

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 288758

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 30-015-47672
4. Property Code 329796	5. Property Name SCHLITZ FEDERAL COM	6. Well No. 231H

7. Surface Location

UL - Lot M	Section 16	Township 25S	Range 26E	Lot Idn M	Feet From 617	N/S Line S	Feet From 1001	E/W Line W	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot D	Section 9	Township 25S	Range 26E	Lot Idn D	Feet From 200	N/S Line N	Feet From 660	E/W Line W	County Eddy
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9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220
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Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3428
16. Multiple N	17. Proposed Depth 19517	18. Formation Wolfcamp	19. Contractor	20. Spud Date 12/1/2020
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	570	587	0
Int1	12.25	9.625	40	1903	600	0
Int2	8.75	7.625	29.7	8723	473	0
Prod	6.75	5.5	20	19517	1052	8023

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	TBD

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: Kurt Simmons	
Title: Regulatory Manager	Title: Petroleum Specialist - A	
Email Address: ccombs@taprk.com	Approved Date: 11/17/2020	Expiration Date: 11/17/2022
Date: 11/11/2020	Phone: 720-360-4028	Conditions of Approval Attached

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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 30-015-		² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code	⁵ Property Name SCHLITZ FED COM		⁶ Well Number 231H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.		⁹ Elevation 3428'

¹⁰Surface Location

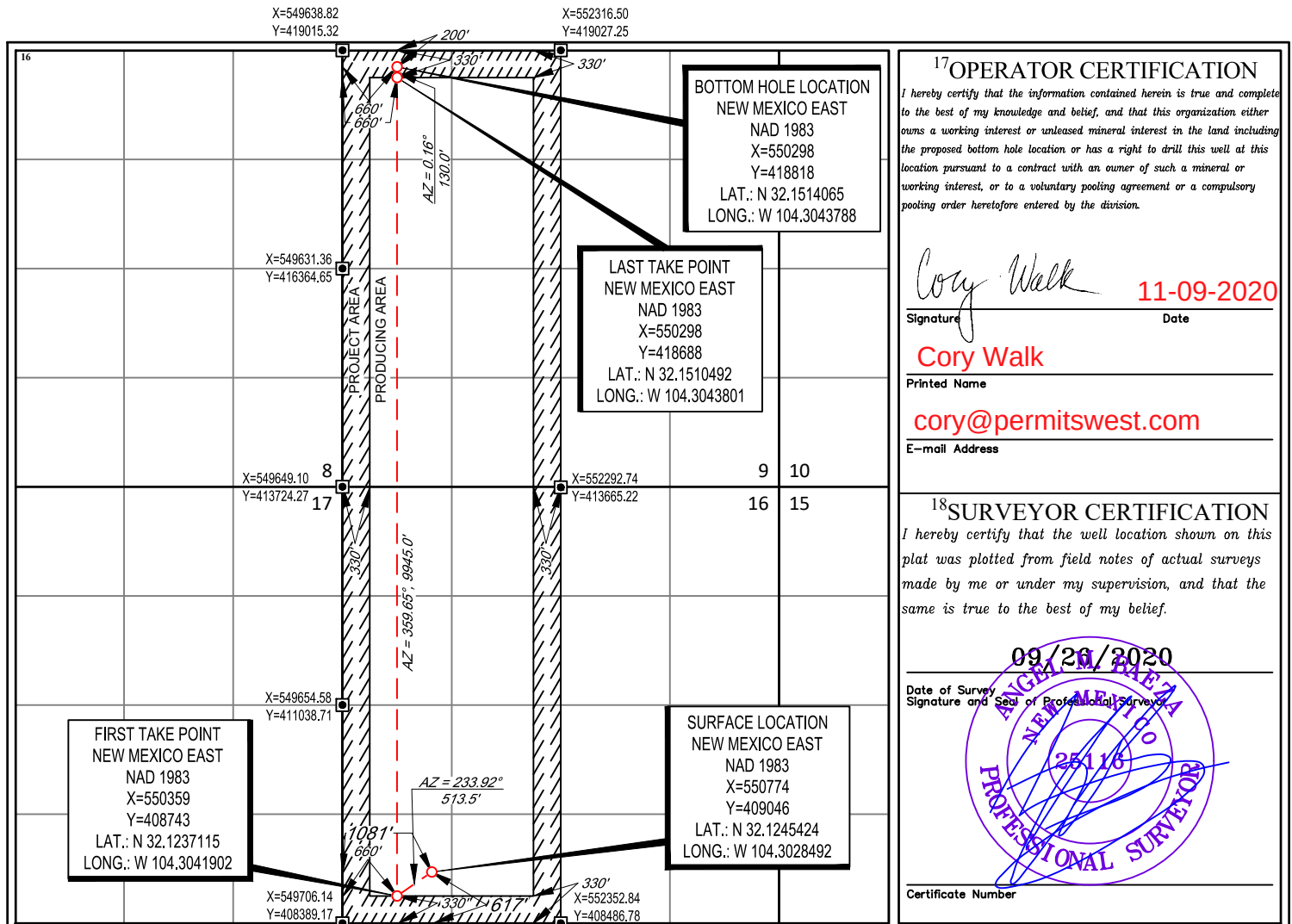
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	25-S	26-E	-	617'	SOUTH	1081'	WEST	EDDY

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
D	9	25-S	26-E	-	200'	NORTH	660'	WEST	EDDY

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

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.

Cory Walk 11-09-2020
Signature Date

Cory Walk

Printed Name

cory@permitswest.com

E-mail Address

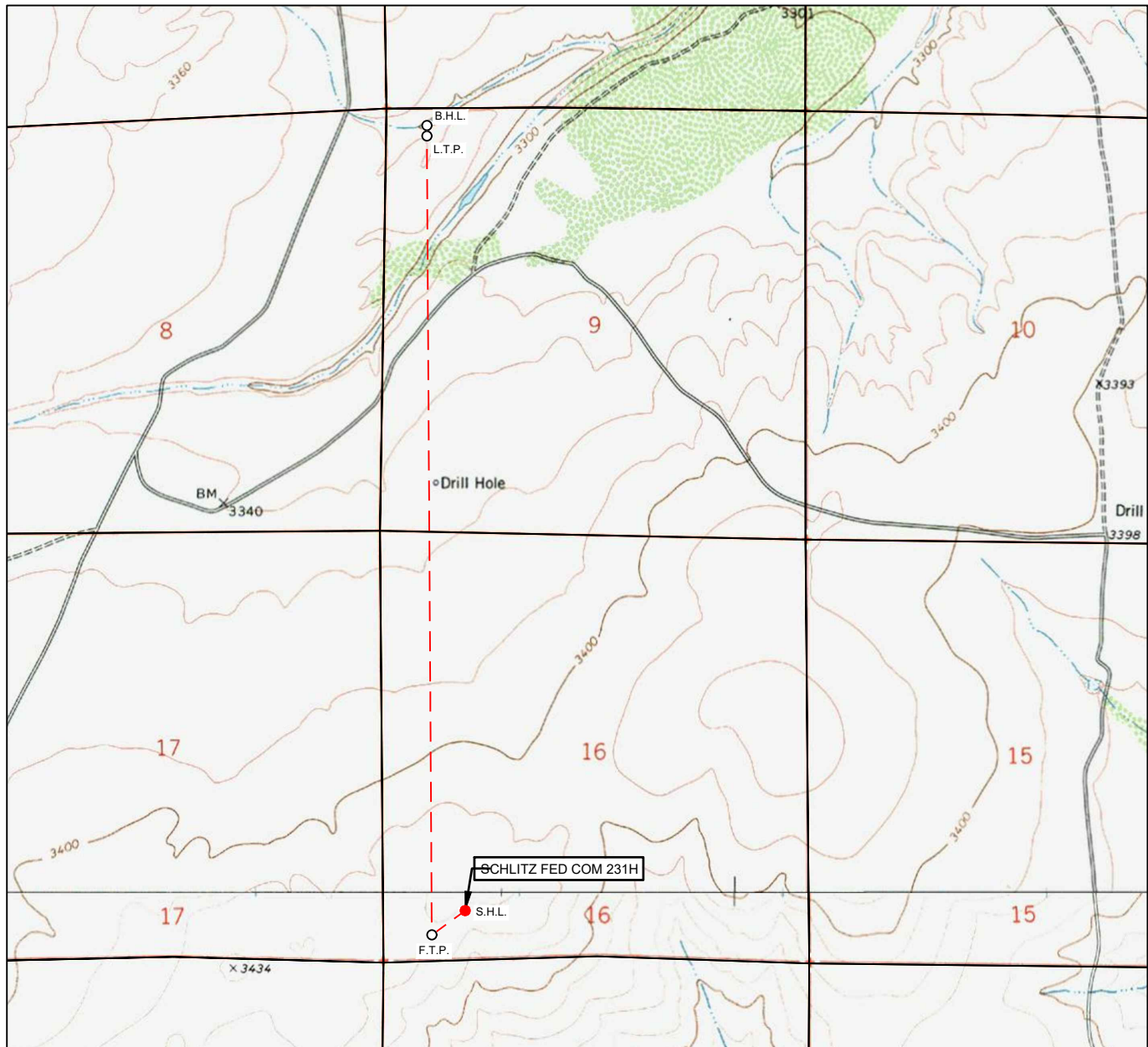
¹⁸SURVEYOR CERTIFICATION

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.

09/20/2020
Date of Survey
Signature and Seal of Professional Surveyor

ANGELA BAEZA
25116
PROFESSIONAL SURVEYOR
Certificate Number

LOCATION & ELEVATION VERIFICATION MAP

LEASE NAME & WELL NO.: SCHLITZ FED COM 231HSECTION 16 TWP 25-S RGE 26-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM ELEVATION 3428'
DESCRIPTION 617' FSL & 1081' FWLLATITUDE N 32.1245424 LONGITUDE W 104.3028492SCALE: 1" = 2000'
0' 1000' 2000'

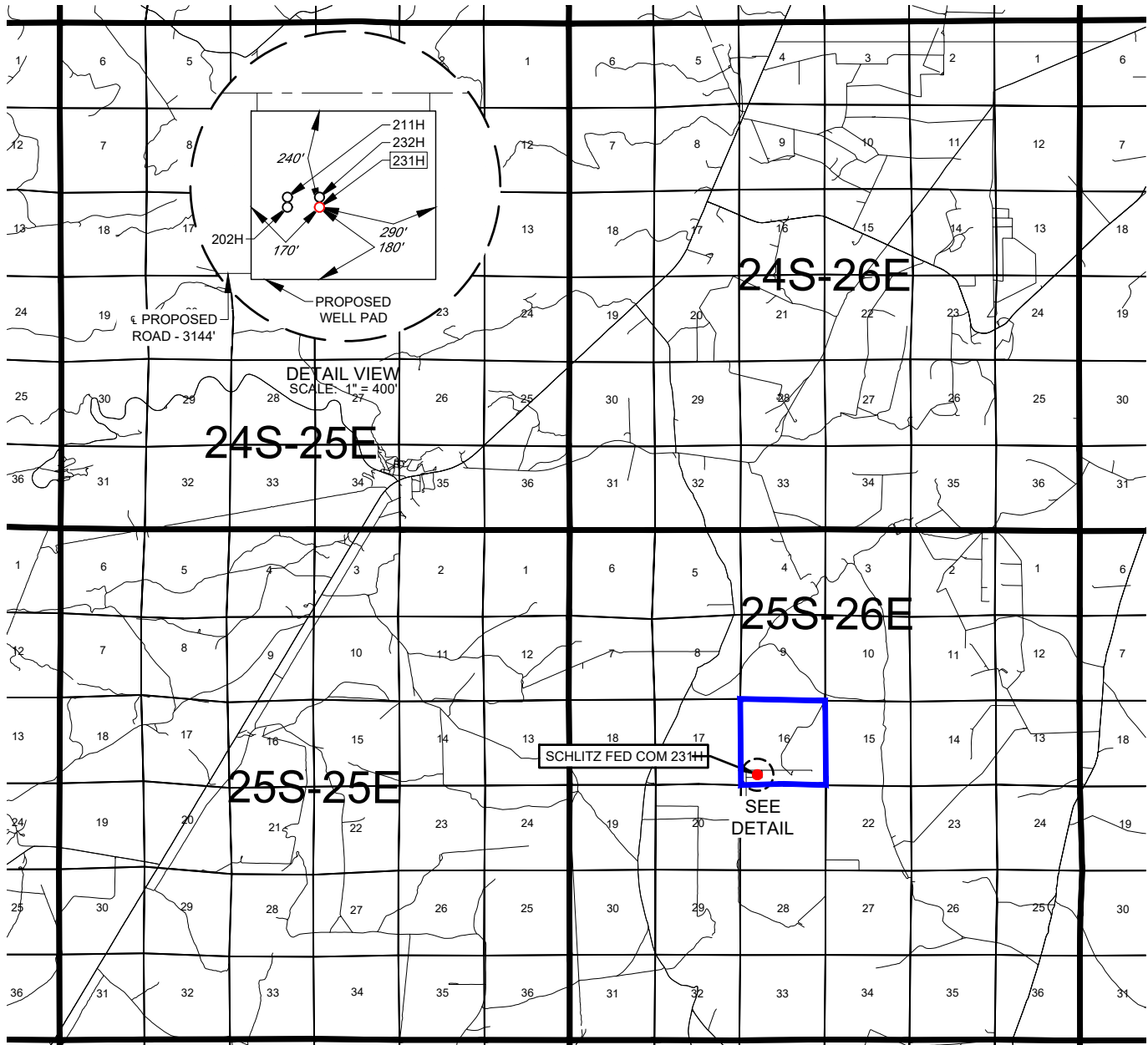
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF 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.: SCHLITZ FED COM 231HSECTION 16 TWP 25-S RGE 26-E SURVEY N.M.P.M.COUNTY EDDY STATE NMDESCRIPTION 617' FSL & 1081' FWL

DISTANCE & DIRECTION

FROM INT. OF BLACK RIVER VILLAGE RD. & US-180 W/US-62 W. GO
 SOUTHWEST ON US-180 W/US-62 W ± 1.5 MILES, THENCE SOUTHEAST (LEFT)
 ON MEANS RD. ± 1.9 MILES, THENCE EAST (LEFT) ON CREOSOTE RD. ± 194
 FEET, THENCE SOUTH (RIGHT) ON MEANS RD. ± 4.8 MILES, THENCE EAST
 (LEFT) ON A LEASE RD. ± 1.1 MILES, THENCE NORTH (RIGHT) ON A PROPOSED
 RD. ± 3144 FEET TO A POINT ± 237 FEET SOUTHWEST 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.

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 MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



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

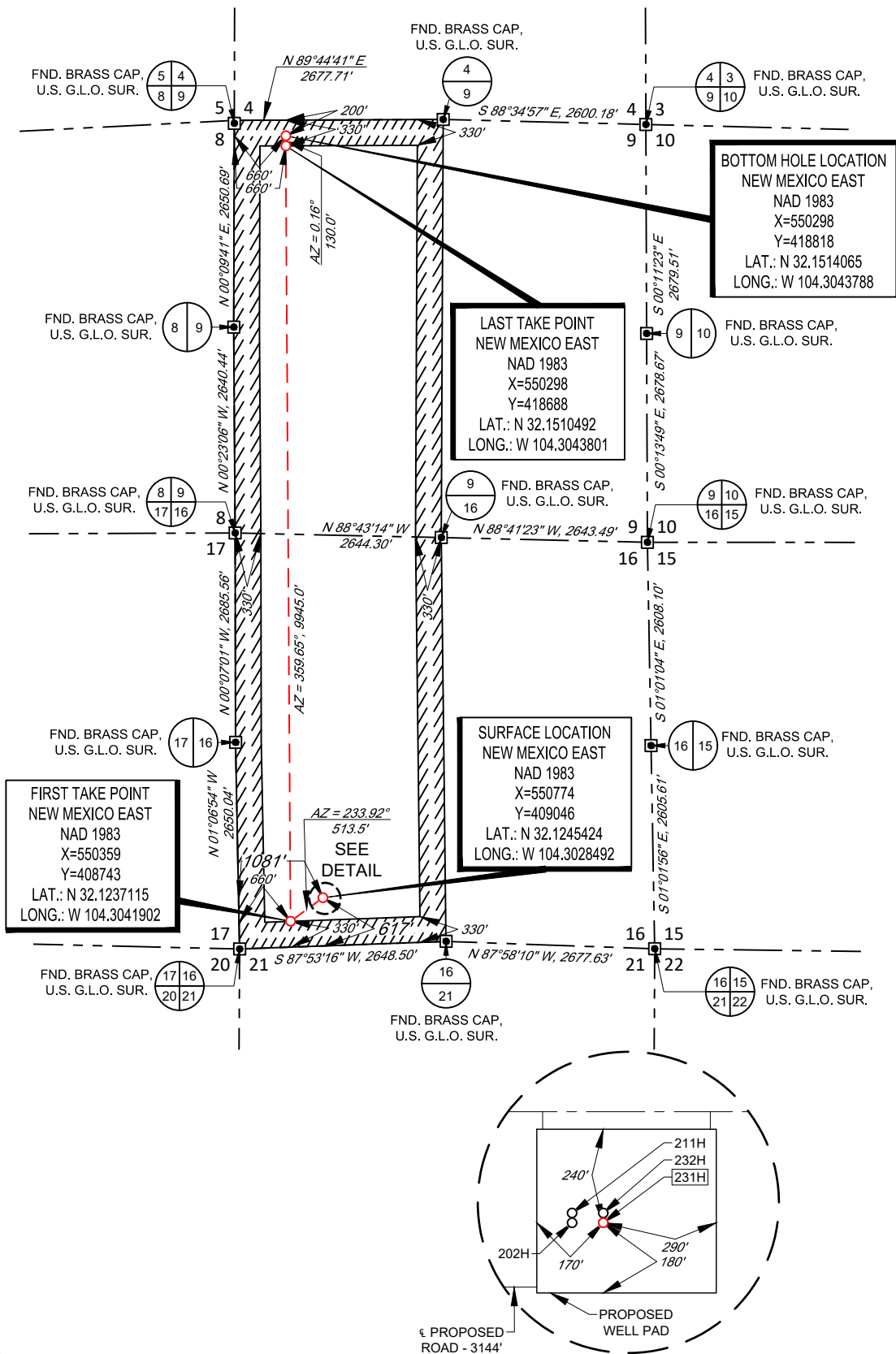


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 WWW.TOPOGRAPHIC.COM

TAP
ROCK
EXHIBIT 2A

SECTION 16, TOWNSHIP 25-S, RANGE 26-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

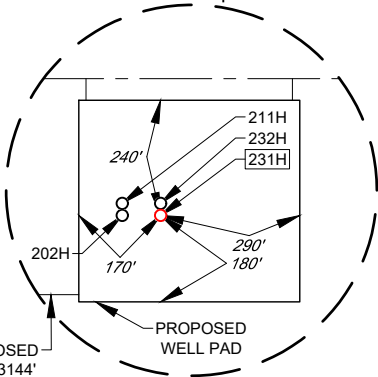


LEASE NAME & WELL NO.: SCHLITZ FED COM 231H

SECTION 16 TWP 25-S RGE 26-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 617' FSL & 1081' FWL

DISTANCE & DIRECTION
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SOUTHWEST ON US-180 W/US-62 W ±1.5 MILES, THENCE SOUTHEAST (LEFT)
ON MEANS RD. ±1.9 MILES, THENCE EAST (LEFT) ON CREOSOTE RD. ±194
FEET, THENCE SOUTH (RIGHT) ON MEANS RD. ±4.8 MILES, THENCE EAST
(LEFT) ON A LEASE RD. ±1.1 MILES, THENCE NORTH (RIGHT) ON A PROPOSED
RD. ±3144 FEET TO A POINT ±237 FEET SOUTHWEST OF THE LOCATION.

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.



Angel M. Baeza, P.S. No. 25116
September 30, 2020

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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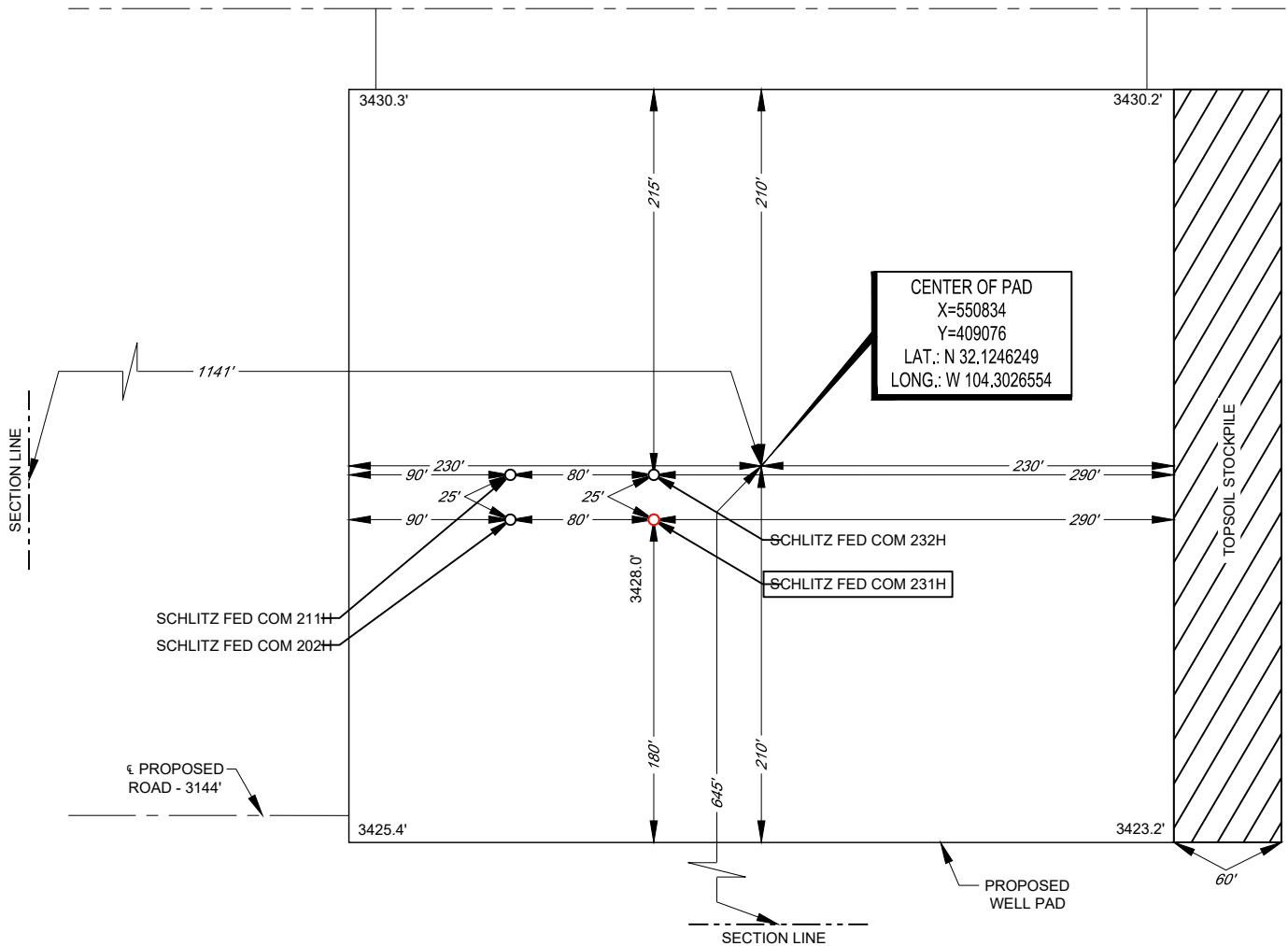
EXHIBIT 2B



SECTION 16, TOWNSHIP 25-S, RANGE 26-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'

LEGEND
----- SECTION LINE
----- PROPOSED ROAD



LEASE NAME & WELL NO.: SCHLITZ FED COM 231H
231H LATITUDE N 32.1245424 231H LONGITUDE W 104.3028492

CENTER OF PAD IS 645' FSL & 1141' FWL



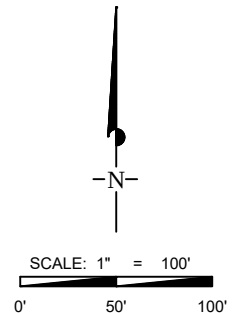
Angel M. Baeza, P.S. No. 25116

September 30, 2020

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. 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.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



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

GAS CAPTURE PLAN

Date: 11/17/2020

☒ 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
SCHLITZ FEDERAL COM #231H	30-015-47672	M-16-25S-26E	0617S 1001W	2500	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/Low Pressure gathering system located in Eddy County, New Mexico. It will require 10500' of pipeline to connect the facility to High/Low 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, Eddy 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

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

Form APD Comments

Permit 288758

PERMIT COMMENTS

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 523 Park Point Drive Golden, CO 80401		API Number: 30-015-47672
		Well: SCHLITZ FEDERAL COM #231H
Created By	Comment	Comment Date

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Form APD Conditions

Permit 288758

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 523 Park Point Drive Golden, CO 80401	API Number: 30-015-47672
	Well: SCHLITZ FEDERAL COM #231H

OCD Reviewer	Condition
ksimmons	Will require a directional survey with the C-104
ksimmons	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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
kpickford	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
kpickford	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
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	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

TAP ROCK RESOURCES

EDDY COUNTY

SEC 16-T25S-R26E

SCHLITZ FED COM 231H

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

13 October, 2020



Project: EDDY COUNTY
Site: SEC 16-T25S-R26E
Well: SCHLITZ FED COM 231H
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1

PROJECT DETAILS: EDDY COUNTY

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level



Azimuths to Grid North
True North: -0.02°
Magnetic North: 6.94°

Magnetic Field
Strength: 47429.2nT
Dip Angle: 59.72°
Date: 10/8/2020
Model: IGRF2020

WELL DETAILS: SCHLITZ FED COM 231H

+N/-S	+E/-W	Northing	Easting	3428.00	Latitude	Longitude	Slot
0.00	0.00	409045.86	550774.42		32.1245424°N	104.3028492°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	1355.21	5.33	212.53	1354.70	-13.91	-8.88	1.50	212.53	-13.51	
4	8438.42	5.33	212.53	8407.30	-568.47	-362.57	0.00	0.00	-551.73	
5	8793.63	0.00	0.00	8762.00	-582.38	-371.45	1.50	180.00	-565.24	
6	8823.63	0.00	0.00	8792.00	-582.38	-371.45	0.00	0.00	-565.24	
7	9723.71	90.00	359.64	9365.00	-9.38	-375.05	10.00	359.64	7.35	
8	10123.71	90.00	359.64	9364.99	390.61	-377.56	0.00	0.00	407.06	
9	10681.04	90.00	8.00	9364.99	946.21	-340.47	1.50	90.01	960.45	
10	11281.04	90.00	8.00	9364.99	1540.37	-256.96	0.00	0.00	1550.30	
11	11757.11	90.00	358.48	9364.99	2015.14	-230.09	2.00	-90.00	2023.39	SCHLITZ FED 231H PBHL
12	19517.09	90.00	358.48	9365.00	9772.38	-436.14	0.00	0.00	9782.11	SCHLITZ FED 231H PBHL

FORMATION TOP DETAILS

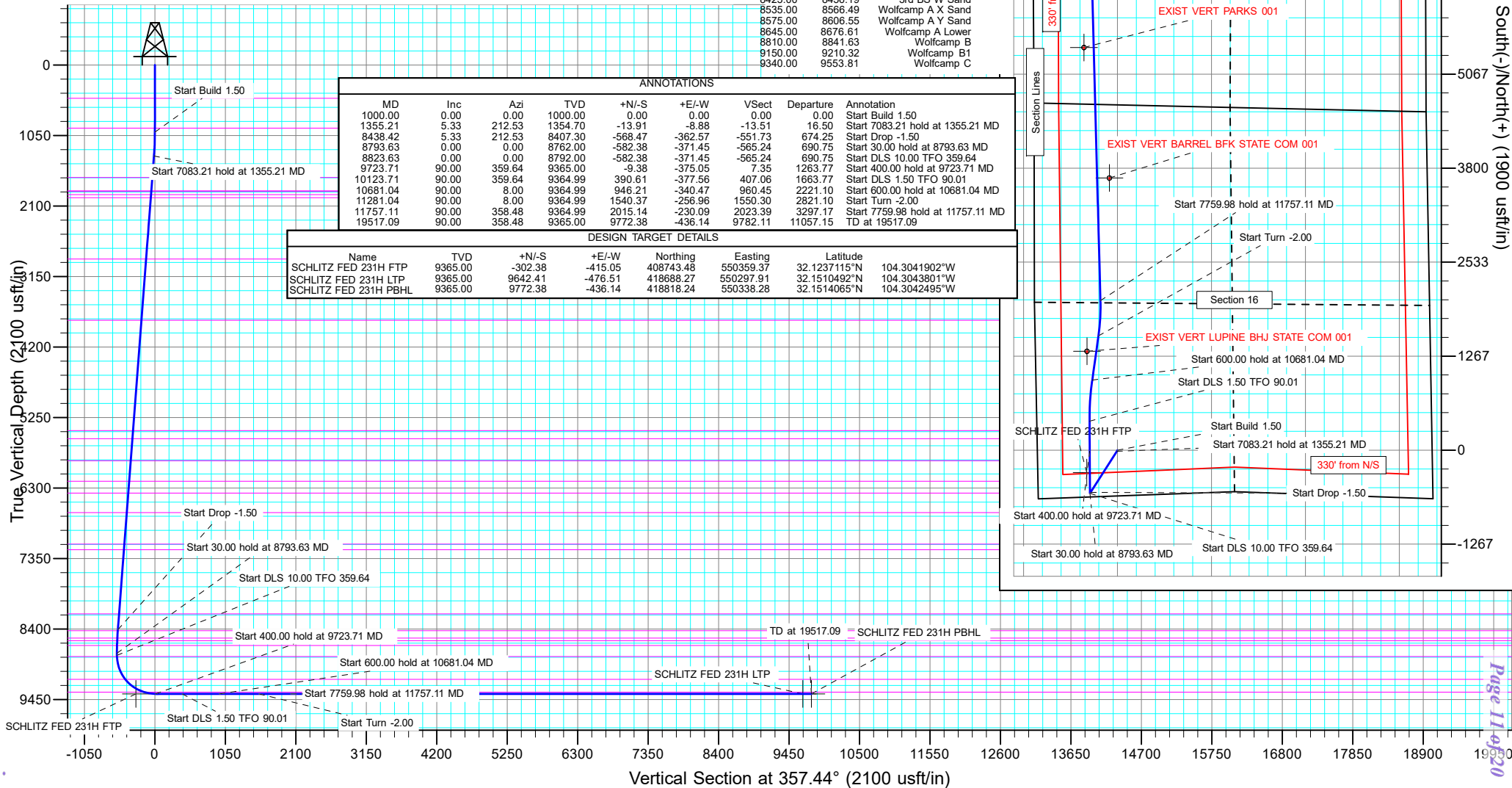
TVDPath	MDPath	Formation
495.00	495.00	Rustler Anhydrite
940.00	940.00	Top Salt
1675.00	1676.90	Base Salt
1875.00	1877.77	Delaware Mountain Gp
1880.00	1882.79	Lamar
1930.00	1933.01	Bell Canyon
1975.00	1978.20	Ramsey Sand
2890.00	2897.17	Cherry Canyon
3800.00	3811.12	Brushy Canyon
5445.00	5463.26	Bone Spring Lime
5565.00	5583.78	Upper Avalon
5895.00	5915.21	Middle Avalon
6200.00	6221.54	Lower Avalon
6375.00	6397.30	1st Bone Spring Sand
6665.00	6688.56	2nd Bone Spring Carb
7135.00	7160.60	2nd Bone Spring Sand
7220.00	7245.98	3rd Bone Spring Carb
8175.00	8205.11	3rd Bone Spring Sand
8425.00	8456.19	3rd BS W Sand
8535.00	8566.49	Wolfcamp A X Sand
8575.00	8606.55	Wolfcamp A Y Sand
8645.00	8676.61	Wolfcamp A Lower
8810.00	8841.63	Wolfcamp B
9150.00	9210.32	Wolfcamp B1
9340.00	9553.81	Wolfcamp C

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	Start Build 1.50
1355.21	5.33	212.53	1354.70	-13.91	-8.88	-13.51	16.50	Start 7083.21 hold at 1355.21 MD
8438.42	5.33	212.53	8407.30	-568.47	-362.57	-551.73	674.25	Start Drop -1.50
8793.63	0.00	0.00	8762.00	-582.38	-371.45	-565.24	690.75	Start 30.00 hold at 8793.63 MD
8823.63	0.00	0.00	8792.00	-582.38	-371.45	-565.24	690.75	Start DLS 10.00 TFO 359.64
9723.71	90.00	359.64	9365.00	-9.38	-375.05	7.35	1263.77	Start 400.00 hold at 9723.71 MD
10123.71	90.00	359.64	9364.99	390.61	-377.56	407.06	1663.77	Start DLS 1.50 TFO 90.01
10681.04	90.00	8.00	9364.99	946.21	-340.47	960.45	2221.10	Start 600.00 hold at 10681.04 MD
11281.04	90.00	8.00	9364.99	1540.37	-256.96	1550.30	2821.10	Start Turn -2.00
11757.11	90.00	358.48	9364.99	2015.14	-230.09	2023.39	3297.17	Start 7759.98 hold at 11757.11 MD
19517.09	90.00	358.48	9365.00	9772.38	-436.14	9782.11	11057.15	TD at 19517.09

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SCHLITZ FED 231H FTP	9365.00	-302.38	-415.05	408743.48	550359.37	32.1237115°N	104.3041902°W
SCHLITZ FED 231H LTP	9365.00	9642.41	-476.51	418688.27	550297.91	32.1510492°N	104.3043801°W
SCHLITZ FED 231H PBHL	9365.00	9772.38	-436.14	418818.24	550338.28	32.1514065°N	104.3042495°W



Received by OCD: 11/17/2020 7:58:28 AM

South(-)/North(+) (1900 usft/in)

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Project	EDDY COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		SEC 16-T25S-R26E				
Site Position:		Northing:	408,486.78	usft	Latitude:	32.1230042°N
From:	Map	Easting:	552,352.84	usft	Longitude:	104.2977510°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well	SCHLITZ FED COM 231H					
Well Position	+N/-S	0.00 usft	Northing:	409,045.86 usft	Latitude:	32.1245424°N
	+E/-W	0.00 usft	Easting:	550,774.42 usft	Longitude:	104.3028492°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,428.00 usft
Grid Convergence:		0.02 °				

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/8/2020	6.95	59.72	47,429.23220556

Design	PROPOSAL 1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	357.44	

Plan Survey Tool Program	Date	10/13/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	19,517.09	PROPOSAL 1 (ORIGINAL WELL	MWD	
			OWSG MWD - Standard		

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,355.21	5.33	212.53	1,354.70	-13.91	-8.88	1.50	1.50	0.00	212.53	
8,438.42	5.33	212.53	8,407.30	-568.47	-362.57	0.00	0.00	0.00	0.00	
8,793.63	0.00	0.00	8,762.00	-582.38	-371.45	1.50	-1.50	0.00	180.00	
8,823.63	0.00	0.00	8,792.00	-582.38	-371.45	0.00	0.00	0.00	0.00	
9,723.71	90.00	359.64	9,365.00	-9.38	-375.05	10.00	10.00	-0.04	359.64	
10,123.71	90.00	359.64	9,364.99	390.61	-377.56	0.00	0.00	0.00	0.00	
10,681.04	90.00	8.00	9,364.99	946.21	-340.47	1.50	0.00	1.50	90.01	
11,281.04	90.00	8.00	9,364.99	1,540.37	-256.96	0.00	0.00	0.00	0.00	
11,757.11	90.00	358.48	9,364.99	2,015.14	-230.09	2.00	0.00	-2.00	-90.00	SCHLITZ FED 231H I
19,517.09	90.00	358.48	9,365.00	9,772.38	-436.14	0.00	0.00	0.00	0.00	SCHLITZ FED 231H I

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
495.00	0.00	0.00	495.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler Anhydrite									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
940.00	0.00	0.00	940.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
1,100.00	1.50	212.53	1,099.99	-1.10	-0.70	-1.07	1.50	1.50	0.00
1,200.00	3.00	212.53	1,199.91	-4.41	-2.81	-4.28	1.50	1.50	0.00
1,300.00	4.50	212.53	1,299.69	-9.93	-6.33	-9.64	1.50	1.50	0.00
1,355.21	5.33	212.53	1,354.70	-13.91	-8.88	-13.51	1.50	1.50	0.00
Start 7083.21 hold at 1355.21 MD									
1,400.00	5.33	212.53	1,399.29	-17.42	-11.11	-16.91	0.00	0.00	0.00
1,500.00	5.33	212.53	1,498.86	-25.25	-16.11	-24.51	0.00	0.00	0.00
1,600.00	5.33	212.53	1,598.43	-33.08	-21.10	-32.11	0.00	0.00	0.00
1,676.90	5.33	212.53	1,675.00	-39.10	-24.94	-37.95	0.00	0.00	0.00
Base Salt									
1,700.00	5.33	212.53	1,698.00	-40.91	-26.09	-39.70	0.00	0.00	0.00
1,800.00	5.33	212.53	1,797.57	-48.74	-31.09	-47.30	0.00	0.00	0.00
1,877.77	5.33	212.53	1,875.00	-54.83	-34.97	-53.21	0.00	0.00	0.00
Delaware Mountain Gp									
1,882.79	5.33	212.53	1,880.00	-55.22	-35.22	-53.59	0.00	0.00	0.00
Lamar									
1,900.00	5.33	212.53	1,897.13	-56.57	-36.08	-54.90	0.00	0.00	0.00
1,933.01	5.33	212.53	1,930.00	-59.15	-37.73	-57.41	0.00	0.00	0.00
Bell Canyon									
1,978.20	5.33	212.53	1,975.00	-62.69	-39.98	-60.84	0.00	0.00	0.00
Ramsey Sand									
2,000.00	5.33	212.53	1,996.70	-64.40	-41.07	-62.50	0.00	0.00	0.00
2,100.00	5.33	212.53	2,096.27	-72.23	-46.07	-70.10	0.00	0.00	0.00
2,200.00	5.33	212.53	2,195.84	-80.05	-51.06	-77.70	0.00	0.00	0.00
2,300.00	5.33	212.53	2,295.41	-87.88	-56.05	-85.30	0.00	0.00	0.00
2,400.00	5.33	212.53	2,394.97	-95.71	-61.05	-92.90	0.00	0.00	0.00
2,500.00	5.33	212.53	2,494.54	-103.54	-66.04	-100.49	0.00	0.00	0.00
2,600.00	5.33	212.53	2,594.11	-111.37	-71.03	-108.09	0.00	0.00	0.00
2,700.00	5.33	212.53	2,693.68	-119.20	-76.03	-115.69	0.00	0.00	0.00
2,800.00	5.33	212.53	2,793.25	-127.03	-81.02	-123.29	0.00	0.00	0.00
2,897.17	5.33	212.53	2,890.00	-134.64	-85.87	-130.67	0.00	0.00	0.00
Cherry Canyon									
2,900.00	5.33	212.53	2,892.81	-134.86	-86.01	-130.89	0.00	0.00	0.00
3,000.00	5.33	212.53	2,992.38	-142.69	-91.01	-138.49	0.00	0.00	0.00
3,100.00	5.33	212.53	3,091.95	-150.52	-96.00	-146.09	0.00	0.00	0.00
3,200.00	5.33	212.53	3,191.52	-158.35	-100.99	-153.68	0.00	0.00	0.00
3,300.00	5.33	212.53	3,291.09	-166.17	-105.99	-161.28	0.00	0.00	0.00

Planning Report

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Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
3,400.00	5.33	212.53	3,390.65	-174.00	-110.98	-168.88	0.00	0.00	0.00	
3,500.00	5.33	212.53	3,490.22	-181.83	-115.98	-176.48	0.00	0.00	0.00	
3,600.00	5.33	212.53	3,589.79	-189.66	-120.97	-184.08	0.00	0.00	0.00	
3,700.00	5.33	212.53	3,689.36	-197.49	-125.96	-191.68	0.00	0.00	0.00	
3,800.00	5.33	212.53	3,788.92	-205.32	-130.96	-199.28	0.00	0.00	0.00	
3,811.12	5.33	212.53	3,800.00	-206.19	-131.51	-200.12	0.00	0.00	0.00	
Brushy Canyon										
3,900.00	5.33	212.53	3,888.49	-213.15	-135.95	-206.88	0.00	0.00	0.00	
4,000.00	5.33	212.53	3,988.06	-220.98	-140.94	-214.47	0.00	0.00	0.00	
4,100.00	5.33	212.53	4,087.63	-228.81	-145.94	-222.07	0.00	0.00	0.00	
4,200.00	5.33	212.53	4,187.20	-236.64	-150.93	-229.67	0.00	0.00	0.00	
4,300.00	5.33	212.53	4,286.76	-244.46	-155.92	-237.27	0.00	0.00	0.00	
4,400.00	5.33	212.53	4,386.33	-252.29	-160.92	-244.87	0.00	0.00	0.00	
4,500.00	5.33	212.53	4,485.90	-260.12	-165.91	-252.47	0.00	0.00	0.00	
4,600.00	5.33	212.53	4,585.47	-267.95	-170.90	-260.07	0.00	0.00	0.00	
4,700.00	5.33	212.53	4,685.04	-275.78	-175.90	-267.66	0.00	0.00	0.00	
4,800.00	5.33	212.53	4,784.60	-283.61	-180.89	-275.26	0.00	0.00	0.00	
4,900.00	5.33	212.53	4,884.17	-291.44	-185.88	-282.86	0.00	0.00	0.00	
5,000.00	5.33	212.53	4,983.74	-299.27	-190.88	-290.46	0.00	0.00	0.00	
5,100.00	5.33	212.53	5,083.31	-307.10	-195.87	-298.06	0.00	0.00	0.00	
5,200.00	5.33	212.53	5,182.88	-314.93	-200.86	-305.66	0.00	0.00	0.00	
5,300.00	5.33	212.53	5,282.44	-322.76	-205.86	-313.26	0.00	0.00	0.00	
5,400.00	5.33	212.53	5,382.01	-330.58	-210.85	-320.86	0.00	0.00	0.00	
5,463.26	5.33	212.53	5,445.00	-335.54	-214.01	-325.66	0.00	0.00	0.00	
Bone Spring Lime										
5,500.00	5.33	212.53	5,481.58	-338.41	-215.85	-328.45	0.00	0.00	0.00	
5,583.78	5.33	212.53	5,565.00	-344.97	-220.03	-334.82	0.00	0.00	0.00	
Upper Avalon										
5,600.00	5.33	212.53	5,581.15	-346.24	-220.84	-336.05	0.00	0.00	0.00	
5,700.00	5.33	212.53	5,680.72	-354.07	-225.83	-343.65	0.00	0.00	0.00	
5,800.00	5.33	212.53	5,780.28	-361.90	-230.83	-351.25	0.00	0.00	0.00	
5,900.00	5.33	212.53	5,879.85	-369.73	-235.82	-358.85	0.00	0.00	0.00	
5,915.21	5.33	212.53	5,895.00	-370.92	-236.58	-360.00	0.00	0.00	0.00	
Middle Avalon										
6,000.00	5.33	212.53	5,979.42	-377.56	-240.81	-366.45	0.00	0.00	0.00	
6,100.00	5.33	212.53	6,078.99	-385.39	-245.81	-374.05	0.00	0.00	0.00	
6,200.00	5.33	212.53	6,178.55	-393.22	-250.80	-381.64	0.00	0.00	0.00	
6,221.54	5.33	212.53	6,200.00	-394.90	-251.88	-383.28	0.00	0.00	0.00	
Lower Avalon										
6,300.00	5.33	212.53	6,278.12	-401.05	-255.79	-389.24	0.00	0.00	0.00	
6,397.30	5.33	212.53	6,375.00	-408.66	-260.65	-396.64	0.00	0.00	0.00	
1st Bone Spring Sand										
6,400.00	5.33	212.53	6,377.69	-408.88	-260.79	-396.84	0.00	0.00	0.00	
6,500.00	5.33	212.53	6,477.26	-416.70	-265.78	-404.44	0.00	0.00	0.00	
6,600.00	5.33	212.53	6,576.83	-424.53	-270.77	-412.04	0.00	0.00	0.00	
6,688.56	5.33	212.53	6,665.00	-431.47	-275.20	-418.77	0.00	0.00	0.00	
2nd Bone Spring Carb										
6,700.00	5.33	212.53	6,676.39	-432.36	-275.77	-419.64	0.00	0.00	0.00	
6,800.00	5.33	212.53	6,775.96	-440.19	-280.76	-427.24	0.00	0.00	0.00	
6,900.00	5.33	212.53	6,875.53	-448.02	-285.75	-434.84	0.00	0.00	0.00	
7,000.00	5.33	212.53	6,975.10	-455.85	-290.75	-442.43	0.00	0.00	0.00	
7,100.00	5.33	212.53	7,074.67	-463.68	-295.74	-450.03	0.00	0.00	0.00	
7,160.60	5.33	212.53	7,135.00	-468.42	-298.77	-454.64	0.00	0.00	0.00	

Planning Report

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Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2nd Bone Spring Sand										
7,200.00	5.33	212.53	7,174.23	-471.51	-300.73	-457.63	0.00	0.00	0.00	
7,245.96	5.33	212.53	7,220.00	-475.11	-303.03	-461.12	0.00	0.00	0.00	
3rd Bone Spring Carb										
7,300.00	5.33	212.53	7,273.80	-479.34	-305.73	-465.23	0.00	0.00	0.00	
7,400.00	5.33	212.53	7,373.37	-487.17	-310.72	-472.83	0.00	0.00	0.00	
7,500.00	5.33	212.53	7,472.94	-495.00	-315.71	-480.43	0.00	0.00	0.00	
7,600.00	5.33	212.53	7,572.51	-502.82	-320.71	-488.03	0.00	0.00	0.00	
7,700.00	5.33	212.53	7,672.07	-510.65	-325.70	-495.62	0.00	0.00	0.00	
7,800.00	5.33	212.53	7,771.64	-518.48	-330.70	-503.22	0.00	0.00	0.00	
7,900.00	5.33	212.53	7,871.21	-526.31	-335.69	-510.82	0.00	0.00	0.00	
8,000.00	5.33	212.53	7,970.78	-534.14	-340.68	-518.42	0.00	0.00	0.00	
8,100.00	5.33	212.53	8,070.35	-541.97	-345.68	-526.02	0.00	0.00	0.00	
8,200.00	5.33	212.53	8,169.91	-549.80	-350.67	-533.62	0.00	0.00	0.00	
8,205.11	5.33	212.53	8,175.00	-550.20	-350.92	-534.01	0.00	0.00	0.00	
3rd Bone Spring Sand										
8,300.00	5.33	212.53	8,269.48	-557.63	-355.66	-541.22	0.00	0.00	0.00	
8,400.00	5.33	212.53	8,369.05	-565.46	-360.66	-548.82	0.00	0.00	0.00	
8,438.42	5.33	212.53	8,407.30	-568.47	-362.57	-551.73	0.00	0.00	0.00	
Start Drop -1.50										
8,456.19	5.06	212.53	8,425.00	-569.82	-363.44	-553.05	1.50	-1.50	0.00	
3rd BS W Sand										
8,500.00	4.40	212.53	8,468.66	-572.87	-365.38	-556.01	1.50	-1.50	0.00	
8,566.50	3.41	212.53	8,535.00	-576.69	-367.82	-559.72	1.50	-1.50	0.00	
Wolfcamp A X Sand										
8,600.00	2.90	212.53	8,568.45	-578.24	-368.81	-561.23	1.50	-1.50	0.00	
8,606.55	2.81	212.53	8,575.00	-578.52	-368.99	-561.49	1.50	-1.50	0.00	
Wolfcamp A Y Sand										
8,676.61	1.76	212.53	8,645.00	-580.87	-370.49	-563.77	1.50	-1.50	0.00	
Wolfcamp A Lower										
8,700.00	1.40	212.53	8,668.38	-581.41	-370.83	-564.30	1.50	-1.50	0.00	
8,793.63	0.00	0.00	8,762.00	-582.38	-371.45	-565.24	1.50	-1.50	0.00	
Start 30.00 hold at 8793.63 MD										
8,800.00	0.00	0.00	8,768.37	-582.38	-371.45	-565.24	0.00	0.00	0.00	
8,823.63	0.00	0.00	8,792.00	-582.38	-371.45	-565.24	0.00	0.00	0.00	
Start DLS 10.00 TFO 359.64										
8,841.63	1.80	359.64	8,810.00	-582.10	-371.45	-564.96	10.00	10.00	0.00	
Wolfcamp B										
8,850.00	2.64	359.64	8,818.36	-581.77	-371.45	-564.63	10.00	10.00	0.00	
8,900.00	7.64	359.64	8,868.15	-577.30	-371.48	-560.16	10.00	10.00	0.00	
8,950.00	12.64	359.64	8,917.35	-568.50	-371.54	-551.37	10.00	10.00	0.00	
9,000.00	17.64	359.64	8,965.60	-555.45	-371.62	-538.33	10.00	10.00	0.00	
9,050.00	22.64	359.64	9,012.53	-538.24	-371.73	-521.14	10.00	10.00	0.00	
9,100.00	27.64	359.64	9,057.78	-517.01	-371.86	-499.92	10.00	10.00	0.00	
9,150.00	32.63	359.64	9,101.01	-491.92	-372.02	-474.84	10.00	10.00	0.00	
9,200.00	37.63	359.64	9,141.89	-463.15	-372.20	-446.10	10.00	10.00	0.00	
9,210.32	38.67	359.64	9,150.00	-456.78	-372.24	-439.73	10.00	10.00	0.00	
Wolfcamp B1										
9,250.00	42.63	359.64	9,180.10	-430.94	-372.40	-413.90	10.00	10.00	0.00	
9,300.00	47.63	359.64	9,215.36	-395.51	-372.62	-378.50	10.00	10.00	0.00	
9,350.00	52.63	359.64	9,247.40	-357.15	-372.87	-340.17	10.00	10.00	0.00	
9,400.00	57.63	359.64	9,275.98	-316.14	-373.12	-299.19	10.00	10.00	0.00	
9,450.00	62.63	359.64	9,300.87	-272.79	-373.40	-255.87	10.00	10.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,500.00	67.63	359.64	9,321.89	-227.44	-373.68	-210.56	10.00	10.00	0.00
9,550.00	72.63	359.64	9,338.87	-180.44	-373.98	-163.58	10.00	10.00	0.00
9,553.81	73.01	359.64	9,340.00	-176.79	-374.00	-159.94	10.00	10.00	0.00
Wolfcamp C									
9,600.00	77.63	359.64	9,351.70	-132.13	-374.28	-115.31	10.00	10.00	0.00
9,650.00	82.63	359.64	9,360.27	-82.88	-374.59	-66.10	10.00	10.00	0.00
9,700.00	87.63	359.64	9,364.51	-33.08	-374.90	-16.33	10.00	10.00	0.00
9,723.71	90.00	359.64	9,365.00	-9.38	-375.05	7.35	10.00	10.00	0.00
Start 400.00 hold at 9723.71 MD									
9,800.00	90.00	359.64	9,365.00	66.91	-375.53	83.59	0.00	0.00	0.00
9,900.00	90.00	359.64	9,365.00	166.91	-376.16	183.51	0.00	0.00	0.00
10,000.00	90.00	359.64	9,364.99	266.91	-376.79	283.44	0.00	0.00	0.00
10,100.00	90.00	359.64	9,364.99	366.91	-377.41	383.37	0.00	0.00	0.00
10,123.71	90.00	359.64	9,364.99	390.61	-377.56	407.06	0.00	0.00	0.00
Start DLS 1.50 TFO 90.01									
10,200.00	90.00	0.78	9,364.99	466.90	-377.28	483.26	1.50	0.00	1.50
10,300.00	90.00	2.28	9,364.99	566.87	-374.60	583.00	1.50	0.00	1.50
10,400.00	90.00	3.78	9,364.99	666.72	-369.31	682.52	1.50	0.00	1.50
10,500.00	90.00	5.28	9,364.99	766.41	-361.40	781.76	1.50	0.00	1.50
10,600.00	90.00	6.78	9,364.99	865.85	-350.89	880.63	1.50	0.00	1.50
10,681.04	90.00	8.00	9,364.99	946.21	-340.47	960.45	1.50	0.00	1.50
Start 600.00 hold at 10681.04 MD									
10,700.00	90.00	8.00	9,364.99	964.99	-337.83	979.09	0.00	0.00	0.00
10,800.00	90.00	8.00	9,364.99	1,064.02	-323.91	1,077.40	0.00	0.00	0.00
10,900.00	90.00	8.00	9,364.99	1,163.04	-309.99	1,175.71	0.00	0.00	0.00
11,000.00	90.00	8.00	9,364.99	1,262.07	-296.07	1,274.02	0.00	0.00	0.00
11,100.00	90.00	8.00	9,364.99	1,361.10	-282.16	1,372.32	0.00	0.00	0.00
11,200.00	90.00	8.00	9,364.99	1,460.12	-268.24	1,470.63	0.00	0.00	0.00
11,281.04	90.00	8.00	9,364.99	1,540.37	-256.96	1,550.30	0.00	0.00	0.00
Start Turn -2.00									
11,300.00	90.00	7.62	9,364.99	1,559.16	-254.38	1,568.95	2.00	0.00	-2.00
11,400.00	90.00	5.62	9,364.99	1,658.49	-242.86	1,667.67	2.00	0.00	-2.00
11,500.00	90.00	3.62	9,364.99	1,758.16	-234.80	1,766.88	2.00	0.00	-2.00
11,600.00	90.00	1.62	9,364.99	1,858.05	-230.23	1,866.46	2.00	0.00	-2.00
11,700.00	90.00	359.62	9,364.99	1,958.04	-229.14	1,966.31	2.00	0.00	-2.00
11,757.11	90.00	358.48	9,364.99	2,015.14	-230.09	2,023.39	2.00	0.00	-2.00
Start 7759.98 hold at 11757.11 MD									
11,800.00	90.00	358.48	9,364.99	2,058.01	-231.23	2,066.28	0.00	0.00	0.00
11,900.00	90.00	358.48	9,364.99	2,157.98	-233.89	2,166.26	0.00	0.00	0.00
12,000.00	90.00	358.48	9,364.99	2,257.94	-236.54	2,266.24	0.00	0.00	0.00
12,100.00	90.00	358.48	9,364.99	2,357.91	-239.20	2,366.23	0.00	0.00	0.00
12,200.00	90.00	358.48	9,364.99	2,457.87	-241.85	2,466.21	0.00	0.00	0.00
12,300.00	90.00	358.48	9,364.99	2,557.84	-244.51	2,566.19	0.00	0.00	0.00
12,400.00	90.00	358.48	9,364.99	2,657.80	-247.16	2,666.18	0.00	0.00	0.00
12,500.00	90.00	358.48	9,364.99	2,757.77	-249.82	2,766.16	0.00	0.00	0.00
12,600.00	90.00	358.48	9,364.99	2,857.73	-252.47	2,866.15	0.00	0.00	0.00
12,700.00	90.00	358.48	9,364.99	2,957.70	-255.13	2,966.13	0.00	0.00	0.00
12,800.00	90.00	358.48	9,364.99	3,057.66	-257.78	3,066.11	0.00	0.00	0.00
12,900.00	90.00	358.48	9,364.99	3,157.62	-260.44	3,166.10	0.00	0.00	0.00
13,000.00	90.00	358.48	9,364.99	3,257.59	-263.09	3,266.08	0.00	0.00	0.00
13,100.00	90.00	358.48	9,364.99	3,357.55	-265.75	3,366.06	0.00	0.00	0.00
13,200.00	90.00	358.48	9,364.99	3,457.52	-268.40	3,466.05	0.00	0.00	0.00
13,300.00	90.00	358.48	9,364.99	3,557.48	-271.06	3,566.03	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
13,400.00	90.00	358.48	9,364.99	3,657.45	-273.71	3,666.02	0.00	0.00	0.00	
13,500.00	90.00	358.48	9,364.99	3,757.41	-276.37	3,766.00	0.00	0.00	0.00	
13,600.00	90.00	358.48	9,364.99	3,857.38	-279.03	3,865.98	0.00	0.00	0.00	
13,700.00	90.00	358.48	9,364.99	3,957.34	-281.68	3,965.97	0.00	0.00	0.00	
13,800.00	90.00	358.48	9,364.99	4,057.31	-284.34	4,065.95	0.00	0.00	0.00	
13,900.00	90.00	358.48	9,364.99	4,157.27	-286.99	4,165.93	0.00	0.00	0.00	
14,000.00	90.00	358.48	9,364.99	4,257.24	-289.65	4,265.92	0.00	0.00	0.00	
14,100.00	90.00	358.48	9,364.99	4,357.20	-292.30	4,365.90	0.00	0.00	0.00	
14,200.00	90.00	358.48	9,364.99	4,457.17	-294.96	4,465.88	0.00	0.00	0.00	
14,300.00	90.00	358.48	9,364.99	4,557.13	-297.61	4,565.87	0.00	0.00	0.00	
14,400.00	90.00	358.48	9,364.99	4,657.10	-300.27	4,665.85	0.00	0.00	0.00	
14,500.00	90.00	358.48	9,364.99	4,757.06	-302.92	4,765.84	0.00	0.00	0.00	
14,600.00	90.00	358.48	9,364.99	4,857.03	-305.58	4,865.82	0.00	0.00	0.00	
14,700.00	90.00	358.48	9,364.99	4,956.99	-308.23	4,965.80	0.00	0.00	0.00	
14,800.00	90.00	358.48	9,364.99	5,056.96	-310.89	5,065.79	0.00	0.00	0.00	
14,900.00	90.00	358.48	9,364.99	5,156.92	-313.54	5,165.77	0.00	0.00	0.00	
15,000.00	90.00	358.48	9,364.99	5,256.88	-316.20	5,265.75	0.00	0.00	0.00	
15,100.00	90.00	358.48	9,364.99	5,356.85	-318.85	5,365.74	0.00	0.00	0.00	
15,200.00	90.00	358.48	9,364.99	5,456.81	-321.51	5,465.72	0.00	0.00	0.00	
15,300.00	90.00	358.48	9,364.99	5,556.78	-324.16	5,565.71	0.00	0.00	0.00	
15,400.00	90.00	358.48	9,364.99	5,656.74	-326.82	5,665.69	0.00	0.00	0.00	
15,500.00	90.00	358.48	9,364.99	5,756.71	-329.48	5,765.67	0.00	0.00	0.00	
15,600.00	90.00	358.48	9,364.99	5,856.67	-332.13	5,865.66	0.00	0.00	0.00	
15,700.00	90.00	358.48	9,364.99	5,956.64	-334.79	5,965.64	0.00	0.00	0.00	
15,800.00	90.00	358.48	9,364.99	6,056.60	-337.44	6,065.62	0.00	0.00	0.00	
15,900.00	90.00	358.48	9,364.99	6,156.57	-340.10	6,165.61	0.00	0.00	0.00	
16,000.00	90.00	358.48	9,364.99	6,256.53	-342.75	6,265.59	0.00	0.00	0.00	
16,100.00	90.00	358.48	9,364.99	6,356.50	-345.41	6,365.58	0.00	0.00	0.00	
16,200.00	90.00	358.48	9,364.99	6,456.46	-348.06	6,465.56	0.00	0.00	0.00	
16,300.00	90.00	358.48	9,364.99	6,556.43	-350.72	6,565.54	0.00	0.00	0.00	
16,400.00	90.00	358.48	9,364.99	6,656.39	-353.37	6,665.53	0.00	0.00	0.00	
16,500.00	90.00	358.48	9,364.99	6,756.36	-356.03	6,765.51	0.00	0.00	0.00	
16,600.00	90.00	358.48	9,364.99	6,856.32	-358.68	6,865.49	0.00	0.00	0.00	
16,700.00	90.00	358.48	9,364.99	6,956.29	-361.34	6,965.48	0.00	0.00	0.00	
16,800.00	90.00	358.48	9,364.99	7,056.25	-363.99	7,065.46	0.00	0.00	0.00	
16,900.00	90.00	358.48	9,364.99	7,156.21	-366.65	7,165.45	0.00	0.00	0.00	
17,000.00	90.00	358.48	9,364.99	7,256.18	-369.30	7,265.43	0.00	0.00	0.00	
17,100.00	90.00	358.48	9,364.99	7,356.14	-371.96	7,365.41	0.00	0.00	0.00	
17,200.00	90.00	358.48	9,364.99	7,456.11	-374.61	7,465.40	0.00	0.00	0.00	
17,300.00	90.00	358.48	9,364.99	7,556.07	-377.27	7,565.38	0.00	0.00	0.00	
17,400.00	90.00	358.48	9,364.99	7,656.04	-379.93	7,665.36	0.00	0.00	0.00	
17,500.00	90.00	358.48	9,364.99	7,756.00	-382.58	7,765.35	0.00	0.00	0.00	
17,600.00	90.00	358.48	9,364.99	7,855.97	-385.24	7,865.33	0.00	0.00	0.00	
17,700.00	90.00	358.48	9,364.99	7,955.93	-387.89	7,965.32	0.00	0.00	0.00	
17,800.00	90.00	358.48	9,364.99	8,055.90	-390.55	8,065.30	0.00	0.00	0.00	
17,900.00	90.00	358.48	9,364.99	8,155.86	-393.20	8,165.28	0.00	0.00	0.00	
18,000.00	90.00	358.48	9,364.99	8,255.83	-395.86	8,265.27	0.00	0.00	0.00	
18,100.00	90.00	358.48	9,364.99	8,355.79	-398.51	8,365.25	0.00	0.00	0.00	
18,200.00	90.00	358.48	9,364.99	8,455.76	-401.17	8,465.23	0.00	0.00	0.00	
18,300.00	90.00	358.48	9,364.99	8,555.72	-403.82	8,565.22	0.00	0.00	0.00	
18,400.00	90.00	358.48	9,364.99	8,655.69	-406.48	8,665.20	0.00	0.00	0.00	
18,500.00	90.00	358.48	9,364.99	8,755.65	-409.13	8,765.19	0.00	0.00	0.00	
18,600.00	90.00	358.48	9,364.99	8,855.62	-411.79	8,865.17	0.00	0.00	0.00	
18,700.00	90.00	358.48	9,364.99	8,955.58	-414.44	8,965.15	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
18,800.00	90.00	358.48	9,364.99	9,055.54	-417.10	9,065.14	0.00	0.00	0.00	
18,900.00	90.00	358.48	9,364.99	9,155.51	-419.75	9,165.12	0.00	0.00	0.00	
19,000.00	90.00	358.48	9,364.99	9,255.47	-422.41	9,265.10	0.00	0.00	0.00	
19,100.00	90.00	358.48	9,364.99	9,355.44	-425.07	9,365.09	0.00	0.00	0.00	
19,200.00	90.00	358.48	9,364.99	9,455.40	-427.72	9,465.07	0.00	0.00	0.00	
19,300.00	90.00	358.48	9,364.99	9,555.37	-430.38	9,565.05	0.00	0.00	0.00	
19,400.00	90.00	358.48	9,364.99	9,655.33	-433.03	9,665.04	0.00	0.00	0.00	
19,500.00	90.00	358.48	9,364.99	9,755.30	-435.69	9,765.02	0.00	0.00	0.00	
19,517.09	90.00	358.48	9,365.00	9,772.38	-436.14	9,782.11	0.00	0.00	0.00	
TD at 19517.09										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SCHLITZ FED 231H LTF - hit/miss target - Shape	0.00	0.00	9,365.00	9,642.41	-476.51	418,688.27	550,297.91	32.1510492°N	104.3043801°W	
- plan misses target center by 43.81usft at 19388.23usft MD (9364.99 TVD, 9643.57 N, -432.72 E)										
- Point										
SCHLITZ FED 231H PB - plan hits target center - Point	0.00	0.00	9,365.00	9,772.38	-436.14	418,818.24	550,338.28	32.1514065°N	104.3042495°W	
SCHLITZ FED 231H FTI - plan misses target center by 81.98usft at 9450.37usft MD (9301.04 TVD, -272.47 N, -373.40 E)	0.00	0.00	9,365.00	-302.38	-415.05	408,743.48	550,359.38	32.1237115°N	104.3041902°W	
- Point										

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHLITZ FED COM 231H
Company:	TAP ROCK RESOURCES	TVD Reference:	KB 25.5 @ 3453.50usft
Project:	EDDY COUNTY	MD Reference:	KB 25.5 @ 3453.50usft
Site:	SEC 16-T25S-R26E	North Reference:	Grid
Well:	SCHLITZ FED COM 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
495.00	495.00	Rustler Anhydrite				
940.00	940.00	Top Salt				
1,676.90	1,675.00	Base Salt				
1,877.77	1,875.00	Delaware Mountain Gp				
1,882.79	1,880.00	Lamar				
1,933.01	1,930.00	Bell Canyon				
1,978.20	1,975.00	Ramsey Sand				
2,897.17	2,890.00	Cherry Canyon				
3,811.12	3,800.00	Brushy Canyon				
5,463.26	5,445.00	Bone Spring Lime				
5,583.78	5,565.00	Upper Avalon				
5,915.21	5,895.00	Middle Avalon				
6,221.54	6,200.00	Lower Avalon				
6,397.30	6,375.00	1st Bone Spring Sand				
6,688.56	6,665.00	2nd Bone Spring Carb				
7,160.60	7,135.00	2nd Bone Spring Sand				
7,245.96	7,220.00	3rd Bone Spring Carb				
8,205.11	8,175.00	3rd Bone Spring Sand				
8,456.19	8,425.00	3rd BS W Sand				
8,566.50	8,535.00	Wolfcamp A X Sand				
8,606.55	8,575.00	Wolfcamp A Y Sand				
8,676.61	8,645.00	Wolfcamp A Lower				
8,841.63	8,810.00	Wolfcamp B				
9,210.32	9,150.00	Wolfcamp B1				
9,553.81	9,340.00	Wolfcamp C				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.00	1,000.00	0.00	0.00	Start Build 1.50	
1,355.21	1,354.70	-13.91	-8.88	Start 7083.21 hold at 1355.21 MD	
8,438.42	8,407.30	-568.47	-362.57	Start Drop -1.50	
8,793.63	8,762.00	-582.38	-371.45	Start 30.00 hold at 8793.63 MD	
8,823.63	8,792.00	-582.38	-371.45	Start DLS 10.00 TFO 359.64	
9,723.71	9,365.00	-9.38	-375.05	Start 400.00 hold at 9723.71 MD	
10,123.71	9,364.99	390.61	-377.56	Start DLS 1.50 TFO 90.01	
10,681.04	9,364.99	946.21	-340.47	Start 600.00 hold at 10681.04 MD	
11,281.04	9,364.99	1,540.37	-256.96	Start Turn -2.00	
11,757.11	9,364.99	2,015.14	-230.09	Start 7759.98 hold at 11757.11 MD	
19,517.09	9,365.00	9,772.38	-436.14	TD at 19517.09	