

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Received 03/31/2020
NMOCD District 2

Form C-104
Revised August 1, 2011

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address TAP ROCK OPERATING, LLC 602 PARK POINT DRIVE, SUITE 200 GOLDEN, CO 80401		² OGRID Number 372043	
		³ Reason for Filing Code/ Effective Date RT	
⁴ API Number 30 - 0 15-46119	⁵ Pool Name PURPLE SAGE, WOLFCAMP		⁶ Pool Code 98220
⁷ Property Code 319943	⁸ Property Name CYPRESS 34 FEDERAL		⁹ Well Number 233H

II. ¹⁰ Surface Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	3	24S	29E	1	241	NORTH	1171	EAST	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	34	23S	29E		73	NORTH	1985	EAST	EDDY
¹² Lse Code F	¹³ Producing Method Code F		¹⁴ Gas Connection Date		¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address		²⁰ O/G/W
373554	SALT CREEK MIDSTREAM, LLC 20329 STATE HIGHWAY 249 HOUSTON, TX U.S.A 77070		O
373554	SALT CREEK MIDSTREAM, LLC 20329 STATE HIGHWAY 249 HOUSTON, TX U.S.A 77070		G

IV. Well Completion Data

²¹ Spud Date 8/4/19	²² Ready Date 11/9/2019	²³ TD 16180	²⁴ PBTD 16125'	²⁵ Perforations 10972'-16016'	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17 1/2"		13 3/8"	426'		560
12 1/4"		9 5/8"	3100'		1073
8 3/4"		7 5/8"	10317'		827
6 3/4		5 1/2", 5"	9744',16170'		721

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 		OIL CONSERVATION DIVISION	
Printed name: Bill Ramsey		Approved by: DENIED	
Title: Regulatory Analyst		Title:	
E-mail Address: bramsey@taprk.com		Approval Date:	
Date: 3/18/2020	Phone: 720-360-4028	RT EXPIRED: 2/9/2020, received 3/31/20. Re-submit a C-104 NW with C-102, survey, Well Completion Report	

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

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT
AS-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46119	² Pool Code 98220	³ Pool Name PURPLE SAGE WOLFCAMP (GAS)
⁴ Property Code 319943	⁵ Property Name CYPRESS 34	⁶ Well Number 233H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁹ Elevation 3093'

¹⁰Surface Location

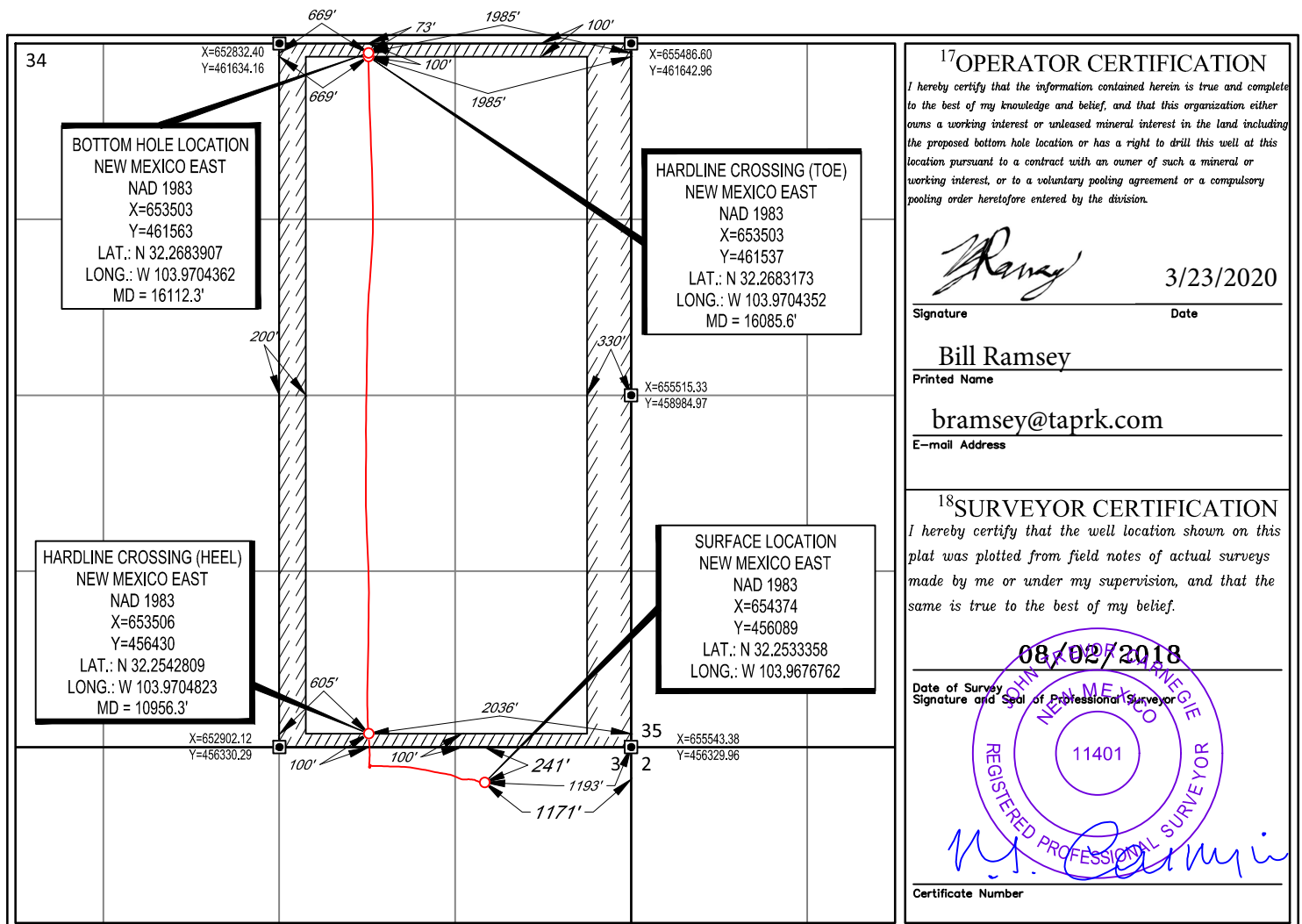
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	3	24-S	29-E	-	241'	NORTH	1171'	EAST	EDDY

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
B	34	23-S	29-E	-	73'	NORTH	1985'	EAST	EDDY

¹² Dedicated Acres	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.

Ramsey 3/23/2020
Signature Date

Bill Ramsey
Printed Name
bramsey@taprk.com
E-mail Address

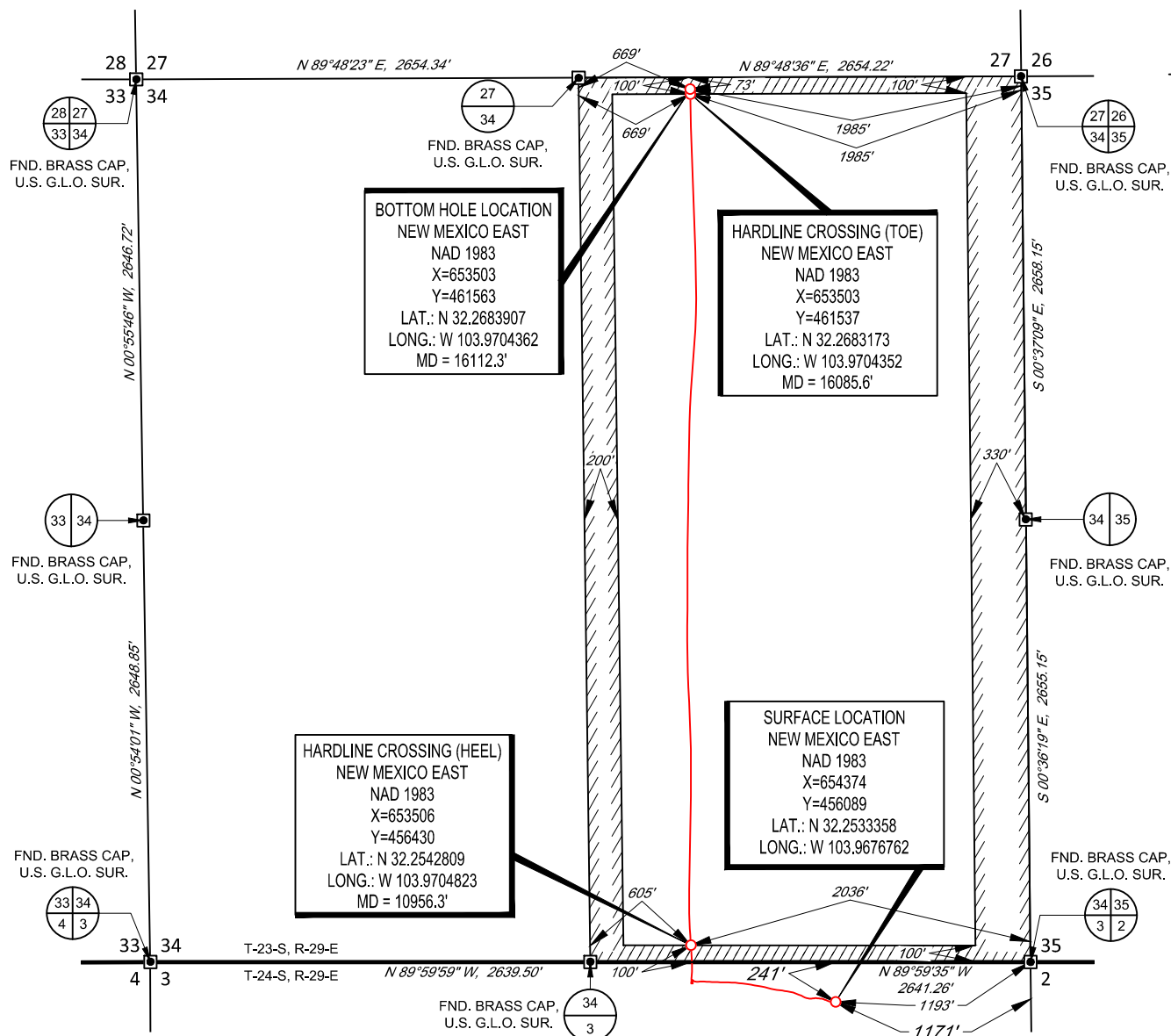
¹⁸SURVEYOR CERTIFICATION

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.

08/02/2018
Date of Survey
Signature and Seal of Professional Surveyor
11401
REGISTERED PROFESSIONAL SURVEYOR
Certificate Number

SCALE: 1" = 1000'

SECTION 3, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: CYPRESS 34 233H
SECTION 3 TWP 24-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM ELEVATION 3093'
DESCRIPTION 241' FNL & 1171' FEL

INTERNAL
PRE-COMPLETION
PLAT



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

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. THIS WELL 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.

CYPRESS 34 233H PRE-COMPLETION	REVISION:	
	IMU	11/12/2019
DATE: 10/08/2019		
FILE: C_CYPRESS_34_233H_REV1		
DRAWN BY: JLS		
SHEET: 1 OF 1		



Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)
(Cypress) Sec-3_T-24-S_R-29-E
Cypress 34 Federal #233H**

OWB

Design: AWB

Standard Survey Report

26 September, 2019





Operator: Taprock Resources LLC
Well Name: Cypress 34 Federal #233H
County: Eddy
State: New Mexico
Rig Name: H&P 388
API Number: 30-015-46119

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

Surveyor: Intrepid Directional Drilling Specialists
Survey Depths: 120' MD – 16113' MD
Projection to Bit: 16180' MD
Dates Performed: 09/08/2019 – 09/27/2019
Type of Survey: MWD

Sincerely,

A handwritten signature in blue ink, appearing to read "Jim", with a stylized flourish at the end.

James Burleson
Vice President of MWD Operations
Intrepid Directional Drilling Specialists



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.5usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Project	Eddy 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 (Cypress) Sec-3_T-24-S_R-29-E					
Site Position:		Northing:	456,089.00 usft	Latitude:	32° 15' 12.005 N
From:	Map	Easting:	654,400.00 usft	Longitude:	103° 58' 3.336 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well		Cypress 34 Federal #233H				
Well Position	+N/-S	0.0 usft	Northing:	456,089.00 usft	Latitude:	32° 15' 12.005 N
	+E/-W	0.0 usft	Easting:	654,374.00 usft	Longitude:	103° 58' 3.639 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,093.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/23/19	6.90	60.00	47,691.72419838

Design	AWB				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	359.39	

Survey Program	Date	09/26/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
120.0	16,180.0	Intrepid MWD (OWB)	MWD	OWSG MWD - Standard	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	1.00	186.00	120.0	-1.0	-0.1	-1.0	0.83	0.83	0.00
206.0	0.80	158.00	206.0	-2.3	0.0	-2.3	0.55	-0.23	-32.56
296.0	0.40	334.00	296.0	-2.6	0.1	-2.6	1.33	-0.44	195.56
320.0	0.20	324.61	320.0	-2.5	0.1	-2.5	0.84	-0.82	-39.11
Rustler Anhydrite									
390.0	0.40	173.00	390.0	-2.7	0.0	-2.7	0.84	0.28	-216.64
436.0	0.30	304.00	436.0	-2.8	0.0	-2.8	1.39	-0.22	284.78
509.0	0.31	273.90	509.0	-2.6	-0.4	-2.6	0.22	0.01	-41.23
602.0	0.35	194.71	602.0	-2.9	-0.7	-2.9	0.45	0.04	-85.15
696.0	0.53	194.44	696.0	-3.6	-0.9	-3.6	0.19	0.19	-0.29

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
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Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
789.0	0.53	186.71	789.0	-4.4	-1.1	-4.4	0.08	0.00	-8.31
883.0	0.48	209.39	883.0	-5.2	-1.3	-5.2	0.22	-0.05	24.13
968.0	1.05	276.09	968.0	-5.4	-2.3	-5.4	1.14	0.67	78.47
1,062.0	2.59	284.71	1,061.9	-4.8	-5.2	-4.8	1.66	1.64	9.17
1,155.0	2.59	287.87	1,154.8	-3.6	-9.2	-3.5	0.15	0.00	3.40
1,248.0	4.04	287.34	1,247.7	-2.0	-14.3	-1.9	1.56	1.56	-0.57
1,342.0	6.11	285.94	1,341.3	0.3	-22.3	0.6	2.21	2.20	-1.49
1,435.0	6.90	283.21	1,433.7	3.0	-32.5	3.3	0.91	0.85	-2.94
1,529.0	6.11	291.04	1,527.1	6.1	-42.7	6.5	1.26	-0.84	8.33
1,622.0	5.27	290.95	1,619.6	9.4	-51.3	9.9	0.90	-0.90	-0.10
1,622.4	5.27	290.95	1,620.0	9.4	-51.3	9.9	0.00	0.00	0.00
Top Salt									
1,716.0	4.79	292.62	1,713.3	12.4	-58.9	13.0	0.54	-0.51	1.78
1,810.0	4.31	291.74	1,807.0	15.2	-65.8	15.9	0.52	-0.51	-0.94
1,903.0	3.96	291.48	1,899.7	17.7	-72.1	18.5	0.38	-0.38	-0.28
1,997.0	3.69	284.36	1,993.5	19.6	-78.0	20.5	0.58	-0.29	-7.57
2,090.0	3.30	275.66	2,086.3	20.7	-83.6	21.5	0.71	-0.42	-9.35
2,184.0	2.77	276.01	2,180.2	21.2	-88.5	22.1	0.56	-0.56	0.37
2,277.0	3.43	276.27	2,273.1	21.7	-93.5	22.7	0.71	0.71	0.28
2,369.0	5.32	276.80	2,364.8	22.5	-100.5	23.6	2.05	2.05	0.58
2,462.0	5.63	277.76	2,457.4	23.6	-109.3	24.8	0.35	0.33	1.03
2,555.0	4.13	270.65	2,550.0	24.3	-117.2	25.5	1.74	-1.61	-7.65
2,649.0	3.38	262.65	2,643.8	24.0	-123.3	25.3	0.97	-0.80	-8.51
2,743.0	4.00	266.16	2,737.6	23.4	-129.3	24.8	0.70	0.66	3.73
2,836.0	5.32	264.49	2,830.3	22.8	-136.9	24.2	1.43	1.42	-1.80
2,929.0	5.89	262.38	2,922.9	21.7	-145.9	23.3	0.65	0.61	-2.27
2,960.3	5.86	266.83	2,954.0	21.4	-149.1	23.0	1.46	-0.10	14.21
Base Salt									
3,054.0	5.98	280.05	3,047.2	22.0	-158.6	23.7	1.46	0.13	14.11
3,117.0	5.27	276.27	3,109.9	22.9	-164.8	24.6	1.27	-1.13	-6.00
3,181.4	5.82	284.52	3,174.0	24.0	-170.9	25.8	1.50	0.86	12.81
Delaware Mountain Gp - Lamar									
3,206.5	6.07	287.31	3,199.0	24.7	-173.4	26.6	1.50	0.97	11.10
Bell Canyon									
3,211.0	6.11	287.78	3,203.5	24.9	-173.8	26.7	1.50	1.00	10.57
3,241.7	6.45	290.29	3,234.0	26.0	-177.0	27.9	1.41	1.09	8.17
Ramsey Sand									
3,304.0	7.16	294.64	3,295.8	28.8	-183.8	30.8	1.41	1.15	6.98
3,398.0	7.52	293.32	3,389.1	33.7	-194.8	35.8	0.42	0.38	-1.40
3,491.0	9.27	294.55	3,481.1	39.2	-207.2	41.4	1.89	1.88	1.32
3,585.0	10.95	292.53	3,573.6	45.8	-222.3	48.1	1.83	1.79	-2.15
3,679.0	11.08	291.48	3,665.9	52.5	-239.0	55.1	0.25	0.14	-1.12
3,772.0	10.90	282.86	3,757.2	57.7	-255.8	60.5	1.78	-0.19	-9.27
3,866.0	10.77	280.75	3,849.5	61.4	-273.1	64.3	0.44	-0.14	-2.24

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Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,959.0	10.42	281.02	3,940.9	64.6	-289.9	67.7	0.38	-0.38	0.29
4,053.0	9.10	280.58	4,033.5	67.6	-305.6	70.8	1.41	-1.40	-0.47
4,105.1	9.02	279.11	4,085.0	69.0	-313.7	72.3	0.47	-0.14	-2.82
Cherry Canyon									
4,146.0	8.97	277.94	4,125.4	69.9	-320.0	73.3	0.47	-0.13	-2.86
4,239.0	10.02	277.76	4,217.1	72.0	-335.2	75.6	1.13	1.13	-0.19
4,332.0	11.65	277.59	4,308.5	74.4	-352.5	78.1	1.75	1.75	-0.18
4,425.0	11.60	277.85	4,399.6	76.9	-371.1	80.8	0.08	-0.05	0.28
4,518.0	11.12	287.70	4,490.7	80.9	-388.9	85.0	2.15	-0.52	10.59
4,612.0	11.56	283.57	4,582.9	85.8	-406.7	90.2	0.98	0.47	-4.39
4,706.0	11.38	282.77	4,675.0	90.1	-424.9	94.6	0.26	-0.19	-0.85
4,799.0	11.38	280.75	4,766.2	93.8	-442.8	98.6	0.43	0.00	-2.17
4,892.0	13.89	278.91	4,856.9	97.3	-462.9	102.2	2.73	2.70	-1.98
4,986.0	14.73	280.23	4,948.0	101.2	-485.8	106.3	0.96	0.89	1.40
5,080.0	15.12	279.70	5,038.9	105.3	-509.6	110.8	0.44	0.41	-0.56
5,173.0	15.08	278.03	5,128.6	109.1	-533.6	114.7	0.47	-0.04	-1.80
5,267.0	15.16	277.24	5,219.4	112.3	-557.9	118.3	0.24	0.09	-0.84
5,360.0	13.71	275.66	5,309.4	115.0	-580.9	121.1	1.62	-1.56	-1.70
5,360.6	13.71	275.66	5,310.0	115.0	-581.0	121.1	0.00	0.00	0.00
Brushy Canyon									
5,453.0	13.98	274.07	5,399.7	116.8	-603.1	123.2	0.50	0.29	-1.72
5,546.0	12.75	273.72	5,490.2	118.3	-624.5	124.9	1.33	-1.32	-0.38
5,639.0	11.16	272.75	5,581.2	119.4	-643.8	126.2	1.72	-1.71	-1.04
5,732.0	8.88	268.62	5,672.8	119.7	-659.9	126.7	2.57	-2.45	-4.44
5,826.0	9.01	268.54	5,765.6	119.3	-674.5	126.5	0.14	0.14	-0.09
5,919.0	11.65	271.35	5,857.1	119.3	-691.2	126.7	2.89	2.84	3.02
6,012.0	10.73	274.07	5,948.4	120.2	-709.2	127.7	1.14	-0.99	2.92
6,105.0	9.89	270.91	6,039.9	120.9	-725.9	128.6	1.09	-0.90	-3.40
6,198.0	9.71	271.44	6,131.5	121.2	-741.7	129.1	0.22	-0.19	0.57
6,289.0	10.81	273.28	6,221.0	121.9	-757.9	130.0	1.26	1.21	2.02
6,381.0	9.89	273.99	6,311.5	123.0	-774.4	131.2	1.01	-1.00	0.77
6,471.0	8.53	269.77	6,400.4	123.5	-788.8	131.9	1.69	-1.51	-4.69
6,562.0	8.40	270.21	6,490.4	123.5	-802.1	132.0	0.16	-0.14	0.48
6,654.0	7.34	270.29	6,581.5	123.5	-814.7	132.2	1.15	-1.15	0.09
6,745.0	6.29	267.57	6,671.9	123.3	-825.5	132.1	1.21	-1.15	-2.99
6,838.0	5.32	270.29	6,764.4	123.1	-834.9	132.0	1.08	-1.04	2.92
6,931.0	3.56	278.56	6,857.1	123.6	-842.1	132.6	2.01	-1.89	8.89
7,019.0	2.10	291.03	6,945.0	124.6	-846.3	133.6	1.79	-1.66	14.17
Bone Spring Lime									
7,024.0	2.02	292.27	6,950.0	124.6	-846.5	133.6	1.79	-1.56	24.77
7,074.0	1.97	296.67	7,000.0	125.4	-848.1	134.4	0.32	-0.11	8.79
Upper Avalon									
7,117.0	1.93	300.62	7,043.0	126.1	-849.3	135.1	0.32	-0.08	9.20
7,211.0	1.76	308.70	7,136.9	127.8	-851.8	136.8	0.33	-0.18	8.60

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.5usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,304.0	2.15	325.93	7,229.9	130.1	-853.9	139.2	0.75	0.42	18.53
7,396.0	1.89	290.60	7,321.8	132.1	-856.3	141.2	1.36	-0.28	-38.40
7,434.2	1.16	282.64	7,360.0	132.4	-857.3	141.5	1.98	-1.91	-20.82
Middle Avalon									
7,489.0	0.40	212.99	7,414.8	132.3	-857.9	141.5	1.98	-1.39	-127.14
7,582.0	1.71	176.34	7,507.8	130.7	-858.0	139.8	1.52	1.41	-39.41
7,674.0	1.93	164.56	7,599.7	127.8	-857.5	136.9	0.47	0.24	-12.80
7,767.0	1.45	226.35	7,692.7	125.5	-857.9	134.6	1.92	-0.52	66.44
7,860.0	1.93	245.33	7,785.6	124.0	-860.2	133.2	0.79	0.52	20.41
7,884.4	1.82	240.81	7,810.0	123.7	-860.9	132.8	0.76	-0.46	-18.54
Lower Avalon									
7,954.0	1.58	224.85	7,879.6	122.5	-862.6	131.6	0.76	-0.34	-22.92
8,004.4	1.42	216.09	7,930.0	121.5	-863.4	130.6	0.55	-0.32	-17.37
1st Bone Spring Sand									
8,046.0	1.32	207.45	7,971.6	120.6	-864.0	129.8	0.55	-0.24	-20.79
8,140.0	0.57	153.14	8,065.6	119.2	-864.2	128.4	1.16	-0.80	-57.78
8,233.0	0.66	10.75	8,158.6	119.3	-863.9	128.5	1.25	0.10	-153.11
8,269.4	0.73	37.49	8,195.0	119.7	-863.8	128.9	0.90	0.18	73.36
2nd Bone Spring Carb									
8,327.0	1.05	64.01	8,252.5	120.3	-863.1	129.4	0.90	0.56	46.08
8,420.0	0.70	61.29	8,345.5	120.9	-861.8	130.1	0.38	-0.38	-2.92
8,514.0	0.62	26.05	8,439.5	121.6	-861.1	130.8	0.43	-0.09	-37.49
8,608.0	0.79	226.00	8,533.5	121.6	-861.3	130.8	1.48	0.18	-170.27
8,629.5	0.70	212.96	8,555.0	121.4	-861.5	130.6	0.90	-0.43	-60.74
2nd Bone Spring Sand									
8,701.0	0.75	160.61	8,626.5	120.6	-861.6	129.8	0.90	0.07	-73.19
8,795.0	0.79	152.61	8,720.5	119.5	-861.1	128.6	0.12	0.04	-8.51
8,888.0	1.85	159.11	8,813.5	117.5	-860.2	126.6	1.15	1.14	6.99
8,981.0	1.67	152.17	8,906.4	114.9	-859.1	124.0	0.30	-0.19	-7.46
9,075.0	0.79	120.62	9,000.4	113.4	-857.9	122.5	1.15	-0.94	-33.56
9,124.6	0.57	167.88	9,050.0	112.9	-857.5	122.1	1.17	-0.45	95.32
3rd Bone Spring Carb									
9,169.0	0.79	209.03	9,094.4	112.5	-857.6	121.6	1.17	0.50	92.63
9,262.0	0.22	341.05	9,187.4	112.1	-858.0	121.2	1.02	-0.61	141.96
9,355.0	0.18	186.80	9,280.4	112.1	-858.1	121.2	0.42	-0.04	-165.86
9,448.0	0.40	242.26	9,373.4	111.8	-858.4	120.9	0.36	0.24	59.63
9,542.0	1.01	296.22	9,467.4	112.0	-859.4	121.1	0.89	0.65	57.40
9,637.0	0.75	301.23	9,562.4	112.7	-860.7	121.9	0.29	-0.27	5.27
9,730.0	0.70	246.48	9,655.4	112.8	-861.7	122.0	0.72	-0.05	-58.87
9,824.0	0.48	350.71	9,749.4	112.9	-862.3	122.1	1.00	-0.23	110.88
9,918.0	0.31	302.11	9,843.4	113.5	-862.6	122.6	0.38	-0.18	-51.70
9,934.6	0.29	294.23	9,860.0	113.5	-862.7	122.7	0.27	-0.09	-47.42
3rd Bone Spring Sand									
10,012.0	0.31	254.56	9,937.4	113.5	-863.1	122.7	0.27	0.02	-51.27

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.5usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,106.0	0.53	231.01	10,031.4	113.2	-863.7	122.4	0.29	0.23	-25.05
10,194.6	0.35	178.60	10,120.0	112.7	-864.0	121.9	0.47	-0.21	-59.14
3rd BS W Sand									
10,199.0	0.35	175.20	10,124.4	112.6	-864.0	121.8	0.47	0.04	-77.62
10,239.6	0.49	215.94	10,165.0	112.4	-864.1	121.6	0.80	0.35	100.28
Wolfcamp A X Sand									
10,272.0	0.70	231.01	10,197.4	112.1	-864.3	121.3	0.80	0.64	46.55
10,344.6	0.53	241.31	10,270.0	111.7	-864.9	120.9	0.27	-0.23	14.18
Wolfcamp A Y Sand									
10,371.0	0.48	246.74	10,296.4	111.6	-865.1	120.8	0.27	-0.20	20.60
10,434.6	1.22	326.38	10,360.0	112.1	-865.8	121.3	1.93	1.17	125.14
Wolfcamp A Lower									
10,464.0	1.76	333.49	10,389.4	112.7	-866.1	121.9	1.93	1.83	24.22
10,511.0	8.35	3.19	10,436.1	116.8	-866.3	126.0	14.63	14.02	63.19
10,559.0	15.60	3.90	10,483.1	126.7	-865.6	135.9	15.11	15.10	1.48
10,606.0	23.38	3.99	10,527.3	142.3	-864.6	151.5	16.55	16.55	0.19
10,619.8	24.19	3.68	10,540.0	147.9	-864.2	157.1	5.96	5.89	-2.22
Wolfcamp B									
10,653.0	26.15	3.02	10,570.0	162.0	-863.4	171.2	5.96	5.90	-2.00
10,700.0	28.57	1.70	10,611.8	183.6	-862.5	192.7	5.31	5.15	-2.81
10,746.0	32.09	1.52	10,651.5	206.8	-861.8	216.0	7.65	7.65	-0.39
10,793.0	34.46	357.92	10,690.7	232.6	-862.0	241.7	6.56	5.04	-7.66
10,840.0	36.75	357.13	10,729.0	259.9	-863.2	269.1	4.97	4.87	-1.68
10,931.0	47.25	355.64	10,796.5	320.6	-867.1	329.8	11.59	11.54	-1.64
10,958.0	53.03	355.69	10,813.8	341.2	-868.6	350.5	21.43	21.43	0.18
FTP @ 10958'MD, 100'FSL & 604.5'FWL									
10,960.0	53.47	355.69	10,815.0	342.8	-868.8	352.1	21.43	21.43	0.16
Wolfcamp B1									
10,978.0	57.32	355.72	10,825.2	357.6	-869.9	366.8	21.43	21.43	0.16
11,025.0	65.32	356.60	10,847.7	398.7	-872.6	408.0	17.10	17.02	1.87
11,072.0	68.97	357.04	10,866.0	441.9	-875.0	451.2	7.81	7.77	0.94
11,119.0	74.29	357.92	10,880.8	486.5	-877.0	495.8	11.46	11.32	1.87
11,166.0	79.82	358.36	10,891.3	532.3	-878.5	541.6	11.80	11.77	0.94
11,213.0	83.96	359.42	10,898.0	578.8	-879.4	588.1	9.09	8.81	2.26
11,309.0	86.37	0.82	10,906.1	674.4	-879.2	683.7	2.90	2.51	1.46
11,403.0	88.57	0.91	10,910.2	768.3	-877.7	777.6	2.34	2.34	0.10
11,496.0	88.66	1.17	10,912.4	861.3	-876.1	870.5	0.30	0.10	0.28
11,590.0	88.57	1.26	10,914.7	955.2	-874.1	964.5	0.14	-0.10	0.10
11,684.0	88.79	0.91	10,916.9	1,049.2	-872.3	1,058.4	0.44	0.23	-0.37
11,777.0	88.00	0.82	10,919.5	1,142.1	-870.9	1,151.3	0.85	-0.85	-0.10
11,871.0	88.40	1.00	10,922.4	1,236.1	-869.4	1,245.3	0.47	0.43	0.19
11,965.0	88.57	0.38	10,924.9	1,330.0	-868.3	1,339.2	0.68	0.18	-0.66
12,059.0	90.95	0.03	10,925.3	1,424.0	-867.9	1,433.2	2.56	2.53	-0.37
12,152.0	90.59	358.89	10,924.1	1,517.0	-868.8	1,526.2	1.29	-0.39	-1.23
12,245.0	90.29	358.10	10,923.4	1,610.0	-871.2	1,619.2	0.91	-0.32	-0.85

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.5usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,339.0	90.11	357.75	10,923.0	1,703.9	-874.6	1,713.1	0.42	-0.19	-0.37
12,433.0	92.40	357.04	10,921.0	1,797.8	-878.9	1,807.0	2.55	2.44	-0.76
12,524.0	94.68	357.39	10,915.4	1,888.5	-883.3	1,897.8	2.53	2.51	0.38
12,616.0	94.15	358.10	10,908.3	1,980.1	-886.9	1,989.5	0.96	-0.58	0.77
12,710.0	94.11	358.71	10,901.5	2,073.9	-889.5	2,083.2	0.65	-0.04	0.65
12,803.0	92.09	359.24	10,896.5	2,166.7	-891.2	2,176.1	2.25	-2.17	0.57
12,896.0	89.49	1.00	10,895.2	2,259.7	-891.0	2,269.0	3.38	-2.80	1.89
12,990.0	89.80	0.82	10,895.8	2,353.7	-889.5	2,363.0	0.38	0.33	-0.19
13,084.0	90.07	359.94	10,895.9	2,447.7	-888.9	2,457.0	0.98	0.29	-0.94
13,177.0	91.38	359.77	10,894.7	2,540.7	-889.1	2,550.0	1.42	1.41	-0.18
13,271.0	91.21	359.94	10,892.6	2,634.6	-889.4	2,644.0	0.26	-0.18	0.18
13,363.0	90.73	0.82	10,891.0	2,726.6	-888.8	2,735.9	1.09	-0.52	0.96
13,457.0	91.08	0.73	10,889.5	2,820.6	-887.5	2,829.9	0.38	0.37	-0.10
13,551.0	92.22	0.91	10,886.8	2,914.5	-886.1	2,923.8	1.23	1.21	0.19
13,644.0	89.23	1.00	10,885.7	3,007.5	-884.6	3,016.8	3.22	-3.22	0.10
13,738.0	89.80	0.56	10,886.4	3,101.5	-883.3	3,110.7	0.77	0.61	-0.47
13,832.0	90.68	1.26	10,886.1	3,195.5	-881.8	3,204.7	1.20	0.94	0.74
13,926.0	90.81	0.73	10,884.8	3,289.5	-880.2	3,298.7	0.58	0.14	-0.56
14,020.0	91.34	1.00	10,883.1	3,383.4	-878.8	3,392.6	0.63	0.56	0.29
14,113.0	92.62	1.44	10,879.9	3,476.4	-876.8	3,485.5	1.46	1.38	0.47
14,207.0	91.25	2.23	10,876.7	3,570.3	-873.8	3,579.4	1.68	-1.46	0.84
14,301.0	89.45	4.51	10,876.1	3,664.1	-868.3	3,673.1	3.09	-1.91	2.43
14,394.0	88.13	3.81	10,878.1	3,756.8	-861.5	3,765.8	1.61	-1.42	-0.75
14,487.0	87.78	3.99	10,881.4	3,849.5	-855.2	3,858.4	0.42	-0.38	0.19
14,580.0	88.57	4.69	10,884.4	3,942.2	-848.2	3,951.0	1.13	0.85	0.75
14,674.0	88.75	3.28	10,886.5	4,036.0	-841.6	4,044.7	1.51	0.19	-1.50
14,767.0	87.91	1.61	10,889.3	4,128.8	-837.7	4,137.5	2.01	-0.90	-1.80
14,860.0	87.65	359.42	10,892.9	4,221.8	-836.8	4,230.4	2.37	-0.28	-2.35
14,954.0	89.76	358.62	10,895.0	4,315.7	-838.4	4,324.4	2.40	2.24	-0.85
15,047.0	90.64	358.62	10,894.7	4,408.7	-840.7	4,417.4	0.95	0.95	0.00
15,140.0	90.46	359.24	10,893.8	4,501.7	-842.4	4,510.4	0.69	-0.19	0.67
15,234.0	90.55	357.66	10,892.9	4,595.6	-844.9	4,604.4	1.68	0.10	-1.68
15,328.0	90.99	357.75	10,891.7	4,689.5	-848.7	4,698.3	0.48	0.47	0.10
15,421.0	91.12	358.27	10,890.0	4,782.5	-851.9	4,791.3	0.58	0.14	0.56
15,515.0	91.74	357.57	10,887.6	4,876.4	-855.4	4,885.2	0.99	0.66	-0.74
15,608.0	90.11	358.01	10,886.1	4,969.3	-858.9	4,978.2	1.82	-1.75	0.47
15,702.0	89.71	357.66	10,886.3	5,063.2	-862.5	5,072.1	0.57	-0.43	-0.37
15,795.0	90.95	358.36	10,885.7	5,156.2	-865.7	5,165.1	1.53	1.33	0.75
15,889.0	91.78	358.80	10,883.5	5,250.1	-868.0	5,259.1	1.00	0.88	0.47
15,983.0	92.31	359.06	10,880.1	5,344.0	-869.8	5,353.0	0.63	0.56	0.28
16,077.0	93.19	359.24	10,875.6	5,437.9	-871.2	5,446.9	0.96	0.94	0.19
16,086.5	93.22	359.19	10,875.1	5,447.4	-871.3	5,456.4	0.62	0.36	-0.50
LTP @ 16086.5'MD, 100'FNL & 668.9'FWL									

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.5usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,113.0	93.32	359.06	10,873.6	5,473.9	-871.7	5,482.8	0.62	0.36	-0.50
LAST SVY									
16,180.0	93.32	359.06	10,869.7	5,540.7	-872.8	5,549.7	0.00	0.00	0.00
Projection to TD @ 16180'MD, 6.6'FNL & 668.7'FWL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (Cypress 34 Fedr	0.20	359.39	10,901.0	5,542.0	-897.0	461,631.00	653,477.00	32° 16' 6.878 N	103° 58' 13.867 W
- actual wellpath misses target center by 39.6usft at 16179.8usft MD (10869.7 TVD, 5540.6 N, -872.8 E)									
- Rectangle (sides W100.0 H5,202.0 D30.0)									
LTP (Cypress 34 Fedr	0.00	0.00	10,901.0	5,447.0	-896.0	461,536.00	653,478.00	32° 16' 5.938 N	103° 58' 13.859 W
- actual wellpath misses target center by 35.7usft at 16085.0usft MD (10875.2 TVD, 5445.9 N, -871.3 E)									
- Point									
FTP (Cypress 34 Fedr	0.00	0.01	10,944.0	341.0	-842.0	456,430.00	653,532.00	32° 15' 15.408 N	103° 58' 13.431 W
- actual wellpath misses target center by 115.8usft at 11018.9usft MD (10845.1 TVD, 393.2 N, -872.3 E)									
- Point									

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #233H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.5usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.5usft (H&P 245)
Well:	Cypress 34 Federal #233H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
320.0	320.0	Rustler Anhydrite			
1,622.4	1,620.0	Top Salt			
2,960.3	2,954.0	Base Salt			
3,181.4	3,174.0	Delaware Mountain Gp			
3,181.4	3,174.0	Lamar			
3,206.5	3,199.0	Bell Canyon			
3,241.7	3,234.0	Ramsey Sand			
4,105.1	4,085.0	Cherry Canyon			
5,360.6	5,310.0	Brushy Canyon			
7,019.0	6,945.0	Bone Spring Lime			
7,074.0	7,000.0	Upper Avalon			
7,434.2	7,360.0	Middle Avalon			
7,884.4	7,810.0	Lower Avalon			
8,004.4	7,930.0	1st Bone Spring Sand			
8,269.4	8,195.0	2nd Bone Spring Carb			
8,629.5	8,555.0	2nd Bone Spring Sand			
9,124.6	9,050.0	3rd Bone Spring Carb			
9,934.6	9,860.0	3rd Bone Spring Sand			
10,194.6	10,120.0	3rd BS W Sand			
10,239.6	10,165.0	Wolfcamp A X Sand			
10,344.6	10,270.0	Wolfcamp A Y Sand			
10,434.6	10,360.0	Wolfcamp A Lower			
10,619.8	10,540.0	Wolfcamp B			
10,960.0	10,815.0	Wolfcamp B1			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,958.0	10,813.8	341.2	-868.6	FTP @ 10958'MD, 100'FSL & 604.5'FWL
16,086.5	10,875.1	5,447.4	-871.3	LTP @ 16086.5'MD, 100'FNL & 668.9'FWL
16,113.0	10,873.6	5,473.9	-871.7	LAST SVY
16,180.0	10,869.7	5,540.7	-872.8	Projection to TD @ 16180'MD, 6.6'FNL & 668.7'FWL

Checked By: _____ Approved By: _____ Date: _____