Tap Rock Resources, LLC

Lea County, NM (NAD 83 NME)
(Hyperion) Sec-20_T-24-S_R-33-E
Hyperion State #141H

OWB

Design: AWB

Standard Survey Report

08 August, 2019

INTREPID

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well Hyperion State #141H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB @ 3563.0usft (H&P 388)
Site:	(Hyperion) Sec-20_T-24-S_R-33-E	**MD Reference:**	KB @ 3563.0usft (H&P 388)
Well:	Hyperion State #141H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	AWB	**Database:**	EDM 5000.15 Single User Db

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Hyperion) Sec-20_T-24-S_R-33-E				
Site Position:		**Northing:**	440,505.00 usft	**Latitude:**	32° 12' 32.058 N
From:	Map	**Easting:**	767,798.00 usft	**Longitude:**	103° 36' 4.072 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.39 °

Well	Hyperion State #141H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	440,559.00 usft	**Latitude:**	32° 12' 32.597 N
	+E/-W	0.0 usft	**Easting:**	767,717.00 usft	**Longitude:**	103° 36' 5.010 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,537.0 usft

Wellbore	OWB				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	07/15/19	6.74	60.02	47,711.81493100

Design	AWB					
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	179.54		

Survey Program **Date** 08/08/19

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
152.0	15,439.0	Intrepid MWD (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
152.0	0.13	17.48	152.0	0.2	0.1	-0.2	0.09	0.09	0.00
271.0	0.26	177.53	271.0	0.0	0.1	0.0	0.32	0.11	134.50
392.0	0.75	29.96	392.0	0.4	0.5	-0.4	0.81	0.40	-121.96
516.0	0.44	42.18	516.0	1.5	1.2	-1.5	0.27	-0.25	9.85
607.0	1.01	28.20	607.0	2.5	1.8	-2.4	0.65	0.63	-15.36
700.0	0.70	2.19	700.0	3.7	2.3	-3.7	0.53	-0.33	-27.97
792.0	0.22	15.37	792.0	4.5	2.3	-4.5	0.53	-0.52	14.33
884.0	0.18	297.41	884.0	4.7	2.2	-4.7	0.28	-0.04	-84.74
976.0	0.04	88.67	976.0	4.8	2.1	-4.8	0.23	-0.15	164.41

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,068.0	0.44	211.81	1,068.0	4.5	2.0	-4.5	0.50	0.43	133.85
1,160.0	0.84	237.82	1,160.0	3.8	1.2	-3.8	0.53	0.43	28.27
1,198.0	0.84	229.20	1,198.0	3.5	0.8	-3.5	0.33	-0.01	-22.65
Rustler Anhydrite									
1,212.0	0.84	226.05	1,212.0	3.4	0.6	-3.4	0.33	0.02	-22.58
1,345.0	1.27	176.04	1,344.9	1.2	0.0	-1.2	0.73	0.32	-37.60
1,440.0	0.31	27.33	1,439.9	0.4	0.2	-0.4	1.62	-1.01	-156.54
1,535.0	2.20	357.27	1,534.9	2.4	0.3	-2.4	2.04	1.99	-31.64
1,553.1	2.65	356.98	1,553.0	3.2	0.2	-3.2	2.50	2.49	-1.60
Top Salt									
1,630.0	4.57	356.39	1,629.7	8.0	-0.1	-8.0	2.50	2.49	-0.77
1,725.0	6.68	357.00	1,724.3	17.3	-0.6	-17.3	2.22	2.22	0.64
1,820.0	6.81	355.51	1,818.6	28.5	-1.3	-28.5	0.23	0.14	-1.57
1,915.0	7.08	355.60	1,912.9	39.9	-2.2	-39.9	0.28	0.28	0.09
2,010.0	6.90	355.60	2,007.2	51.4	-3.1	-51.5	0.19	-0.19	0.00
2,105.0	6.95	354.81	2,101.5	62.9	-4.1	-62.9	0.11	0.05	-0.83
2,200.0	7.12	354.63	2,195.8	74.4	-5.1	-74.5	0.18	0.18	-0.19
2,294.0	7.03	354.98	2,289.1	86.0	-6.2	-86.0	0.11	-0.10	0.37
2,389.0	6.81	355.69	2,383.4	97.4	-7.1	-97.4	0.25	-0.23	0.75
2,484.0	6.81	357.18	2,477.7	108.6	-7.8	-108.7	0.19	0.00	1.57
2,579.0	6.77	356.92	2,572.1	119.8	-8.4	-119.9	0.05	-0.04	-0.27
2,674.0	6.64	357.53	2,666.4	130.9	-8.9	-131.0	0.16	-0.14	0.64
2,768.0	6.68	359.90	2,759.8	141.8	-9.2	-141.9	0.30	0.04	2.52
2,958.0	6.42	2.19	2,948.5	163.5	-8.8	-163.5	0.19	-0.14	1.21
3,053.0	6.15	2.80	3,043.0	173.9	-8.3	-173.9	0.29	-0.28	0.64
3,148.0	5.98	6.14	3,137.4	183.9	-7.5	-183.9	0.41	-0.18	3.52
3,243.0	5.71	357.27	3,231.9	193.5	-7.2	-193.6	0.99	-0.28	-9.34
3,338.0	5.58	354.37	3,326.5	202.8	-7.9	-202.9	0.33	-0.14	-3.05
3,432.0	5.23	355.51	3,420.1	211.7	-8.7	-211.7	0.39	-0.37	1.21
3,527.0	4.35	4.03	3,514.7	219.6	-8.8	-219.6	1.19	-0.93	8.97
3,622.0	3.78	351.38	3,609.5	226.3	-9.0	-226.3	1.11	-0.60	-13.32
3,717.0	3.47	348.30	3,704.3	232.2	-10.1	-232.2	0.39	-0.33	-3.24
3,814.0	2.73	347.16	3,801.2	237.3	-11.2	-237.4	0.77	-0.76	-1.18
3,908.0	3.03	349.18	3,895.0	241.9	-12.1	-242.0	0.34	0.32	2.15
4,003.0	3.34	351.99	3,989.9	247.1	-13.0	-247.2	0.37	0.33	2.96
4,098.0	2.81	355.16	4,084.8	252.2	-13.6	-252.3	0.59	-0.56	3.34
4,193.0	3.74	342.24	4,179.6	257.5	-14.7	-257.6	1.24	0.98	-13.60
4,288.0	3.82	346.37	4,274.4	263.5	-16.4	-263.6	0.30	0.08	4.35
4,383.0	2.24	7.29	4,369.3	268.4	-16.9	-268.5	2.00	-1.66	22.02
4,478.0	3.08	349.53	4,464.2	272.7	-17.1	-272.9	1.23	0.88	-18.69
4,573.0	3.34	349.53	4,559.0	278.0	-18.1	-278.1	0.27	0.27	0.00
4,668.0	1.98	10.01	4,653.9	282.3	-18.3	-282.5	1.72	-1.43	21.56
4,752.2	2.52	2.41	4,738.0	285.6	-18.0	-285.7	0.73	0.64	-9.03
Base Salt									

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Survey

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4,763.0	2.59	1.66	4,748.8	286.1	-18.0	-286.2	0.73	0.66	-6.89
4,857.0	3.60	354.10	4,842.7	291.1	-18.2	-291.3	1.16	1.07	-8.04
4,952.0	3.91	345.14	4,937.5	297.2	-19.4	-297.4	0.70	0.33	-9.43
5,047.0	4.75	339.69	5,032.2	304.1	-21.6	-304.2	0.98	0.88	-5.74
5,052.8	4.69	339.45	5,038.0	304.5	-21.7	-304.7	1.06	-1.01	-4.13
Delaware Mountain Gp									
5,057.8	4.64	339.24	5,043.0	304.9	-21.9	-305.1	1.06	-1.01	-4.22
Bell Canyon									
5,082.9	4.39	338.11	5,068.0	306.7	-22.6	-306.9	1.06	-1.00	-4.51
Lamar									
5,103.0	4.19	337.10	5,088.0	308.1	-23.2	-308.3	1.06	-0.99	-5.00
Ramsey Sand									
5,104.0	4.18	337.05	5,089.0	308.2	-23.2	-308.4	1.06	-0.99	-5.25
5,218.0	4.03	334.15	5,202.8	315.6	-26.6	-315.8	0.22	-0.13	-2.54
5,313.0	4.38	341.79	5,297.5	322.1	-29.1	-322.3	0.69	0.37	8.04
5,408.0	5.96	355.25	5,392.1	330.4	-30.7	-330.7	2.09	1.66	14.17
5,503.0	5.51	353.51	5,486.6	339.9	-31.6	-340.1	0.51	-0.47	-1.83
5,598.0	5.54	352.42	5,581.2	348.9	-32.7	-349.2	0.11	0.03	-1.15
5,693.0	5.74	350.13	5,675.7	358.2	-34.1	-358.4	0.32	0.21	-2.41
5,788.0	5.77	349.33	5,770.3	367.5	-35.8	-367.8	0.09	0.03	-0.84
5,883.0	5.33	350.86	5,864.8	376.6	-37.4	-376.9	0.49	-0.46	1.61
6,026.8	5.16	347.00	6,008.0	389.5	-39.9	-389.8	0.27	-0.12	-2.69
Cherry Canyon									
6,072.0	5.11	345.73	6,053.0	393.4	-40.9	-393.7	0.27	-0.11	-2.80
6,167.0	5.19	344.89	6,147.6	401.7	-43.1	-402.0	0.12	0.08	-0.88
6,262.0	4.97	343.59	6,242.3	409.8	-45.3	-410.1	0.26	-0.23	-1.37
6,357.0	5.01	344.29	6,336.9	417.7	-47.6	-418.1	0.08	0.04	0.74
6,451.0	5.04	344.33	6,430.5	425.6	-49.9	-426.0	0.03	0.03	0.04
6,546.0	4.38	332.29	6,525.2	432.9	-52.7	-433.3	1.25	-0.69	-12.67
6,641.0	2.25	318.07	6,620.1	437.5	-55.6	-437.9	2.39	-2.24	-14.97
6,736.0	1.42	319.27	6,715.0	439.7	-57.6	-440.2	0.87	-0.87	1.26
6,831.0	1.49	313.95	6,810.0	441.5	-59.3	-442.0	0.16	0.07	-5.60
6,926.0	1.63	308.93	6,905.0	443.2	-61.2	-443.7	0.21	0.15	-5.28
7,021.0	1.62	295.25	6,999.9	444.6	-63.5	-445.1	0.41	-0.01	-14.40
7,116.0	0.75	330.20	7,094.9	445.7	-65.0	-446.2	1.15	-0.92	36.79
7,210.0	0.77	65.28	7,188.9	446.5	-64.7	-447.0	1.19	0.02	101.15
7,305.0	0.71	31.82	7,283.9	447.3	-63.8	-447.8	0.45	-0.06	-35.22
7,400.0	0.40	48.34	7,378.9	448.0	-63.3	-448.5	0.36	-0.33	17.39
7,495.0	0.58	91.84	7,473.9	448.2	-62.6	-448.7	0.42	0.19	45.79
7,534.1	0.63	95.63	7,513.0	448.2	-62.1	-448.7	0.17	0.13	9.70
Brushy Canyon									
7,590.0	0.71	100.06	7,568.9	448.1	-61.5	-448.6	0.17	0.14	7.92
7,685.0	0.55	104.46	7,663.9	447.9	-60.5	-448.4	0.18	-0.17	4.63
7,780.0	0.49	124.69	7,758.9	447.5	-59.7	-448.0	0.20	-0.06	21.29
7,874.0	0.75	143.46	7,852.9	446.8	-59.0	-447.3	0.35	0.28	19.97

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7,969.0	1.00	152.65	7,947.8	445.6	-58.3	-446.0	0.30	0.26	9.67
8,064.0	1.09	160.72	8,042.8	444.0	-57.6	-444.4	0.18	0.09	8.49
8,159.0	1.28	189.53	8,137.8	442.1	-57.5	-442.5	0.65	0.20	30.33
8,254.0	0.51	100.23	8,232.8	441.0	-57.2	-441.4	1.44	-0.81	-94.00
8,349.0	0.95	98.30	8,327.8	440.8	-56.0	-441.2	0.46	0.46	-2.03
8,444.0	0.70	118.73	8,422.8	440.4	-54.7	-440.8	0.40	-0.26	21.51
8,538.0	0.81	104.98	8,516.8	439.9	-53.6	-440.4	0.22	0.12	-14.63
8,633.0	0.42	158.59	8,611.8	439.4	-52.8	-439.9	0.69	-0.41	56.43
8,728.0	0.94	35.61	8,706.8	439.8	-52.2	-440.2	1.28	0.55	-129.45
8,823.0	0.85	28.99	8,801.7	441.0	-51.4	-441.4	0.14	-0.09	-6.97
8,918.0	0.53	331.08	8,896.7	442.0	-51.3	-442.4	0.76	-0.34	-60.96
9,013.0	0.93	282.07	8,991.7	442.6	-52.3	-443.0	0.74	0.42	-51.59
9,069.3	1.11	256.46	9,048.0	442.5	-53.2	-442.9	0.86	0.32	-45.52
Bone Spring Lime									
9,108.0	1.33	244.45	9,086.7	442.2	-54.0	-442.7	0.86	0.56	-31.00
9,202.0	1.65	250.18	9,180.7	441.3	-56.3	-441.7	0.38	0.34	6.10
9,259.3	1.56	243.71	9,238.0	440.7	-57.8	-441.1	0.35	-0.16	-11.29
Upper Avalon									
9,297.0	1.51	239.07	9,275.7	440.2	-58.6	-440.7	0.35	-0.13	-12.32
9,392.0	0.94	268.94	9,370.6	439.5	-60.5	-440.0	0.88	-0.60	31.44
9,487.0	1.43	289.98	9,465.6	439.9	-62.4	-440.4	0.68	0.52	22.15
9,544.4	1.97	287.04	9,523.0	440.5	-64.0	-441.0	0.95	0.94	-5.13
Middle Avalon									
9,582.0	2.32	285.85	9,560.6	440.9	-65.3	-441.4	0.95	0.94	-3.16
9,677.0	2.53	303.20	9,655.5	442.5	-69.0	-443.1	0.80	0.22	18.26
9,771.0	2.01	302.88	9,749.4	444.6	-72.1	-445.1	0.55	-0.55	-0.34
9,865.0	3.16	282.13	9,843.3	446.0	-76.0	-446.6	1.56	1.22	-22.07
9,874.7	3.13	271.49	9,853.0	446.1	-76.5	-446.7	6.01	-0.26	-109.54
Lower Avalon									
9,972.0	6.77	211.80	9,950.0	441.3	-82.2	-441.9	6.01	3.74	-61.36
10,019.0	13.91	196.79	9,996.2	433.5	-85.3	-434.2	16.11	15.19	-31.94
10,067.0	20.19	192.00	10,042.0	419.8	-88.7	-420.5	13.40	13.08	-9.98
10,105.8	23.79	189.08	10,078.0	405.6	-91.3	-406.3	9.70	9.29	-7.54
1st Bone Spring Sand									
10,127.7	25.85	187.77	10,097.9	396.5	-92.7	-397.2	9.70	9.37	-5.97
FTP @ 10127.7'MD, 100'FNL & 370.5'FWL									
10,162.0	29.08	186.07	10,128.3	380.8	-94.6	-381.5	9.70	9.43	-4.95
10,257.0	34.52	178.53	10,209.1	330.8	-96.3	-331.6	7.08	5.73	-7.94
10,351.0	43.64	175.41	10,282.0	271.8	-93.0	-272.5	9.92	9.70	-3.32
10,446.0	52.40	176.75	10,345.4	201.4	-88.3	-202.1	9.28	9.22	1.41
10,541.0	60.19	178.66	10,398.1	122.5	-85.2	-123.1	8.37	8.20	2.01
10,561.6	62.57	179.74	10,408.0	104.4	-84.9	-105.1	12.41	11.54	5.22
2nd Bone Spring Carb									
10,636.0	71.21	183.28	10,437.2	36.1	-86.8	-36.8	12.41	11.62	4.77

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,731.0	82.35	183.53	10,458.9	-56.1	-92.3	55.4	11.73	11.73	0.26
10,760.0	85.45	183.29	10,462.0	-84.9	-94.0	84.1	10.72	10.69	-0.83
10,855.0	88.56	184.49	10,466.9	-179.5	-100.4	178.7	3.51	3.27	1.26
10,950.0	89.00	185.16	10,468.9	-274.2	-108.4	273.3	0.84	0.46	0.71
11,044.0	89.54	183.92	10,470.1	-367.9	-115.8	366.9	1.44	0.57	-1.32
11,139.0	90.35	182.91	10,470.2	-462.7	-121.5	461.7	1.36	0.85	-1.06
11,234.0	90.78	182.17	10,469.3	-557.6	-125.7	556.6	0.90	0.45	-0.78
11,329.0	90.39	181.88	10,468.3	-652.5	-129.1	651.5	0.51	-0.41	-0.31
11,424.0	90.74	182.47	10,467.4	-747.5	-132.7	746.4	0.72	0.37	0.62
11,519.0	90.84	181.73	10,466.1	-842.4	-136.1	841.3	0.79	0.11	-0.78
11,613.0	91.17	179.53	10,464.4	-936.4	-137.2	935.2	2.37	0.35	-2.34
11,708.0	91.30	179.14	10,462.4	-1,031.3	-136.1	1,030.2	0.43	0.14	-0.41
11,803.0	91.74	179.16	10,459.9	-1,126.3	-134.7	1,125.2	0.46	0.46	0.02
11,898.0	91.95	179.09	10,456.8	-1,221.2	-133.2	1,220.1	0.23	0.22	-0.07
11,993.0	92.41	178.97	10,453.2	-1,316.1	-131.6	1,315.0	0.50	0.48	-0.13
12,088.0	92.29	178.71	10,449.3	-1,411.0	-129.7	1,410.0	0.30	-0.13	-0.27
12,183.0	92.69	179.01	10,445.2	-1,505.9	-127.8	1,504.9	0.53	0.42	0.32
12,277.0	89.20	178.78	10,443.6	-1,599.9	-126.0	1,598.8	3.72	-3.71	-0.24
12,372.0	90.02	178.93	10,444.3	-1,694.9	-124.1	1,693.8	0.88	0.86	0.16
12,467.0	89.00	178.68	10,445.1	-1,789.8	-122.1	1,788.8	1.11	-1.07	-0.26
12,562.0	87.14	178.03	10,448.3	-1,884.7	-119.4	1,883.7	2.07	-1.96	-0.68
12,657.0	87.89	178.00	10,452.4	-1,979.6	-116.1	1,978.6	0.79	0.79	-0.03
12,751.0	88.36	177.85	10,455.5	-2,073.5	-112.7	2,072.5	0.52	0.50	-0.16
12,846.0	89.04	177.62	10,457.6	-2,168.4	-108.9	2,167.4	0.76	0.72	-0.24
12,941.0	88.71	178.14	10,459.5	-2,263.3	-105.4	2,262.4	0.65	-0.35	0.55
13,036.0	86.54	179.24	10,463.4	-2,358.2	-103.3	2,357.3	2.56	-2.28	1.16
13,131.0	85.57	179.65	10,470.0	-2,453.0	-102.3	2,452.1	1.11	-1.02	0.43
13,226.0	87.22	179.98	10,475.9	-2,547.8	-102.0	2,546.9	1.77	1.74	0.35
13,321.0	88.42	179.80	10,479.5	-2,642.7	-101.9	2,641.8	1.28	1.26	-0.19
13,414.0	89.52	180.21	10,481.2	-2,735.7	-101.9	2,734.8	1.26	1.18	0.44
13,509.0	90.20	180.46	10,481.4	-2,830.7	-102.4	2,829.8	0.76	0.72	0.26
13,604.0	92.36	181.25	10,479.3	-2,925.6	-103.8	2,924.7	2.42	2.27	0.83
13,699.0	91.23	181.53	10,476.4	-3,020.6	-106.1	3,019.6	1.23	-1.19	0.29
13,794.0	90.77	181.12	10,474.7	-3,115.5	-108.3	3,114.5	0.65	-0.48	-0.43
13,889.0	90.03	180.79	10,474.0	-3,210.5	-109.9	3,209.5	0.85	-0.78	-0.35
13,983.0	89.22	180.50	10,474.6	-3,304.5	-111.0	3,303.5	0.92	-0.86	-0.31
14,078.0	89.74	181.03	10,475.5	-3,399.5	-112.2	3,398.5	0.78	0.55	0.56
14,173.0	89.37	180.58	10,476.2	-3,494.5	-113.6	3,493.4	0.61	-0.39	-0.47
14,268.0	88.69	180.57	10,477.9	-3,589.4	-114.5	3,588.4	0.72	-0.72	-0.01
14,363.0	89.86	180.77	10,479.1	-3,684.4	-115.6	3,683.4	1.25	1.23	0.21
14,458.0	89.17	180.08	10,479.9	-3,779.4	-116.3	3,778.4	1.03	-0.73	-0.73
14,553.0	87.76	180.02	10,482.4	-3,874.4	-116.4	3,873.3	1.49	-1.48	-0.06
14,647.0	87.87	180.44	10,486.0	-3,968.3	-116.8	3,967.3	0.46	0.12	0.45

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well Hyperion State #141H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB @ 3563.0usft (H&P 388)
Site:	(Hyperion) Sec-20_T-24-S_R-33-E	**MD Reference:**	KB @ 3563.0usft (H&P 388)
Well:	Hyperion State #141H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	AWB	**Database:**	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,742.0	88.09	180.99	10,489.3	-4,063.3	-118.0	4,062.2	0.62	0.23	0.58
14,837.0	88.18	181.27	10,492.4	-4,158.2	-119.9	4,157.1	0.31	0.09	0.29
14,932.0	89.76	181.52	10,494.1	-4,253.1	-122.2	4,252.0	1.68	1.66	0.26
15,027.0	88.74	181.27	10,495.4	-4,348.1	-124.5	4,347.0	1.11	-1.07	-0.26
15,122.0	89.97	181.92	10,496.4	-4,443.1	-127.1	4,441.9	1.46	1.29	0.68
15,216.0	90.36	182.12	10,496.2	-4,537.0	-130.4	4,535.8	0.47	0.41	0.21
15,311.0	90.83	182.32	10,495.2	-4,631.9	-134.1	4,630.7	0.54	0.49	0.21
15,359.5	91.03	182.62	10,494.4	-4,680.4	-136.2	4,679.1	0.73	0.40	0.61
LTP @ 15359.5'MD, 100'FSL & 286.4'FWL									
15,373.0	91.08	182.70	10,494.2	-4,693.8	-136.8	4,692.6	0.73	0.40	0.61
LAST SVY									
15,439.0	91.08	182.70	10,492.9	-4,759.8	-139.9	4,758.5	0.00	0.00	0.00
Projection to TD @ 15439'MD, 20.6'FSL & 282'FWL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Hyperion State #	0.00	0.00	10,464.0	396.0	-132.0	440,955.00	767,585.00	32° 12' 36.525 N	103° 36' 6.515 W
- actual wellpath misses target center by 220.6usft at 10378.7usft MD (10301.6 TVD, 252.3 N, -91.5 E)									
- Point									
LTP (Hyperion State #	0.00	0.00	10,497.0	-4,680.0	-92.0	435,879.00	767,625.00	32° 11' 46.294 N	103° 36' 6.452 W
- actual wellpath misses target center by 44.2usft at 15357.2usft MD (10494.4 TVD, -4678.1 N, -136.1 E)									
- Point									
PBHL (Hyperion State	0.40	179.54	10,497.0	-4,750.0	-91.0	435,809.00	767,626.00	32° 11' 45.601 N	103° 36' 6.446 W
- actual wellpath misses target center by 48.6usft at 15426.9usft MD (10493.1 TVD, -4747.6 N, -139.4 E)									
- Rectangle (sides W100.0 H5,147.0 D20.0)									

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well Hyperion State #141H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB @ 3563.0usft (H&P 388)
Site:	(Hyperion) Sec-20_T-24-S_R-33-E	**MD Reference:**	KB @ 3563.0usft (H&P 388)
Well:	Hyperion State #141H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	AWB	**Database:**	EDM 5000.15 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,198.0	1,198.0	Rustler Anhydrite			
1,553.1	1,553.0	Top Salt			
4,752.2	4,738.0	Base Salt			
5,052.8	5,038.0	Delaware Mountain Gp			
5,057.8	5,043.0	Bell Canyon			
5,082.9	5,068.0	Lamar			
5,103.0	5,088.0	Ramsey Sand			
6,026.8	6,008.0	Cherry Canyon			
7,534.1	7,513.0	Brushy Canyon			
9,069.3	9,048.0	Bone Spring Lime			
9,259.3	9,238.0	Upper Avalon			
9,544.4	9,523.0	Middle Avalon			
9,874.7	9,853.0	Lower Avalon			
10,105.8	10,078.0	1st Bone Spring Sand			
10,561.6	10,408.0	2nd Bone Spring Carb			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,127.7	10,097.9	396.5	-92.7	FTP @ 10127.7'MD, 100'FNL & 370.5'FWL
15,359.5	10,494.4	-4,680.4	-136.2	LTP @ 15359.5'MD, 100'FSL & 286.4'FWL
15,373.0	10,494.2	-4,693.8	-136.8	LAST SVY
15,439.0	10,492.9	-4,759.8	-139.9	Projection to TD @ 15439'MD, 20.6'FSL & 282'FWL

Checked By: _____ Approved By: _____ Date: _____