

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 280677

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 30-025-47463
4. Property Code 325667	5. Property Name POSEIDON STATE COM	6. Well No. 172H

7. Surface Location

UL - Lot N	Section 9	Township 24S	Range 33E	Lot Idn N	Feet From 700	N/S Line S	Feet From 1961	E/W Line W	County Lea
---------------	--------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot C	Section 4	Township 24S	Range 33E	Lot Idn 3	Feet From 30	N/S Line N	Feet From 1980	E/W Line W	County Lea
---------------	--------------	-----------------	--------------	--------------	-----------------	---------------	-------------------	---------------	---------------

9. Pool Information

TRIPLE X;BONE SPRING, WEST	96674
TRIPLE X;BONE SPRING	59900

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3600
16. Multiple Y	17. Proposed Depth 19930	18. Formation 1st Bone Spring Sand	19. Contractor	20. Spud Date 1/1/2021
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	54.4	1300	1400	0
Int1	12.25	9.625	40	5250	1500	0
Prod	8.5	5.5	20	19930	3000	4000

Casing/Cement Program: Additional Comments

--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	3500	
Blind	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 ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.		OIL CONSERVATION DIVISION	
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:	7/28/2020
Date:	7/22/2020	Phone:	720-360-4028
		Expiration Date: 7/28/2022	
		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

¹ API Number	² Pool Code 96674	³ Pool Name TRIPLE X; BONE SPRING WEST
⁴ Property Code	⁵ Property Name POSEIDON STATE COM	⁶ Well Number 172H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁹ Elevation 3600'

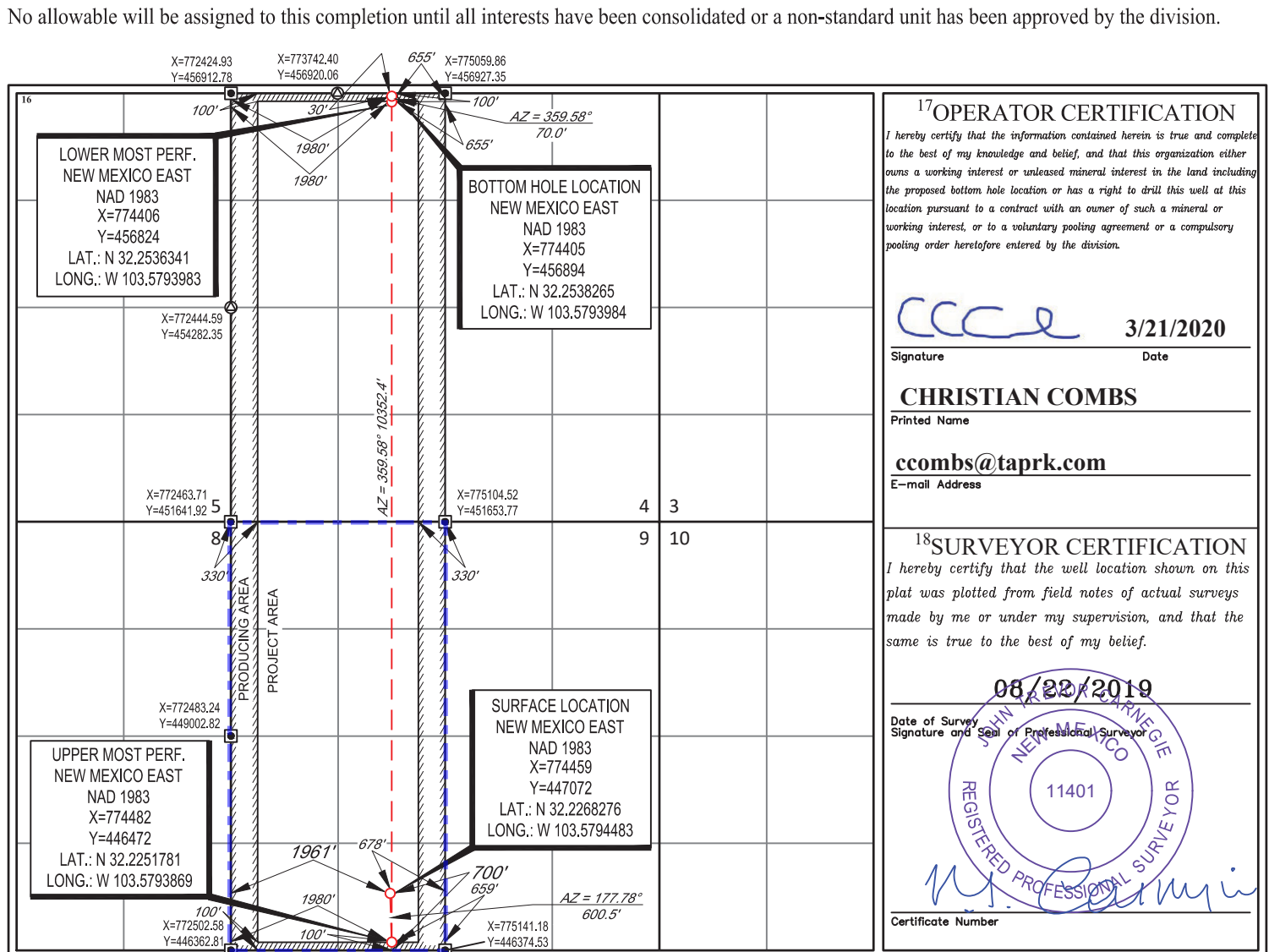
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	24-S	33-E	-	700'	SOUTH	1961'	WEST	LEA

¹¹Bottom 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
C	4	24-S	33-E	-	30'	NORTH	1980'	WEST	LEA

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

¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

CCCe

3/21/2020

Signature

Date

CHRISTIAN COMBS

Printed Name

ccombs@taprk.com

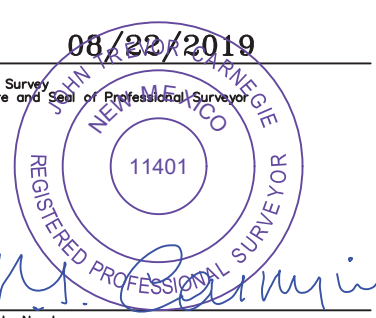
E-mail Address

¹⁸SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

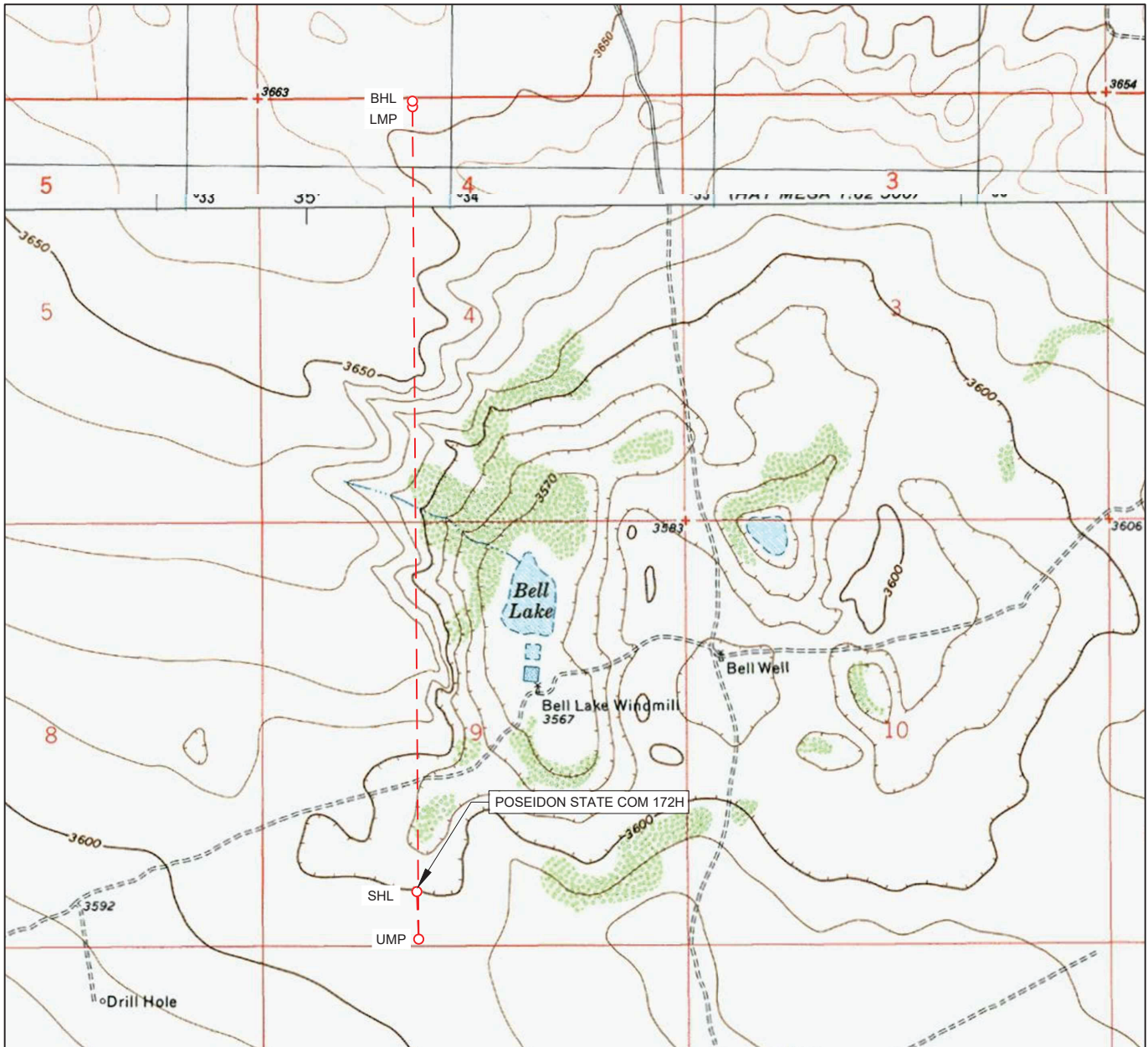
08/22/2019

Date of Survey
Signature and Seal of Professional Surveyor



Certificate Number

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: POSEIDON STATE COM 172H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3600'
 DESCRIPTION 700' FSL & 1961' FWL

LATITUDE N 32.2268276 LONGITUDE W 103.5794483

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

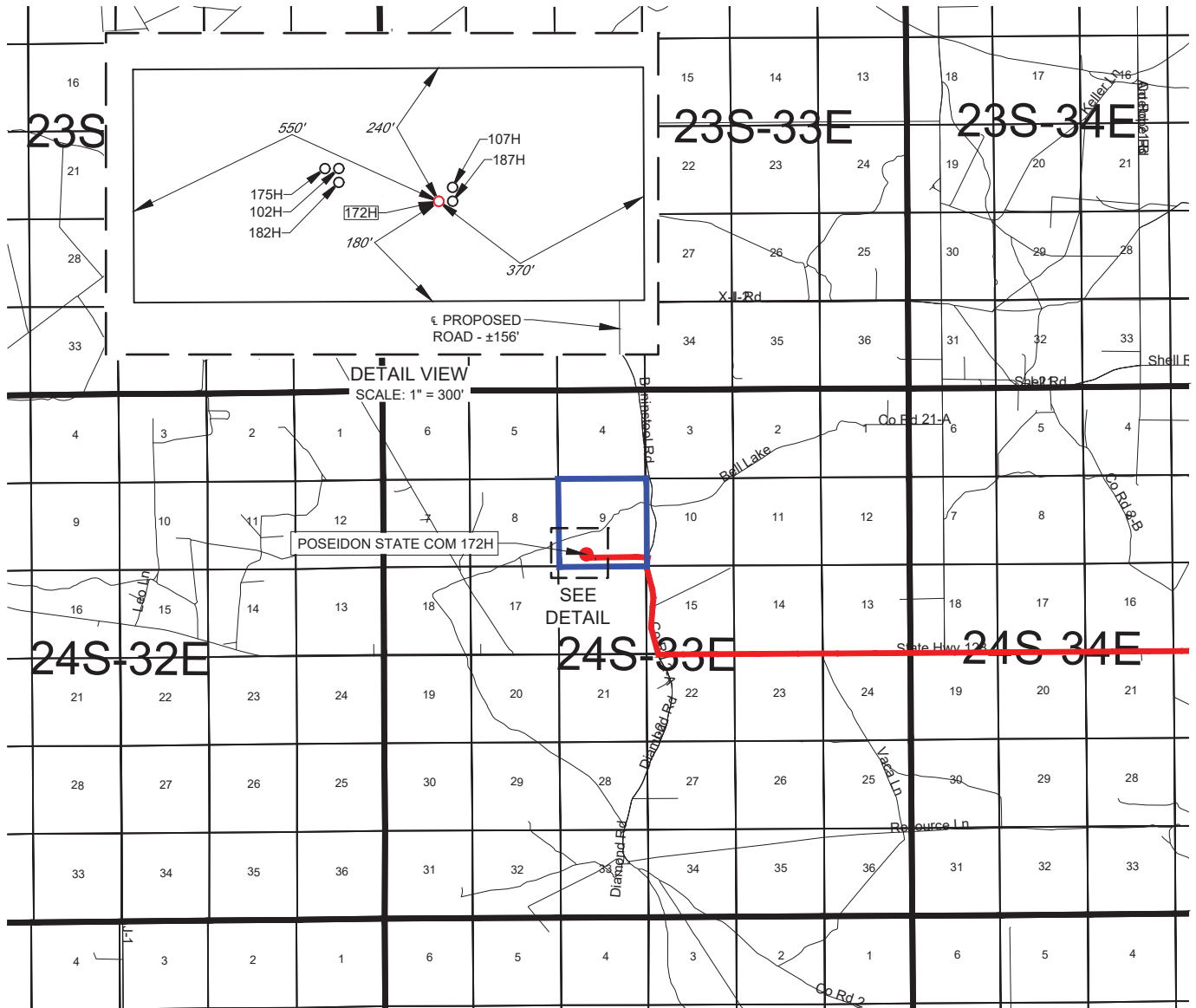
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF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

LEASE NAME & WELL NO.: POSEIDON STATE COM 172H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM
 DESCRIPTION 700' FSL & 1961' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-128 W & NM-18S, GO WEST ON NM-128 W ±23.9
 MILES, THENCE NORTH (RIGHT) ON BRININSTOOL. RD. 2-A ±1.1 MILES,
 THENCE WEST (LEFT) ON LEASE RD. ±0.6 MILE, THENCE NORTH
 (RIGHT) ON PROPOSED RD. ±156 FEET, TO A POINT ±372 FEET
 SOUTHEAST OF THE LOCATION.



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



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 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.

EXHIBIT 2B

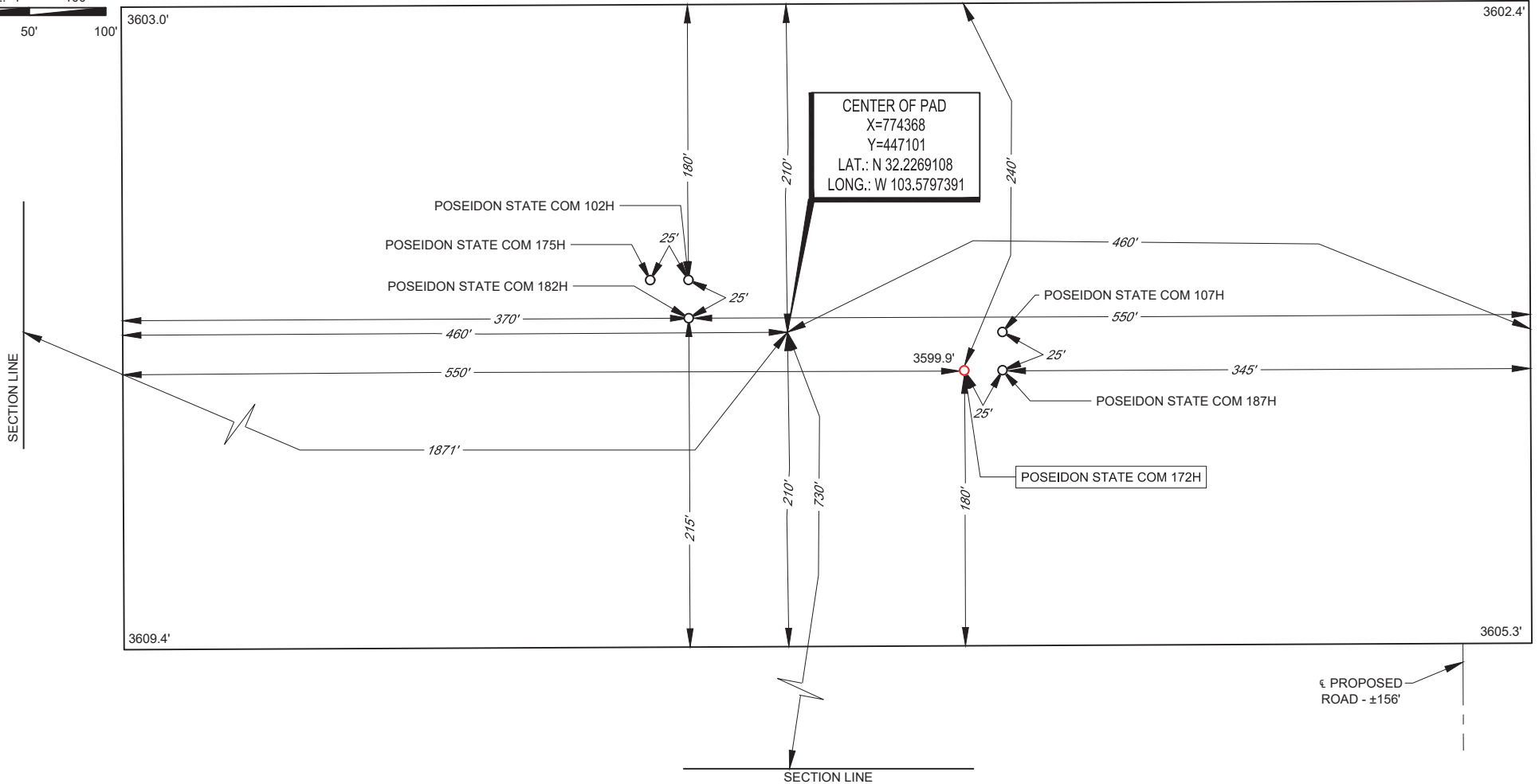


SECTION 9, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

LEGEND

SECTION LINE
PROPOSED ROAD

SCALE: 1" = 100'
0' 50' 100'



LEASE NAME & WELL NO.: POSEIDON STATE COM 172H
172H LATITUDE N 32.2268276 172H LONGITUDE W 103.5794483

CENTER OF PAD IS 730' FSL & 1871' FWL

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"

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

District I
1625 N. French Dr., Hobbs, NM 88420
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

¹ API Number	² Pool Code 96674	³ Pool Name TRIPLE X; BONE SPRING
⁴ Property Code	⁵ Property Name POSEIDON STATE COM	
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁶ Well Number 172H
		⁹ Elevation 3600'

¹⁰Surface Location

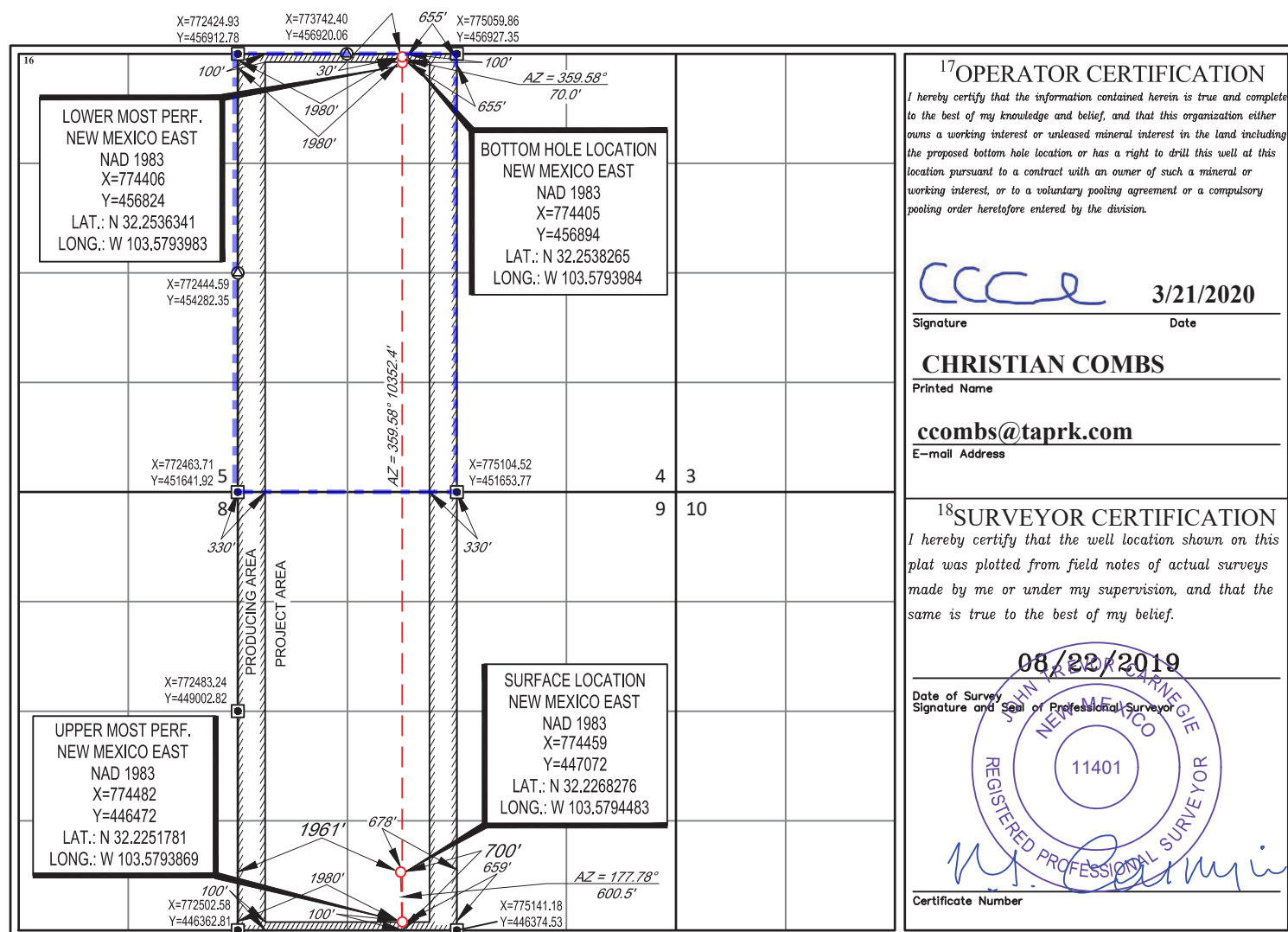
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	24-S	33-E	—	700'	SOUTH	1961'	WEST	LEA

¹¹Bottom Hole Location If Different From Surface

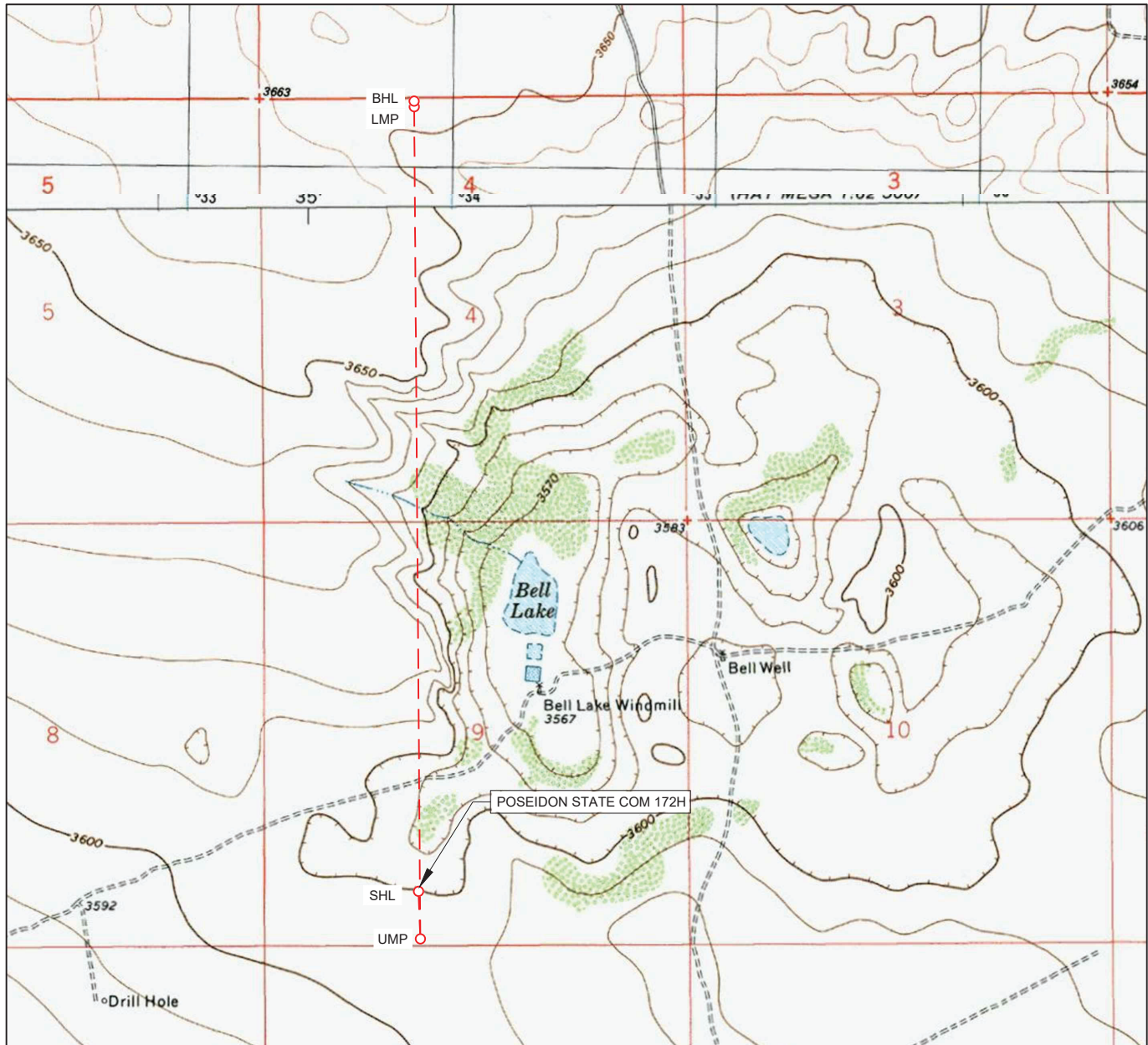
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	4	24-S	33-E	—	30'	NORTH	1980'	WEST	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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 & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: POSEIDON STATE COM 172H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3600'
 DESCRIPTION 700' FSL & 1961' FWL

LATITUDE N 32.2268276 LONGITUDE W 103.5794483

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

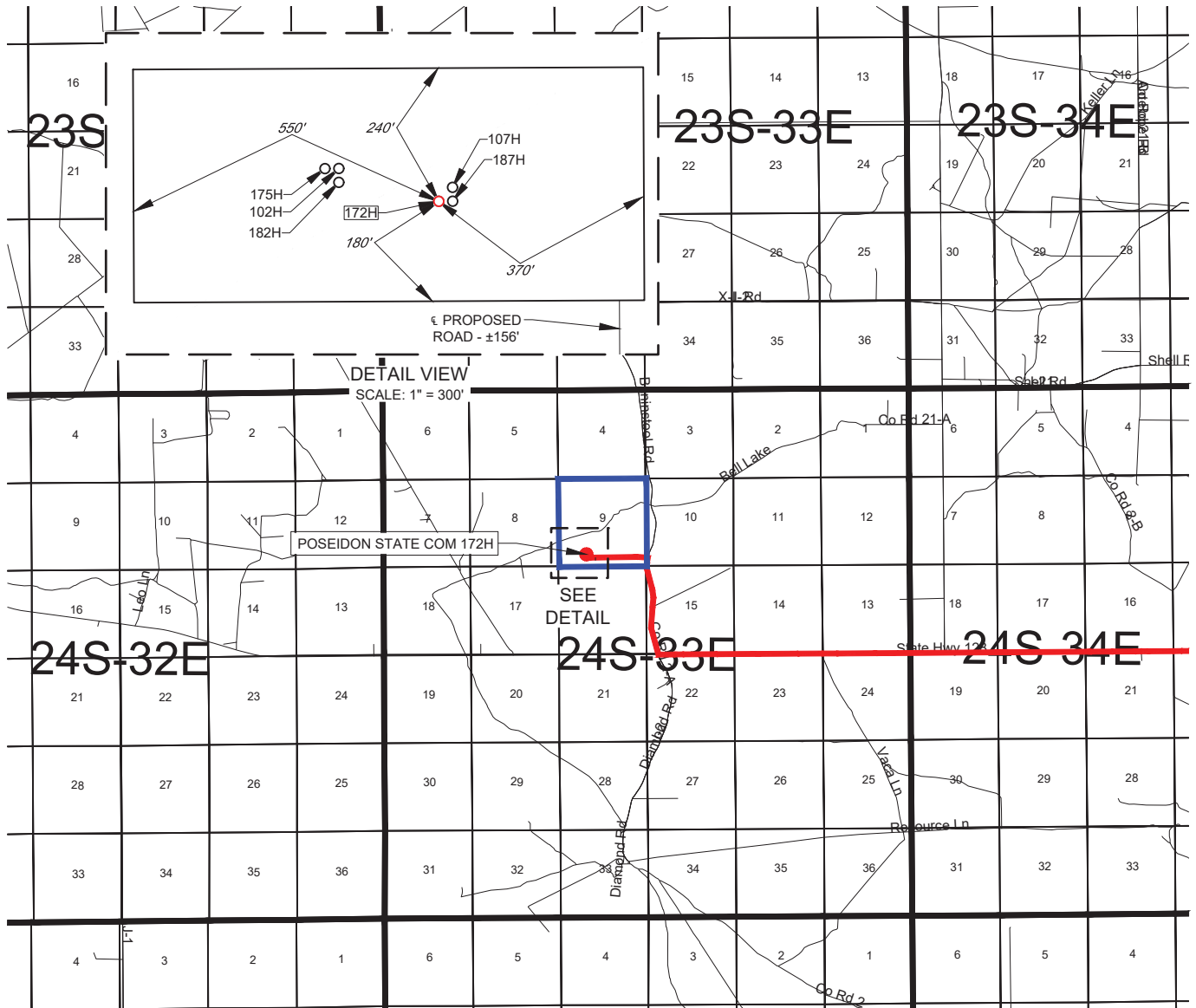
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF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

LEASE NAME & WELL NO.: POSEIDON STATE COM 172H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM
 DESCRIPTION 700' FSL & 1961' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-128 W & NM-18S, GO WEST ON NM-128 W ±23.9
 MILES, THENCE NORTH (RIGHT) ON BRININSTOOL. RD. 2-A ±1.1 MILES,
 THENCE WEST (LEFT) ON LEASE RD. ±0.6 MILE, THENCE NORTH
 (RIGHT) ON PROPOSED RD. ±156 FEET, TO A POINT ±372 FEET
 SOUTHEAST OF THE LOCATION.



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

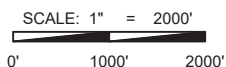
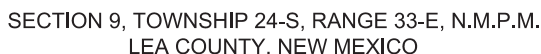


TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY

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 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.



550'

240'

107H

187H

175H

102H

182H

172H

180'

370'

± PROPOSED ROAD - ±156'

DETAIL VIEW
SCALE: 1" = 300'

 **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

S:\SURVEY\TAPOCK\POSEIDON UNIT\FINAL PRODUCTS\LO POSEIDON STATE.COM 172H REV3.DWG 9/6/2019 3:24:27 PM kmatheny

EXHIBIT 2B

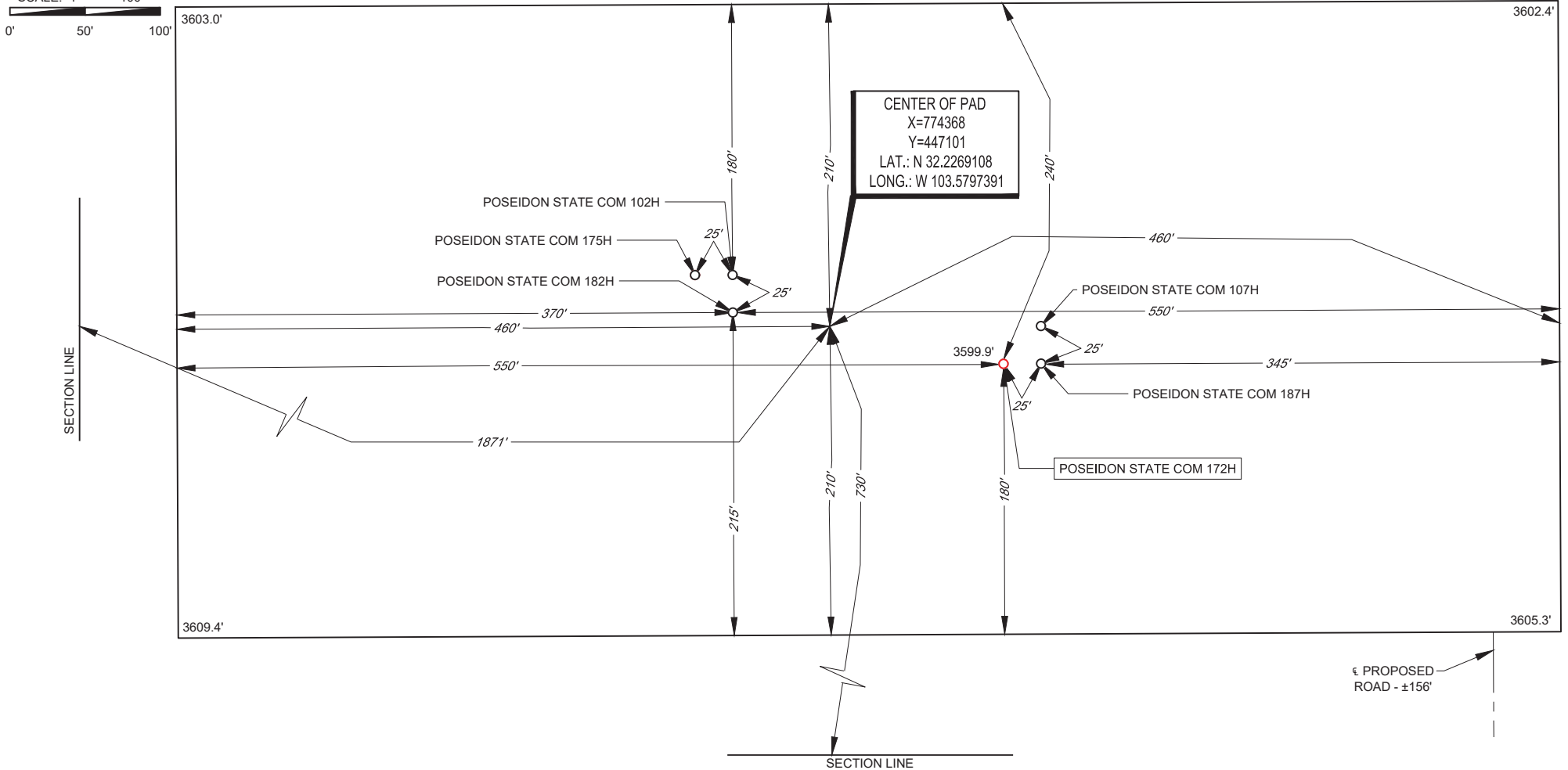


SECTION 9, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

LEGEND

SECTION LINE
PROPOSED ROAD

SCALE: 1" = 100'
0' 50' 100'



LEASE NAME & WELL NO.: POSEIDON STATE COM 172H
172H LATITUDE N 32.2268276 172H LONGITUDE W 103.5794483

CENTER OF PAD IS 730' FSL & 1871' FWL

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"

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

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

GAS CAPTURE PLAN

Date: 7/28/2020

☒ Original

Operator & OGRID No.: [372043] TAP ROCK OPERATING, LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
POSEIDON STATE COM #172H	30-025-47463	N-9-24S-33E	0700S 1961W	3200	Flared	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to LUCID ENERGY DELAWARE, LLC and will be connected to LUCID ENERGY DELAWARE, LLC High Pressure gathering system located in Lea County, New Mexico. It will require 2500' of pipeline to connect the facility to High Pressure gathering system. TAP ROCK OPERATING, LLC provides (periodically) to LUCID ENERGY DELAWARE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, TAP ROCK OPERATING, LLC and LUCID ENERGY DELAWARE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LUCID ENERGY DELAWARE, LLC Processing Plant located in Sec. 13, Twn. 24S, Rng. 33E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on LUCID ENERGY DELAWARE, LLC system at that time. Based on current information, it is TAP ROCK OPERATING, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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 Comments

Permit 280677

PERMIT COMMENTS

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 523 Park Point Drive Golden, CO 80401		API Number: 30-025-47463
		Well: POSEIDON STATE COM #172H

Created By	Comment	Comment Date
pkautz	Horizontal Lateral in two pools Sec 4 is in the Triple x;Bone Spring [59900] and Sec 9 in the Triple x;Bone Spring, West [96674] pool. Resubmit with both pools attached and C-102 for both pools	7/16/2020

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 280677

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 523 Park Point Drive Golden, CO 80401	API Number: 30-025-47463
	Well: POSEIDON STATE COM #172H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
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 at 5753703186 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)
(Poseidon) Sec-9_T-24-E_R-33-E
Poseidon State Com #172H**

OWB

Plan: Plan #2

Standard Planning Report

15 November, 2019





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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

Site	(Poseidon) Sec-9_T-24-E_R-33-E		
Site Position:		Northing:	446,745.00 usft
From:	Map	Easting:	773,665.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 33.403 N
		Longitude:	103° 34' 55.279 W
		Grid Convergence:	0.40 °

Well	Poseidon State Com #172H		
Well Position	+N/-S	327.0 usft	Northing:
	+E/-W	794.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	09/29/19	6.71	60.03	47,702.73547638

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.58

Plan Survey Tool Program	Date	11/15/19		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	9,121.0 Plan #2 (OWB)	Standard Keeper 104	
			Standard Wireline Keeper v	
2	9,121.0	19,931.5 Plan #2 (OWB)	MWD+IFR1+MS	
			OWSG MWD + IFR1 + Mult	



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,400.1	8.00	170.39	2,398.8	-27.5	4.7	2.00	2.00	0.00	170.39	
6,734.7	8.00	170.39	6,691.2	-622.5	105.3	0.00	0.00	0.00	0.00	
7,134.8	0.00	0.00	7,090.0	-650.0	110.0	2.00	-2.00	0.00	180.00	
9,121.8	0.00	0.00	9,077.0	-650.0	110.0	0.00	0.00	0.00	0.00	
10,019.7	89.79	352.80	9,650.0	-83.6	38.5	10.00	10.00	0.00	352.80	
10,358.7	89.79	359.58	9,651.2	254.4	15.9	2.00	0.00	2.00	90.01	
14,004.5	89.79	359.58	9,664.6	3,900.0	-10.8	0.00	0.00	0.00	0.00	
14,260.4	89.79	4.70	9,665.5	4,155.8	-1.2	2.00	0.00	2.00	90.01	
14,710.4	89.79	4.70	9,667.1	4,604.2	35.6	0.00	0.00	0.00	0.00	
14,966.4	89.79	359.58	9,668.1	4,860.0	45.2	2.00	0.00	-2.00	-90.01	
15,266.4	89.79	359.58	9,669.2	5,160.0	43.0	0.00	0.00	0.00	0.00	
15,519.5	89.81	354.52	9,670.1	5,412.6	30.0	2.00	0.01	-2.00	-89.75	
15,978.5	89.81	354.52	9,671.6	5,869.5	-13.9	0.00	0.00	0.00	0.00	
16,231.5	89.79	359.58	9,672.4	6,122.1	-26.9	2.00	-0.01	2.00	90.27	
19,931.5	89.79	359.58	9,686.0	9,822.0	-54.0	0.00	0.00	0.00	0.00	PBHL (Poseidon St



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
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
1,276.0	0.00	0.00	1,276.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydrite									
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
1,786.0	0.00	0.00	1,786.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
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	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 2.00									
2,100.0	2.00	170.39	2,100.0	-1.7	0.3	-1.7	2.00	2.00	0.00
2,200.0	4.00	170.39	2,199.8	-6.9	1.2	-6.9	2.00	2.00	0.00
2,300.0	6.00	170.39	2,299.5	-15.5	2.6	-15.5	2.00	2.00	0.00
2,400.1	8.00	170.39	2,398.8	-27.5	4.7	-27.5	2.00	2.00	0.00
HOLD - 4334.6 at 2400.1 MD									
2,500.0	8.00	170.39	2,497.7	-41.2	7.0	-41.3	0.00	0.00	0.00
2,600.0	8.00	170.39	2,596.8	-54.9	9.3	-55.0	0.00	0.00	0.00
2,700.0	8.00	170.39	2,695.8	-68.7	11.6	-68.8	0.00	0.00	0.00
2,800.0	8.00	170.39	2,794.8	-82.4	13.9	-82.5	0.00	0.00	0.00
2,900.0	8.00	170.39	2,893.8	-96.1	16.3	-96.2	0.00	0.00	0.00
3,000.0	8.00	170.39	2,992.9	-109.8	18.6	-110.0	0.00	0.00	0.00
3,100.0	8.00	170.39	3,091.9	-123.6	20.9	-123.7	0.00	0.00	0.00
3,200.0	8.00	170.39	3,190.9	-137.3	23.2	-137.5	0.00	0.00	0.00
3,300.0	8.00	170.39	3,289.9	-151.0	25.6	-151.2	0.00	0.00	0.00
3,400.0	8.00	170.39	3,389.0	-164.8	27.9	-165.0	0.00	0.00	0.00
3,500.0	8.00	170.39	3,488.0	-178.5	30.2	-178.7	0.00	0.00	0.00
3,600.0	8.00	170.39	3,587.0	-192.2	32.5	-192.4	0.00	0.00	0.00
3,700.0	8.00	170.39	3,686.0	-205.9	34.9	-206.2	0.00	0.00	0.00
3,800.0	8.00	170.39	3,785.1	-219.7	37.2	-219.9	0.00	0.00	0.00
3,900.0	8.00	170.39	3,884.1	-233.4	39.5	-233.7	0.00	0.00	0.00
4,000.0	8.00	170.39	3,983.1	-247.1	41.8	-247.4	0.00	0.00	0.00
4,100.0	8.00	170.39	4,082.1	-260.8	44.1	-261.2	0.00	0.00	0.00
4,200.0	8.00	170.39	4,181.2	-274.6	46.5	-274.9	0.00	0.00	0.00
4,300.0	8.00	170.39	4,280.2	-288.3	48.8	-288.6	0.00	0.00	0.00
4,400.0	8.00	170.39	4,379.2	-302.0	51.1	-302.4	0.00	0.00	0.00
4,500.0	8.00	170.39	4,478.3	-315.7	53.4	-316.1	0.00	0.00	0.00
4,600.0	8.00	170.39	4,577.3	-329.5	55.8	-329.9	0.00	0.00	0.00
4,700.0	8.00	170.39	4,676.3	-343.2	58.1	-343.6	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
4,800.0	8.00	170.39	4,775.3	-356.9	60.4	-357.4	0.00	0.00	0.00
4,900.0	8.00	170.39	4,874.4	-370.7	62.7	-371.1	0.00	0.00	0.00
4,932.0	8.00	170.39	4,906.0	-375.0	63.5	-375.5	0.00	0.00	0.00
Base Salt									
5,000.0	8.00	170.39	4,973.4	-384.4	65.0	-384.8	0.00	0.00	0.00
5,100.0	8.00	170.39	5,072.4	-398.1	67.4	-398.6	0.00	0.00	0.00
5,184.4	8.00	170.39	5,156.0	-409.7	69.3	-410.2	0.00	0.00	0.00
Delaware Mountain Gp									
5,194.5	8.00	170.39	5,166.0	-411.1	69.6	-411.6	0.00	0.00	0.00
Lamar									
5,200.0	8.00	170.39	5,171.4	-411.8	69.7	-412.3	0.00	0.00	0.00
5,214.7	8.00	170.39	5,186.0	-413.9	70.0	-414.4	0.00	0.00	0.00
Bell Canyon									
5,234.9	8.00	170.39	5,206.0	-416.6	70.5	-417.1	0.00	0.00	0.00
Ramsey Sand									
5,300.0	8.00	170.39	5,270.5	-425.6	72.0	-426.1	0.00	0.00	0.00
5,400.0	8.00	170.39	5,369.5	-439.3	74.3	-439.8	0.00	0.00	0.00
5,500.0	8.00	170.39	5,468.5	-453.0	76.7	-453.6	0.00	0.00	0.00
5,600.0	8.00	170.39	5,567.5	-466.7	79.0	-467.3	0.00	0.00	0.00
5,700.0	8.00	170.39	5,666.6	-480.5	81.3	-481.0	0.00	0.00	0.00
5,800.0	8.00	170.39	5,765.6	-494.2	83.6	-494.8	0.00	0.00	0.00
5,900.0	8.00	170.39	5,864.6	-507.9	86.0	-508.5	0.00	0.00	0.00
6,000.0	8.00	170.39	5,963.6	-521.6	88.3	-522.3	0.00	0.00	0.00
6,100.0	8.00	170.39	6,062.7	-535.4	90.6	-536.0	0.00	0.00	0.00
6,158.9	8.00	170.39	6,121.0	-543.5	92.0	-544.1	0.00	0.00	0.00
Cherry Canyon									
6,200.0	8.00	170.39	6,161.7	-549.1	92.9	-549.8	0.00	0.00	0.00
6,300.0	8.00	170.39	6,260.7	-562.8	95.2	-563.5	0.00	0.00	0.00
6,400.0	8.00	170.39	6,359.7	-576.6	97.6	-577.3	0.00	0.00	0.00
6,500.0	8.00	170.39	6,458.8	-590.3	99.9	-591.0	0.00	0.00	0.00
6,600.0	8.00	170.39	6,557.8	-604.0	102.2	-604.7	0.00	0.00	0.00
6,700.0	8.00	170.39	6,656.8	-617.7	104.5	-618.5	0.00	0.00	0.00
6,734.7	8.00	170.39	6,691.2	-622.5	105.3	-623.2	0.00	0.00	0.00
DROP - -2.00									
6,800.0	6.70	170.39	6,756.0	-630.7	106.7	-631.5	2.00	-2.00	0.00
6,900.0	4.70	170.39	6,855.5	-640.5	108.4	-641.3	2.00	-2.00	0.00
7,000.0	2.70	170.39	6,955.2	-646.9	109.5	-647.7	2.00	-2.00	0.00
7,100.0	0.70	170.39	7,055.2	-649.8	110.0	-650.6	2.00	-2.00	0.00
7,134.8	0.00	0.00	7,090.0	-650.0	110.0	-650.8	2.00	-2.00	0.00
HOLD - 1987.0 at 7134.8 MD									
7,200.0	0.00	0.00	7,155.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,255.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,355.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,455.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,555.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,670.8	0.00	0.00	7,626.0	-650.0	110.0	-650.8	0.00	0.00	0.00
Brushy Canyon									
7,700.0	0.00	0.00	7,655.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,755.2	-650.0	110.0	-650.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,855.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,955.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,055.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,155.2	-650.0	110.0	-650.8	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
8,300.0	0.00	0.00	8,255.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,355.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,455.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,555.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,655.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,755.2	-650.0	110.0	-650.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,855.2	-650.0	110.0	-650.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,955.2	-650.0	110.0	-650.8	0.00	0.00	0.00
9,100.0	0.00	0.00	9,055.2	-650.0	110.0	-650.8	0.00	0.00	0.00
9,121.8	0.00	0.00	9,077.0	-650.0	110.0	-650.8	0.00	0.00	0.00
KOP - Build 10.00									
9,135.8	1.40	352.80	9,091.0	-649.8	110.0	-650.6	10.00	10.00	0.00
Bone Spring Lime									
9,150.0	2.82	352.80	9,105.2	-649.3	109.9	-650.1	10.00	10.00	0.00
9,200.0	7.82	352.80	9,154.9	-644.7	109.3	-645.5	10.00	10.00	0.00
9,250.0	12.82	352.80	9,204.1	-635.8	108.2	-636.6	10.00	10.00	0.00
9,282.9	16.11	352.80	9,236.0	-627.7	107.2	-628.4	10.00	10.00	0.00
Upper Avalon									
9,300.0	17.82	352.80	9,252.3	-622.7	106.6	-623.5	10.00	10.00	0.00
9,350.0	22.82	352.80	9,299.2	-605.5	104.4	-606.3	10.00	10.00	0.00
9,400.0	27.82	352.80	9,344.4	-584.3	101.7	-585.0	10.00	10.00	0.00
9,450.0	32.82	352.80	9,387.5	-559.3	98.5	-560.0	10.00	10.00	0.00
9,500.0	37.82	352.80	9,428.3	-530.6	94.9	-531.3	10.00	10.00	0.00
9,550.0	42.82	352.80	9,466.4	-498.5	90.9	-499.2	10.00	10.00	0.00
9,600.0	47.82	352.80	9,501.6	-463.3	86.4	-463.9	10.00	10.00	0.00
9,650.0	52.82	352.80	9,533.5	-425.1	81.6	-425.7	10.00	10.00	0.00
9,662.6	54.08	352.80	9,541.0	-415.0	80.3	-415.6	10.00	10.00	0.00
Middle Avalon									
9,700.0	57.82	352.80	9,561.9	-384.3	76.4	-384.9	10.00	10.00	0.00
9,750.0	62.82	352.80	9,586.7	-341.2	71.0	-341.7	10.00	10.00	0.00
9,800.0	67.82	352.80	9,607.6	-296.2	65.3	-296.6	10.00	10.00	0.00
9,850.0	72.82	352.80	9,624.4	-249.5	59.4	-249.9	10.00	10.00	0.00
9,900.0	77.82	352.80	9,637.1	-201.5	53.3	-201.9	10.00	10.00	0.00
9,950.0	82.82	352.80	9,645.5	-152.6	47.2	-153.0	10.00	10.00	0.00
10,000.0	87.82	352.80	9,649.5	-103.2	40.9	-103.5	10.00	10.00	0.00
10,019.7	89.79	352.80	9,650.0	-83.6	38.5	-83.9	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO 90.01									
10,100.0	89.79	354.41	9,650.2	-3.9	29.5	-4.1	2.00	0.00	2.00
10,200.0	89.79	356.41	9,650.6	95.8	21.5	95.7	2.00	0.00	2.00
10,300.0	89.79	358.41	9,651.0	195.7	17.0	195.6	2.00	0.00	2.00
10,358.7	89.79	359.58	9,651.2	254.4	15.9	254.3	2.00	0.00	2.00
Start 3645.7 hold at 10358.7 MD									
10,400.0	89.79	359.58	9,651.3	295.7	15.6	295.6	0.00	0.00	0.00
10,500.0	89.79	359.58	9,651.7	395.7	14.9	395.6	0.00	0.00	0.00
10,600.0	89.79	359.58	9,652.1	495.7	14.2	495.6	0.00	0.00	0.00
10,700.0	89.79	359.58	9,652.4	595.7	13.4	595.6	0.00	0.00	0.00
10,800.0	89.79	359.58	9,652.8	695.7	12.7	695.6	0.00	0.00	0.00
10,900.0	89.79	359.58	9,653.2	795.7	12.0	795.6	0.00	0.00	0.00
11,000.0	89.79	359.58	9,653.5	895.7	11.2	895.6	0.00	0.00	0.00
11,100.0	89.79	359.58	9,653.9	995.7	10.5	995.6	0.00	0.00	0.00
11,200.0	89.79	359.58	9,654.3	1,095.7	9.8	1,095.6	0.00	0.00	0.00
11,300.0	89.79	359.58	9,654.6	1,195.7	9.0	1,195.6	0.00	0.00	0.00
11,400.0	89.79	359.58	9,655.0	1,295.7	8.3	1,295.6	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
11,500.0	89.79	359.58	9,655.4	1,395.7	7.6	1,395.6	0.00	0.00	0.00
11,600.0	89.79	359.58	9,655.7	1,495.7	6.8	1,495.6	0.00	0.00	0.00
11,700.0	89.79	359.58	9,656.1	1,595.7	6.1	1,595.6	0.00	0.00	0.00
11,800.0	89.79	359.58	9,656.5	1,695.6	5.4	1,695.6	0.00	0.00	0.00
11,900.0	89.79	359.58	9,656.8	1,795.6	4.6	1,795.6	0.00	0.00	0.00
12,000.0	89.79	359.58	9,657.2	1,895.6	3.9	1,895.6	0.00	0.00	0.00
12,100.0	89.79	359.58	9,657.6	1,995.6	3.2	1,995.6	0.00	0.00	0.00
12,200.0	89.79	359.58	9,657.9	2,095.6	2.4	2,095.6	0.00	0.00	0.00
12,300.0	89.79	359.58	9,658.3	2,195.6	1.7	2,195.6	0.00	0.00	0.00
12,400.0	89.79	359.58	9,658.7	2,295.6	1.0	2,295.6	0.00	0.00	0.00
12,500.0	89.79	359.58	9,659.0	2,395.6	0.2	2,395.6	0.00	0.00	0.00
12,600.0	89.79	359.58	9,659.4	2,495.6	-0.5	2,495.6	0.00	0.00	0.00
12,700.0	89.79	359.58	9,659.8	2,595.6	-1.2	2,595.6	0.00	0.00	0.00
12,800.0	89.79	359.58	9,660.1	2,695.6	-2.0	2,695.6	0.00	0.00	0.00
12,900.0	89.79	359.58	9,660.5	2,795.6	-2.7	2,795.6	0.00	0.00	0.00
13,000.0	89.79	359.58	9,660.9	2,895.6	-3.4	2,895.6	0.00	0.00	0.00
13,100.0	89.79	359.58	9,661.2	2,995.6	-4.2	2,995.6	0.00	0.00	0.00
13,200.0	89.79	359.58	9,661.6	3,095.6	-4.9	3,095.6	0.00	0.00	0.00
13,300.0	89.79	359.58	9,662.0	3,195.6	-5.6	3,195.6	0.00	0.00	0.00
13,400.0	89.79	359.58	9,662.3	3,295.6	-6.4	3,295.6	0.00	0.00	0.00
13,500.0	89.79	359.58	9,662.7	3,395.6	-7.1	3,395.6	0.00	0.00	0.00
13,600.0	89.79	359.58	9,663.1	3,495.6	-7.8	3,495.6	0.00	0.00	0.00
13,700.0	89.79	359.58	9,663.4	3,595.6	-8.6	3,595.6	0.00	0.00	0.00
13,800.0	89.79	359.58	9,663.8	3,695.6	-9.3	3,695.6	0.00	0.00	0.00
13,900.0	89.79	359.58	9,664.2	3,795.6	-10.0	3,795.5	0.00	0.00	0.00
14,004.5	89.79	359.58	9,664.6	3,900.0	-10.8	3,900.0	0.00	0.00	0.00
Start Turn 2.00									
14,100.0	89.79	1.49	9,664.9	3,995.6	-9.9	3,995.5	2.00	0.00	2.00
14,200.0	89.79	3.49	9,665.3	4,095.5	-5.5	4,095.4	2.00	0.00	2.00
14,260.4	89.79	4.70	9,665.5	4,155.8	-1.2	4,155.7	2.00	0.00	2.00
Start 450.0 hold at 14260.4 MD									
14,300.0	89.79	4.70	9,665.6	4,195.2	2.0	4,195.0	0.00	0.00	0.00
14,400.0	89.79	4.70	9,666.0	4,294.8	10.2	4,294.6	0.00	0.00	0.00
14,500.0	89.79	4.70	9,666.4	4,394.5	18.4	4,394.2	0.00	0.00	0.00
14,600.0	89.79	4.70	9,666.7	4,494.2	26.6	4,493.8	0.00	0.00	0.00
14,700.0	89.79	4.70	9,667.1	4,593.8	34.8	4,593.5	0.00	0.00	0.00
14,710.4	89.79	4.70	9,667.1	4,604.2	35.6	4,603.9	0.00	0.00	0.00
Start Turn -2.00									
14,800.0	89.79	2.91	9,667.5	4,693.6	41.6	4,693.2	2.00	0.00	-2.00
14,900.0	89.79	0.91	9,667.8	4,793.5	44.9	4,793.1	2.00	0.00	-2.00
14,966.4	89.79	359.58	9,668.1	4,860.0	45.2	4,859.5	2.00	0.00	-2.00
Start 300.0 hold at 14966.4 MD									
15,000.0	89.79	359.58	9,668.2	4,893.5	45.0	4,893.1	0.00	0.00	0.00
15,100.0	89.79	359.58	9,668.6	4,993.5	44.2	4,993.1	0.00	0.00	0.00
15,200.0	89.79	359.58	9,668.9	5,093.5	43.5	5,093.1	0.00	0.00	0.00
15,266.4	89.79	359.58	9,669.2	5,160.0	43.0	5,159.5	0.00	0.00	0.00
Start DLS 2.00 TFO -89.75									
15,300.0	89.79	358.91	9,669.3	5,193.5	42.6	5,193.1	2.00	0.01	-2.00
15,400.0	89.80	356.91	9,669.7	5,293.4	38.9	5,293.0	2.00	0.01	-2.00
15,500.0	89.81	354.91	9,670.0	5,393.2	31.8	5,392.8	2.00	0.01	-2.00
15,519.5	89.81	354.52	9,670.1	5,412.6	30.0	5,412.2	2.00	0.01	-2.00
Start 459.0 hold at 15519.5 MD									
15,600.0	89.81	354.52	9,670.3	5,492.7	22.3	5,492.4	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
15,700.0	89.81	354.52	9,670.7	5,592.3	12.7	5,592.0	0.00	0.00	0.00
15,800.0	89.81	354.52	9,671.0	5,691.8	3.2	5,691.6	0.00	0.00	0.00
15,900.0	89.81	354.52	9,671.3	5,791.4	-6.4	5,791.2	0.00	0.00	0.00
15,978.5	89.81	354.52	9,671.6	5,869.5	-13.9	5,869.5	0.00	0.00	0.00
Start DLS 2.00 TFO 90.27									
16,000.0	89.81	354.95	9,671.6	5,890.9	-15.8	5,890.9	2.00	-0.01	2.00
16,100.0	89.80	356.95	9,672.0	5,990.7	-22.9	5,990.7	2.00	-0.01	2.00
16,200.0	89.79	358.95	9,672.3	6,090.6	-26.5	6,090.6	2.00	-0.01	2.00
16,231.5	89.79	359.58	9,672.4	6,122.1	-26.9	6,122.2	2.00	-0.01	2.00
Start 3700.0 hold at 16231.5 MD									
16,300.0	89.79	359.58	9,672.7	6,190.6	-27.4	6,190.6	0.00	0.00	0.00
16,400.0	89.79	359.58	9,673.1	6,290.6	-28.1	6,290.6	0.00	0.00	0.00
16,500.0	89.79	359.58	9,673.4	6,390.6	-28.8	6,390.6	0.00	0.00	0.00
16,600.0	89.79	359.58	9,673.8	6,490.6	-29.6	6,490.6	0.00	0.00	0.00
16,700.0	89.79	359.58	9,674.2	6,590.6	-30.3	6,590.6	0.00	0.00	0.00
16,800.0	89.79	359.58	9,674.5	6,690.6	-31.0	6,690.6	0.00	0.00	0.00
16,900.0	89.79	359.58	9,674.9	6,790.6	-31.8	6,790.6	0.00	0.00	0.00
17,000.0	89.79	359.58	9,675.3	6,890.6	-32.5	6,890.6	0.00	0.00	0.00
17,100.0	89.79	359.58	9,675.6	6,990.5	-33.2	6,990.6	0.00	0.00	0.00
17,200.0	89.79	359.58	9,676.0	7,090.5	-34.0	7,090.6	0.00	0.00	0.00
17,300.0	89.79	359.58	9,676.4	7,190.5	-34.7	7,190.6	0.00	0.00	0.00
17,400.0	89.79	359.58	9,676.7	7,290.5	-35.4	7,290.6	0.00	0.00	0.00
17,500.0	89.79	359.58	9,677.1	7,390.5	-36.2	7,390.6	0.00	0.00	0.00
17,600.0	89.79	359.58	9,677.5	7,490.5	-36.9	7,490.6	0.00	0.00	0.00
17,700.0	89.79	359.58	9,677.8	7,590.5	-37.6	7,590.6	0.00	0.00	0.00
17,800.0	89.79	359.58	9,678.2	7,690.5	-38.4	7,690.6	0.00	0.00	0.00
17,900.0	89.79	359.58	9,678.6	7,790.5	-39.1	7,790.6	0.00	0.00	0.00
18,000.0	89.79	359.58	9,678.9	7,890.5	-39.8	7,890.6	0.00	0.00	0.00
18,100.0	89.79	359.58	9,679.3	7,990.5	-40.6	7,990.6	0.00	0.00	0.00
18,200.0	89.79	359.58	9,679.7	8,090.5	-41.3	8,090.6	0.00	0.00	0.00
18,300.0	89.79	359.58	9,680.0	8,190.5	-42.0	8,190.6	0.00	0.00	0.00
18,400.0	89.79	359.58	9,680.4	8,290.5	-42.8	8,290.6	0.00	0.00	0.00
18,500.0	89.79	359.58	9,680.8	8,390.5	-43.5	8,390.6	0.00	0.00	0.00
18,600.0	89.79	359.58	9,681.1	8,490.5	-44.2	8,490.6	0.00	0.00	0.00
18,700.0	89.79	359.58	9,681.5	8,590.5	-45.0	8,590.6	0.00	0.00	0.00
18,800.0	89.79	359.58	9,681.9	8,690.5	-45.7	8,690.6	0.00	0.00	0.00
18,900.0	89.79	359.58	9,682.2	8,790.5	-46.4	8,790.6	0.00	0.00	0.00
19,000.0	89.79	359.58	9,682.6	8,890.5	-47.2	8,890.6	0.00	0.00	0.00
19,100.0	89.79	359.58	9,683.0	8,990.5	-47.9	8,990.6	0.00	0.00	0.00
19,200.0	89.79	359.58	9,683.3	9,090.5	-48.6	9,090.6	0.00	0.00	0.00
19,300.0	89.79	359.58	9,683.7	9,190.5	-49.4	9,190.6	0.00	0.00	0.00
19,400.0	89.79	359.58	9,684.1	9,290.5	-50.1	9,290.6	0.00	0.00	0.00
19,500.0	89.79	359.58	9,684.4	9,390.5	-50.8	9,390.6	0.00	0.00	0.00
19,600.0	89.79	359.58	9,684.8	9,490.5	-51.6	9,490.6	0.00	0.00	0.00
19,700.0	89.79	359.58	9,685.2	9,590.5	-52.3	9,590.6	0.00	0.00	0.00
19,800.0	89.79	359.58	9,685.5	9,690.5	-53.0	9,690.6	0.00	0.00	0.00
19,900.0	89.79	359.58	9,685.9	9,790.5	-53.8	9,790.6	0.00	0.00	0.00
19,931.5	89.79	359.58	9,686.0	9,822.0	-54.0	9,822.1	0.00	0.00	0.00
TD at 19931.5									



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Poseidon State Com #172H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3626.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3626.0usft
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	North Reference:	Grid
Well:	Poseidon State Com #172H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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 (Poseidon State - plan misses target center by 211.5usft at 9600.0usft MD (9501.6 TVD, -463.3 N, 86.4 E) - Point	0.00	0.00	9,650.0	-600.0	23.0	446,472.00	774,482.00	32° 13' 30.645 N	103° 34' 45.791 W
LTP (Poseidon State - plan misses target center by 0.6usft at 19861.5usft MD (9685.7 TVD, 9752.0 N, -53.5 E) - Point	0.00	0.00	9,686.0	9,752.0	-53.0	456,824.00	774,406.00	32° 15' 13.085 N	103° 34' 45.830 W
PBHL (Poseidon State - plan hits target center - Rectangle (sides W100.0 H10,422.0 D20.0)	0.21	359.58	9,686.0	9,822.0	-54.0	456,894.00	774,405.00	32° 15' 13.778 N	103° 34' 45.835 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,276.0	1,276.0	Rustler Anhydrite			
1,786.0	1,786.0	Top Salt			
4,932.0	4,906.0	Base Salt			
5,184.4	5,156.0	Delaware Mountain Gp			
5,194.5	5,166.0	Lamar			
5,214.7	5,186.0	Bell Canyon			
5,234.9	5,206.0	Ramsey Sand			
6,158.9	6,121.0	Cherry Canyon			
7,670.8	7,626.0	Brushy Canyon			
9,135.8	9,091.0	Bone Spring Lime			
9,282.9	9,236.0	Upper Avalon			
9,662.6	9,541.0	Middle Avalon			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	NUDGE - Build 2.00
2,400.1	2,398.8	-27.5	4.7	HOLD - 4334.6 at 2400.1 MD
6,734.7	6,691.2	-622.5	105.3	DROP - -2.00
7,134.8	7,090.0	-650.0	110.0	HOLD - 1987.0 at 7134.8 MD
9,121.8	9,077.0	-650.0	110.0	KOP - Build 10.00
10,019.7	9,650.0	-83.6	38.5	EOC/TRN - DLS 2.00 TFO 90.01
10,358.7	9,651.2	254.4	15.9	Start 3645.7 hold at 10358.7 MD
14,004.5	9,664.6	3,900.0	-10.8	Start Turn 2.00
14,260.4	9,665.5	4,155.8	-1.2	Start 450.0 hold at 14260.4 MD
14,710.4	9,667.1	4,604.2	35.6	Start Turn -2.00
14,966.4	9,668.1	4,860.0	45.2	Start 300.0 hold at 14966.4 MD
15,266.4	9,669.2	5,160.0	43.0	Start DLS 2.00 TFO -89.75
15,519.5	9,670.1	5,412.6	30.0	Start 459.0 hold at 15519.5 MD
15,978.5	9,671.6	5,869.5	-13.9	Start DLS 2.00 TFO 90.27
16,231.5	9,672.4	6,122.1	-26.9	Start 3700.0 hold at 16231.5 MD
19,931.5	9,686.0	9,822.0	-54.0	TD at 19931.5