Form C-101 August 1, 2011

Permit 321041

<u>District I</u> 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

APPLICATION FOR PERMIT TO DRILL RE-ENTE	NIE

AT LIGHTION ON LIMIT TO DIVEL, THE LITTLE DELICITY DELICITY ON THE ALERT									
Operator Name and Address		2. OGRID Number							
TAP ROCK OPERATING, LLC	372043								
523 Park Point Drive	3. API Number								
Golden, CO 80401		30-025-50364							
4. Property Code	5. Property Name	6. Well No.							
329779	HYPERION STATE COM	173H							

7. Surface Location

UL - L	ot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	Α	20	24S	33E	Α	608	N	1140	E	Lea

8. Proposed Bottom Hole Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	0	20	24S	33E	0	31	S	2310	E	Lea

9. Pool Information

TRIPLE X;BONE SPRING, WEST	96674

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3562
16. Multiple 17. Proposed Depth		18. Formation	19. Contractor	20. Spud Date
N	14660	Bone Spring		7/27/2022
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	1200	998	0					
Int1	12.25	9.625	40	5175	1161	0					
Prod	6.75	5.5	20	14660	622	9115					
Prod	8.75	5.5	20	9115	302	4975					

Casing/Cement Program: Additional Comments

Tap Rock also requests the option to drill a 7-7/8" curve and lateral. If the hole size is increased from 6-3/4" to 7-7/8", cement volumes will be adjusted appropriately.

22. Proposed Blowout Prevention Program

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

knowledge and be	elief.	true and complete to the best of my NMAC ⊠ and/or 19.15.14.9 (B) NMAC		OIL CONSERVATIO	ON DIVISION	
Printed Name:	Electronically filed by Christian C	Combs	Approved By:	Paul F Kautz		
Title:	Regulatory Manager		Title:	Geologist		
Email Address:	ccombs@taprk.com		Approved Date:	ate: 7/22/2022 Expiration Date: 7/22/2024		
Date:	7/14/2022	Phone: 720-360-4028	Conditions of Approval Attached			

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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

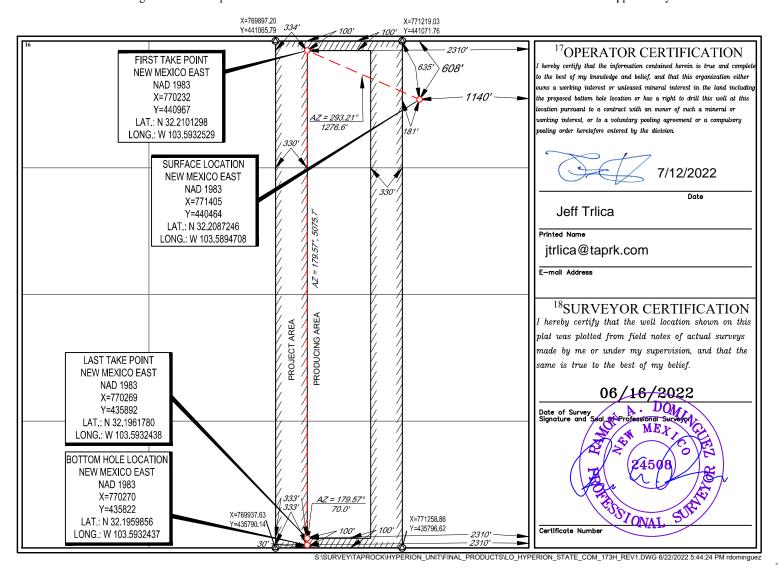
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-50364		² Pool Code 96674		
⁴ Property Code 329779		⁵ Pr	TRIPLE X;BONE SPRING, WEST Operty Name N STATE COM	⁶ Well Number 173H
70GRID №. #372043		- 1	oerator Name OPERATING, LLC.	⁹ Elevation 3562'

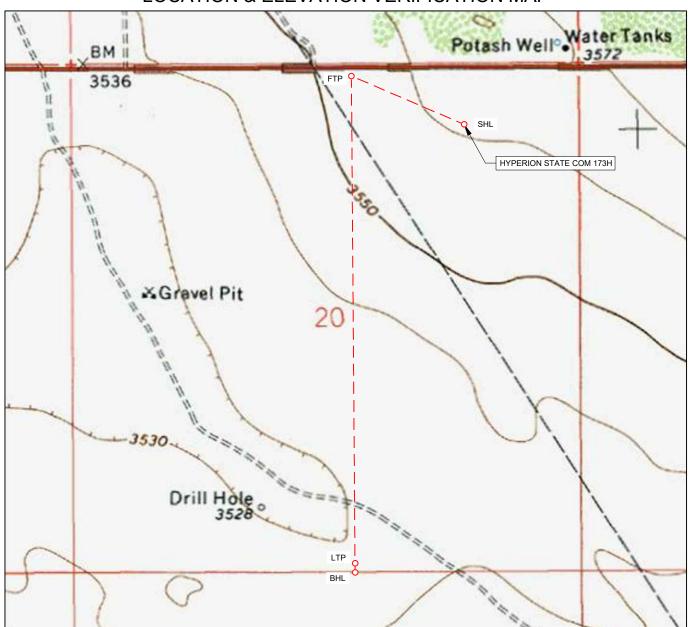
¹⁰Surface Location

U	L or lot no.	Section 20	Township 24-S	33-E	Lot Idn —	Feet from the 608'	North/South line NORTH	Feet from the 1140'	East/West line EAST	County LEA
	¹¹ Bottom Hole Location If Different From Surface									
U	L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	0	20	24-S	33-E	_	30'	SOUTH	2310'	EAST	LEA
¹² L	¹² Dedicated Acres ¹³ Joint or Infill ¹⁴ Consolidation Code ¹⁵ Order No.									
	160									

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 & ELEVATION VERIFICATION MAP





LEASE NAME & WELL NO.:

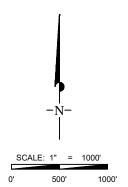
HYPERION STATE COM 173H

 SECTION
 20
 TWP
 24-S
 RGE
 33-E
 SURVEY
 N.M.P.M.

 COUNTY
 LEA
 STATE
 NM
 ELEVATION
 3562'

 DESCRIPTION
 608' FNL & 1140' FEL

LATITUDE _____ N 32.2087246 ____ LONGITUDE ____ W 103.5894708



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.



1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140

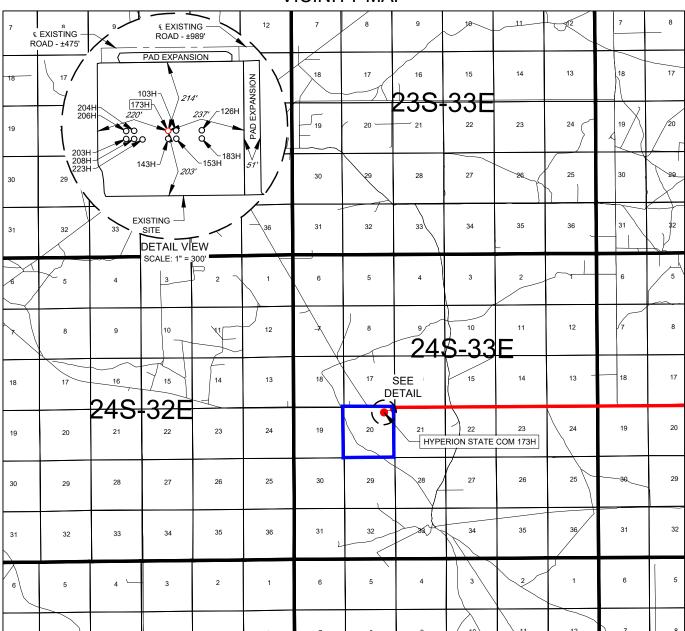
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554

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 MAP





LEASE NAME & WELL NO.: HYPERION STATE COM 173H

 SECTION
 20
 TWP
 24-S
 RGE
 33-E
 SURVEY
 N.M.P.M.

 COUNTY
 LEA
 STATE
 NM

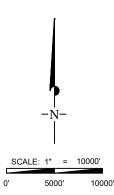
 DESCRIPTION
 608' FNL & 1140' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-128 & DELAWARE BASIN RD., GO WEST ON NM-128 ±4.4 MILES, THENCE SOUTH (LEFT) A PROPOSED RD. ±989 FEET TO A POINT ±310 FEET NORTHEAST OF THE LOCATION.

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.





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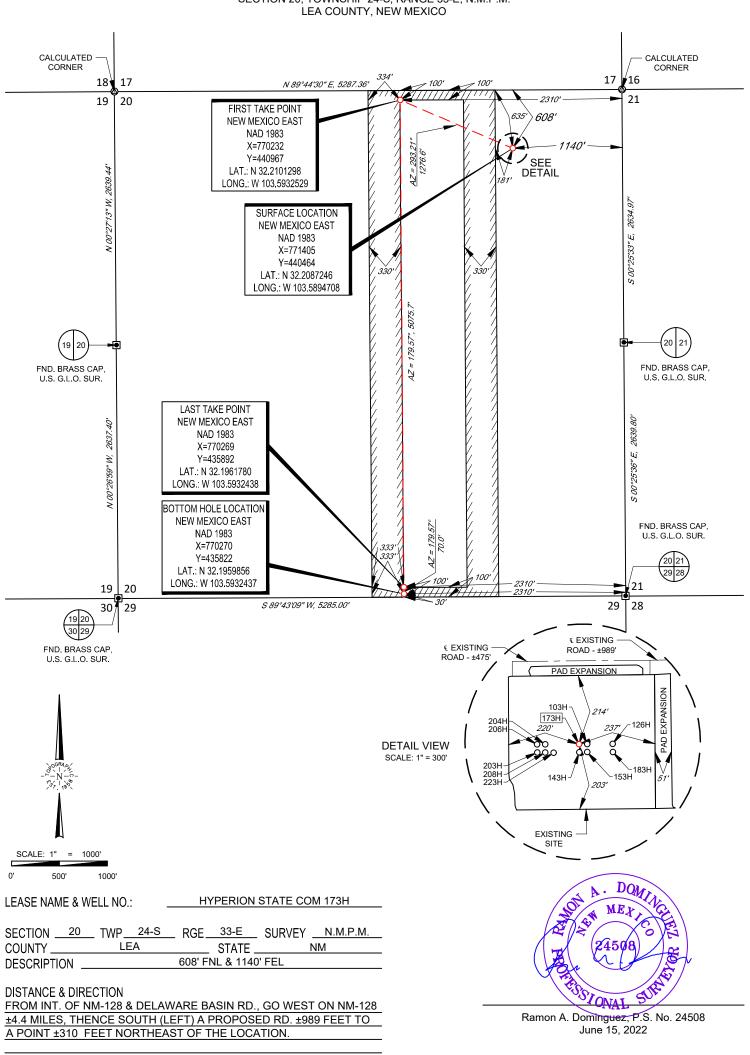
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705

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SECTION 20, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M. LEA COUNTY, NEW MEXICO



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.

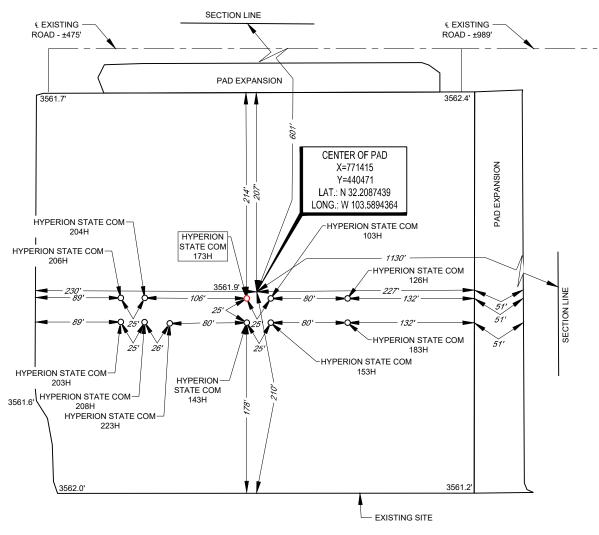


TELEPHONE: (817) 744-7512 • FAX (817) 744-7554 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743 WWW.TOPOGRAPHIC.COM



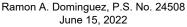
SECTION 20, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M. LEA COUNTY, NEW MEXICO

DETAIL VIEW SCALE: 1" = 100'



CENTER OF PAD IS 601' FNL & 1130' FEL





ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, BEAST 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, ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. 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.



SCALE: 1"

100'

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

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Form APD Conditions

Permit 321041

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Phone:(505) 334-6178 Fax:(505) 334-6170 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**

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
TAP ROCK OPERATING, LLC [372043]	30-025-50364
523 Park Point Drive	Well:
Golden, CO 80401	HYPERION STATE COM #173H

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	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud



Tap Rock Resources, LLC

Lea County, NM (NAD 83 NME) (Hyperion) Sec-20_T-24-S_R-33-E Hyperion State Com #173H

OWB

Plan: Plan #2

Standard Planning Report

08 July, 2022







Database: EDM 5000.15 Single User Db
Company: Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Hyperion) Sec-20_T-24-S_R-33-E

Well: Hyperion
Wellbore: OWB
Design: Plan #2

Hyperion State Com #173H

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Hyperion State Com #173H

KB @ 3588.0usft KB @ 3588.0usft

Grid

Minimum Curvature

Project Lea County, NM (NAD 83 NME)

Map System:US State Plane 1983Geo Datum:North American Datum 1983Map Zone:New Mexico Eastern Zone

System Datum:

Mean Sea Level

Site (Hyperion) Sec-20_T-24-S_R-33-E

Site Position: Northing: 440,505.00 usft 32° 12' 32.058 N Latitude: From: Мар Easting: 767,798.00 usft Longitude: 103° 36' 4.072 W **Position Uncertainty:** 0.0 usft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.39°

Well Hyperion State Com #173H

 Well Position
 +N/-S
 -41.0 usft
 Northing:
 440,464.00 usft
 Latitude:
 32° 12' 31.407 N

 +E/-W
 3,607.0 usft
 Easting:
 771,405.00 usft
 Longitude:
 103° 35' 22.094 W

Position Uncertainty 0.0 usft Wellhead Elevation: Ground Level: 3,562.0 usft

OWB Wellbore Sample Date Declination **Dip Angle** Field Strength Magnetics **Model Name** (°) (°) (nT) 60.00 47.543.53896957 IGRF2015 03/08/21 6.56

Design Plan #2 **Audit Notes:** Version: Phase: **PLAN** Tie On Depth: 0.0 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 179.57

Date 07/08/22 **Plan Survey Tool Program Depth From** Depth To (usft) (usft) Survey (Wellbore) **Tool Name** Remarks 0.0 Plan #2 (OWB) 5,300.0 GYD_GC+DROP+OH 1 Gyrodata Stationary Tool dro 2 5.300.0 14,660.4 Plan #2 (OWB) MWD+IFR1+MS OWSG MWD + IFR1 + Mult





Database: Company: Project: Site:

Well:

EDM 5000.15 Single User Db Tap Rock Resources, LLC Lea County, NM (NAD 83 NME) (Hyperion) Sec-20_T-24-S_R-33-E

Hyperion State Com #173H

Wellbore: OWB
Design: Plan #2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Hyperion State Com #173H

KB @ 3588.0usft KB @ 3588.0usft

Grid

lan Sections	s									
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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,271.2	12.71	298.04	3,260.8	66.0	-124.0	1.00	1.00	0.00	298.04	
7,349.5	12.71	298.04	7,239.2	488.0	-916.0	0.00	0.00	0.00	0.00	
8,620.8	0.00	0.00	8,500.0	554.0	-1,040.0	1.00	-1.00	0.00	180.00	
9,114.5	0.00	0.00	8,993.7	554.0	-1,040.0	0.00	0.00	0.00	0.00	
9,614.5	50.00	200.10	9,432.6	361.8	-1,110.3	10.00	10.00	0.00	200.10	
10,056.1	90.00	179.57	9,582.0	-37.8	-1,169.8	10.00	9.06	-4.65	-30.23	
14,660.4	90.00	179.57	9,582.0	-4,642.0	-1,135.0	0.00	0.00	0.00	0.00	PBHL (Hyperion Sta





EDM 5000.15 Single User Db Database: Tap Rock Resources, LLC Company: Project: Lea County, NM (NAD 83 NME) (Hyperion) Sec-20_T-24-S_R-33-E Site: Hyperion State Com #173H Well:

OWB Wellbore: Design: Plan #2

Local Co-ordinate Reference: TVD Reference: MD Reference:

KB @ 3588.0usft North Reference: **Survey Calculation Method:**

Well Hyperion State Com #173H KB @ 3588.0usft

Design.	FIAII #Z								
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	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0 NUDGE - B	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	1.00	298.04	2,100.0	0.4	-0.8	-0.4	1.00	1.00	0.00
2,200.0	2.00	298.04	2,200.0	1.6	-3.1	-1.7	1.00	1.00	0.00
2,300.0	3.00	298.04	2,299.9	3.7	-6.9	-3.7	1.00	1.00	0.00
2,400.0	4.00	298.04	2,399.7	6.6	-12.3	-6.7	1.00	1.00	0.00
2,500.0	5.00	298.04	2,499.4	10.3	-19.2	-10.4	1.00	1.00	0.00
2,600.0	6.00	298.04	2,598.9	14.8	-27.7	-15.0	1.00	1.00	0.00
2,700.0	7.00	298.04	2,698.3	20.1	-37.7	-20.4	1.00	1.00	0.00
2,800.0	8.00	298.04	2,797.4	26.2	-49.2	-26.6	1.00	1.00	0.00
2,900.0	9.00	298.04	2,896.3	33.2	-62.3	-33.6	1.00	1.00	0.00
3,000.0 3,100.0 3,200.0 3,271.2	10.00 11.00 12.00 12.71 78.3 at 3271.2 [298.04 298.04 298.04 298.04	2,994.9 3,093.3 3,191.2 3,260.8	40.9 49.5 58.9 66.0	-76.8 -92.9 -110.5 -124.0	-41.5 -50.2 -59.7 -67.0	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	0.00 0.00 0.00 0.00
3,300.0 3,400.0 3,500.0 3,600.0 3,700.0 3,800.0	12.71 12.71 12.71 12.71 12.71 12.71 12.71	298.04 298.04 298.04 298.04 298.04 298.04	3,288.9 3,386.4 3,484.0 3,581.5 3,679.1 3,776.6	69.0 79.4 89.7 100.0 110.4 120.7	-129.5 -149.0 -168.4 -187.8 -207.2 -226.7	-70.0 -80.5 -91.0 -101.5 -111.9 -122.4	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
3,900.0	12.71	298.04	3,874.2	131.1	-246.1	-132.9	0.00	0.00	0.00
4,000.0	12.71	298.04	3,971.7	141.4	-265.5	-143.4	0.00	0.00	0.00
4,100.0	12.71	298.04	4,069.3	151.8	-284.9	-153.9	0.00	0.00	0.00
4,200.0	12.71	298.04	4,166.8	162.1	-304.3	-164.4	0.00	0.00	0.00
4,300.0	12.71	298.04	4,264.4	172.5	-323.8	-174.9	0.00	0.00	0.00
4,400.0	12.71	298.04	4,361.9	182.8	-343.2	-185.4	0.00	0.00	0.00
4,500.0	12.71	298.04	4,459.5	193.2	-362.6	-195.9	0.00	0.00	0.00
4,600.0	12.71	298.04	4,557.0	203.5	-382.0	-206.4	0.00	0.00	0.00
4,700.0	12.71	298.04	4,654.6	213.8	-401.5	-216.9	0.00	0.00	0.00
4,800.0	12.71	298.04	4,752.1	224.2	-420.9	-227.3	0.00	0.00	0.00
4,900.0	12.71	298.04	4,849.7	234.5	-440.3	-237.8	0.00	0.00	0.00
5,000.0	12.71	298.04	4,947.2	244.9	-459.7	-248.3	0.00	0.00	0.00





Database: EDM 5000.15 Single User Db
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 Com #173H

Wellbore: OWB
Design: Plan #2

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Hyperion State Com #173H KB @ 3588.0usft KB @ 3588.0usft Grid

anned 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)
5,100.0	12.71	298.04	5,044.8	255.2	-479.1	-258.8	0.00	0.00	0.00
5,200.0	12.71	298.04	5,142.3	265.6	-498.6	-269.3	0.00	0.00	0.00
5,300.0	12.71	298.04	5,239.9	275.9	-518.0	-279.8	0.00	0.00	0.00
5,400.0	12.71	298.04	5,337.4	286.3	-537.4	-290.3	0.00	0.00	0.00
5,500.0	12.71	298.04	5,435.0	296.6	-556.8	-300.8	0.00	0.00	0.00
5,600.0	12.71	298.04	5,532.5	307.0	-576.2	-311.3	0.00	0.00	0.00
5,700.0	12.71	298.04	5,630.1	317.3	-595.7	-321.8	0.00	0.00	0.00
5,800.0	12.71	298.04	5,727.6	327.7	-615.1	-332.3	0.00	0.00	0.00
5,900.0	12.71	298.04	5,825.2	338.0	-634.5	-342.8	0.00	0.00	0.00
6,000.0	12.71	298.04	5,922.7	348.3	-653.9	-353.2	0.00	0.00	0.00
6,100.0	12.71	298.04	6,020.3	358.7	-673.4	-363.7	0.00	0.00	0.00
6,200.0	12.71	298.04	6,117.8	369.0	-692.8	-374.2	0.00	0.00	0.00
6,300.0	12.71	298.04	6,215.4	379.4	-712.2	-384.7	0.00	0.00	0.00
6,400.0	12.71	298.04	6,312.9	389.7	-731.6	-395.2	0.00	0.00	0.00
6,500.0	12.71	298.04	6,410.4	400.1	-751.0	-405.7	0.00	0.00	0.00
6,600.0	12.71	298.04	6,508.0	410.4	-770.5	-416.2	0.00	0.00	0.00
6,700.0	12.71	298.04	6,605.5	420.8	-789.9	-426.7	0.00	0.00	0.00
6,800.0	12.71	298.04	6,703.1	431.1	-809.3	-437.2	0.00	0.00	0.00
6,900.0	12.71	298.04	6,800.6	441.5	-828.7	-447.7	0.00	0.00	0.00
7,000.0	12.71	298.04	6,898.2	451.8	-848.2	-458.2	0.00	0.00	0.00
7,100.0	12.71	298.04	6,995.7	462.2	-867.6	-468.6	0.00	0.00	0.00
7,200.0	12.71	298.04	7,093.3	472.5	-887.0	-479.1	0.00	0.00	0.00
7,300.0	12.71	298.04	7,190.8	482.8	-906.4	-489.6	0.00	0.00	0.00
7,349.5	12.71	298.04	7,239.2	488.0	-916.0	-494.8	0.00	0.00	0.00
7,400.0	12.21	298.04	7,288.4	493.1	-925.7	-500.0	1.00	-1.00	0.00
7,500.0	11.21	298.04	7,386.4	502.6	-943.6	-509.7	1.00	-1.00	0.00
7,600.0	10.21	298.04	7,484.6	511.4	-960.0	-518.6	1.00	-1.00	0.00
7,700.0	9.21	298.04	7,583.2	519.3	-974.8	-526.6	1.00	-1.00	0.00
7,800.0	8.21	298.04	7,682.0	526.4	-988.2	-533.8	1.00	-1.00	0.00
7,900.0	7.21	298.04	7,781.1	532.7	-1,000.0	-540.2	1.00	-1.00	0.00
8,000.0	6.21	298.04	7,880.4	538.2	-1,010.3	-545.8	1.00	-1.00	0.00
8,100.0	5.21	298.04	7,979.9	542.9	-1,019.1	-550.5	1.00	-1.00	0.00
8,200.0	4.21	298.04	8,079.6	546.7	-1,026.4	-554.4	1.00	-1.00	0.00
8,300.0	3.21	298.04	8,179.4	549.8	-1,032.1	-557.5	1.00	-1.00	0.00
8,400.0	2.21	298.04	8,279.3	552.0	-1,036.2	-559.8	1.00	-1.00	0.00
8,500.0	1.21	298.04	8,379.2	553.4	-1,038.9	-561.2	1.00	-1.00	0.00
8,600.0	0.21	298.04	8,479.2	554.0	-1,040.0	-561.8	1.00	-1.00	0.00
8,620.8	0.00	0.00	8,500.0	554.0	-1,040.0	-561.8	1.00	-1.00	0.00
HOLD - 493	3.7 at 8620.8 M	D							
8,700.0 8,800.0 8,900.0 9,000.0 9,100.0	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	8,579.2 8,679.2 8,779.2 8,879.2 8,979.2	554.0 554.0 554.0 554.0 554.0	-1,040.0 -1,040.0 -1,040.0 -1,040.0 -1,040.0	-561.8 -561.8 -561.8 -561.8	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
9,114.5	0.00	0.00	8,993.7	554.0	-1,040.0	-561.8	0.00	0.00	0.00
9,150.0	3.55	200.10	9,029.2	553.0	-1,040.4	-560.8	10.00	10.00	0.00
9,200.0	8.55	200.10	9,078.9	548.0	-1,042.2	-555.8	10.00	10.00	0.00
9,250.0	13.55	200.10	9,128.0	539.0	-1,045.5	-546.8	10.00	10.00	0.00
9,300.0	18.55	200.10	9,176.0	526.0	-1,050.2	-533.9	10.00	10.00	0.00
9,350.0	23.55	200.10	9,222.6	509.2	-1,056.4	-517.1	10.00	10.00	0.00
9,400.0	28.55	200.10	9,267.5	488.6	-1,063.9	-496.5	10.00	10.00	0.00





Database: EDM 5000.15 Single User Db
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 Com #173H

Wellbore: OWB
Design: Plan #2

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference: Survey Calculation Method: Well Hyperion State Com #173H

KB @ 3588.0usft KB @ 3588.0usft

Design:	Plan #2								
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)
9,450.0	33.55	200.10	9,310.4	464.4	-1,072.8	-472.4	10.00	10.00	0.00
9,500.0	38.55	200.10	9,350.8	436.7	-1,082.9	-444.8	10.00	10.00	0.00
9,550.0	43.55	200.10	9,388.5	405.9	-1,094.2	-414.1	10.00	10.00	0.00
9,600.0	48.55	200.10	9,423.2	372.1	-1,106.6	-380.4	10.00	10.00	0.00
9,614.5	50.00	200.10	9,432.6	361.8	-1,110.3	-370.1	10.00	10.00	0.00
	DLS 10.00 TF								
9,650.0	53.09	197.86	9,454.7	335.5	-1,119.4	-343.9	10.00	8.70	-6.29
9,700.0	57.51	195.01	9,483.2	296.1	-1,131.0	-304.6	10.00	8.83	-5.71
9,750.0	61.98	192.42	9,508.4	254.1	-1,141.2	-262.7	10.00	8.95	-5.17
9,800.0	66.50	190.04	9,530.1	210.0	-1,149.9	-218.6	10.00	9.04	-4.76
9,850.0	71.05	187.82	9,548.2	163.9	-1,157.2	-172.6	10.00	9.10	-4.44
9,900.0	75.63	185.72	9,562.5	116.4	-1,162.8	-125.1	10.00	9.15	-4.21
9,950.0	80.22	183.70	9,573.0	67.7	-1,166.8	-76.4	10.00	9.19	-4.04
10,000.0	84.83	181.74	9,579.5	18.2	-1,169.1	-27.0	10.00	9.21	-3.93
10,050.0	89.44 90.00	179.80 179.57	9,582.0	-31.7	-1,169.8	23.0	10.00	9.22	-3.87
10,056.1	90.00 3 hold at 100:		9,582.0	-37.8	-1,169.8	29.1	10.00	9.23	-3.86
10,100.0	90.00	179.57	9,582.0	-81.7	-1.169.4	73.0	0.00	0.00	0.00
10,200.0	90.00	179.57	9,582.0	-181.7	-1,168.7	173.0	0.00	0.00	0.00
10,300.0	90.00	179.57	9,582.0	-281.7	-1,167.9	273.0		0.00	0.00
10,400.0	90.00	179.57	9,582.0	-381.7	-1,167.2	373.0	0.00	0.00	0.00
10,500.0	90.00	179.57	9,582.0	-481.7	-1,166.4	473.0	0.00	0.00	0.00
10,600.0	90.00	179.57	9,582.0	-581.7	-1,165.7	573.0	0.00	0.00	0.00
10,700.0	90.00	179.57	9,582.0	-681.7	-1,164.9	673.0	0.00	0.00	0.00
10,800.0	90.00	179.57	9,582.0	-781.7	-1,164.2	773.0	0.00	0.00	0.00
10,900.0	90.00	179.57	9,582.0	-881.7	-1,163.4	873.0	0.00	0.00	0.00
11,000.0	90.00	179.57	9,582.0	-981.7	-1,162.6	973.0	0.00	0.00	0.00
11,100.0	90.00	179.57	9,582.0	-1,081.7	-1,161.9	1,073.0	0.00	0.00	0.00
11,200.0	90.00	179.57	9,582.0	-1,181.7	-1,161.1	1,173.0	0.00	0.00	0.00
11,300.0	90.00	179.57	9,582.0	-1,281.7	-1,160.4	1,273.0	0.00	0.00	0.00
11,400.0	90.00	179.57	9,582.0	-1,381.7	-1,159.6	1,373.0	0.00	0.00	0.00
11,500.0	90.00	179.57	9,582.0	-1,481.7	-1,158.9	1,473.0	0.00	0.00	0.00
11,600.0	90.00	179.57	9,582.0	-1,581.7	-1,158.1	1,573.0	0.00	0.00	0.00
11,700.0	90.00	179.57	9,582.0	-1,681.7	-1,157.4	1,673.0	0.00	0.00	0.00
11,800.0	90.00	179.57	9,582.0	-1,781.7	-1,156.6	1,773.0	0.00	0.00	0.00
11,900.0	90.00	179.57	9,582.0	-1,881.7	-1,155.8	1,873.0	0.00	0.00	0.00
12,000.0	90.00	179.57	9,582.0	-1,981.7	-1,155.1	1,973.0	0.00	0.00	0.00
12,100.0	90.00	179.57	9,582.0	-2,081.7	-1,154.3	2,073.0	0.00	0.00	0.00
12,200.0	90.00	179.57	9,582.0	-2,181.7	-1,153.6	2,173.0	0.00	0.00	0.00
12,300.0	90.00	179.57	9,582.0	-2,281.7	-1,152.8	2,273.0	0.00	0.00	0.00
12,400.0	90.00	179.57	9,582.0	-2,381.7	-1,152.1	2,373.0	0.00	0.00	0.00
12,500.0	90.00	179.57	9,582.0	-2,481.7	-1,151.3	2,473.0	0.00	0.00	0.00
12,600.0	90.00	179.57	9,582.0	-2,581.7	-1,150.6	2,573.0	0.00	0.00	0.00
12,700.0	90.00	179.57	9,582.0	-2,681.7	-1,149.8	2,673.0	0.00	0.00	0.00
12,800.0	90.00	179.57	9,582.0	-2,781.7	-1,149.0	2,773.0	0.00	0.00	0.00
12,900.0	90.00	179.57	9,582.0	-2,881.7	-1,148.3	2,873.0	0.00	0.00	0.00
13,000.0	90.00	179.57	9,582.0	-2,981.7	-1,147.5	2,973.0	0.00	0.00	0.00
13,100.0	90.00	179.57	9,582.0	-3,081.7	-1,146.8	3,073.0	0.00	0.00	0.00
13,200.0	90.00	179.57	9,582.0	-3,181.6	-1,146.0	3,173.0	0.00	0.00	0.00
13,300.0	90.00	179.57	9,582.0	-3,281.6	-1,145.3	3,273.0	0.00	0.00	0.00
13,400.0	90.00	179.57	9,582.0	-3,381.6	-1,144.5	3,373.0	0.00	0.00	0.00
13,500.0	90.00	179.57	9,582.0	-3,481.6	-1,143.8	3,473.0	0.00	0.00	0.00
13,600.0	90.00	179.57	9,582.0	-3,581.6	-1,143.0	3,573.0	0.00	0.00	0.00
13,700.0	90.00	179.57	9,582.0	-3,681.6	-1,142.3	3,673.0	0.00	0.00	0.00



Well:

Intrepid **Planning Report**



EDM 5000.15 Single User Db Database: Tap Rock Resources, LLC Company: Project: Lea County, NM (NAD 83 NME) (Hyperion) Sec-20_T-24-S_R-33-E Site: Hyperion State Com #173H

OWB Wellbore: Design: Plan #2

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference: **Survey Calculation Method:** Well Hyperion State Com #173H

KB @ 3588.0usft KB @ 3588.0usft

ned 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)
13,800.0	90.00	179.57	9,582.0	-3,781.6	-1,141.5	3,773.0	0.00	0.00	0.00
13,900.0 14,000.0 14,100.0 14,200.0 14,300.0	90.00 90.00 90.00 90.00 90.00	179.57 179.57 179.57 179.57 179.57	9,582.0 9,582.0 9,582.0 9,582.0 9,582.0	-3,881.6 -3,981.6 -4,081.6 -4,181.6 -4,281.6	-1,140.7 -1,140.0 -1,139.2 -1,138.5 -1,137.7	3,873.0 3,973.0 4,073.0 4,173.0 4,273.0	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
14,400.0 14,500.0 14,600.0 14,660.4	90.00 90.00 90.00 90.00	179.57 179.57 179.57 179.57	9,582.0 9,582.0 9,582.0 9,582.0	-4,381.6 -4,481.6 -4,581.6 -4,642.0	-1,137.0 -1,136.2 -1,135.5 -1,135.0	4,373.0 4,473.0 4,573.0 4,633.4	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
TD at 14660	0.4								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Hyperion State 0 - plan misses targ - Point		0.00 14.7usft at	9,582.0 9618.8usft	503.0 MD (9435.4	-1,173.0 TVD, 358.7 N	440,967.00 N, -1111.5 E)	770,232.00	32° 12′ 36.464 N	103° 35' 35.706 W
PBHL (Hyperion State - plan hits target o - Rectangle (sides	enter		9,582.0	-4,642.0	-1,135.0	435,822.00	770,270.00	32° 11' 45.550 N	103° 35' 35.676 W
LTP (Hyperion State 0 - plan misses targ - Point		0.00 0.5usft at 14	9,582.0 590.4usft N	-4,572.0 ID (9582.0 T	-1,136.0 VD, -4572.0	435,892.00 N, -1135.5 E)	770,269.00	32° 11′ 46.243 N	103° 35' 35.682 W

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,205.0	1,205.0	Rustler			
	1,595.0	1,595.0	Top Salt			
	4,838.8	4,790.0	Base Salt			
	5,120.7	5,065.0	Delaware Mountain Group			
	5,125.9	5,070.0	Lamar			
	5,146.4	5,090.0	Bell Canyon			
	5,161.7	5,105.0	Ramsey Sand			
	6,120.2	6,040.0	Cherry Canyon			
	7,610.6	7,495.0	Brushy Canyon			
	9,201.1	9,080.0	Bone Spring Lime			
	9,363.5	9,235.0	Upper Avalon			
	9,694.2	9,480.0	Middle Avalon			





Database: EDM 5000.15 Single User Db
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Project: Lea County, NM (NAD 83 NME)
Site: (Hyperion) Sec-20_T-24-S_R-33-E
Well: Hyperion State Com #173H

Wellbore: OWB
Design: Plan #2

Local Co-ordinate Reference: TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Hyperion State Com #173H

KB @ 3588.0usft KB @ 3588.0usft

Grid Minimum Curvature

an Annotations					
Measure Depth	1	Vertical Depth	Local Coor +N/-S	+E/-W	
(usft)		(usft)	(usft)	(usft)	Comment
2,00	0.0	2,000.0	0.0	0.0	NUDGE - Build 1.00
3,27	1.2	3,260.8	66.0	-124.0	HOLD - 4078.3 at 3271.2 MD
7,34	9.5	7,239.2	488.0	-916.0	DROP1.00
8,62	8.0	8,500.0	554.0	-1,040.0	HOLD - 493.7 at 8620.8 MD
9,11	4.5	8,993.7	554.0	-1,040.0	KOP - Build 10.00
9,61	4.5	9,432.6	361.8	-1,110.3	BLD/TRN - DLS 10.00 TFO -30.23
10,05	6.1	9,582.0	-37.8	-1,169.8	EOC - 4604.3 hold at 10056.1 MD
14,66	0.4	9,582.0	-4,642.0	-1,135.0	TD at 14660.4

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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.

				Plan D May 25.	escription , 2021					
I. Operator:Ta	p Rock Ope	erating LLC	0	GRID: _	372043		Da	te: _7/14/	2022	
II. Type: ⊠ Original □	☐ Amendm	ent due to □ 19.15.2	27.9.D(6)	(a) NMA	.C □ 19.15.27.9.I	O(6)(b) N	IMAC	□ Other.		
If Other, please describe	:									
III. Well(s): Provide the be recompleted from a s						f wells pr	oposed	to be dril	lled o	or proposed to
Well Name	API	ULSTR		F	ootages	Anticip Oil BE		Anticipa Gas MCF/I		Anticipated Produced Water
Hyperion State Com 17	3Н	Sec 20, T24S R 3	33E (608 FNL,	1140 FEL	864		2940		1929
IV. Central Delivery Po V. Anticipated Schedul proposed to be recomple	e: Provide	the following inform	nation for	r each nev	v or recompleted	well or s	_	ells propo	sed to	o be drilled or
Well Name	API	Spud Date		Reached Date	Completic Commencemen			al Flow k Date	Firs	st Production Date
Hyperion State Com 173H		7/28/22	8/15/	22	10/1/22		10/20	/22	10/2	20/22
VII. Operation Equipm VII. Operational Pract Subsection A through F VIII. Best Management during active and planne	tices: An Artices: Artices	ttach a complete des .8 NMAC. :: ⊠ Attach a compl	scription	of the ac	tions Operator w	ill take to	o comp	oly with th	ne re	quirements of

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 \square will \square will not have capacity to gather 100% of the a	anticipated natural gas
production volume from the well prior to the date of first production.	

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

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

(i)

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: power generation on lease; (a) **(b)** power generation for grid; compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; (g) reinjection for enhanced oil recovery; fuel cell production; and (h)

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

- (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: Jeffrey Trlica
Title: Regulatory Analyst
E-mail Address: jtrlica@taprk.com
Date: 7/14/2022
Phone: 720-772-5910
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
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 lowpressure 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.