14584450.06	40°09'28.6289"N	80°38'39.5766"W	2052.40	96.611	8.29	-0.42	-8.28	
6861.00	88.980	161.060	5824.72	925.77	2065.63	1739820.37	14584364.24	40°09'27.7794"N	80°38'39.2349"W	2090.60	98.864	3.49	0.48	-3.46	
6951.00	88.660	161.120	5826.42	1015.72	2094.80	1739849.52	14584279.14	40°09'26.9370"N	80°38'38.8637"W	2134.02	101.002	0.15	-0.13	0.07	
7041.00	90.090	160.220	5827.24	1105.67	2124.59	1739879.29	14584194.26	40°09'26.0967"N	80°38'38.4844"W	2180.85	103.043	1.69	1.37	-1.00	
7074.00	89.510	160.340	5827.36	1138.64	2135.73	1739890.43	14584163.21	40°09'25.7893"N	80°38'38.3425"W	2198.89	103.766	1.78	-1.76	0.27	

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	SOUTHWESTERN ENERGY
Field	Ohio
Facility	Edward Dremak OHI Pad
Slot	Slot #210H
Well	Edward Dremak OHI 210H
API/ Legal	
Wellbore	Edward Dremak OHI 210H AWB

**WELLPATH DATA (252 stations)**

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%/100ft)	(%/100ft)
7167.00	88.890	160.580	5828.66	1231.57	-610.88	2166.85	1739921.55	14584075.61	40°09'24.9221"N	80°38'37.9461"W	2251.32	105.744	0.73	-0.67	0.29
7256.00	88.980	161.400	5830.31	1320.52	-695.01	2195.84	1739950.52	14583991.52	40°09'24.0896"N	80°38'37.5772"W	2303.20	107.563	0.93	0.10	0.92
7346.00	88.920	162.620	5831.96	1410.49	-780.60	2223.63	1739978.30	14583905.97	40°09'23.2428"N	80°38'37.2237"W	2356.66	109.343	1.36	-0.07	1.36
7438.00	88.950	162.160	5833.67	1502.48	-868.27	2251.46	1740006.12	14583818.33	40°09'22.3753"N	80°38'36.8698"W	2413.08	111.089	0.50	0.03	-0.50
7531.00	88.200	162.890	5835.17	1595.46	-956.97	2279.38	1740034.03	14583729.67	40°09'21.4977"N	80°38'36.5148"W	2472.12	112.774	0.83	0.27	0.78
7619.00	89.720	162.550	5836.00	1683.46	-1040.99	2305.52	1740060.16	14583645.68	40°09'20.6663"N	80°38'36.1825"W	2529.64	114.300	0.71	0.59	-0.39
7712.00	89.290	160.420	5836.81	1776.43	-1129.17	2335.05	1740089.68	14583557.53	40°09'19.7938"N	80°38'35.8067"W	2593.74	115.807	2.34	-0.46	-2.29
7804.00	89.170	159.900	5838.04	1868.34	-1215.70	2366.27	1740120.88	14583471.03	40°09'18.9375"N	80°38'35.4091"W	2660.29	117.192	0.58	-0.13	-0.57
7897.00	89.200	160.730	5839.37	1961.26	-1303.26	2397.59	1740152.20	14583383.51	40°09'18.0710"N	80°38'35.0102"W	2728.91	118.527	0.89	0.03	0.89
7990.00	89.170	160.550	5840.69	2054.20	-1390.99	2428.42	1740183.01	14583295.82	40°09'17.2028"N	80°38'34.6178"W	2798.58	119.804	0.20	-0.03	-0.19
8082.00	89.230	159.520	5841.97	2146.10	-1477.45	2459.83	1740214.41	14583209.39	40°09'16.3471"N	80°38'34.2177"W	2869.43	120.990	1.12	0.07	-1.12
8175.00	90.770	161.890	5841.97	2239.04	-1565.22	2490.56	1740245.12	14583123.66	40°09'15.4786"N	80°38'33.8266"W	2941.56	122.148	3.04	1.66	2.55
8268.00	90.030	160.720	5841.32	2332.01	-1653.31	2520.37	1740274.92	14583033.60	40°09'14.6069"N	80°38'33.4472"W	3014.24	123.264	1.49	-0.80	-1.26
8361.00	90.220	159.130	5841.12	2424.91	-1740.65	2552.29	1740306.83	14582946.29	40°09'13.7425"N	80°38'33.0407"W	3089.34	124.294	1.72	0.20	-1.71
8453.00	89.420	157.150	5841.41	2516.62	-1826.03	2586.54	1740341.07	14582860.94	40°09'12.8974"N	80°38'32.6040"W	3166.16	125.221	2.32	-0.87	-2.15
8546.00	89.380	158.630	5842.38	2609.31	-1912.19	2621.54	1740376.05	14582774.82	40°09'12.0447"N	80°38'32.1577"W	3244.83	126.108	1.59	-0.04	1.59
8639.00	89.660	159.860	5843.16	2702.14	-1999.15	2654.50	1740409.00	14582687.90	40°09'11.1840"N	80°38'31.7378"W	3323.09	126.984	1.36	0.30	1.32
8731.00	89.480	158.930	5843.85	2794.00	-2085.26	2686.87	1740441.36	14582601.82	40°09'10.3318"N	80°38'31.3253"W	3401.11	127.815	1.03	-0.20	-1.01
8824.00	89.350	159.920	5844.80	2886.85	-2172.32	2719.55	1740474.03	14582514.79	40°09'9.4701"N	80°38'30.9089"W	3480.65	128.617	1.07	-0.14	1.06
8917.00	89.510	162.060	5845.73	2979.80	-2260.24	2749.84	1740504.31	14582426.91	40°09'8.6001"N	80°38'30.5234"W	3559.54	129.419	2.31	0.17	2.30
9010.00	89.420	164.530	5846.60	3072.79	-2349.30	2776.57	1740531.02	14582337.88	40°09'7.7189"N	80°38'30.1838"W	3637.11	130.235	2.66	-0.10	2.66
9103.00	89.660	164.050	5847.34	3165.74	-2438.82	2801.75	1740556.20	14582248.39	40°09'6.8333"N	80°38'29.8642"W	3714.52	131.038	0.58	0.26	-0.52
9195.00	89.780	161.790	5847.79	3257.73	-2526.76	2828.77	1740583.20	14582160.49	40°09'5.9632"N	80°38'29.5208"W	3792.95	131.772	2.46	0.13	-2.46
9288.00	89.230	161.090	5848.60	3350.71	-2614.92	2858.37	1740612.79	14582072.36	40°09'5.0908"N	80°38'29.1442"W	3874.03	132.453	0.96	-0.59	-0.75
9381.00	88.860	163.410	5850.15	3443.69	-2703.47	2886.72	1740641.13	14581983.84	40°09'4.2146"N	80°38'28.7838"W	3954.99	133.123	2.53	-0.40	2.49
9474.00	89.110	165.580	5851.79	3536.62	-2793.07	2911.57	1740665.97	14581894.28	40°09'3.3282"N	80°38'28.4683"W	4034.66	133.810	2.35	0.27	2.33
9567.00	89.630	167.010	5852.82	3629.41	-2883.41	2933.60	1740688.00	14581803.97	40°09'2.4346"N	80°38'28.1893"W	4113.41	134.506	1.64	0.56	1.54
9659.00	89.420	165.990	5853.58	3721.19	-2972.87	2955.08	1740709.46	14581714.56	40°09'1.5497"N	80°38'27.9174"W	4191.71	135.172	1.13	-0.23	-1.11
9752.00	89.450	164.090	5854.50	3814.10	-3062.71	2979.09	1740733.46	14581624.75	40°09'0.6610"N	80°38'27.6129"W	4272.60	135.793	2.04	0.03	-2.04
9845.00	89.540	162.970	5855.32	3907.08	-3151.89	3005.45	1740759.82	14581535.61	40°08'59.7787"N	80°38'27.2781"W	4355.13	136.362	1.21	0.10	-1.20

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Field	Ohio	AP/Legal	
Facility	Edward Dremak OHI Pad	Wellbore	Edward Dremak OHI 210H AWB
Slot	Slot #210H		

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
12628.00	89.940	159.030	5867.84	-5809.24	3816.62	1741570.66	14578879.30	40°08'33.483"N	80°38'16.971"W	6950.81	146.695	1.89	-0.42	-1.84	
12719.00	89.820	160.660	5868.04	6776.29	-5894.66	3847.97	14578709.91	40°08'32.648"N	80°38'16.572"W	7039.45	146.864	1.80	-0.13	1.79	
12808.00	89.880	161.060	5868.27	6865.25	-5978.74	3877.15	1741631.17	40°08'31.808"N	80°38'16.200"W	7125.84	147.037	0.45	0.07	0.45	
12898.00	89.850	161.560	5868.48	6955.23	-6063.99	3905.99	1741660.00	40°08'30.965"N	80°38'15.834"W	7213.10	147.213	0.56	-0.03	0.56	
12987.00	89.510	161.000	5868.98	7044.20	-6148.28	3934.55	1741688.56	40°08'30.131"N	80°38'15.470"W	7299.46	147.383	0.74	-0.38	-0.63	
13077.00	89.970	163.850	5869.39	7134.19	-6234.07	3961.73	1741715.72	40°08'29.282"N	80°38'15.125"W	7386.40	147.564	3.21	0.51	3.17	
13167.00	89.600	163.640	5869.72	7224.17	-6320.47	3986.92	1741740.90	40°08'28.427"N	80°38'14.805"W	7472.88	147.757	0.47	-0.41	-0.23	
13256.00	89.720	164.130	5870.25	7313.15	-6405.97	4011.62	1741765.59	40°08'27.581"N	80°38'14.491"W	7558.41	147.944	0.57	0.13	0.55	
13346.00	89.720	163.010	5870.69	7403.13	-6492.30	4037.08	1741791.04	40°08'26.727"N	80°38'14.168"W	7645.12	148.126	1.24	0.00	-1.24	
13438.00	89.720	160.910	5871.14	7495.12	-6579.77	4065.57	1741819.52	40°08'25.861"N	80°38'13.806"W	7734.48	148.289	2.28	0.00	-2.28	
13531.00	89.780	159.510	5871.55	7588.04	-6667.27	4097.05	1741850.99	40°08'24.995"N	80°38'13.405"W	7825.49	148.429	1.51	0.06	-1.51	
13624.00	89.690	159.510	5871.98	7680.90	-6754.39	4129.61	1741883.53	40°08'24.133"N	80°38'12.991"W	7916.78	148.559	0.10	-0.10	0.00	
13716.00	89.720	161.070	5872.45	7772.82	-6840.99	4160.63	1741914.54	40°08'23.276"N	80°38'12.291"W	8006.88	148.692	1.70	0.03	1.70	
13809.00	89.720	161.360	5872.91	7865.80	-6929.04	4190.58	1741944.48	40°08'22.405"N	80°38'12.151"W	8097.69	148.835	0.31	0.00	0.31	
13902.00	89.690	162.040	5873.38	7958.78	-7017.33	4219.78	1741973.67	40°08'21.531"N	80°38'11.843"W	8188.38	148.980	0.73	-0.03	0.73	
13995.00	89.690	163.260	5873.89	8051.78	-7106.10	4247.51	1742001.39	40°08'20.653"N	80°38'11.491"W	8278.77	149.132	1.31	0.00	1.31	
14087.00	89.720	164.500	5874.36	8143.75	-7194.48	4273.06	1742026.92	40°08'19.778"N	80°38'11.167"W	8367.77	149.292	1.35	0.03	1.35	
14180.00	89.720	164.750	5874.82	8236.69	-7284.15	4297.71	1742051.57	40°08'18.891"N	80°38'10.854"W	8457.49	149.459	0.27	0.00	0.27	
14273.00	89.570	164.540	5875.39	8329.63	-7373.83	4322.34	1742076.19	40°08'18.004"N	80°38'10.542"W	8547.28	149.622	0.28	-0.16	-0.23	
14366.00	89.450	163.450	5876.19	8422.60	-7463.22	4347.98	1742101.82	40°08'17.120"N	80°38'10.216"W	8637.39	149.775	1.18	-0.13	-1.17	
14458.00	89.660	161.980	5876.90	8514.59	-7551.06	4375.31	1742129.14	40°08'16.251"N	80°38'9.869"W	8727.08	149.911	1.61	0.23	-1.60	
14550.00	89.110	161.940	5877.89	8606.58	-7638.53	4403.80	1742157.62	40°08'15.385"N	80°38'9.507"W	8817.07	150.035	0.60	-0.60	-0.04	
14643.00	89.200	163.340	5879.26	8699.57	-7727.28	4431.55	1742185.35	40°08'14.507"N	80°38'9.154"W	8907.83	150.166	1.51	0.10	1.51	
14736.00	89.260	163.410	5880.51	8792.55	-7816.39	4458.15	1742211.95	40°08'13.625"N	80°38'8.816"W	8998.39	150.301	0.10	0.06	0.08	
14828.00	89.380	164.560	5881.60	8884.51	-7904.81	4483.53	1742237.32	40°08'12.750"N	80°38'8.494"W	9087.80	150.439	1.26	0.13	1.25	
14917.00	89.380	165.470	5882.57	8973.43	-7990.78	4506.54	1742260.32	40°08'11.900"N	80°38'8.202"W	9173.95	150.578	1.02	0.00	1.02	
15007.00	89.540	167.830	5883.41	9063.19	-8078.33	4527.32	1742281.09	40°08'11.034"N	80°38'7.940"W	9260.46	150.733	2.63	0.18	2.62	
15097.00	89.850	169.320	5883.89	9152.69	-8166.55	4545.15	1742298.91	40°08'10.161"N	80°38'7.715"W	9346.17	150.902	1.69	0.34	1.66	
15189.00	89.970	168.040	5884.04	9244.17	-8256.76	4563.21	1742316.96	40°08'9.269"N	80°38'7.487"W	9433.82	151.072	1.40	0.13	-1.39	
15278.00	89.940	167.820	5884.11	9332.96	-8343.26	4584.09	1742337.83	40°08'8.414"N	80°38'7.223"W	9519.66	151.214	3.62	-0.03	-3.62	

WELLPATH DATA (252 stations)

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Actual Wellpath Report  
Edward Dremak OHI 210H AWP Proj: 21694  
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Southwestern Energy

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MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
15370.00	91.690	160.790	5882.80	9424.93	-8431.12	4611.27	1742365.01	14576258.44	40°08'7.5447"N	80°38'6.8777"W	9609.77	151.324	4.78	1.90	-4.38
15462.00	90.680	158.380	5880.90	9516.77	-8517.31	4643.36	1742397.08	14576172.28	40°08'6.6917"N	80°38'6.4692"W	9700.79	151.402	2.84	-1.10	-2.62
15550.00	89.510	156.110	5880.75	9604.38	-8598.46	4677.39	1742431.10	14576091.17	40°08'5.8884"N	80°38'6.0353"W	9788.33	151.455	2.90	-1.33	-2.58
15640.00	89.510	156.210	5881.52	9693.82	-8680.77	4713.77	1742467.46	14576008.88	40°08'5.0735"N	80°38'5.5714"W	9878.03	151.498	0.11	0.00	0.11
15733.00	89.660	158.850	5882.19	9786.45	-8766.70	4749.31	1742502.99	14575922.98	40°08'4.2229"N	80°38'5.1183"W	9970.51	151.554	2.84	0.16	2.84
15824.00	89.570	159.460	5882.80	9877.28	-8851.75	4781.69	1742535.36	14575837.98	40°08'3.3812"N	80°38'4.7059"W	10060.71	151.622	0.68	-0.10	0.67
15914.00	89.140	160.490	5883.82	9967.18	-8936.30	4812.50	1742566.16	14575753.46	40°08'2.5444"N	80°38'4.3137"W	10149.76	151.696	1.24	-0.48	1.14
16004.00	89.320	161.500	5885.03	10057.14	-9021.38	4841.81	1742595.45	14575668.41	40°08'1.7024"N	80°38'3.9409"W	10238.58	151.777	1.14	0.20	1.12
16092.00	89.140	163.190	5886.21	10145.12	-9105.23	4868.49	1742622.13	14575584.59	40°08'0.8727"N	80°38'3.6017"W	10325.09	151.867	1.93	-0.20	1.92
16182.00	89.230	164.710	5887.49	10235.09	-9191.71	4893.37	1742647.00	14575498.15	40°08'0.0171"N	80°38'3.2860"W	10413.10	151.971	1.69	0.10	1.69
16271.00	88.860	165.580	5888.97	10323.98	-9277.72	4916.19	1742669.80	14575412.17	40°07'59.1662"N	80°38'2.9968"W	10499.76	152.081	1.06	-0.42	0.98
16361.00	89.290	165.260	5890.43	10413.86	-9364.81	4938.84	1742692.45	14575325.11	40°07'58.3047"N	80°38'2.7098"W	10587.34	152.194	0.60	0.48	-0.36
16451.00	89.540	163.380	5891.35	10503.81	-9451.45	4963.16	1742716.76	14575238.50	40°07'57.4475"N	80°38'2.4013"W	10675.34	152.295	2.11	0.28	-2.09
16540.00	89.420	160.710	5892.15	10592.80	-9536.11	4990.59	1742744.18	14575153.88	40°07'56.6098"N	80°38'2.0526"W	10763.06	152.375	3.00	-0.13	-3.00
16630.00	88.980	159.770	5893.41	10682.71	-9620.80	5021.02	1742774.59	14575069.22	40°07'55.7717"N	80°38'1.6654"W	10852.21	152.440	1.15	-0.49	-1.04
16719.00	88.740	160.560	5895.18	10771.61	-9704.50	5051.21	1742804.78	14574985.55	40°07'54.9433"N	80°38'1.2811"W	10940.39	152.503	0.93	-0.27	0.89
16809.00	89.320	160.830	5896.70	10861.55	-9789.43	5080.96	1742834.51	14574900.66	40°07'54.1028"N	80°38'0.9026"W	11029.46	152.570	0.71	0.64	0.30
16898.00	89.350	161.080	5897.74	10950.51	-9873.55	5110.00	1742863.54	14574816.57	40°07'53.2704"N	80°38'0.5332"W	11117.51	152.636	0.28	0.03	0.28
16987.00	89.480	161.360	5898.65	11039.48	-9957.81	5138.65	1742892.18	14574732.35	40°07'52.4366"N	80°38'0.1688"W	11205.52	152.704	0.35	0.15	0.31
17076.00	89.380	162.290	5899.53	11128.47	-10042.36	5166.41	1742919.93	14574647.83	40°07'51.5999"N	80°37'59.8159"W	11293.40	152.776	1.05	-0.11	1.04
17166.00	90.280	163.540	5899.80	11218.46	-10128.39	5192.85	1742946.36	14574561.83	40°07'50.7487"N	80°37'59.4801"W	11382.00	152.856	1.71	1.00	1.39
17255.00	89.260	161.860	5900.16	11307.46	-10213.36	5219.31	1742972.81	14574476.90	40°07'49.9079"N	80°37'59.1439"W	11469.70	152.932	2.21	-1.15	-1.89
17345.00	89.630	163.480	5901.14	11397.45	-10299.26	5246.12	1742999.61	14574391.03	40°07'49.0579"N	80°37'58.8034"W	11558.40	153.007	1.82	0.24	1.80
17435.00	89.630	165.790	5901.84	11487.38	-10386.04	5269.97	1743023.44	14574304.28	40°07'48.1994"N	80°37'58.5010"W	11646.56	153.096	2.57	0.17	2.57
17528.00	89.660	166.000	5902.42	11580.22	-10476.23	5292.63	1743046.10	14574214.13	40°07'47.3072"N	80°37'58.2141"W	11737.26	153.197	0.23	0.03	0.23
17620.00	89.780	167.180	5902.87	11672.00	-10565.72	5313.97	1743067.43	14574124.67	40°07'46.4220"N	80°37'57.9441"W	11826.78	153.300	1.29	0.13	1.28
17713.00	89.570	167.130	5903.40	11764.70	-10656.39	5334.64	1743088.09	14574034.04	40°07'45.5251"N	80°37'57.6828"W	11917.09	153.407	0.23	-0.23	-0.05
17806.00	89.630	166.310	5904.05	11857.45	-10746.90	5356.00	1743109.45	14573943.56	40°07'44.6299"N	80°37'57.4126"W	12007.61	153.509	0.88	0.06	-0.88
17899.00	89.690	163.170	5904.60	11950.37	-10836.61	5380.48	1743133.91	14573853.89	40°07'43.7424"N	80°37'57.1023"W	12098.83	153.595	3.38	0.06	-3.38
17988.00	89.600	160.790	5905.15	12039.36	-10921.24	5408.01	1743161.43	14573769.29	40°07'42.9049"N	80°37'56.7524"W	12186.88	153.656	2.68	-0.10	-2.67

WELLPATH DATA (252 stations)

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Southwestern Energy

REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY
Field	Ohio
Facility	Edward Dremak OHI Pad
Slot	Slot #210H
Well	Edward Dremak OHI 210H
API/Legal	
Wellbore	Edward Dremak OHI 210H AWB

**Actual Wellpath Report**  
 Edward Dremak OHI 210H AWP Proj: 21694  
 Page 9 of 13



MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(US ft)	(ft)	(ft)	(°)	(ft/100ft)	(°/100ft)	(°/100ft)
18078.00	89.880	160.050	5905.56	12129.29	-11006.03	5438.17	1743191.58	14573684.53	40°07'42.0658"N	80°37'56.3686"W	12276.25	153.706	0.88	0.31	-0.82
18166.00	89.630	156.560	5905.94	12217.04	-11087.78	5470.69	1743224.09	14573602.81	40°07'41.2566"N	80°37'55.9543"W	12363.96	153.738	3.98	-0.28	-3.97
18256.00	89.050	155.720	5906.97	12306.46	-11170.09	5507.09	1743260.48	14573520.54	40°07'40.4418"N	80°37'55.4900"W	12453.87	153.756	1.13	-0.64	-0.93
18346.00	89.170	157.350	5908.37	12395.95	-11252.63	5542.93	1743296.30	14573538.03	40°07'39.6246"N	80°37'55.0331"W	12543.75	153.776	1.82	0.13	1.81
18436.00	88.800	159.350	5909.96	12485.68	-11336.26	5576.12	1743329.48	14573554.43	40°07'38.7968"N	80°37'54.6102"W	12633.45	153.808	2.26	-0.41	2.22
18525.00	89.230	162.790	5911.49	12574.62	-11420.43	5604.99	1743358.33	14573270.30	40°07'37.9639"N	80°37'54.2431"W	12721.71	153.859	3.89	0.48	3.87
18615.00	89.650	164.300	5912.22	12664.61	-11506.73	5630.48	1743383.82	14573184.03	40°07'37.1100"N	80°37'53.9196"W	12810.43	153.927	1.81	0.69	1.68
18708.00	89.650	162.360	5912.46	12757.59	-11595.82	5657.16	1743410.48	14573094.98	40°07'36.2285"N	80°37'53.5809"W	12902.19	153.994	2.09	0.00	-2.09
18797.00	89.510	160.890	5912.96	12846.58	-11680.28	5685.21	1743438.53	14573010.55	40°07'35.3928"N	80°37'53.2243"W	12990.40	154.046	1.70	-0.38	-1.65
18887.00	89.450	162.430	5913.77	12936.56	-11765.70	5713.53	1743466.83	14572925.16	40°07'34.5474"N	80°37'52.8643"W	13079.61	154.098	1.71	-0.07	1.71
18975.00	89.570	163.740	5914.53	13024.55	-11849.89	5739.13	1743492.42	14572841.01	40°07'33.7145"N	80°37'52.5392"W	13166.53	154.158	1.49	0.14	1.49
19065.00	89.540	165.480	5915.23	13114.49	-11936.66	5763.01	1743516.30	14572754.27	40°07'32.8560"N	80°37'52.2364"W	13255.04	154.229	1.93	-0.03	1.93
19156.00	89.600	166.400	5915.91	13205.33	-12024.93	5785.12	1743538.40	14572666.04	40°07'31.9828"N	80°37'51.9565"W	13344.15	154.308	1.01	0.07	1.01
19249.00	89.850	166.820	5916.36	13298.10	-12115.40	5806.66	1743559.92	14572575.60	40°07'31.0879"N	80°37'51.6841"W	13435.03	154.393	0.53	0.27	0.45
19342.00	89.940	165.630	5916.53	13390.91	-12205.72	5828.80	1743582.06	14572485.31	40°07'30.1944"N	80°37'51.4039"W	13526.07	154.473	1.28	0.10	-1.28
19434.00	89.880	163.530	5916.67	13482.84	-12294.40	5853.26	1743606.51	14572396.67	40°07'29.3171"N	80°37'51.0937"W	13616.64	154.541	2.28	-0.07	-2.28
19526.00	90.060	161.750	5916.72	13574.84	-12382.21	5880.71	1743633.95	14572308.89	40°07'28.4483"N	80°37'50.7451"W	13707.73	154.595	1.94	0.20	-1.93
19617.00	89.880	160.450	5916.77	13665.81	-12468.30	5910.18	1743663.41	14572222.84	40°07'27.5963"N	80°37'50.3702"W	13798.15	154.638	1.44	-0.20	-1.43
19709.00	89.820	159.690	5917.01	13757.72	-12554.79	5941.54	1743694.76	14572136.38	40°07'26.7403"N	80°37'49.9712"W	13889.73	154.674	0.83	-0.07	-0.83
19800.00	89.780	160.690	5917.32	13848.64	-12640.40	5972.38	1743725.59	14572050.80	40°07'25.8930"N	80°37'49.5788"W	13980.31	154.710	1.10	-0.04	1.10
19892.00	89.630	162.460	5917.80	13940.62	-12727.68	6001.46	1743754.65	14571963.56	40°07'25.0293"N	80°37'49.2091"W	14071.65	154.755	1.93	-0.16	1.92
19984.00	89.720	163.910	5918.32	14032.61	-12815.75	6028.07	1743781.26	14571875.53	40°07'24.1580"N	80°37'48.8713"W	14162.66	154.809	1.58	0.10	1.58
20077.00	89.850	164.080	5918.67	14125.58	-12905.14	6053.72	1743806.89	14571786.17	40°07'23.2735"N	80°37'48.5460"W	14254.48	154.869	0.23	0.14	0.18
20170.00	89.880	164.110	5918.89	14218.55	-12994.58	6079.20	1743832.36	14571696.76	40°07'22.3887"N	80°37'48.2227"W	14346.28	154.929	0.05	0.03	0.03
20263.00	89.940	163.980	5919.03	14311.52	-13084.00	6104.77	1743857.92	14571607.38	40°07'21.5040"N	80°37'47.8984"W	14438.11	154.987	0.15	0.06	-0.14
20356.00	89.820	163.130	5919.23	14404.50	-13173.19	6131.09	1743884.23	14571518.22	40°07'20.6215"N	80°37'47.5643"W	14530.08	155.042	0.92	-0.13	-0.91
20449.00	89.630	162.270	5919.68	14497.50	-13261.98	6158.75	1743911.88	14571429.47	40°07'19.7429"N	80°37'47.2131"W	14622.26	155.090	0.95	-0.20	-0.92
20541.00	89.630	161.290	5920.27	14589.49	-13349.37	6187.51	1743940.63	14571342.11	40°07'18.8782"N	80°37'46.8475"W	14713.63	155.132	1.07	0.00	-1.07
20634.00	89.660	160.660	5920.85	14682.45	-13437.28	6217.83	1743970.94	14571254.23	40°07'18.0081"N	80°37'46.4620"W	14806.15	155.169	0.68	0.03	-0.68
20726.00	89.720	159.990	5921.34	14774.38	-13523.91	6248.81	1744001.91	14571167.64	40°07'17.1508"N	80°37'46.0678"W	14897.78	155.200	0.74	0.07	-0.74

WELLPATH DATA (252 stations)

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	SOUTHWESTERN ENERGY
Field	Ohio
Facility	Edward Dremak OHI Pad
Slot	Slot #210H
Well	Edward Dremak OHI 210H
API/ Legal	
Wellbore	Edward Dremak OHI 210H AWB

**WELLPATH DATA (252 stations) † = interpolated, ‡ = extrapolated station**

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
20819.00	89.600	159.110	5921.90	14867.24	-13611.04	6281.31	1744034.39	14571080.54	40°07'16.2884"N	80°37'45.6541"W	14990.51	155.227	0.94	-0.13	-0.94
20912.00	89.630	160.010	5922.52	14960.11	-13698.18	6313.79	1744066.86	14570993.43	40°07'15.4260"N	80°37'45.2407"W	15083.24	155.254	0.97	0.03	0.97
21004.00	89.600	160.710	5923.14	15052.04	-13784.83	6344.71	1744097.77	14570906.82	40°07'14.5685"N	80°37'44.8474"W	15174.88	155.285	0.76	-0.03	0.76
21097.00	89.540	161.390	5923.84	15145.00	-13872.79	6374.91	1744127.95	14570818.90	40°07'13.6980"N	80°37'44.4634"W	15267.40	155.320	0.73	-0.06	0.73
21188.00	89.450	162.580	5924.64	15235.99	-13959.32	6403.05	1744156.08	14570732.40	40°07'12.8417"N	80°37'44.1058"W	15357.79	155.359	1.31	-0.10	1.31
21281.00	89.510	165.220	5925.48	15328.96	-14048.66	6428.84	1744181.86	14570643.09	40°07'11.9578"N	80°37'43.7786"W	15449.75	155.411	2.84	0.06	2.84
21374.00	89.600	166.340	5926.21	15421.81	-14138.81	6451.68	1744204.70	14570552.98	40°07'11.0660"N	80°37'43.4894"W	15541.24	155.472	1.21	0.10	1.20
21467.00	89.570	166.660	5926.88	15514.59	-14229.24	6473.39	1744226.40	14570462.59	40°07'10.1715"N	80°37'43.2148"W	15632.53	155.538	0.35	-0.03	0.34
21559.00	89.600	165.420	5927.55	15606.42	-14318.51	6495.58	1744248.58	14570373.35	40°07'9.2884"N	80°37'42.9340"W	15722.99	155.599	1.35	0.03	-1.35
21652.00	89.570	164.220	5928.22	15699.34	-14408.26	6519.93	1744272.92	14570283.63	40°07'8.4004"N	80°37'42.6253"W	15814.79	155.653	1.29	-0.03	-1.29
21669.00	89.630	163.880	5928.34	15716.33	-14424.61	6524.61	1744277.59	14570267.29	40°07'8.2387"N	80°37'42.5661"W	15831.61	155.662	2.03	0.35	-2.00
21694.00	89.630	163.880	5928.50	15741.33	-14448.63	6531.55	1744284.53	14570243.29	40°07'8.0011"N	80°37'42.4780"W	15856.35	155.675	0.00	0.00	0.00

**HOLE & CASING SECTIONS - Ref Wellbore: Edward Dremak OHI 210H AWB Ref Wellpath: Edward Dremak OHI 210H AWP Proj: 21694**

String/Diameter	Start MD	End MD	Interval	Start TVD	End TVD	Start N/S	End N/S	Start EW	End EW
20in Conductor	26.00	126.00	100.00	26.00	126.00	0.00	0.00	0.00	0.57
17.5in Open Hole	126.00	365.00	239.00	126.00	365.00	0.57	0.37	0.00	0.16
13.375in Casing Surface	26.00	360.00	334.00	26.00	360.00	0.00	0.00	0.00	0.19
12.25in Open Hole	365.00	1667.00	1302.00	365.00	1666.11	0.16	0.62	-11.34	15.76
9.625in Casing Intermediate	26.00	1650.00	1624.00	26.00	1649.17	0.00	0.00	0.00	-11.20
8.75in Open Hole	1667.00	6137.00	4470.00	1666.11	5612.38	-11.34	313.44	15.76	313.44
8.5in Open Hole	6137.00	21694.00	15557.00	5612.38	5928.50	313.44	1913.72	-14448.63	-14448.63
5.5in Casing Production	26.00	21694.00	21668.00	26.00	5928.50	0.00	0.00	0.00	6531.55

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Well	Edward Dremak OHI 210H
Field	Ohio	API/Legal	
Facility	Edward Dremak OHI Pad	Wellbore	Edward Dremak OHI 210H AWB
Slot	Slot #210H		

TARGETS							
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude
Edward Dremak North Hardlines 1	5802.50	-125.10	805.68	1738560.91	14584561.21	40°09'29.7762"N	80°38'55.4520"W
2D Polygon: dimensions not calculated							
Edward Dremak North Hardlines 2	5802.50	-2318.30	634.36	1738389.65	14582368.87	40°09'8.1098"N	80°38'57.7700"W
2D Polygon: dimensions not calculated							
Edward Dremak South Hardlines 2	5802.50	-12921.57	4918.89	1742672.50	14571769.74	40°07'23.1575"N	80°38'3.1551"W
2D Polygon: dimensions not calculated							
Edward Dremak South Unit 1	5802.50	-10742.02	6255.40	1744008.49	14573948.44	40°07'44.6412"N	80°37'45.8337"W
2D Polygon: dimensions not calculated							
Edward Dremak South Unit 2	5802.50	-13640.18	4921.59	1742675.20	14571061.42	40°07'16.0562"N	80°38'3.1584"W
2D Polygon: dimensions not calculated							
Edward Dremak OHI 210H LP Rev-3	5820.00	-117.01	2030.41	1739785.15	14584569.30	40°09'29.8080"N	80°38'39.6780"W
point							
Edward Dremak OHI 210H BHL Rev-7	6083.47	-14517.17	6549.82	1744302.79	14570174.77	40°07'7.3230"N	80°37'42.2466"W
point							

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Ohio	API/Legal	
Facility	Edward Dremak OHI Pad	Wellbore	Edward Dremak OHI 210H AWB
Slot	Slot #210H		

WELLPATH COMPOSITION - Ref Wellbore: Edward Dremak OHI 210H AWB Ref Wellpath: Edward Dremak OHI 210H AWP Proj: 21694			
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment
[ft]	[ft]		Wellbore
26.00	317.00	Gyrodatta 2015 - CT+MR+DPIPE	Edward Dremak OHI 210H AWB
317.00	500.00	Gyrodatta 2015 - CT+MR+DPIPE	Edward Dremak OHI 210H AWB
317.00	500.00	Gyrodatta Gyro <12-1/4">(317')(406'-500')	Edward Dremak OHI 210H AWB
500.00	1595.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
500.00	1595.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
1595.00	6074.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
6074.00	6074.00	BH AutoTrak Curve (2019) (Short spacing)	Edward Dremak OHI 210H AWB
6074.00	21694.00	BH AutoTrak Curve (2019) (Short spacing)	Edward Dremak OHI 210H AWB
6074.00	21694.00	BH AT Curve <8-1/2">(6074')(6143'-21669')	Edward Dremak OHI 210H AWB
1595.00	6074.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
1595.00	6074.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
500.00	1595.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
500.00	1595.00	OWSG MWD rev2 + HRGM	Edward Dremak OHI 210H AWB
6074.00	21694.00	BH AutoTrak Curve (2019) (Short spacing)	Edward Dremak OHI 210H AWB

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Ohio	AP/Legal	
Facility	Edward Dremak OHI Pad	Wellbore	Edward Dremak OHI 210H AWB
Slot	Slot #210H		

COMMENTS
Wellpath general comments API: 47-069-00320-0000 BH Job #: 110199735A Rig: SDC 42 Duration: 01/18/2020 - 01/21/2020

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