



Operator: Taprock Resources LLC
Well Name: Poseidon State Com #205H
County: Lea
State: New Mexico
Rig Name: H&P 388
API Number: 30-025-46238

Intrepid Directional Drilling Specialists certifies that the surveys performed on the above referenced well are true and correct MWD surveys, data provided as follows:

Surveyor: Intrepid Directional Drilling Specialists
Survey Depths: 1365' MD – 22617' MD
Projection to Bit: 22690' MD
Dates Performed: 08/29/2019 – 09/04/2019 & 09/25/2019 – 10/08/2019
Type of Survey: MWD

Sincerely,

A handwritten signature in black ink, appearing to read "James Burleson".

James Burleson
Vice President of MWD Operations
Intrepid Directional Drilling Specialists





HOBBS OCD
FEB 27 2020
RECEIVED

Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)
(Poseidon) Sec-9_T-24-E_R-33-E
Poseidon State Com #205H**

OWB

Design: AWB

Standard Survey Report

07 October, 2019

INTREPID



Intrepid Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #205H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3636.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3636.0usft (H&P 388)
Well:	Poseidon State Com #205H	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	(Poseidon) Sec-9_T-24-E_R-33-E				
Site Position:		Northing:	446,745.00 usft	Latitude:	32° 13' 33.403 N
From:	Map	Easting:	773,665.00 usft	Longitude:	103° 34' 55.279 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	Poseidon State Com #205H				
Well Position	+N/-S	0.0 usft	Northing:	446,691.00 usft	Latitude: 32° 13' 32.862 N
	+E/-W	0.0 usft	Easting:	773,770.00 usft	Longitude: 103° 34' 54.061 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level: 3,610.0 usft

Wellbore	OWB				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/25/19	6.72	60.03	47,711.67757249

Design	AWB				
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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	359.58

Survey Program	Date	10/07/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
26.0	1,309.0	Invictus MWD (OWB)	MWD	OWSG MWD - Standard	
1,365.0	22,690.0	Intrepid MWD (OWB)	MWD	OWSG MWD - Standard	

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
26.0	0.00	0.00	26.0	0.0	0.0	0.0	0.00	0.00	0.00
102.0	0.30	298.38	102.0	0.1	-0.2	0.1	0.39	0.39	0.00
187.0	0.40	181.38	187.0	-0.1	-0.4	-0.1	0.70	0.12	-137.65
275.0	0.50	207.38	275.0	-0.7	-0.6	-0.7	0.26	0.11	29.55
370.0	0.30	251.38	370.0	-1.2	-1.0	-1.2	0.37	-0.21	46.32
464.0	0.50	187.38	464.0	-1.7	-1.3	-1.7	0.49	0.21	-68.09
558.0	0.40	241.38	558.0	-2.2	-1.6	-2.2	0.44	-0.11	57.45
653.0	0.50	215.38	653.0	-2.7	-2.1	-2.7	0.24	0.11	-27.37
748.0	0.50	208.38	748.0	-3.4	-2.6	-3.4	0.06	0.00	-7.37



Intrepid
Survey Report



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Well:	Poseidon State Com #205H	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)
842.0	0.50	249.38	842.0	-3.9	-3.2	-3.9	0.37	0.00	43.62
937.0	0.20	247.38	937.0	-4.2	-3.7	-4.1	0.32	-0.32	-2.11
1,031.0	0.20	257.38	1,031.0	-4.3	-4.0	-4.2	0.04	0.00	10.64
1,125.0	0.60	246.38	1,125.0	-4.5	-4.6	-4.5	0.43	0.43	-11.70
1,220.0	0.40	206.38	1,220.0	-5.0	-5.2	-4.9	0.41	-0.21	-42.11
1,265.0	0.35	204.64	1,265.0	-5.2	-5.4	-5.2	0.12	-0.11	-3.86
Rustler Anhydrite									
1,309.0	0.30	202.38	1,309.0	-5.5	-5.5	-5.4	0.12	-0.11	-5.15
1,365.0	0.70	281.86	1,365.0	-5.5	-5.8	-5.5	1.27	0.71	141.93
1,460.0	0.88	311.83	1,460.0	-4.9	-7.0	-4.9	0.47	0.19	31.55
1,554.0	0.53	316.66	1,554.0	-4.1	-7.8	-4.1	0.38	-0.37	5.14
1,648.0	0.92	297.59	1,647.9	-3.5	-8.8	-3.4	0.48	0.41	-20.29
1,743.0	1.05	325.28	1,742.9	-2.4	-9.9	-2.3	0.51	0.14	29.15
1,798.1	0.76	320.01	1,798.0	-1.7	-10.5	-1.6	0.54	-0.52	-9.56
Top Salt									
1,837.0	0.57	313.15	1,836.9	-1.4	-10.8	-1.3	0.54	-0.50	-17.63
1,931.0	0.88	324.66	1,930.9	-0.5	-11.5	-0.4	0.36	0.33	12.24
2,026.0	0.62	221.39	2,025.9	-0.3	-12.3	-0.2	1.25	-0.27	-108.71
2,120.0	2.51	202.40	2,119.9	-2.5	-13.4	-2.4	2.06	2.01	-20.20
2,215.0	3.43	205.30	2,214.7	-7.0	-15.4	-6.9	0.98	0.97	3.05
2,309.0	2.46	201.17	2,308.6	-11.5	-17.3	-11.3	1.06	-1.03	-4.39
2,403.0	3.21	204.95	2,402.5	-15.7	-19.2	-15.6	0.82	0.80	4.02
2,498.0	3.96	204.43	2,497.3	-21.1	-21.7	-21.0	0.79	0.79	-0.55
2,593.0	3.21	205.92	2,592.1	-26.5	-24.2	-26.3	0.80	-0.79	1.57
2,688.0	3.96	200.73	2,686.9	-32.0	-26.5	-31.8	0.86	0.79	-5.46
2,782.0	5.14	198.62	2,780.6	-39.0	-29.0	-38.8	1.27	1.26	-2.24
2,877.0	4.44	196.08	2,875.3	-46.6	-31.4	-46.3	0.77	-0.74	-2.67
2,972.0	4.04	194.05	2,970.1	-53.3	-33.2	-53.1	0.45	-0.42	-2.14
3,066.0	3.38	190.80	3,063.9	-59.3	-34.5	-59.0	0.74	-0.70	-3.46
3,161.0	4.00	198.27	3,158.7	-65.2	-36.1	-64.9	0.82	0.65	7.86
3,256.0	5.01	202.84	3,253.4	-72.1	-38.7	-71.9	1.13	1.06	4.81
3,351.0	4.00	207.41	3,348.1	-78.9	-41.9	-78.6	1.13	-1.06	4.81
3,445.0	3.78	207.50	3,441.9	-84.6	-44.8	-84.2	0.23	-0.23	0.10
3,540.0	3.43	202.58	3,536.7	-90.0	-47.4	-89.6	0.49	-0.37	-5.18
3,635.0	2.68	200.47	3,631.5	-94.7	-49.2	-94.3	0.80	-0.79	-2.22
3,730.0	3.78	205.57	3,726.4	-99.6	-51.3	-99.2	1.20	1.16	5.37
3,825.0	4.79	202.49	3,821.1	-106.1	-54.2	-105.7	1.09	1.06	-3.24
3,920.0	4.04	209.00	3,915.8	-112.7	-57.4	-112.2	0.95	-0.79	6.85
4,014.0	3.96	210.23	4,009.6	-118.4	-60.6	-117.9	0.12	-0.09	1.31
4,109.0	3.43	206.71	4,104.4	-123.7	-63.5	-123.3	0.61	-0.56	-3.71
4,204.0	3.74	208.38	4,199.2	-129.0	-66.3	-128.5	0.34	0.33	1.76
4,298.0	3.65	210.75	4,293.0	-134.3	-69.3	-133.8	0.19	-0.10	2.52
4,393.0	2.99	199.33	4,387.9	-139.2	-71.6	-138.7	0.98	-0.69	-12.02



Intrepid Survey Report



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Well:	Poseidon State Com #205H	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)
4,487.0	3.74	184.39	4,481.7	-144.6	-72.7	-144.0	1.22	0.80	-15.89
4,582.0	5.14	186.85	4,576.4	-151.9	-73.4	-151.3	1.49	1.47	2.59
4,677.0	4.53	181.31	4,671.1	-159.9	-74.0	-159.3	0.81	-0.64	-5.83
4,771.0	4.88	174.98	4,764.8	-167.6	-73.7	-167.0	0.67	0.37	-6.73
4,865.0	5.01	171.11	4,858.4	-175.6	-72.8	-175.1	0.38	0.14	-4.12
4,950.9	4.65	163.47	4,944.0	-182.6	-71.2	-182.1	0.86	-0.42	-8.90
Base Salt									
4,960.0	4.62	162.59	4,953.1	-183.3	-71.0	-182.8	0.86	-0.36	-9.62
5,055.0	4.22	164.35	5,047.8	-190.4	-68.9	-189.8	0.44	-0.42	1.85
5,149.0	3.47	172.08	5,141.6	-196.5	-67.6	-196.0	0.97	-0.80	8.22
5,197.5	3.47	171.64	5,190.0	-199.4	-67.2	-198.9	0.06	0.00	-0.91
Delaware Mountain Gp									
5,207.0	3.47	171.55	5,199.5	-200.0	-67.1	-199.5	0.06	0.00	-0.92
5,210.5	3.45	171.36	5,203.0	-200.2	-67.0	-199.7	0.74	-0.66	-5.50
Lamar									
5,225.6	3.35	170.50	5,218.0	-201.1	-66.9	-200.6	0.74	-0.66	-5.70
Bell Canyon									
5,242.6	3.24	169.47	5,235.0	-202.0	-66.7	-201.5	0.74	-0.65	-6.07
Ramsey Sand									
5,323.0	2.73	163.47	5,315.3	-206.1	-65.8	-205.6	0.74	-0.63	-7.46
5,417.0	2.77	179.20	5,409.2	-210.5	-65.1	-210.0	0.80	0.04	16.73
5,512.0	3.34	194.76	5,504.1	-215.5	-65.8	-215.0	1.05	0.60	16.38
5,606.0	3.69	195.55	5,597.9	-221.1	-67.3	-220.6	0.38	0.37	0.84
5,700.0	3.34	198.98	5,691.7	-226.6	-69.0	-226.0	0.43	-0.37	3.65
5,795.0	3.38	195.11	5,786.5	-231.9	-70.6	-231.4	0.24	0.04	-4.07
5,889.0	3.60	196.52	5,880.4	-237.4	-72.2	-236.8	0.25	0.23	1.50
5,984.0	3.52	194.23	5,975.2	-243.1	-73.7	-242.5	0.17	-0.08	-2.41
6,078.0	3.21	200.73	6,069.0	-248.3	-75.4	-247.8	0.52	-0.33	6.91
6,158.1	2.61	212.32	6,149.0	-252.0	-77.1	-251.4	1.05	-0.75	14.47
Cherry Canyon									
6,173.0	2.51	215.06	6,163.9	-252.5	-77.5	-251.9	1.05	-0.65	18.38
6,267.0	2.24	216.29	6,257.8	-255.7	-79.8	-255.1	0.29	-0.29	1.31
6,362.0	2.15	221.83	6,352.8	-258.5	-82.1	-257.9	0.24	-0.09	5.83
6,457.0	2.15	228.60	6,447.7	-261.0	-84.6	-260.4	0.27	0.00	7.13
6,551.0	2.02	223.23	6,541.6	-263.4	-87.1	-262.7	0.25	-0.14	-5.71
6,646.0	2.20	224.46	6,636.6	-265.9	-89.5	-265.2	0.20	0.19	1.29
6,740.0	1.71	217.17	6,730.5	-268.3	-91.6	-267.6	0.58	-0.52	-7.76
6,835.0	1.32	224.38	6,825.5	-270.2	-93.2	-269.5	0.46	-0.41	7.59
6,929.0	1.54	223.06	6,919.4	-271.9	-94.8	-271.2	0.24	0.23	-1.40
7,024.0	1.27	219.28	7,014.4	-273.7	-96.4	-273.0	0.30	-0.28	-3.98
7,119.0	1.36	211.98	7,109.4	-275.4	-97.6	-274.7	0.20	0.09	-7.68
7,213.0	1.49	203.20	7,203.4	-277.5	-98.7	-276.8	0.27	0.14	-9.34
7,308.0	1.05	212.95	7,298.3	-279.4	-99.7	-278.6	0.51	-0.46	10.26
7,403.0	0.57	228.42	7,393.3	-280.4	-100.5	-279.7	0.55	-0.51	16.28
7,497.0	0.84	230.35	7,487.3	-281.2	-101.4	-280.4	0.29	0.29	2.05



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7,592.0	1.10	202.05	7,582.3	-282.5	-102.2	-281.7	0.57	0.27	-29.79
7,679.7	1.59	201.80	7,670.0	-284.4	-103.0	-283.6	0.56	0.56	-0.28
Brushy Canyon									
7,687.0	1.63	201.79	7,677.3	-284.6	-103.1	-283.8	0.56	0.56	-0.19
7,782.0	0.57	248.37	7,772.3	-286.0	-104.0	-285.2	1.37	-1.12	49.03
7,877.0	0.26	260.94	7,867.3	-286.2	-104.7	-285.4	0.34	-0.33	13.23
7,972.0	0.18	219.02	7,962.3	-286.3	-105.0	-285.6	0.18	-0.08	-44.13
8,067.0	0.35	123.04	8,057.3	-286.6	-104.8	-285.8	0.43	0.18	-101.03
8,161.0	0.31	114.78	8,151.3	-286.9	-104.4	-286.1	0.07	-0.04	-8.79
8,256.0	0.57	122.86	8,246.3	-287.2	-103.7	-286.5	0.28	0.27	8.51
8,350.0	0.35	149.05	8,340.3	-287.7	-103.2	-287.0	0.32	-0.23	27.86
8,445.0	0.31	143.61	8,435.3	-288.2	-102.9	-287.4	0.05	-0.04	-5.73
8,540.0	0.53	153.10	8,530.3	-288.8	-102.5	-288.0	0.24	0.23	9.99
8,634.0	0.75	174.81	8,624.2	-289.8	-102.3	-289.0	0.34	0.23	23.10
8,728.0	1.01	188.25	8,718.2	-291.2	-102.4	-290.5	0.35	0.28	14.30
8,823.0	1.23	193.79	8,813.2	-293.1	-102.7	-292.3	0.26	0.23	5.83
8,917.0	1.19	195.72	8,907.2	-295.0	-103.2	-294.2	0.06	-0.04	2.05
9,012.0	1.19	203.90	9,002.2	-296.8	-103.9	-296.1	0.18	0.00	8.61
9,106.0	1.32	204.69	9,096.2	-298.7	-104.7	-297.9	0.14	0.14	0.84
9,129.9	1.24	213.08	9,120.0	-299.2	-105.0	-298.4	0.85	-0.34	35.18
Bone Spring Lime									
9,201.0	1.19	241.95	9,191.1	-300.2	-106.1	-299.4	0.85	-0.07	40.58
9,263.9	1.10	244.15	9,254.0	-300.7	-107.2	-299.9	0.17	-0.15	3.49
Upper Avalon									
9,295.0	1.05	245.38	9,285.1	-301.0	-107.7	-300.2	0.17	-0.15	3.96
9,390.0	0.88	251.10	9,380.1	-301.6	-109.2	-300.8	0.21	-0.18	6.02
9,484.0	0.75	226.75	9,474.1	-302.2	-110.3	-301.4	0.39	-0.14	-25.90
9,580.9	0.70	347.99	9,571.0	-302.1	-110.9	-301.3	1.30	-0.05	125.10
Middle Avalon									
9,581.0	0.70	348.04	9,571.1	-302.1	-110.9	-301.3	1.30	1.12	54.16
9,676.0	2.33	5.88	9,666.0	-299.6	-110.8	-298.8	1.77	1.72	18.78
9,771.0	2.86	17.04	9,761.0	-295.4	-109.9	-294.6	0.77	0.56	11.75
9,866.0	2.73	28.29	9,855.8	-291.2	-108.2	-290.4	0.59	-0.14	11.84
9,905.2	2.67	31.21	9,895.0	-289.5	-107.3	-288.8	0.39	-0.16	7.45
Lower Avalon									
9,961.0	2.59	35.59	9,950.7	-287.4	-105.9	-286.6	0.39	-0.14	7.85
10,055.0	2.07	41.83	10,044.7	-284.4	-103.5	-283.7	0.61	-0.55	6.64
10,150.0	1.63	8.96	10,139.6	-281.8	-102.1	-281.1	1.19	-0.46	-34.60
10,159.4	1.61	7.35	10,149.0	-281.5	-102.1	-280.8	0.53	-0.22	-17.19
1st Bone Spring Sand									
10,245.0	1.49	351.03	10,234.6	-279.3	-102.1	-278.5	0.53	-0.14	-19.06
10,340.0	1.27	336.70	10,329.6	-277.1	-102.7	-276.3	0.43	-0.23	-15.08
10,426.5	1.19	324.37	10,416.0	-275.5	-103.6	-274.7	0.32	-0.09	-14.26
2nd Bone Spring Carb									



Intrepid Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #205H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3636.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3636.0usft (H&P 388)
Well:	Poseidon State Com #205H	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)
10,435.0	1.19	323.08	10,424.5	-275.3	-103.7	-274.5	0.32	-0.05	-15.10
10,529.0	0.88	316.40	10,518.5	-274.0	-104.8	-273.2	0.35	-0.33	-7.11
10,624.0	0.66	294.25	10,613.5	-273.3	-105.8	-272.5	0.39	-0.23	-23.32
10,718.0	1.10	253.73	10,707.5	-273.3	-107.2	-272.5	0.78	0.47	-43.11
10,813.0	2.07	265.86	10,802.5	-273.7	-109.8	-272.9	1.07	1.02	12.77
10,907.0	1.89	255.23	10,896.4	-274.2	-113.0	-273.3	0.43	-0.19	-11.31
10,938.6	1.85	253.97	10,928.0	-274.5	-113.9	-273.6	0.19	-0.14	-3.97
2nd Bone Spring Sand									
11,002.0	1.76	251.27	10,991.4	-275.1	-115.9	-274.2	0.19	-0.14	-4.27
11,096.0	1.67	265.77	11,085.3	-275.6	-118.6	-274.7	0.47	-0.10	15.43
11,191.0	2.37	290.91	11,180.3	-275.0	-121.8	-274.1	1.17	0.74	26.46
11,286.0	2.33	296.27	11,275.2	-273.5	-125.4	-272.5	0.24	-0.04	5.64
11,336.9	2.14	294.69	11,326.0	-272.6	-127.2	-271.7	0.39	-0.37	-3.11
3rd Bone Spring Carb									
11,380.0	1.98	293.11	11,369.1	-272.0	-128.6	-271.0	0.39	-0.37	-3.66
11,475.0	1.93	281.77	11,464.1	-271.0	-131.6	-270.0	0.41	-0.05	-11.94
11,570.0	1.58	283.61	11,559.0	-270.4	-134.5	-269.4	0.37	-0.37	1.94
11,664.0	1.71	295.83	11,653.0	-269.5	-137.0	-268.4	0.40	0.14	13.00
11,708.0	1.85	294.86	11,696.9	-268.9	-138.2	-267.9	0.33	0.32	-2.20
11,783.0	2.02	282.91	11,771.9	-268.1	-140.6	-267.0	0.58	0.23	-15.93
11,877.0	2.20	276.76	11,865.8	-267.5	-144.0	-266.4	0.31	0.19	-6.54
11,971.0	2.73	283.44	11,959.8	-266.8	-148.0	-265.7	0.64	0.56	7.11
11,988.3	3.75	318.20	11,977.0	-266.2	-148.8	-265.1	12.55	5.93	201.24
3rd Bone Spring Sand									
12,066.0	12.66	351.91	12,053.9	-255.9	-151.7	-254.8	12.55	11.46	43.37
12,160.0	28.31	357.50	12,141.7	-223.2	-154.1	-222.1	16.76	16.65	5.95
FTP @ 12160'MD 100'FSL & 205.2'FEL									
12,161.0	28.48	357.53	12,142.6	-222.7	-154.1	-221.6	16.76	16.71	2.76
12,255.0	40.92	355.95	12,219.7	-169.4	-157.3	-168.3	13.27	13.23	-1.68
12,324.4	46.09	357.61	12,270.0	-121.7	-159.9	-120.6	7.63	7.45	2.39
3rd BS W Sand									
12,350.0	48.00	358.15	12,287.5	-103.0	-160.6	-101.8	7.63	7.47	2.11
12,444.7	55.53	358.50	12,346.0	-28.7	-162.8	-27.5	7.96	7.96	0.37
Wolfcamp A X Sand									
12,445.0	55.56	358.50	12,346.2	-28.5	-162.8	-27.3	7.96	7.96	0.33
12,539.0	64.97	359.64	12,392.8	53.1	-164.1	54.3	10.07	10.01	1.21
12,622.0	83.16	3.68	12,415.5	132.5	-161.7	133.7	22.40	21.92	4.87
12,717.0	86.95	9.31	12,423.7	226.5	-150.9	227.6	7.12	3.99	5.93
12,811.0	86.64	9.40	12,428.9	319.1	-135.7	320.0	0.34	-0.33	0.10
12,906.0	87.47	5.35	12,433.8	413.1	-123.5	414.0	4.35	0.87	-4.26
13,001.0	88.22	1.84	12,437.4	507.9	-117.6	508.7	3.78	0.79	-3.69
13,096.0	88.22	2.19	12,440.3	602.8	-114.2	603.6	0.37	0.00	0.37
13,191.0	90.07	0.08	12,441.7	697.7	-112.3	698.5	2.95	1.95	-2.22
13,286.0	90.33	358.50	12,441.4	792.7	-113.5	793.5	1.69	0.27	-1.66



Intrepid
Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #205H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3636.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3636.0usft (H&P 388)
Well:	Poseidon State Com #205H	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)
13,381.0	90.51	358.59	12,440.7	887.7	-115.9	888.5	0.21	0.19	0.09
13,476.0	90.77	358.32	12,439.6	982.6	-118.5	983.5	0.39	0.27	-0.28
13,570.0	91.25	358.23	12,438.0	1,076.6	-121.3	1,077.4	0.52	0.51	-0.10
13,665.0	91.25	358.06	12,435.9	1,171.5	-124.4	1,172.4	0.18	0.00	-0.18
13,760.0	89.32	359.03	12,435.4	1,266.5	-126.8	1,267.4	2.27	-2.03	1.02
13,855.0	89.01	359.03	12,436.8	1,361.4	-128.4	1,362.3	0.33	-0.33	0.00
13,950.0	88.66	358.50	12,438.8	1,456.4	-130.5	1,457.3	0.67	-0.37	-0.56
14,044.0	89.10	358.23	12,440.6	1,550.3	-133.2	1,551.3	0.55	0.47	-0.29
14,139.0	89.71	358.32	12,441.6	1,645.3	-136.0	1,646.2	0.65	0.64	0.09
14,234.0	89.71	358.41	12,442.1	1,740.3	-138.7	1,741.2	0.09	0.00	0.09
14,329.0	89.76	358.76	12,442.5	1,835.2	-141.1	1,836.2	0.37	0.05	0.37
14,424.0	90.29	358.23	12,442.5	1,930.2	-143.6	1,931.2	0.79	0.56	-0.56
14,518.0	91.25	358.23	12,441.2	2,024.1	-146.5	2,025.2	1.02	1.02	0.00
14,613.0	91.25	357.71	12,439.1	2,119.1	-149.8	2,120.1	0.55	0.00	-0.55
14,708.0	91.21	359.03	12,437.1	2,214.0	-152.5	2,215.0	1.39	-0.04	1.39
14,803.0	91.56	359.03	12,434.8	2,308.9	-154.1	2,310.0	0.37	0.37	0.00
14,898.0	92.09	358.94	12,431.8	2,403.9	-155.8	2,405.0	0.57	0.56	-0.09
14,993.0	92.04	358.41	12,428.3	2,498.8	-158.0	2,499.9	0.56	-0.05	-0.56
15,087.0	92.75	358.23	12,424.4	2,592.7	-160.8	2,593.8	0.78	0.76	-0.19
15,182.0	91.78	358.59	12,420.7	2,687.6	-163.4	2,688.7	1.09	-1.02	0.38
15,277.0	89.41	359.38	12,419.7	2,782.5	-165.1	2,783.7	2.63	-2.49	0.83
15,371.0	89.93	359.29	12,420.2	2,876.5	-166.2	2,877.7	0.56	0.55	-0.10
15,466.0	89.85	1.31	12,420.4	2,971.5	-165.7	2,972.7	2.13	-0.08	2.13
15,560.0	88.22	1.93	12,422.0	3,065.5	-163.0	3,066.6	1.86	-1.73	0.66
15,655.0	88.13	1.75	12,425.0	3,160.4	-160.0	3,161.5	0.21	-0.09	-0.19
15,750.0	88.70	1.22	12,427.6	3,255.3	-157.5	3,256.4	0.82	0.60	-0.56
15,845.0	89.63	1.49	12,429.0	3,350.3	-155.3	3,351.3	1.02	0.98	0.28
15,940.0	88.66	3.07	12,430.4	3,445.2	-151.5	3,446.2	1.95	-1.02	1.66
16,034.0	89.19	2.72	12,432.2	3,539.0	-146.7	3,540.0	0.68	0.56	-0.37
16,129.0	87.69	2.54	12,434.8	3,633.9	-142.4	3,634.8	1.59	-1.58	-0.19
16,224.0	87.21	2.98	12,439.0	3,728.7	-137.8	3,729.6	0.69	-0.51	0.46
16,319.0	89.76	4.12	12,441.5	3,823.5	-131.9	3,824.3	2.94	2.68	1.20
16,414.0	90.11	3.07	12,441.6	3,918.3	-126.0	3,919.1	1.17	0.37	-1.11
16,508.0	88.44	1.49	12,442.8	4,012.2	-122.2	4,013.0	2.45	-1.78	-1.68
16,603.0	88.70	2.36	12,445.2	4,107.1	-119.0	4,107.9	0.96	0.27	0.92
16,697.0	88.04	1.57	12,447.9	4,201.0	-115.8	4,201.7	1.09	-0.70	-0.84
16,792.0	87.30	0.17	12,451.7	4,295.9	-114.4	4,296.6	1.67	-0.78	-1.47
16,887.0	89.63	359.03	12,454.3	4,390.9	-115.0	4,391.6	2.73	2.45	-1.20
16,982.0	88.79	358.94	12,455.6	4,485.9	-116.7	4,486.6	0.89	-0.88	-0.09
17,076.0	87.91	358.32	12,458.3	4,579.8	-119.0	4,580.5	1.15	-0.94	-0.66
17,171.0	90.73	357.44	12,459.4	4,674.7	-122.5	4,675.5	3.11	2.97	-0.93
17,266.0	92.04	357.88	12,457.1	4,769.6	-126.4	4,770.4	1.45	1.38	0.46
17,360.0	92.62	357.97	12,453.3	4,863.5	-129.8	4,864.3	0.62	0.62	0.10
17,455.0	92.79	358.06	12,448.8	4,958.3	-133.1	4,959.1	0.20	0.18	0.09



Intrepid
Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #205H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3636.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3636.0usft (H&P 388)
Well:	Poseidon State Com #205H	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)
17,550.0	91.38	358.32	12,445.4	5,053.2	-136.1	5,054.0	1.51	-1.48	0.27
17,645.0	91.03	357.36	12,443.4	5,148.1	-139.6	5,149.0	1.08	-0.37	-1.01
17,740.0	91.87	357.97	12,441.0	5,243.0	-143.5	5,243.9	1.09	0.88	0.64
17,834.0	90.99	358.76	12,438.6	5,336.9	-146.2	5,337.8	1.26	-0.94	0.84
17,929.0	90.86	358.76	12,437.1	5,431.9	-148.2	5,432.8	0.14	-0.14	0.00
18,024.0	89.32	358.41	12,436.9	5,526.8	-150.6	5,527.8	1.66	-1.62	-0.37
18,118.0	90.07	358.41	12,437.4	5,620.8	-153.2	5,621.8	0.80	0.80	0.00
18,213.0	89.45	358.76	12,437.8	5,715.8	-155.5	5,716.8	0.75	-0.65	0.37
18,308.0	90.59	359.38	12,437.8	5,810.8	-157.1	5,811.8	1.37	1.20	0.65
18,403.0	89.63	359.55	12,437.6	5,905.8	-158.0	5,906.8	1.03	-1.01	0.18
18,498.0	89.32	359.20	12,438.5	6,000.7	-159.0	6,001.7	0.49	-0.33	-0.37
18,593.0	89.93	358.85	12,439.1	6,095.7	-160.6	6,096.7	0.74	0.64	-0.37
18,688.0	91.38	358.59	12,438.0	6,190.7	-162.7	6,191.7	1.55	1.53	-0.27
18,783.0	91.74	358.41	12,435.4	6,285.6	-165.2	6,286.7	0.42	0.38	-0.19
18,877.0	91.60	358.85	12,432.7	6,379.6	-167.5	6,380.6	0.49	-0.15	0.47
18,971.0	92.40	358.85	12,429.4	6,473.5	-169.4	6,474.5	0.85	0.85	0.00
19,066.0	91.30	359.55	12,426.3	6,568.4	-170.7	6,569.5	1.37	-1.16	0.74
19,160.0	92.00	0.08	12,423.6	6,662.4	-171.0	6,663.5	0.93	0.74	0.56
19,255.0	90.33	359.90	12,421.7	6,757.4	-171.0	6,758.4	1.77	-1.76	-0.19
19,349.0	90.07	0.26	12,421.4	6,851.4	-170.9	6,852.4	0.47	-0.28	0.38
19,444.0	90.64	0.52	12,420.8	6,946.4	-170.2	6,947.4	0.66	0.60	0.27
19,538.0	91.82	0.26	12,418.8	7,040.3	-169.6	7,041.4	1.29	1.26	-0.28
19,633.0	87.96	0.43	12,419.0	7,135.3	-169.0	7,136.4	4.07	-4.06	0.18
19,728.0	87.52	359.90	12,422.7	7,230.2	-168.7	7,231.3	0.72	-0.46	-0.56
19,823.0	87.60	359.73	12,426.7	7,325.1	-169.0	7,326.2	0.20	0.08	-0.18
19,917.0	87.78	359.46	12,430.5	7,419.1	-169.7	7,420.1	0.35	0.19	-0.29
20,012.0	90.02	359.11	12,432.4	7,514.0	-170.9	7,515.1	2.39	2.36	-0.37
20,107.0	89.98	359.29	12,432.4	7,609.0	-172.2	7,610.1	0.19	-0.04	0.19
20,201.0	90.64	359.55	12,431.8	7,703.0	-173.2	7,704.1	0.75	0.70	0.28
20,296.0	91.34	359.55	12,430.2	7,798.0	-173.9	7,799.1	0.74	0.74	0.00
20,390.0	91.69	359.64	12,427.7	7,892.0	-174.6	7,893.0	0.38	0.37	0.10
20,485.0	90.77	359.82	12,425.7	7,986.9	-175.0	7,988.0	0.99	-0.97	0.19
20,579.0	89.93	358.85	12,425.1	8,080.9	-176.1	8,082.0	1.37	-0.89	-1.03
20,674.0	90.07	359.46	12,425.1	8,175.9	-177.5	8,177.0	0.66	0.15	0.64
20,769.0	90.11	359.46	12,425.0	8,270.9	-178.4	8,272.0	0.04	0.04	0.00
20,864.0	90.29	358.67	12,424.6	8,365.9	-180.0	8,367.0	0.85	0.19	-0.83
20,959.0	90.37	357.71	12,424.1	8,460.9	-183.0	8,462.0	1.01	0.08	-1.01
21,054.0	89.58	357.09	12,424.1	8,555.8	-187.3	8,556.9	1.06	-0.83	-0.65
21,148.0	90.20	358.06	12,424.3	8,649.7	-191.3	8,650.8	1.22	0.66	1.03
21,243.0	90.86	358.41	12,423.4	8,744.6	-194.2	8,745.8	0.79	0.69	0.37
21,338.0	91.21	358.15	12,421.7	8,839.6	-197.0	8,840.8	0.46	0.37	-0.27
21,433.0	91.21	359.64	12,419.7	8,934.5	-198.9	8,935.7	1.57	0.00	1.57
21,527.0	90.37	359.64	12,418.4	9,028.5	-199.5	9,029.7	0.89	-0.89	0.00



Intrepid Survey Report



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Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3636.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3636.0usft (H&P 388)
Well:	Poseidon State Com #205H	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)
21,622.0	90.07	359.55	12,418.0	9,123.5	-200.1	9,124.7	0.33	-0.32	-0.09
21,717.0	90.55	359.90	12,417.5	9,218.5	-200.6	9,219.7	0.63	0.51	0.37
21,812.0	90.33	359.90	12,416.8	9,313.5	-200.8	9,314.7	0.23	-0.23	0.00
21,907.0	90.46	359.64	12,416.1	9,408.5	-201.1	9,409.7	0.31	0.14	-0.27
22,002.0	87.43	356.83	12,417.9	9,503.4	-204.1	9,504.7	4.35	-3.19	-2.96
22,097.0	88.48	358.32	12,421.3	9,598.3	-208.1	9,599.5	1.92	1.11	1.57
22,192.0	88.84	358.76	12,423.5	9,693.2	-210.5	9,694.5	0.60	0.38	0.46
22,287.0	89.01	358.23	12,425.3	9,788.2	-213.0	9,789.5	0.59	0.18	-0.56
22,382.0	89.76	358.50	12,426.3	9,883.1	-215.7	9,884.4	0.84	0.79	0.28
22,476.0	89.85	358.32	12,426.6	9,977.1	-218.3	9,978.4	0.21	0.10	-0.19
22,571.0	90.42	358.41	12,426.4	10,072.0	-221.0	10,073.4	0.61	0.60	0.09
22,617.0	90.77	358.32	12,425.9	10,118.0	-222.3	10,119.4	0.79	0.76	-0.20
LAST SVY									
22,627.0	90.77	358.32	12,425.8	10,128.0	-222.6	10,129.4	0.00	0.00	0.00
LTP @ 22627'MD, 100'FNL & 195.8'FEL									
22,690.0	90.77	358.32	12,424.9	10,191.0	-224.5	10,192.3	0.00	0.00	0.00
Projection to TD @ 22690'MD, 37'FNL & 197.1'FEL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (Poseidon State)	-0.10	359.58	12,412.0	10,198.0	-190.0	456,889.00	773,580.00	32° 15' 13.786 N	103° 34' 55.443 W
- hit/miss target									
- actual wellpath misses target center by 37.5usft at 22690.0usft MD (12424.9 TVD, 10191.0 N, -224.5 E)									
- Rectangle (sides W100.0 H10,421.0 D30.0)									
LTP (Poseidon State)	0.00	0.00	12,412.0	10,128.0	-189.0	456,819.00	773,581.00	32° 15' 13.093 N	103° 34' 55.437 W
- actual wellpath misses target center by 36.3usft at 22626.2usft MD (12425.8 TVD, 10127.2 N, -222.6 E)									
- Point									
FTP (Poseidon State)	0.00	0.00	12,430.0	-223.0	-113.0	446,468.00	773,657.00	32° 13' 30.663 N	103° 34' 55.395 W
- actual wellpath misses target center by 192.3usft at 12350.0usft MD (12287.5 TVD, -103.0 N, -160.6 E)									
- Point									



Intrepid
Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #205H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3636.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3636.0usft (H&P 388)
Well:	Poseidon State Com #205H	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 (°)
1,265.0	1,265.0	Rustler Anhydrite			
1,798.1	1,798.0	Top Salt			
4,950.9	4,944.0	Base Salt			
5,197.5	5,190.0	Delaware Mountain Gp			
5,210.5	5,203.0	Lamar			
5,225.6	5,218.0	Bell Canyon			
5,242.6	5,235.0	Ramsey Sand			
6,158.1	6,149.0	Cherry Canyon			
7,679.7	7,670.0	Brushy Canyon			
9,129.9	9,120.0	Bone Spring Lime			
9,263.9	9,254.0	Upper Avalon			
9,580.9	9,571.0	Middle Avalon			
9,905.2	9,895.0	Lower Avalon			
10,159.4	10,149.0	1st Bone Spring Sand			
10,426.5	10,416.0	2nd Bone Spring Carb			
10,938.6	10,928.0	2nd Bone Spring Sand			
11,336.9	11,326.0	3rd Bone Spring Carb			
11,988.3	11,977.0	3rd Bone Spring Sand			
12,324.4	12,270.0	3rd BS W Sand			
12,444.7	12,346.0	Wolfcamp A X Sand			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,160.0	12,141.7	-223.2	-154.1	FTP @ 12160'MD 100'FSL & 205.2'FEL
22,617.0	12,425.9	10,118.0	-222.3	LAST SVY
22,627.0	12,425.8	10,128.0	-222.6	LTP @ 22627'MD, 100'FNL & 195.8'FEL
22,690.0	12,424.9	10,191.0	-224.5	Projection to TD @ 22690'MD, 37'FNL & 197.1'FEL

Checked By: _____ Approved By: _____ Date: _____