



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 Survey Report



Company: Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Hyperion) Sec-20_T-24-S_R-33-E
Well: Hyperion State #141H
Wellbore: OWB
Design: AWB

Local Co-ordinate Reference: Well Hyperion State #141H
TVD Reference: KB @ 3563.0usft (H&P 388)
MD Reference: KB @ 3563.0usft (H&P 388)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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
From:	Map	Easting:	767,798.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 12' 32.058 N
		Longitude:	103° 36' 4.072 W
		Grid Convergence:	0.39 °

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

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

Design	AWB		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			179.54

Survey Program	Date 08/08/19		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
152.0	15,439.0	Intrepid MWD (OWB)	MWD+IFR1+MS
			Description
			OWSG MWD + IFR1 + Multi-Station Correction

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/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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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



Intrepid
Survey Report



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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



Intrepid Survey Report



Company: Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Hyperion) Sec-20_T-24-S_R-33-E
Well: Hyperion State #141H
Wellbore: OWB
Design: AWB

Local Co-ordinate Reference: Well Hyperion State #141H
TVD Reference: KB @ 3563.0usft (H&P 388)
MD Reference: KB @ 3563.0usft (H&P 388)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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 # - actual wellpath misses target center by 220.6usft at 10378.7usft MD (10301.6 TVD, 252.3 N, -91.5 E) - Point	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
LTP (Hyperion State # - actual wellpath misses target center by 44.2usft at 15357.2usft MD (10494.4 TVD, -4678.1 N, -136.1 E) - Point	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
PBHL (Hyperion State - 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)	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



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		Comment
		+N/-S (usft)	+E/-W (usft)	
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: _____