

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101

August 1, 2011

Permit 301640

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401		2. OGRID Number 372043
		3. API Number 30-025-49424
4. Property Code 325171	5. Property Name ZEUS STATE	6. Well No. 153H

**7. Surface Location**

UL - Lot P	Section 9	Township 24S	Range 33E	Lot Idn P	Feet From 777	N/S Line S	Feet From 137	E/W Line E	County Lea
---------------	--------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	---------------

**8. Proposed Bottom Hole Location**

UL - Lot B	Section 9	Township 24S	Range 33E	Lot Idn B	Feet From 5	N/S Line N	Feet From 1650	E/W Line E	County Lea
---------------	--------------	-----------------	--------------	--------------	----------------	---------------	-------------------	---------------	---------------

**9. Pool Information**

TRIPLE X;BONE SPRING, WEST	96674
----------------------------	-------

**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3615
16. Multiple N	17. Proposed Depth 16673	18. Formation 3rd Bone Spring Carbonate	19. Contractor	20. Spud Date 10/6/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1290	1115	0
Int1	12.25	9.625	40	5330	1350	0
Prod	6.75	5.5	20	16670	860	11260
Prod	8.75	5.5	20	11260	1400	5130

**Casing/Cement Program: Additional Comments**

--

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	2500	
Pipe	10000	5000	
Double Ram	10000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.		<b>OIL CONSERVATION DIVISION</b>	
Signature:			
Printed Name:	Electronically filed by Christian Combs	Approved By:	Paul F Kautz
Title:	Regulatory Manager	Title:	Geologist
Email Address:	ccombs@taprk.com	Approved Date:	10/1/2021
Date:	9/30/2021	Expiration Date:	10/1/2023
Phone:	720-360-4028	Conditions of Approval Attached	

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources  
Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**FORM C-102**

Revised August 1, 2011

**Submit one copy to appropriate**

**District Office**

☐ **AMENDED REPORT**

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-025-49424</b>	<sup>2</sup> Pool Code 96674	<sup>3</sup> Pool Name <b>TRIPLE X; BONE SPRING, WEST</b>
<sup>4</sup> Property Code <b>325171</b>	<sup>5</sup> Property Name <b>ZEUS STATE</b>	
<sup>7</sup> OGRID No. <b>#372043</b>	<sup>8</sup> Operator Name <b>TAP ROCK OPERATING, LLC.</b>	<sup>6</sup> Well Number <b>153H</b>
		<sup>9</sup> Elevation <b>3615'</b>

<sup>10</sup>Surface Location

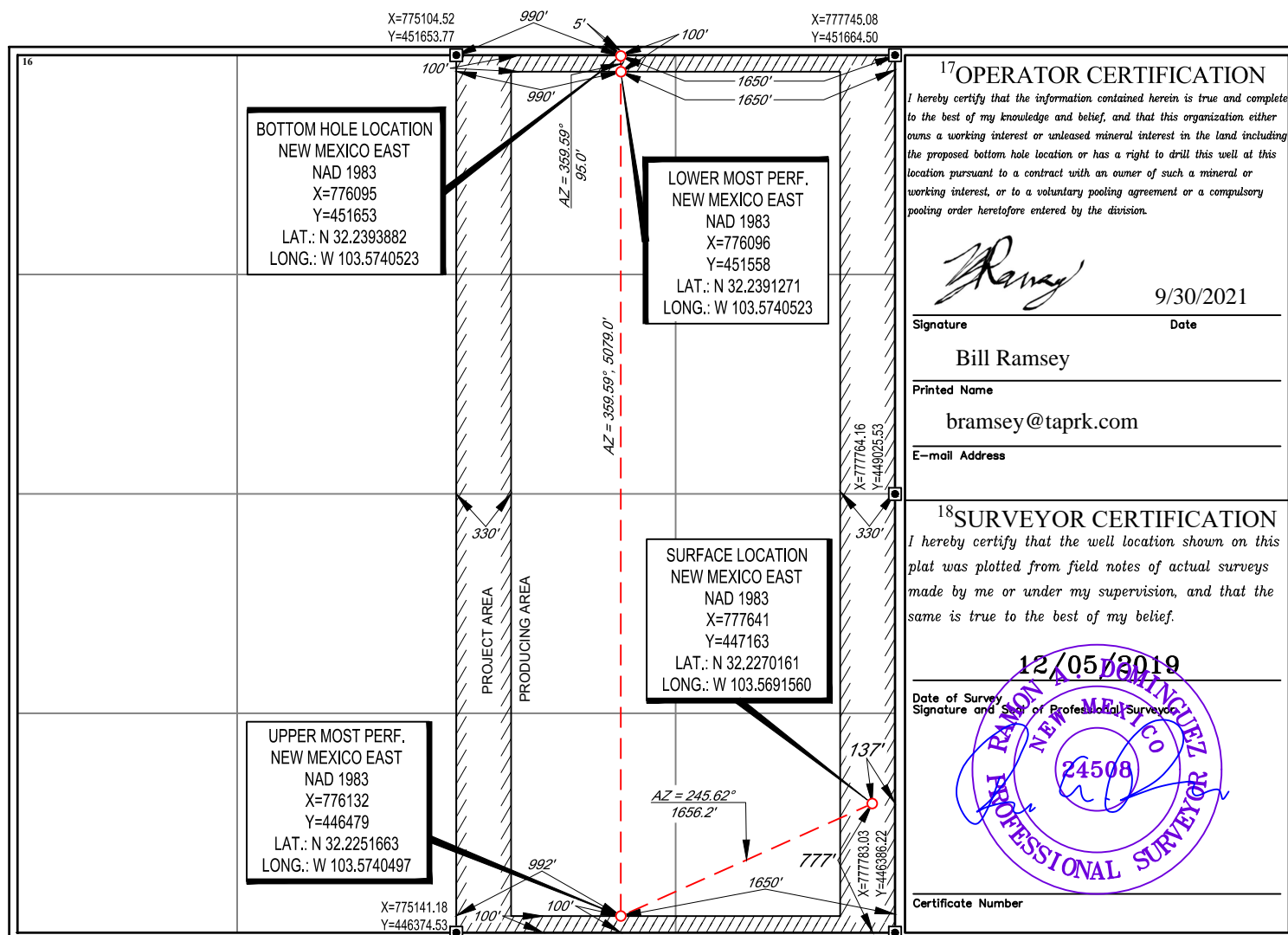
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	9	24-S	33-E	—	777'	SOUTH	137'	EAST	LEA

<sup>11</sup>Bottom Hole Location If Different From Surface

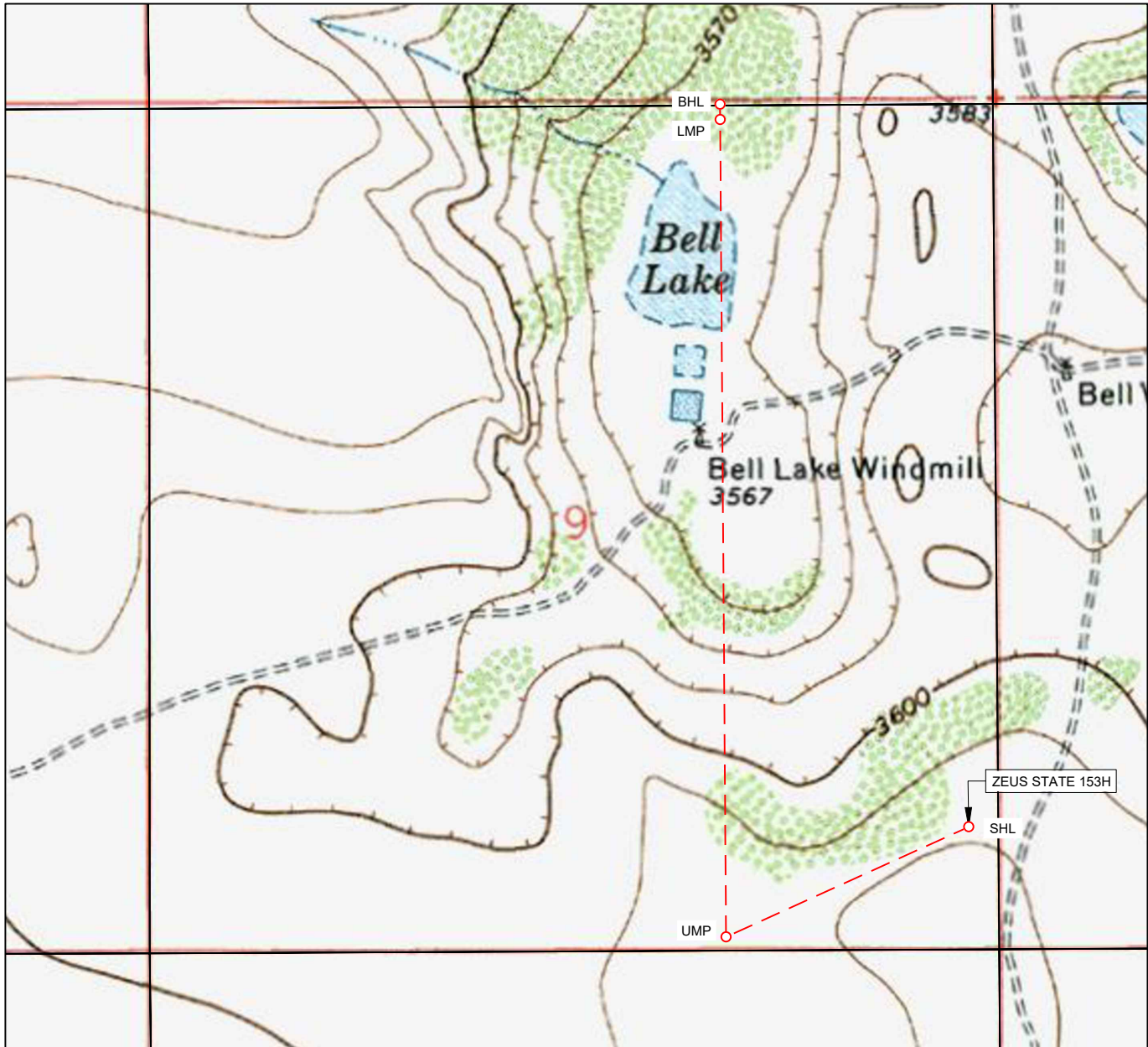
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	9	24-S	33-E	—	5'	NORTH	1650'	EAST	LEA

<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



## LOCATION &amp; ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: ZEUS STATE 153H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.  
 COUNTY LEA STATE NM ELEVATION 3615'  
 DESCRIPTION 777' FSL & 137' FEL

LATITUDE N 32.2270161 LONGITUDE W 103.5691560



SCALE: 1" = 2000'  
 0' 1000' 2000'

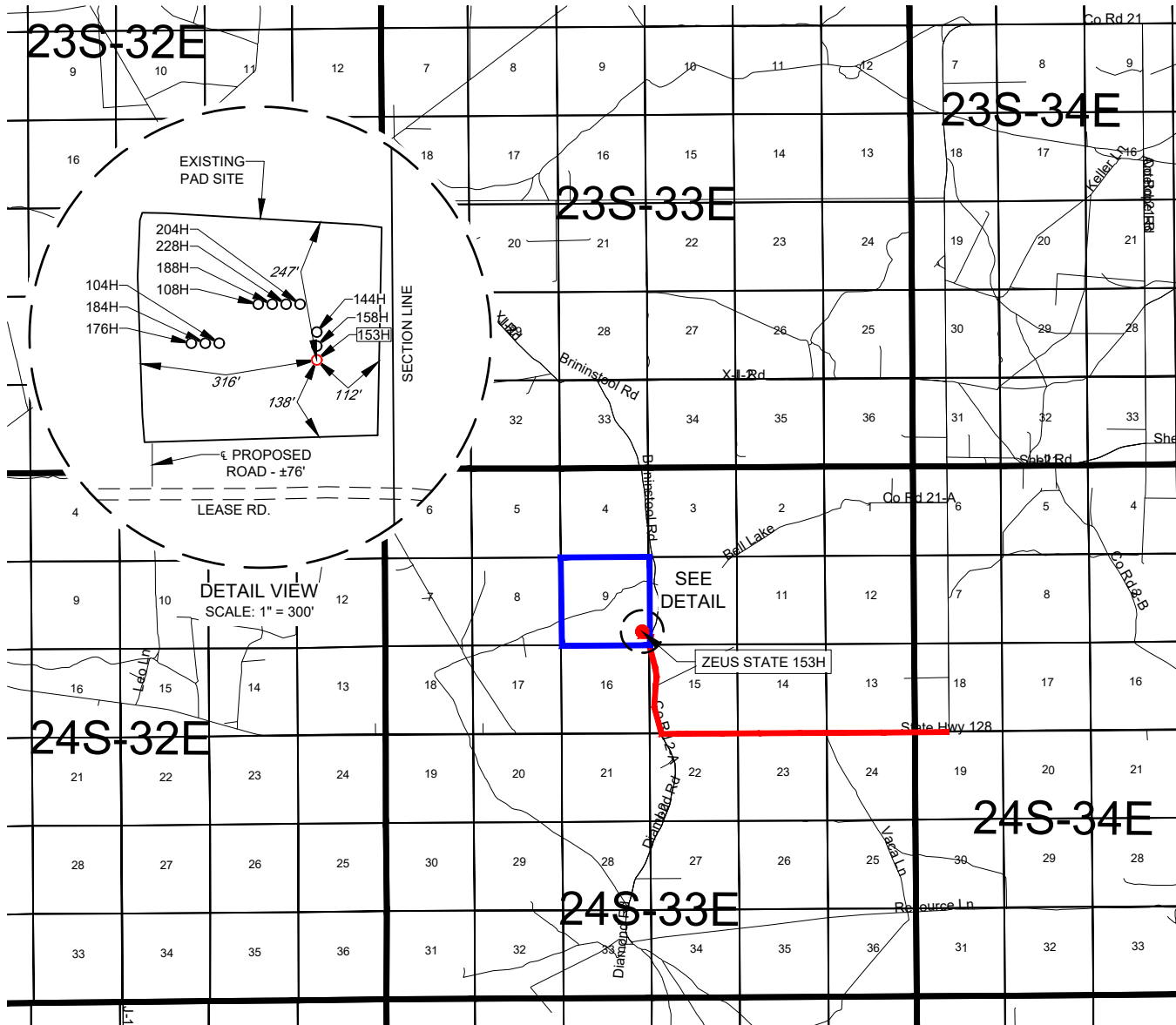
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



**TOPOGRAPHIC**  
 LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140  
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554  
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705  
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743  
 WWW.TOPOGRAPHIC.COM

EXHIBIT 2  
VICINITY MAPLEASE NAME & WELL NO.: ZEUS STATE 153H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.  
 COUNTY LEA STATE NM  
 DESCRIPTION 777' FSL & 137' FEL

## DISTANCE &amp; DIRECTION

FROM INT. OF NM-128 W & DELAWARE BASIN RD., GO WEST ON  
 NM-128 W ±3.3 MILES, THENCE NORTH (RIGHT) ON BRININSTOOL RD.  
 ±1.1 MILES, THENCE WEST (LEFT) ON LEASE RD. ±0.1 MILES, THENCE  
 NORTH (RIGHT) ON A PROPOSED RD. ±76 FEET TO A POINT ±301 FEET  
 SOUTHWEST OF THE LOCATION.



SCALE: 1" = 10000'  
 0' 5000' 10000'



**TOPOGRAPHIC**  
 LOYALTY INNOVATION LEGACY

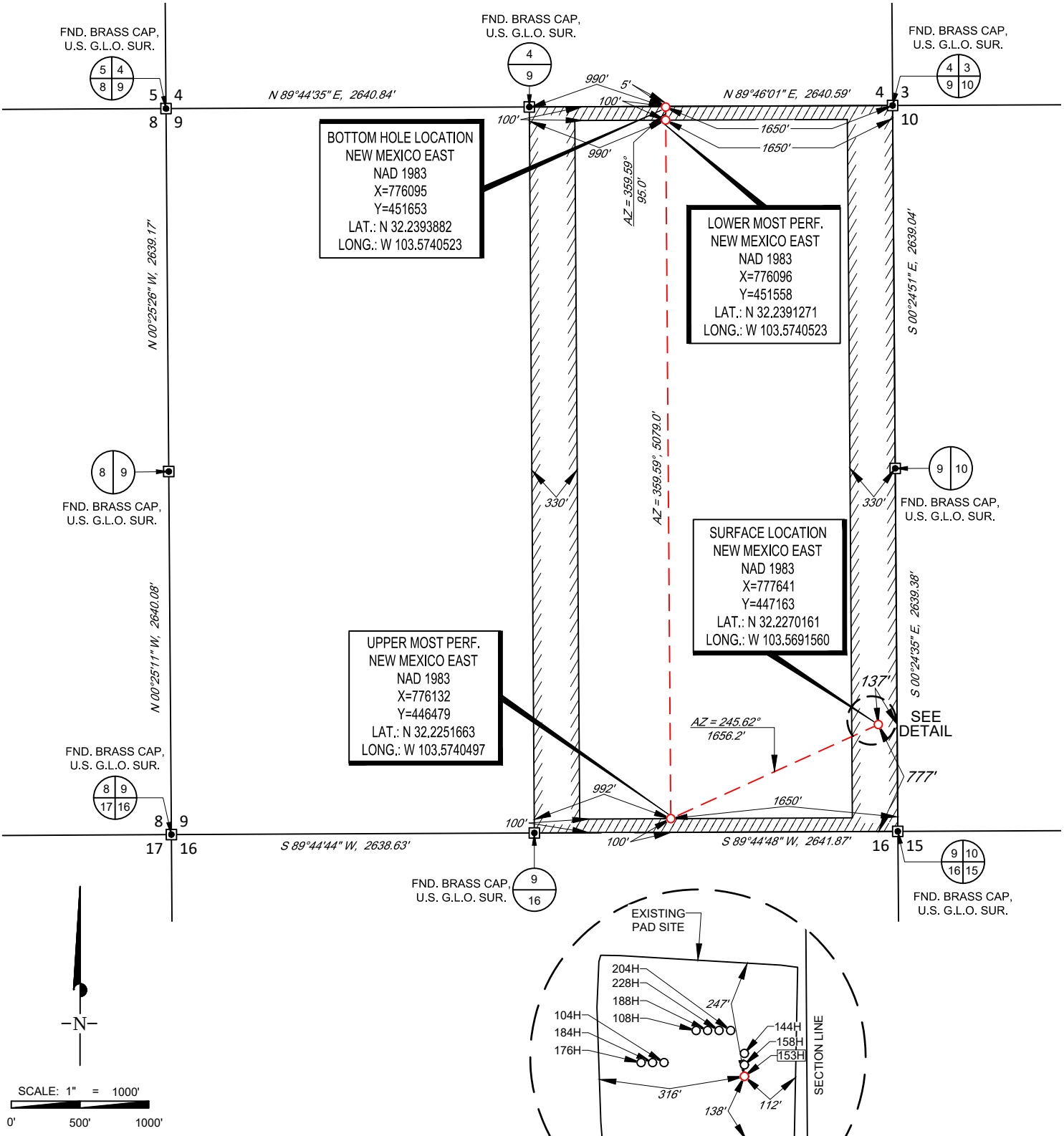
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140  
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554  
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705  
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743  
 WWW.TOPOGRAPHIC.COM

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAN AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

TAP  
ROCK  
EXHIBIT 2A

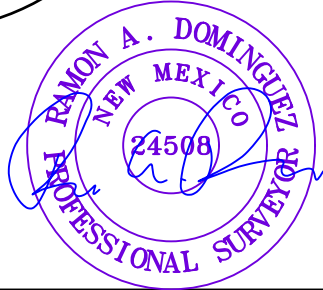
SECTION 9, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.  
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: ZEUS STATE 153H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.  
COUNTY LEA STATE NM  
DESCRIPTION 777' FSL & 137' FEL

DISTANCE & DIRECTION  
FROM INT. OF NM-128 W & DELAWARE BASIN RD., GO WEST ON  
NM-128 W ±3.3 MILES, THENCE NORTH (RIGHT) ON BRINSTOOL RD.  
±1.1 MILES, THENCE WEST (LEFT) ON LEASE RD. ±0.1 MILES, THENCE  
NORTH (RIGHT) ON A PROPOSED RD. ±76 FEET TO A POINT ±301 FEET  
SOUTHWEST OF THE LOCATION.



Ramon A. Dominguez, P.S. No. 24508  
September 28, 2021

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID  
BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY  
FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND  
UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF  
SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC THIS CERTIFICATION IS MADE AND  
LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS  
NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

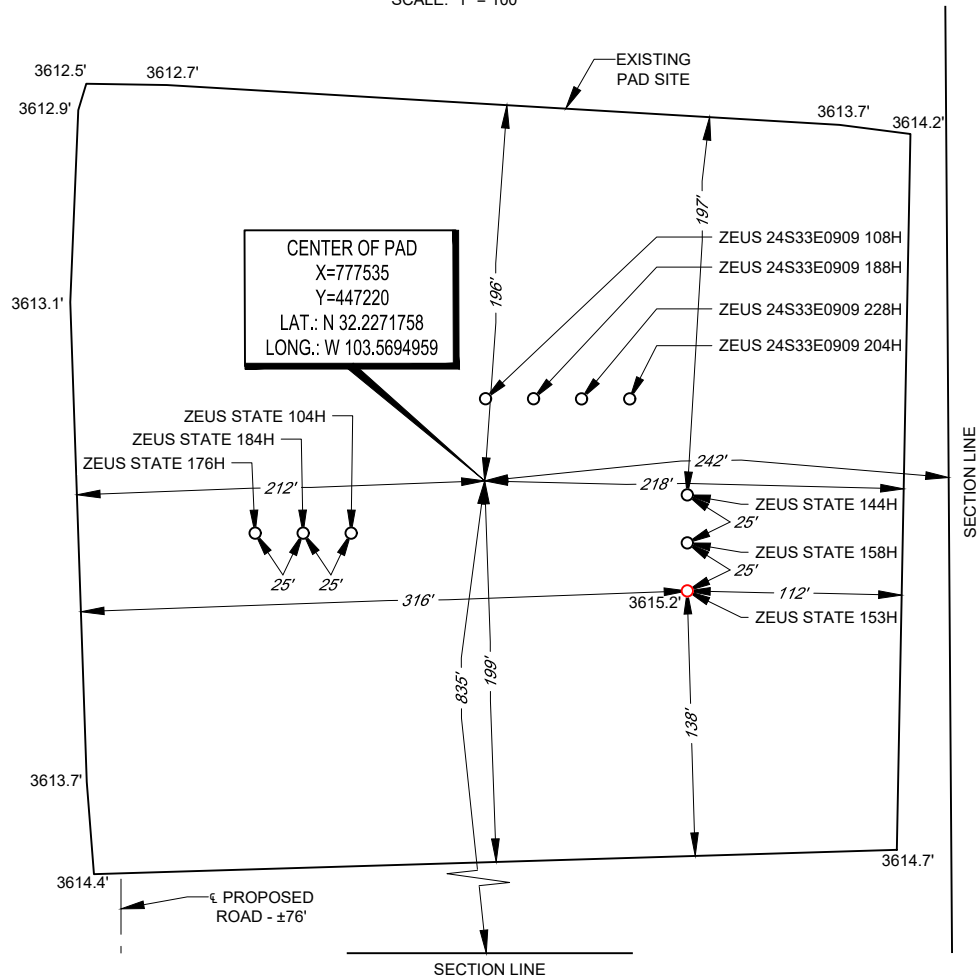
**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY  
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140  
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554  
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705  
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743  
WWW.TOPOGRAPHIC.COM





SECTION 9, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.  
LEA COUNTY, NEW MEXICO

DETAIL VIEW  
SCALE: 1" = 100'



LEASE NAME & WELL NO.: ZEUS STATE 153H

153H LATITUDE N 32.2270161 153H LONGITUDE W 103.5691560

CENTER OF PAD IS 835' FSL & 242' FEL



Ramon A. Dominguez, P.S. No. 24508


ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



SCALE: 1" = 100'



0' 50' 100'



1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140  
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554  
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705  
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743  
 WWW.TOPOGRAPHIC.COM

**District I**

1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form APD Conditions

Permit 301640

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 523 Park Point Drive Golden, CO 80401	API Number: 30-025-49424
	Well: ZEUS STATE #153H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.



# **Tap Rock Resources, LLC**

**Lea County, NM (NAD 83 NME)  
(Zeus State) Sec-9\_T24-S\_R-33-E  
Zeus State #153H**

**OWB**

**Plan: Plan #1**

## **Standard Planning Report**

**30 September, 2021**







# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

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

Site	(Zeus State) Sec-9_T24-S_R-33-E				
Site Position:		Northing:	447,193.00 usft	Latitude:	32° 13' 37.575 N
From:	Map	Easting:	777,416.00 usft	Longitude:	103° 34' 11.577 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well		Zeus State #153H				
Well Position	+N/-S	-30.0 usft	Northing:	447,163.00 usft	Latitude:	32° 13' 37.262 N
	+E/-W	225.0 usft	Easting:	777,641.00 usft	Longitude:	103° 34' 8.960 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	3,615.0 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	09/29/21	6.49	60.01	47,498.29713405

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	359.59	

<b>Plan Survey Tool Program</b>	<b>Date</b>	09/30/21			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	16,672.5	Plan #1 (OWB)	MWD	
				OWSG MWD - Standard	



# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	2.00	180.00	1,500.0	-3.5	0.0	1.00	1.00	0.00	180.00	
2,000.0	2.00	180.00	1,999.7	-20.9	0.0	0.00	0.00	0.00	0.00	
3,356.1	14.08	251.07	3,341.2	-98.5	-156.8	1.00	0.89	5.24	78.93	
8,876.9	14.08	251.07	8,696.2	-534.2	-1,427.2	0.00	0.00	0.00	0.00	
10,284.8	0.00	0.00	10,090.0	-590.0	-1,590.0	1.00	-1.00	0.00	180.00	
11,261.8	0.00	0.00	11,067.0	-590.0	-1,590.0	0.00	0.00	0.00	0.00	
12,165.8	90.40	5.85	11,639.9	-16.0	-1,531.2	10.00	10.00	0.00	5.85	
12,478.6	90.40	359.59	11,637.8	296.2	-1,516.3	2.00	0.00	-2.00	-89.99	
16,672.6	90.40	359.59	11,608.6	4,490.0	-1,546.0	0.00	0.00	0.00	0.00	PBHL (Zeus State #



# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

Planned 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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	1.00	180.00	1,400.0	-0.9	0.0	-0.9	1.00	1.00	0.00
1,500.0	2.00	180.00	1,500.0	-3.5	0.0	-3.5	1.00	1.00	0.00
1,600.0	2.00	180.00	1,599.9	-7.0	0.0	-7.0	0.00	0.00	0.00
1,700.0	2.00	180.00	1,699.8	-10.5	0.0	-10.5	0.00	0.00	0.00
1,800.0	2.00	180.00	1,799.8	-14.0	0.0	-14.0	0.00	0.00	0.00
1,900.0	2.00	180.00	1,899.7	-17.5	0.0	-17.4	0.00	0.00	0.00
2,000.0	2.00	180.00	1,999.7	-20.9	0.0	-20.9	0.00	0.00	0.00
2,100.0	2.40	204.13	2,099.6	-24.6	-0.9	-24.6	1.00	0.40	24.13
2,200.0	3.09	219.48	2,199.5	-28.6	-3.4	-28.6	1.00	0.69	15.36
2,300.0	3.91	228.84	2,299.3	-32.9	-7.7	-32.9	1.00	0.82	9.36
2,400.0	4.80	234.85	2,399.0	-37.6	-13.7	-37.5	1.00	0.89	6.01
2,500.0	5.73	238.95	2,498.6	-42.6	-21.4	-42.4	1.00	0.93	4.10
2,600.0	6.68	241.90	2,598.0	-47.9	-30.8	-47.6	1.00	0.95	2.95
2,700.0	7.64	244.12	2,697.2	-53.5	-41.9	-53.2	1.00	0.96	2.22
2,800.0	8.61	245.84	2,796.2	-59.5	-54.7	-59.1	1.00	0.97	1.72
2,900.0	9.59	247.22	2,894.9	-65.8	-69.2	-65.3	1.00	0.98	1.37
3,000.0	10.57	248.34	2,993.4	-72.4	-85.4	-71.8	1.00	0.98	1.12
3,100.0	11.55	249.27	3,091.5	-79.3	-103.3	-78.6	1.00	0.98	0.93
3,200.0	12.54	250.06	3,189.3	-86.5	-122.9	-85.7	1.00	0.99	0.79
3,300.0	13.52	250.73	3,286.8	-94.1	-144.1	-93.1	1.00	0.99	0.67
3,356.1	14.08	251.07	3,341.2	-98.5	-156.8	-97.4	1.00	0.99	0.60
3,400.0	14.08	251.07	3,383.8	-101.9	-166.9	-100.7	0.00	0.00	0.00
3,500.0	14.08	251.07	3,480.8	-109.8	-189.9	-108.5	0.00	0.00	0.00
3,600.0	14.08	251.07	3,577.8	-117.7	-212.9	-116.2	0.00	0.00	0.00
3,700.0	14.08	251.07	3,674.8	-125.6	-235.9	-123.9	0.00	0.00	0.00
3,800.0	14.08	251.07	3,771.8	-133.5	-258.9	-131.7	0.00	0.00	0.00
3,900.0	14.08	251.07	3,868.8	-141.4	-281.9	-139.4	0.00	0.00	0.00
4,000.0	14.08	251.07	3,965.8	-149.3	-304.9	-147.1	0.00	0.00	0.00
4,100.0	14.08	251.07	4,062.8	-157.2	-327.9	-154.8	0.00	0.00	0.00
4,200.0	14.08	251.07	4,159.8	-165.1	-351.0	-162.6	0.00	0.00	0.00
4,300.0	14.08	251.07	4,256.8	-173.0	-374.0	-170.3	0.00	0.00	0.00
4,400.0	14.08	251.07	4,353.8	-180.9	-397.0	-178.0	0.00	0.00	0.00
4,500.0	14.08	251.07	4,450.8	-188.8	-420.0	-185.7	0.00	0.00	0.00
4,600.0	14.08	251.07	4,547.8	-196.6	-443.0	-193.5	0.00	0.00	0.00
4,700.0	14.08	251.07	4,644.8	-204.5	-466.0	-201.2	0.00	0.00	0.00
4,800.0	14.08	251.07	4,741.8	-212.4	-489.0	-208.9	0.00	0.00	0.00
4,900.0	14.08	251.07	4,838.8	-220.3	-512.0	-216.6	0.00	0.00	0.00
5,000.0	14.08	251.07	4,935.8	-228.2	-535.1	-224.4	0.00	0.00	0.00
5,100.0	14.08	251.07	5,032.7	-236.1	-558.1	-232.1	0.00	0.00	0.00
5,200.0	14.08	251.07	5,129.7	-244.0	-581.1	-239.8	0.00	0.00	0.00



# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

Planned 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)
5,300.0	14.08	251.07	5,226.7	-251.9	-604.1	-247.6	0.00	0.00	0.00
5,400.0	14.08	251.07	5,323.7	-259.8	-627.1	-255.3	0.00	0.00	0.00
5,500.0	14.08	251.07	5,420.7	-267.7	-650.1	-263.0	0.00	0.00	0.00
5,600.0	14.08	251.07	5,517.7	-275.6	-673.1	-270.7	0.00	0.00	0.00
5,700.0	14.08	251.07	5,614.7	-283.5	-696.1	-278.5	0.00	0.00	0.00
5,800.0	14.08	251.07	5,711.7	-291.3	-719.1	-286.2	0.00	0.00	0.00
5,900.0	14.08	251.07	5,808.7	-299.2	-742.2	-293.9	0.00	0.00	0.00
6,000.0	14.08	251.07	5,905.7	-307.1	-765.2	-301.6	0.00	0.00	0.00
6,100.0	14.08	251.07	6,002.7	-315.0	-788.2	-309.4	0.00	0.00	0.00
6,200.0	14.08	251.07	6,099.7	-322.9	-811.2	-317.1	0.00	0.00	0.00
6,300.0	14.08	251.07	6,196.7	-330.8	-834.2	-324.8	0.00	0.00	0.00
6,400.0	14.08	251.07	6,293.7	-338.7	-857.2	-332.6	0.00	0.00	0.00
6,500.0	14.08	251.07	6,390.7	-346.6	-880.2	-340.3	0.00	0.00	0.00
6,600.0	14.08	251.07	6,487.7	-354.5	-903.2	-348.0	0.00	0.00	0.00
6,700.0	14.08	251.07	6,584.7	-362.4	-926.2	-355.7	0.00	0.00	0.00
6,800.0	14.08	251.07	6,681.7	-370.3	-949.3	-363.5	0.00	0.00	0.00
6,900.0	14.08	251.07	6,778.7	-378.2	-972.3	-371.2	0.00	0.00	0.00
7,000.0	14.08	251.07	6,875.7	-386.0	-995.3	-378.9	0.00	0.00	0.00
7,100.0	14.08	251.07	6,972.7	-393.9	-1,018.3	-386.6	0.00	0.00	0.00
7,200.0	14.08	251.07	7,069.7	-401.8	-1,041.3	-394.4	0.00	0.00	0.00
7,300.0	14.08	251.07	7,166.7	-409.7	-1,064.3	-402.1	0.00	0.00	0.00
7,400.0	14.08	251.07	7,263.7	-417.6	-1,087.3	-409.8	0.00	0.00	0.00
7,500.0	14.08	251.07	7,360.6	-425.5	-1,110.3	-417.5	0.00	0.00	0.00
7,600.0	14.08	251.07	7,457.6	-433.4	-1,133.4	-425.3	0.00	0.00	0.00
7,700.0	14.08	251.07	7,554.6	-441.3	-1,156.4	-433.0	0.00	0.00	0.00
7,800.0	14.08	251.07	7,651.6	-449.2	-1,179.4	-440.7	0.00	0.00	0.00
7,900.0	14.08	251.07	7,748.6	-457.1	-1,202.4	-448.5	0.00	0.00	0.00
8,000.0	14.08	251.07	7,845.6	-465.0	-1,225.4	-456.2	0.00	0.00	0.00
8,100.0	14.08	251.07	7,942.6	-472.9	-1,248.4	-463.9	0.00	0.00	0.00
8,200.0	14.08	251.07	8,039.6	-480.7	-1,271.4	-471.6	0.00	0.00	0.00
8,300.0	14.08	251.07	8,136.6	-488.6	-1,294.4	-479.4	0.00	0.00	0.00
8,400.0	14.08	251.07	8,233.6	-496.5	-1,317.4	-487.1	0.00	0.00	0.00
8,500.0	14.08	251.07	8,330.6	-504.4	-1,340.5	-494.8	0.00	0.00	0.00
8,600.0	14.08	251.07	8,427.6	-512.3	-1,363.5	-502.5	0.00	0.00	0.00
8,700.0	14.08	251.07	8,524.6	-520.2	-1,386.5	-510.3	0.00	0.00	0.00
8,800.0	14.08	251.07	8,621.6	-528.1	-1,409.5	-518.0	0.00	0.00	0.00
8,876.9	14.08	251.07	8,696.2	-534.2	-1,427.2	-523.9	0.00	0.00	0.00
8,900.0	13.85	251.07	8,718.6	-536.0	-1,432.5	-525.7	1.00	-1.00	0.00
9,000.0	12.85	251.07	8,815.9	-543.5	-1,454.3	-533.0	1.00	-1.00	0.00
9,100.0	11.85	251.07	8,913.6	-550.4	-1,474.5	-539.8	1.00	-1.00	0.00
9,200.0	10.85	251.07	9,011.6	-556.8	-1,493.1	-546.1	1.00	-1.00	0.00
9,300.0	9.85	251.07	9,110.0	-562.6	-1,510.1	-551.8	1.00	-1.00	0.00
9,400.0	8.85	251.07	9,208.7	-567.9	-1,525.5	-556.9	1.00	-1.00	0.00
9,500.0	7.85	251.07	9,307.6	-572.6	-1,539.2	-561.6	1.00	-1.00	0.00
9,600.0	6.85	251.07	9,406.8	-576.7	-1,551.3	-565.6	1.00	-1.00	0.00
9,700.0	5.85	251.07	9,506.2	-580.3	-1,561.8	-569.1	1.00	-1.00	0.00
9,800.0	4.85	251.07	9,605.7	-583.3	-1,570.6	-572.1	1.00	-1.00	0.00
9,900.0	3.85	251.07	9,705.4	-585.8	-1,577.8	-574.5	1.00	-1.00	0.00
10,000.0	2.85	251.07	9,805.3	-587.7	-1,583.3	-576.4	1.00	-1.00	0.00
10,100.0	1.85	251.07	9,905.2	-589.0	-1,587.2	-577.7	1.00	-1.00	0.00
10,200.0	0.85	251.07	10,005.2	-589.8	-1,589.4	-578.4	1.00	-1.00	0.00
10,284.8	0.00	0.00	10,090.0	-590.0	-1,590.0	-578.6	1.00	-1.00	0.00
10,300.0	0.00	0.00	10,105.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,205.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00



# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

Planned 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)
10,500.0	0.00	0.00	10,305.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
10,600.0	0.00	0.00	10,405.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
10,700.0	0.00	0.00	10,505.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
10,800.0	0.00	0.00	10,605.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
10,900.0	0.00	0.00	10,705.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
11,000.0	0.00	0.00	10,805.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
11,100.0	0.00	0.00	10,905.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
11,200.0	0.00	0.00	11,005.2	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
11,261.8	0.00	0.00	11,067.0	-590.0	-1,590.0	-578.6	0.00	0.00	0.00
11,300.0	3.82	5.85	11,105.1	-588.7	-1,589.9	-577.3	10.00	10.00	0.00
11,350.0	8.82	5.85	11,154.8	-583.3	-1,589.3	-571.9	10.00	10.00	0.00
11,400.0	13.82	5.85	11,203.8	-573.5	-1,588.3	-562.1	10.00	10.00	0.00
11,450.0	18.82	5.85	11,251.8	-559.5	-1,586.9	-548.2	10.00	10.00	0.00
11,500.0	23.82	5.85	11,298.4	-541.5	-1,585.0	-530.1	10.00	10.00	0.00
11,550.0	28.82	5.85	11,343.2	-519.4	-1,582.8	-508.1	10.00	10.00	0.00
11,600.0	33.82	5.85	11,385.9	-493.6	-1,580.1	-482.3	10.00	10.00	0.00
11,650.0	38.82	5.85	11,426.1	-464.1	-1,577.1	-452.8	10.00	10.00	0.00
11,700.0	43.82	5.85	11,463.7	-431.3	-1,573.7	-420.0	10.00	10.00	0.00
11,750.0	48.82	5.85	11,498.2	-395.3	-1,570.1	-384.1	10.00	10.00	0.00
11,800.0	53.82	5.85	11,529.4	-356.5	-1,566.1	-345.3	10.00	10.00	0.00
11,850.0	58.82	5.85	11,557.2	-315.2	-1,561.8	-304.0	10.00	10.00	0.00
11,900.0	63.82	5.85	11,581.2	-271.5	-1,557.4	-260.4	10.00	10.00	0.00
11,950.0	68.82	5.85	11,601.2	-226.0	-1,552.7	-214.9	10.00	10.00	0.00
12,000.0	73.82	5.85	11,617.3	-178.9	-1,547.9	-167.8	10.00	10.00	0.00
12,050.0	78.82	5.85	11,629.1	-130.6	-1,542.9	-119.5	10.00	10.00	0.00
12,100.0	83.82	5.85	11,636.6	-81.4	-1,537.9	-70.4	10.00	10.00	0.00
12,150.0	88.82	5.85	11,639.8	-31.8	-1,532.8	-20.8	10.00	10.00	0.00
12,165.8	90.40	5.85	11,639.9	-16.0	-1,531.2	-5.1	10.00	10.00	0.00
12,200.0	90.40	5.17	11,639.7	18.0	-1,527.9	28.9	2.00	0.00	-2.00
12,300.0	90.40	3.17	11,639.0	117.7	-1,520.6	128.6	2.00	0.00	-2.00
12,400.0	90.40	1.17	11,638.3	217.6	-1,516.9	228.4	2.00	0.00	-2.00
12,478.6	90.40	359.59	11,637.8	296.2	-1,516.3	307.0	2.00	0.00	-2.00
12,500.0	90.40	359.59	11,637.6	317.6	-1,516.5	328.4	0.00	0.00	0.00
12,600.0	90.40	359.59	11,636.9	417.6	-1,517.2	428.4	0.00	0.00	0.00
12,700.0	90.40	359.59	11,636.2	517.6	-1,517.9	528.4	0.00	0.00	0.00
12,800.0	90.40	359.59	11,635.5	617.6	-1,518.6	628.4	0.00	0.00	0.00
12,900.0	90.40	359.59	11,634.8	717.6	-1,519.3	728.4	0.00	0.00	0.00
13,000.0	90.40	359.59	11,634.1	817.6	-1,520.0	828.4	0.00	0.00	0.00
13,100.0	90.40	359.59	11,633.4	917.6	-1,520.7	928.4	0.00	0.00	0.00
13,200.0	90.40	359.59	11,632.7	1,017.6	-1,521.4	1,028.4	0.00	0.00	0.00
13,300.0	90.40	359.59	11,632.0	1,117.6	-1,522.2	1,128.4	0.00	0.00	0.00
13,400.0	90.40	359.59	11,631.3	1,217.5	-1,522.9	1,228.4	0.00	0.00	0.00
13,500.0	90.40	359.59	11,630.7	1,317.5	-1,523.6	1,328.4	0.00	0.00	0.00
13,600.0	90.40	359.59	11,630.0	1,417.5	-1,524.3	1,428.4	0.00	0.00	0.00
13,700.0	90.40	359.59	11,629.3	1,517.5	-1,525.0	1,528.4	0.00	0.00	0.00
13,800.0	90.40	359.59	11,628.6	1,617.5	-1,525.7	1,628.4	0.00	0.00	0.00
13,900.0	90.40	359.59	11,627.9	1,717.5	-1,526.4	1,728.4	0.00	0.00	0.00
14,000.0	90.40	359.59	11,627.2	1,817.5	-1,527.1	1,828.4	0.00	0.00	0.00
14,100.0	90.40	359.59	11,626.5	1,917.5	-1,527.8	1,928.4	0.00	0.00	0.00
14,200.0	90.40	359.59	11,625.8	2,017.5	-1,528.5	2,028.4	0.00	0.00	0.00
14,300.0	90.40	359.59	11,625.1	2,117.5	-1,529.2	2,128.4	0.00	0.00	0.00
14,400.0	90.40	359.59	11,624.4	2,217.5	-1,529.9	2,228.4	0.00	0.00	0.00
14,500.0	90.40	359.59	11,623.7	2,317.5	-1,530.6	2,328.4	0.00	0.00	0.00
14,600.0	90.40	359.59	11,623.0	2,417.5	-1,531.3	2,428.4	0.00	0.00	0.00



# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

Planned 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)	
14,700.0	90.40	359.59	11,622.3	2,517.5	-1,532.1	2,528.4	0.00	0.00	0.00	
14,800.0	90.40	359.59	11,621.6	2,617.5	-1,532.8	2,628.4	0.00	0.00	0.00	
14,900.0	90.40	359.59	11,620.9	2,717.5	-1,533.5	2,728.4	0.00	0.00	0.00	
15,000.0	90.40	359.59	11,620.2	2,817.5	-1,534.2	2,828.4	0.00	0.00	0.00	
15,100.0	90.40	359.59	11,619.5	2,917.5	-1,534.9	2,928.4	0.00	0.00	0.00	
15,200.0	90.40	359.59	11,618.8	3,017.5	-1,535.6	3,028.4	0.00	0.00	0.00	
15,300.0	90.40	359.59	11,618.1	3,117.5	-1,536.3	3,128.4	0.00	0.00	0.00	
15,400.0	90.40	359.59	11,617.4	3,217.5	-1,537.0	3,228.4	0.00	0.00	0.00	
15,500.0	90.40	359.59	11,616.7	3,317.4	-1,537.7	3,328.4	0.00	0.00	0.00	
15,600.0	90.40	359.59	11,616.0	3,417.4	-1,538.4	3,428.4	0.00	0.00	0.00	
15,700.0	90.40	359.59	11,615.3	3,517.4	-1,539.1	3,528.4	0.00	0.00	0.00	
15,800.0	90.40	359.59	11,614.6	3,617.4	-1,539.8	3,628.4	0.00	0.00	0.00	
15,900.0	90.40	359.59	11,614.0	3,717.4	-1,540.5	3,728.4	0.00	0.00	0.00	
16,000.0	90.40	359.59	11,613.3	3,817.4	-1,541.2	3,828.4	0.00	0.00	0.00	
16,100.0	90.40	359.59	11,612.6	3,917.4	-1,542.0	3,928.4	0.00	0.00	0.00	
16,200.0	90.40	359.59	11,611.9	4,017.4	-1,542.7	4,028.3	0.00	0.00	0.00	
16,300.0	90.40	359.59	11,611.2	4,117.4	-1,543.4	4,128.3	0.00	0.00	0.00	
16,400.0	90.40	359.59	11,610.5	4,217.4	-1,544.1	4,228.3	0.00	0.00	0.00	
16,500.0	90.40	359.59	11,609.8	4,317.4	-1,544.8	4,328.3	0.00	0.00	0.00	
16,600.0	90.40	359.59	11,609.1	4,417.4	-1,545.5	4,428.3	0.00	0.00	0.00	
16,672.6	90.40	359.59	11,608.6	4,490.0	-1,546.0	4,500.9	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP (Zeus State #153 - hit/miss target - Shape - Point)	0.00	0.00	11,269.0	-684.0	-1,509.0	446,479.00	776,132.00	32° 13' 30.599 N	103° 34' 26.583 W	- plan misses target center by 146.6usft at 11434.0usft MD (11236.5 TVD, -564.5 N, -1587.4 E)
PBHL (Zeus State #153 - plan hits target center - Rectangle (sides W100.0 H5,174.0 D30.0))	-0.40	359.59	11,608.6	4,490.0	-1,546.0	451,653.00	776,095.00	32° 14' 21.800 N	103° 34' 26.588 W	
LTP (Zeus State #153 - plan misses target center by 0.7usft at 16577.6usft MD (11609.2 TVD, 4395.0 N, -1545.3 E) - Point)	0.00	0.00	11,608.6	4,395.0	-1,545.0	451,558.00	776,096.00	32° 14' 20.860 N	103° 34' 26.584 W	





# Intrepid Planning Report



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Zeus State #153H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3641.0usft (H&P 425)
<b>Site:</b>	(Zeus State) Sec-9_T24-S_R-33-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Zeus State #153H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,265.0	1,265.0	Rustler Anhydrite				
1,795.2	1,795.0	Top Salt				
5,009.5	4,945.0	Base Salt				
5,277.6	5,205.0	Delaware Mountain Gp				
5,277.6	5,205.0	Lamar				
5,308.5	5,235.0	Bell Canyon				
5,324.0	5,250.0	Ramsey Sand				
6,282.8	6,180.0	Cherry Canyon				
7,849.9	7,700.0	Brushy Canyon				
9,294.9	9,105.0	Bone Spring Lime				
9,421.6	9,230.0	Upper Avalon				
9,703.8	9,510.0	Middle Avalon				
10,099.8	9,905.0	Lower Avalon				
10,359.8	10,165.0	1st Bone Spring Sand				
10,819.8	10,625.0	2nd Bone Spring Carb				
10,999.8	10,805.0	2nd Bone Spring Sand				
11,442.8	11,245.0	3rd Bone Spring Flood Surface				
11,581.1	11,370.0	3rd Bone Spring Carb				
11,875.7	11,570.0	Break Sand				
12,030.6	11,625.0	3rd Bone Spring Top Target				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,300.0	1,300.0	0.0	0.0	DRIFT SOUTH - Build 1.00	
1,500.0	1,500.0	-3.5	0.0	HOLD - 500.0 at 1500.0 MD	
2,000.0	1,999.7	-20.9	0.0	BLD - DLS 1.00 TFO 78.93	
3,356.1	3,341.2	-98.5	-156.8	HOLD - 5520.8 at 3356.1 MD	
8,876.9	8,696.2	-534.2	-1,427.2	DROP - -1.00	
10,284.8	10,090.0	-590.0	-1,590.0	HOLD - 977.0 at 10284.8 MD	
11,261.8	11,067.0	-590.0	-1,590.0	KOP - Build 10.00	
12,165.8	11,639.9	-16.0	-1,531.2	EOC/TRN - DLS 2.00 TFO -89.99	
12,478.6	11,637.8	296.2	-1,516.3	Start 4194.0 hold at 12478.6 MD	
16,672.6	11,608.6	4,490.0	-1,546.0	TD at 16672.6	

State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Electronically  
Via E-permitting

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### **Section 1 – Plan Description**

**Effective May 25, 2021**

**I. Operator:** \_\_\_\_\_ Tap Rock Operating LLC \_\_\_\_\_ **OGRID:** \_\_\_\_\_ 372043 \_\_\_\_\_ **Date:** \_09/\_27\_/2021\_

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water
Zeus State #153H		Sec 9, T24S R 33E	777' FSL 137 FEL	843	1069	884

**IV. Central Delivery Point Name:** \_\_\_\_\_ Zeus State CDP \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Zeus State #153H		10/17/21	11/1/21	11/17/21	12/26/21	12/26//21

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### **X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**


1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Bill Ramsey
Title: Regulatory Analyst
E-mail Address: <a href="mailto:bramsey@taprk.com">bramsey@taprk.com</a>
Date: 9/30/2021
Phone: 720-238-2787
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

**VI. Separation Equipment:** Attach a complete description of how Operator will size separation equipment to optimize gas capture:

Each surface facility design includes the following process equipment: 3-phase separators (1 separator per well), a sales gas scrubber, one or two 3-phase heater treaters, a vapor recovery tower (VRT), a VRU compressor, multiple water and oil tanks, as well as flare knockouts (HP & LP), and flares (HP & LP). All process vessels will be sized to separate oil, water, gas based upon typical/historical & predicted well performance. Each process vessel will be fitted with an appropriately sized PSV as per ASME code requirements to mitigate vessel rupture and loss of containment. Additionally, the process vessels will be fitted with pressure transmitters tied to the facility control system which will allow operations to monitor pressures and when necessary, shut-in the facility to avoid vessel over-pressure and the potential vent of natural gas. Natural gas will preferentially be sold to pipeline, and only during upset/emergency conditions will gas be directed to the HP flare system. Flash gas from both the 3-phase heater treater and the VRT will be recompressed using a VRU compressor and this gas will also preferentially be directed to the gas sales pipeline. Oil tanks & water tanks will be fitted with 16 oz thief hatches as well as PVRVs to protect the tanks from rupture/collapse. Additionally, the tank vapor outlets and tank vapor capture system will be sized to keep tank pressures below 12 oz. The tank vapor capture system will include a tank vapor blower & knockout as well as a low-pressure flare and knockout. Tank vapors will preferentially be directed to the VRU and the sales gas pipeline. Only during process upsets/emergency conditions will tank vapors be directed to the LP flare system.

**VII. Operational Practices:** Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. ← See attached reg for requirements.

- During drilling operations- Gas meters will be installed at the shakers and Volume Totalizers will be installed on the pits. In the event that elevated gas levels, or a pit gain are observed, returns will be diverted to a gas buster. Gas coming off the gas buster will be combusted at the flare stack. A 10' or taller flare will be located at least 100' from the SHL.
- During completions operations, including stimulation and frac plug drill out operations, hydrocarbon production to surface is minimized. When gas production does occur, gas will be combusted at a flare stack. A 10' or taller flare will be located at least 100' from the SHL.
- During production operations, all process vessels (separators, heater treaters, VRTs, Tanks) will recompress (where necessary) and route gas outlets into the natural gas gathering pipeline. Gas will preferentially be routed to natural gas gathering pipeline and the flare system will be used only during emergency, malfunction, or if the gas does not meet pipeline specifications. In the event of flaring off-specification gas, operations will pull gas samples twice a week and will also route gas back to pipeline as soon as the gas meets specification. Exceptions to this will include only those qualified exceptions per the regulation 19.15.27.8 Subsection D.



- To comply with state performance standards, separation and storage equipment will be designed to handle the maximum anticipated throughput and pressure to minimize waste and reduce the likelihood of venting gas to atmosphere. Additionally, each storage atmospheric tank (Oil & Water) will be fitted with a level transmitter to facilitate gauging of the tank without opening of the thief hatch. Any gas collected through the tank vent system is expected to be recompressed and routed to sales. However, in the event of an emergency, the tank vapor capture system will be designed to combust the gas using a flare stack fitted with a continuous or automatic ignitor. The flare stack will be properly anchored and will be located a minimum of 100 feet from the well and storage tanks. Operators will conduct weekly AVO inspections. These AVO inspection records will be stored for the required 5-year period and will be made available upon Division request.

**VIII. Best Management Practices:** Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- When performing routine or preventive maintenance on a vessel or tank, initially all inlet valves are closed, and the vessel or tank is allowed to depressurize through the normal outlet connections to gas sales and/or liquid tanks. Once the vessel or tank is depressurized to lowest acceptable sales outlet pressure, usually around 20 psig, a temporary low-pressure flowline is connected from the vessel or tank to the Vapor Recovery Unit (VRU) for further pressure reduction. Once depressurized to less than 1-2 psig, the remaining natural gas in the vessel or tank is vented to atmosphere through a controlled pressure relief valve. Once the vessel or tank is depressurized to atmospheric pressure, the vessel or tank can be safely opened, and maintenance performed.