

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

EMNRD-OCD ARTESIA
REC'D: 5/12/2020

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT
AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46221	² Pool Code 98220	³ Pool Name PURPLE SAGE, WOLFCAMP (GAS)
⁴ Property Code 326031	⁵ Property Name MONEY GRAHAM FED COM	⁶ Well Number 238H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁹ Elevation 2866'

¹⁰Surface Location

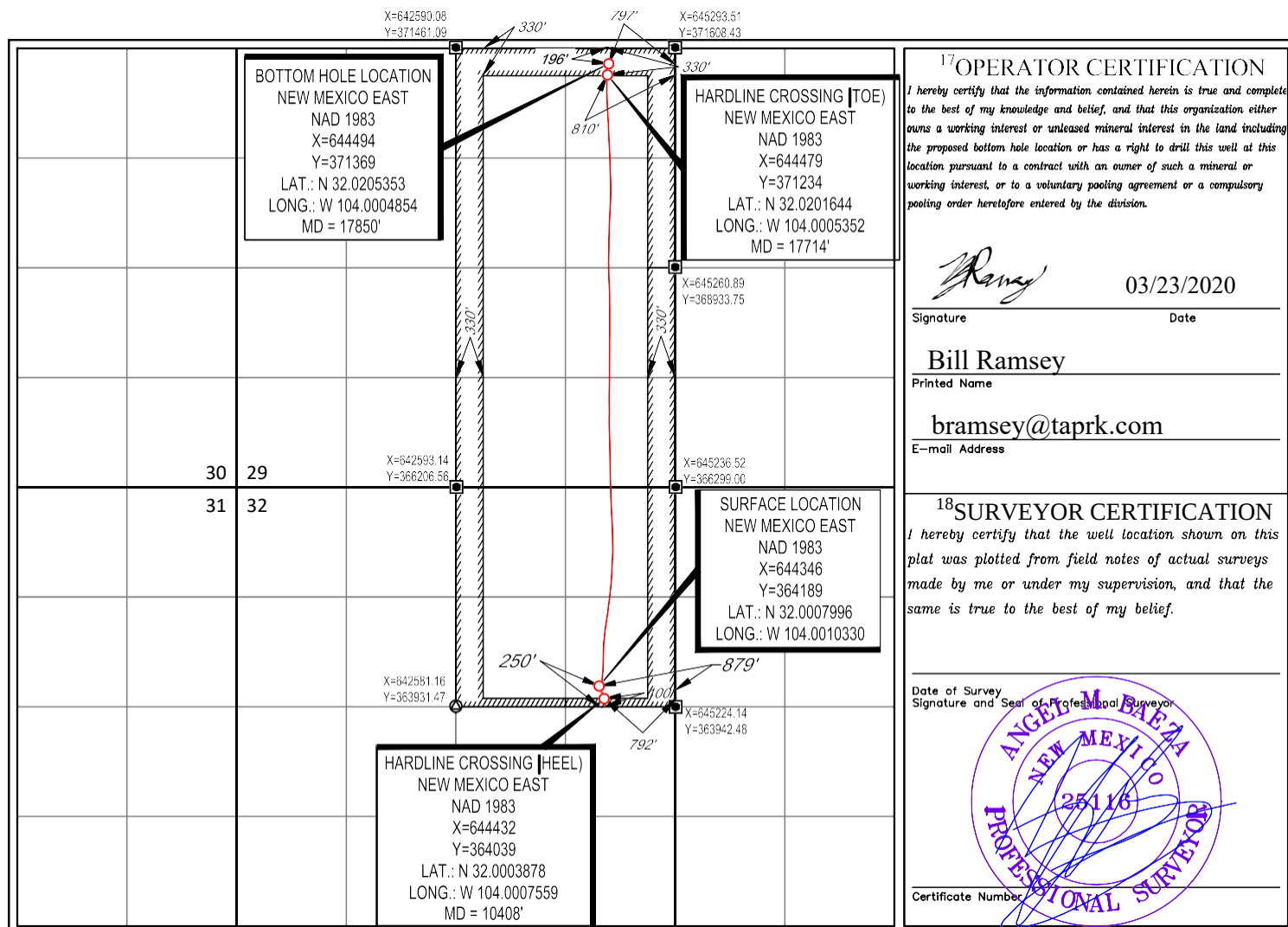
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	32	26-S	29-E	-	250'	SOUTH	879'	EAST	EDDY

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
A	29	26-S	29-E	-	196'	NORTH	797'	EAST	EDDY

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

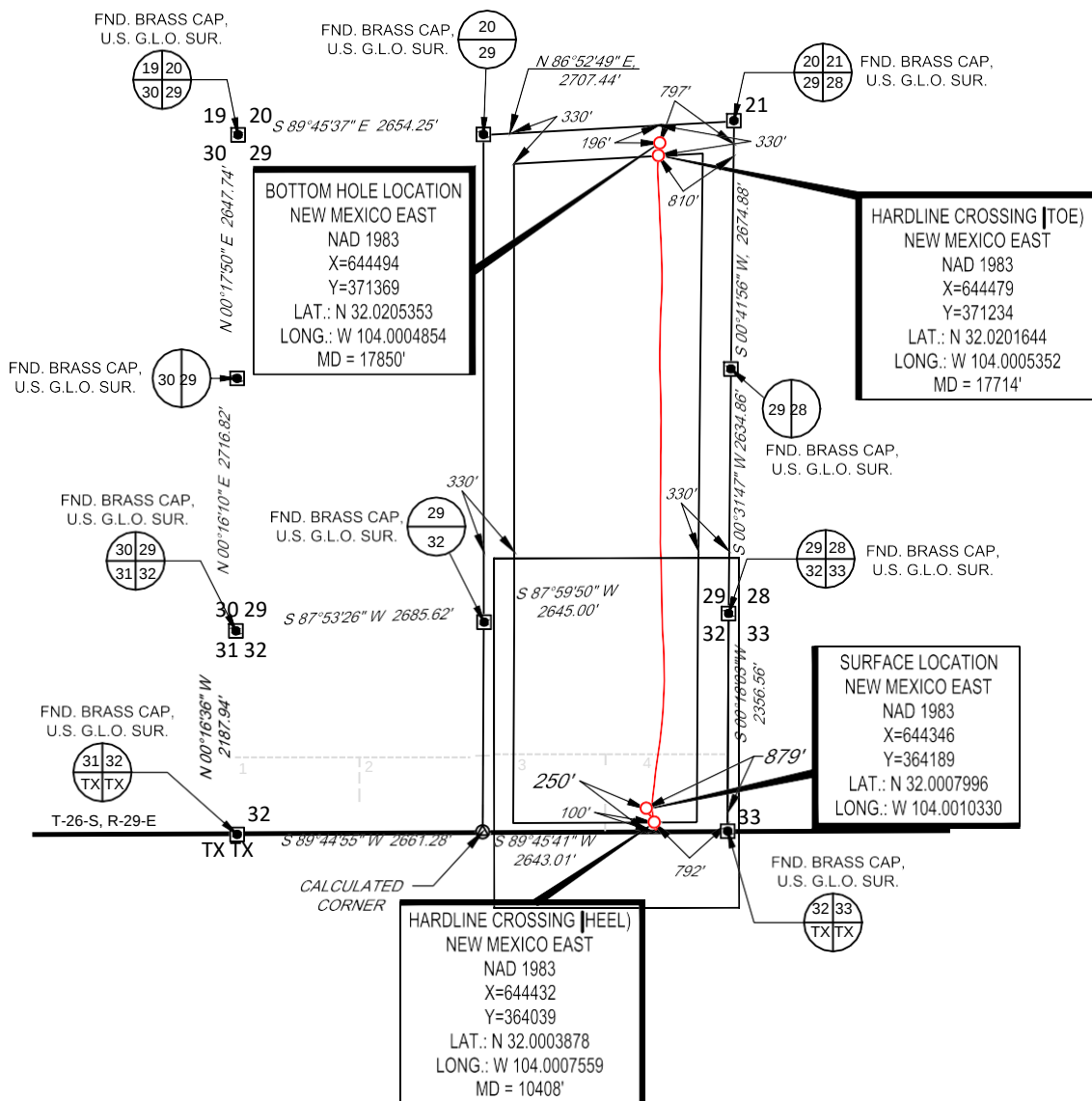
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



SCALE: 1" = 2000'

0' 1000' 2000'

SECTION 32, TOWNSHIP 26-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: MONEY GRAHAM FED COM 238H

SECTION 32 TWP 26-S RGE 29-E SURVEY N.M.P.M.

COUNTY EDDY STATE NM ELEVATION 2866'

DESCRIPTION 250' FSL & 879' 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

MONEY GRAHAM
FED COM 238H
PRE-COMPLETION

DATE: 01/02/2020

FILE: C:\MONEY_GRAHAM_FED_COM_238H

DRAWN BY: TRG

SHEET: 2 OF 2

REVISION:

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.



Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)
(Money Graham) Sec-32_T-26-S_R-29-E
Money Graham Fed Com #238H**

OWB

Design: AWB

Standard Survey Report

26 December, 2019





Operator: Taprock Resources LLC
Well Name: Money Graham Fed Com #238H
County: Eddy
State: New Mexico
Rig Name: H&P 245
API Number: 30-015-46221

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: 52' MD – 17780' MD
Projection to Bit: 17852' MD
Dates Performed: 11/07/2019 – 11/13/2019 & 12/15/2019 – 12/23/2019
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 Money Graham Fed Com #238H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2892.0usft (H&P 245)
Site:	(Money Graham) Sec-32_T-26-S_R-29-E	MD Reference:	KB @ 2892.0usft (H&P 245)
Well:	Money Graham Fed Com #238H	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		(Money Graham) Sec-32_T-26-S_R-29-E				
Site Position:		Northing:	364,259.00 usft	Latitude:	32° 0' 3.571 N	
From:	Map	Easting:	644,466.00 usft	Longitude:	104° 0' 2.323 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well	Money Graham Fed Com #238H					
Well Position	+N/-S	0.0 usft	Northing:	364,189.00 usft	Latitude:	32° 0' 2.882 N
	+E/-W	0.0 usft	Easting:	644,346.00 usft	Longitude:	104° 0' 3.719 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,866.0 usft

Wellbore	OWB				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/13/19	6.88	59.76	47,526.26287589

Design	AWB				
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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	0.52

Survey Program		Date	12/26/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
52.0	17,852.0	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
52.0	0.80	272.94	52.0	0.0	-0.4	0.0	1.54	1.54	0.00
172.0	1.20	253.94	172.0	-0.3	-2.4	-0.3	0.43	0.33	-15.83
355.0	0.50	278.94	355.0	-0.7	-5.0	-0.7	0.42	-0.38	13.66
450.0	0.30	329.94	450.0	-0.4	-5.6	-0.5	0.41	-0.21	53.68
507.0	0.56	203.90	507.0	-0.5	-5.8	-0.6	1.36	0.45	-220.96
Rustler Anhydrite									
585.0	1.60	191.94	584.9	-2.0	-6.1	-2.0	1.36	1.33	-15.34
682.1	1.64	173.19	682.0	-4.7	-6.3	-4.7	0.55	0.04	-19.31
Top Salt									

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Well:	Money Graham Fed Com #238H	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)
701.0	1.67	169.75	700.9	-5.2	-6.2	-5.3	0.55	0.15	-18.19
795.0	2.86	155.95	794.8	-8.7	-5.0	-8.7	1.38	1.27	-14.68
887.0	4.13	154.63	886.6	-13.8	-2.6	-13.8	1.38	1.38	-1.43
981.0	2.24	157.53	980.5	-18.5	-0.5	-18.5	2.02	-2.01	3.09
1,075.0	1.54	157.44	1,074.4	-21.4	0.7	-21.4	0.74	-0.74	-0.10
1,159.0	1.71	157.44	1,158.4	-23.6	1.6	-23.6	0.20	0.20	0.00
1,253.0	1.45	147.16	1,252.4	-25.9	2.8	-25.9	0.41	-0.28	-10.94
1,348.0	1.27	128.17	1,347.4	-27.6	4.3	-27.5	0.51	-0.19	-19.99
1,441.0	0.62	159.90	1,440.3	-28.7	5.3	-28.6	0.87	-0.70	34.12
1,534.0	1.67	134.50	1,533.3	-30.1	6.4	-30.0	1.23	1.13	-27.31
1,628.0	2.46	127.91	1,627.3	-32.3	9.0	-32.2	0.88	0.84	-7.01
1,721.0	1.85	145.23	1,720.2	-34.7	11.4	-34.6	0.95	-0.66	18.62
1,815.0	2.86	139.34	1,814.1	-37.8	13.8	-37.6	1.10	1.07	-6.27
1,908.0	3.08	141.89	1,907.0	-41.5	16.9	-41.3	0.28	0.24	2.74
2,003.0	2.55	147.51	2,001.9	-45.3	19.6	-45.1	0.63	-0.56	5.92
2,097.0	3.12	122.73	2,095.8	-48.4	22.9	-48.2	1.42	0.61	-26.36
2,190.0	3.38	122.73	2,188.6	-51.3	27.3	-51.0	0.28	0.28	0.00
2,285.0	3.16	212.11	2,283.5	-55.0	28.3	-54.8	4.84	-0.23	94.08
2,378.0	3.96	117.28	2,376.4	-58.7	29.7	-58.4	5.67	0.86	-101.97
2,393.6	4.10	115.95	2,392.0	-59.2	30.7	-58.9	1.09	0.91	-8.48
Base Salt									
2,472.0	4.84	110.51	2,470.1	-61.5	36.3	-61.2	1.09	0.94	-6.95
2,567.0	3.65	112.35	2,564.9	-64.1	42.9	-63.7	1.26	-1.25	1.94
2,660.0	1.93	137.93	2,657.7	-66.4	46.7	-66.0	2.24	-1.85	27.51
2,734.3	1.55	145.27	2,732.0	-68.1	48.1	-67.7	0.60	-0.52	9.88
Delaware Mountain Gp									
2,754.0	1.45	147.86	2,751.7	-68.6	48.4	-68.1	0.60	-0.49	13.12
2,848.0	1.45	147.42	2,845.7	-70.6	49.6	-70.1	0.01	0.00	-0.47
2,849.3	1.44	147.35	2,847.0	-70.6	49.7	-70.1	0.51	-0.49	-4.90
Bell Canyon - Lamar									
2,889.3	1.25	145.08	2,887.0	-71.4	50.2	-70.9	0.51	-0.49	-5.70
Ramsey Sand									
2,930.0	1.05	141.89	2,927.6	-72.0	50.7	-71.6	0.51	-0.48	-7.83
3,024.0	3.38	152.61	3,021.6	-75.2	52.5	-74.7	2.51	2.48	11.40
3,118.0	4.09	150.41	3,115.4	-80.6	55.4	-80.0	0.77	0.76	-2.34
3,211.0	3.74	158.85	3,208.2	-86.3	58.1	-85.7	0.72	-0.38	9.08
3,305.0	3.47	153.75	3,302.0	-91.7	60.5	-91.1	0.45	-0.29	-5.43
3,399.0	3.21	161.75	3,395.8	-96.7	62.6	-96.2	0.57	-0.28	8.51
3,493.0	2.99	159.46	3,489.7	-101.5	64.3	-100.9	0.27	-0.23	-2.44
3,587.0	2.55	157.97	3,583.6	-105.8	65.9	-105.2	0.47	-0.47	-1.59
3,681.0	2.68	161.84	3,677.5	-109.8	67.4	-109.2	0.23	0.14	4.12
3,774.0	2.55	163.51	3,770.4	-113.8	68.7	-113.2	0.16	-0.14	1.80
3,865.7	2.08	157.12	3,862.0	-117.3	69.9	-116.7	0.58	-0.51	-6.97
Cherry Canyon									

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Well:	Money Graham Fed Com #238H	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)
3,868.0	2.07	156.92	3,864.3	-117.4	69.9	-116.8	0.58	-0.49	-8.57
3,962.0	2.07	163.16	3,958.2	-120.6	71.1	-119.9	0.24	0.00	6.64
4,056.0	2.11	155.51	4,052.2	-123.8	72.3	-123.1	0.30	0.04	-8.14
4,149.0	1.89	158.15	4,145.1	-126.8	73.6	-126.1	0.26	-0.24	2.84
4,244.0	2.33	146.72	4,240.0	-129.8	75.2	-129.1	0.64	0.46	-12.03
4,338.0	3.56	138.55	4,333.9	-133.6	78.2	-132.9	1.38	1.31	-8.69
4,432.0	4.13	140.22	4,427.7	-138.4	82.3	-137.7	0.62	0.61	1.78
4,525.0	3.96	143.47	4,520.5	-143.6	86.3	-142.8	0.31	-0.18	3.49
4,619.0	4.09	139.07	4,614.2	-148.7	90.5	-147.9	0.36	0.14	-4.68
4,713.0	3.87	144.43	4,708.0	-153.8	94.5	-153.0	0.46	-0.23	5.70
4,806.0	3.74	147.69	4,800.8	-158.9	97.9	-158.0	0.27	-0.14	3.51
4,842.3	3.72	145.94	4,837.0	-160.9	99.2	-160.0	0.32	-0.06	-4.82
Brushy Canyon									
4,900.0	3.69	143.12	4,894.6	-163.9	101.4	-163.0	0.32	-0.05	-4.89
4,993.0	3.16	149.36	4,987.5	-168.5	104.5	-167.6	0.70	-0.57	6.71
5,086.0	3.30	157.18	5,080.3	-173.2	106.8	-172.2	0.50	0.15	8.41
5,179.0	3.03	156.74	5,173.2	-177.9	108.9	-176.9	0.29	-0.29	-0.47
5,273.0	3.08	156.48	5,267.0	-182.5	110.8	-181.5	0.06	0.05	-0.28
5,367.0	2.59	167.99	5,360.9	-186.9	112.3	-185.9	0.80	-0.52	12.24
5,460.0	2.29	159.99	5,453.8	-190.7	113.4	-189.7	0.49	-0.32	-8.60
5,554.0	2.24	165.18	5,547.8	-194.3	114.5	-193.2	0.22	-0.05	5.52
5,647.0	2.42	169.92	5,640.7	-198.0	115.3	-196.9	0.28	0.19	5.10
5,741.0	2.20	172.56	5,734.6	-201.7	115.9	-200.6	0.26	-0.23	2.81
5,835.0	1.85	169.48	5,828.5	-205.0	116.4	-203.9	0.39	-0.37	-3.28
5,929.0	1.71	181.35	5,922.5	-207.9	116.6	-206.8	0.42	-0.15	12.63
6,022.0	1.98	177.31	6,015.5	-210.9	116.7	-209.8	0.32	0.29	-4.34
6,115.0	0.66	186.53	6,108.4	-213.0	116.7	-211.9	1.43	-1.42	9.91
6,209.0	0.35	251.49	6,202.4	-213.6	116.3	-212.6	0.64	-0.33	69.11
6,303.0	0.66	207.98	6,296.4	-214.2	115.8	-213.2	0.50	0.33	-46.29
6,397.0	0.57	236.63	6,390.4	-214.9	115.2	-213.9	0.34	-0.10	30.48
6,433.6	0.80	246.95	6,427.0	-215.1	114.8	-214.1	0.72	0.64	28.22
Bone Spring Lime									
6,490.0	1.19	254.56	6,483.4	-215.5	113.9	-214.4	0.72	0.68	13.48
6,584.0	0.84	5.92	6,577.4	-215.0	113.0	-214.0	1.80	-0.37	118.47
6,678.0	1.71	324.87	6,671.4	-213.2	112.3	-212.2	1.29	0.93	-43.67
6,772.0	2.37	298.16	6,765.3	-211.1	109.7	-210.1	1.21	0.70	-28.41
6,866.0	1.49	310.20	6,859.3	-209.4	107.1	-208.4	1.03	-0.94	12.81
6,959.0	1.93	354.84	6,952.2	-207.1	106.0	-206.1	1.46	0.47	48.00
7,052.0	1.63	2.32	7,045.2	-204.2	105.9	-203.2	0.41	-0.32	8.04
7,146.0	1.58	356.69	7,139.1	-201.6	105.9	-200.6	0.18	-0.05	-5.99
7,240.0	0.97	294.11	7,233.1	-200.0	105.1	-199.0	1.51	-0.65	-66.57
7,333.0	1.45	238.57	7,326.1	-200.3	103.4	-199.3	1.30	0.52	-59.72
7,358.9	1.64	235.72	7,352.0	-200.6	102.8	-199.7	0.79	0.73	-11.01
1st Bone Spring Sand									

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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)
7,427.0	2.15	230.66	7,420.1	-202.0	101.0	-201.1	0.79	0.75	-7.43
7,521.0	1.63	202.35	7,514.0	-204.3	99.1	-203.4	1.12	-0.55	-30.12
7,614.0	1.85	204.02	7,607.0	-206.9	98.0	-206.0	0.24	0.24	1.80
7,708.0	1.45	192.25	7,700.9	-209.5	97.2	-208.6	0.56	-0.43	-12.52
7,802.0	0.75	77.55	7,794.9	-210.5	97.5	-209.6	2.01	-0.74	-122.02
7,895.0	1.63	72.98	7,887.9	-210.0	99.4	-209.1	0.95	0.95	-4.91
7,939.1	1.39	77.24	7,932.0	-209.7	100.5	-208.8	0.59	-0.54	9.66
2nd Bone Spring Sand									
7,989.0	1.14	84.14	7,981.9	-209.5	101.6	-208.6	0.59	-0.51	13.83
8,082.0	0.88	53.91	8,074.9	-209.0	103.1	-208.1	0.63	-0.28	-32.51
8,176.0	1.49	64.81	8,168.8	-208.0	104.8	-207.1	0.69	0.65	11.60
8,269.0	1.45	73.95	8,261.8	-207.2	107.0	-206.2	0.26	-0.04	9.83
8,362.0	1.14	64.63	8,354.8	-206.5	109.0	-205.5	0.40	-0.33	-10.02
8,455.0	0.88	66.30	8,447.8	-205.8	110.4	-204.8	0.28	-0.28	1.80
8,548.0	0.62	71.66	8,540.8	-205.4	111.6	-204.3	0.29	-0.28	5.76
8,642.0	0.88	44.94	8,634.7	-204.7	112.6	-203.7	0.46	0.28	-28.43
8,735.0	0.26	257.11	8,727.7	-204.2	112.9	-203.2	1.19	-0.67	-158.96
8,829.0	0.31	223.45	8,821.7	-204.5	112.5	-203.4	0.18	0.05	-35.81
8,922.0	0.88	243.40	8,914.7	-205.0	111.7	-203.9	0.64	0.61	21.45
9,016.0	0.40	214.40	9,008.7	-205.6	110.8	-204.5	0.60	-0.51	-30.85
9,110.0	0.53	196.47	9,102.7	-206.2	110.5	-205.2	0.21	0.14	-19.07
9,191.3	0.68	194.01	9,184.0	-207.1	110.3	-206.1	0.19	0.18	-3.03
3rd Bone Spring Sand									
9,203.0	0.70	193.74	9,195.7	-207.2	110.3	-206.2	0.19	0.18	-2.29
9,297.0	1.01	222.83	9,289.7	-208.4	109.6	-207.4	0.56	0.33	30.95
9,390.0	1.14	214.13	9,382.7	-209.7	108.5	-208.7	0.22	0.14	-9.35
9,449.3	1.50	205.90	9,442.0	-210.9	107.8	-209.9	0.68	0.60	-13.88
3rd BS W Sand									
9,483.0	1.71	202.79	9,475.7	-211.8	107.4	-210.8	0.68	0.63	-9.23
9,539.4	1.87	196.43	9,532.0	-213.4	106.9	-212.5	0.45	0.28	-11.28
Wolfcamp A									
9,577.0	1.98	192.77	9,569.6	-214.7	106.5	-213.7	0.45	0.30	-9.73
9,649.4	1.71	194.73	9,642.0	-216.9	106.0	-216.0	0.39	-0.38	2.71
Wolfcamp A Y Sand									
9,670.0	1.63	195.41	9,662.6	-217.5	105.8	-216.5	0.39	-0.37	3.29
9,763.0	1.32	200.25	9,755.5	-219.8	105.1	-218.8	0.36	-0.33	5.20
9,779.5	1.30	200.13	9,772.0	-220.1	105.0	-219.2	0.10	-0.10	-0.71
Wolfcamp A Fat									
9,857.0	1.23	199.54	9,849.5	-221.8	104.4	-220.8	0.10	-0.10	-0.76
10,004.0	0.48	247.71	9,996.5	-223.5	103.3	-222.5	0.67	-0.51	32.77
10,039.5	0.33	316.19	10,032.0	-223.5	103.1	-222.5	1.33	-0.43	192.92
Wolfcamp B									
10,097.0	0.92	8.03	10,089.5	-222.9	103.0	-221.9	1.33	1.03	90.15
10,190.0	10.68	341.31	10,181.9	-214.0	100.4	-213.0	10.61	10.49	-28.73

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Money Graham Fed Com #238H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2892.0usft (H&P 245)
Site:	(Money Graham) Sec-32_T-26-S_R-29-E	MD Reference:	KB @ 2892.0usft (H&P 245)
Well:	Money Graham Fed Com #238H	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)
10,283.0	15.47	347.02	10,272.5	-193.7	94.8	-192.8	5.33	5.15	6.14
10,376.0	23.69	350.01	10,360.0	-163.2	88.8	-162.3	8.90	8.84	3.22
10,407.9	26.58	349.87	10,388.9	-149.8	86.4	-149.0	9.08	9.07	-0.45
FTP @ 10407.9'MD, 100'FSL & 792.2'FEL									
10,469.0	32.13	349.66	10,442.1	-120.4	81.1	-119.6	9.08	9.08	-0.34
10,559.0	43.56	352.82	10,513.1	-65.9	72.9	-65.2	12.88	12.70	3.51
10,601.2	49.93	354.98	10,542.0	-35.3	69.7	-34.7	15.55	15.10	5.11
Wolfcamp B2									
10,653.0	57.80	357.13	10,572.5	6.4	66.8	7.0	15.55	15.19	4.16
10,746.0	69.67	4.51	10,613.7	89.6	68.3	90.2	14.60	12.76	7.94
10,840.0	85.71	7.85	10,633.6	180.5	78.2	181.2	17.41	17.06	3.55
10,933.0	89.63	6.36	10,637.4	272.7	89.7	273.5	4.51	4.22	-1.60
11,025.0	87.56	4.60	10,639.7	364.3	98.5	365.1	2.95	-2.25	-1.91
11,118.0	90.07	8.91	10,641.6	456.6	109.4	457.5	5.36	2.70	4.63
11,211.0	88.88	8.03	10,642.4	548.6	123.1	549.6	1.59	-1.28	-0.95
11,304.0	88.53	9.00	10,644.5	640.5	136.9	641.7	1.11	-0.38	1.04
11,397.0	86.55	6.71	10,648.5	732.5	149.6	733.9	3.25	-2.13	-2.46
11,490.0	85.63	6.89	10,654.9	824.7	160.6	826.1	1.01	-0.99	0.19
11,584.0	88.22	5.39	10,659.9	918.0	170.6	919.5	3.18	2.76	-1.60
11,678.0	91.08	4.51	10,660.5	1,011.6	178.7	1,013.2	3.18	3.04	-0.94
11,771.0	89.98	3.11	10,659.6	1,104.4	184.9	1,106.0	1.91	-1.18	-1.51
11,864.0	88.44	2.05	10,660.9	1,197.3	189.1	1,199.0	2.01	-1.66	-1.14
11,957.0	89.58	3.99	10,662.5	1,290.1	194.0	1,291.9	2.42	1.23	2.09
12,051.0	87.08	359.59	10,665.3	1,384.0	196.9	1,385.8	5.38	-2.66	-4.68
12,143.0	89.19	358.98	10,668.3	1,476.0	195.8	1,477.7	2.39	2.29	-0.66
12,236.0	88.26	358.89	10,670.3	1,568.9	194.1	1,570.6	1.00	-1.00	-0.10
12,328.0	89.32	358.18	10,672.3	1,660.9	191.7	1,662.5	1.39	1.15	-0.77
12,422.0	90.68	357.04	10,672.3	1,754.8	187.8	1,756.4	1.89	1.45	-1.21
12,515.0	88.84	356.25	10,672.7	1,847.6	182.3	1,849.2	2.15	-1.98	-0.85
12,608.0	89.54	357.57	10,674.0	1,940.5	177.3	1,942.0	1.61	0.75	1.42
12,701.0	87.82	358.54	10,676.1	2,033.4	174.2	2,034.9	2.12	-1.85	1.04
12,794.0	88.09	358.54	10,679.4	2,126.3	171.8	2,127.8	0.29	0.29	0.00
12,887.0	92.84	358.80	10,678.7	2,219.3	169.6	2,220.7	5.12	5.11	0.28
12,981.0	92.62	358.98	10,674.2	2,313.1	167.8	2,314.6	0.30	-0.23	0.19
13,074.0	92.26	358.89	10,670.2	2,406.0	166.1	2,407.4	0.40	-0.39	-0.10
13,168.0	89.67	358.80	10,668.7	2,500.0	164.2	2,501.4	2.76	-2.76	-0.10
13,261.0	90.68	359.50	10,668.4	2,593.0	162.8	2,594.3	1.32	1.09	0.75
13,355.0	87.87	358.10	10,669.6	2,686.9	160.9	2,688.3	3.34	-2.99	-1.49
13,449.0	86.64	356.87	10,674.1	2,780.7	156.7	2,782.0	1.85	-1.31	-1.31
13,543.0	93.41	359.59	10,674.0	2,874.6	153.8	2,875.9	7.76	7.20	2.89
13,636.0	90.33	1.17	10,671.0	2,967.6	154.5	2,968.8	3.72	-3.31	1.70
13,730.0	87.96	359.85	10,672.4	3,061.5	155.3	3,062.8	2.89	-2.52	-1.40
13,823.0	87.82	358.98	10,675.8	3,154.5	154.3	3,155.7	0.95	-0.15	-0.94
13,916.0	90.29	1.00	10,677.4	3,247.4	154.3	3,248.7	3.43	2.66	2.17

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Money Graham Fed Com #238H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2892.0usft (H&P 245)
Site:	(Money Graham) Sec-32_T-26-S_R-29-E	MD Reference:	KB @ 2892.0usft (H&P 245)
Well:	Money Graham Fed Com #238H	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)
14,010.0	89.14	0.73	10,677.8	3,341.4	155.7	3,342.7	1.26	-1.22	-0.29
14,104.0	91.03	0.29	10,677.7	3,435.4	156.6	3,436.7	2.06	2.01	-0.47
14,198.0	87.65	0.29	10,678.8	3,529.4	157.1	3,530.7	3.60	-3.60	0.00
14,291.0	90.15	0.47	10,680.6	3,622.4	157.7	3,623.7	2.70	2.69	0.19
14,384.0	88.26	0.03	10,681.8	3,715.4	158.1	3,716.6	2.09	-2.03	-0.47
14,478.0	87.82	0.21	10,685.1	3,809.3	158.3	3,810.6	0.51	-0.47	0.19
14,572.0	89.19	1.26	10,687.5	3,903.3	159.5	3,904.5	1.84	1.46	1.12
14,666.0	89.54	359.42	10,688.6	3,997.2	160.0	3,998.5	1.99	0.37	-1.96
14,760.0	89.80	0.65	10,689.1	4,091.2	160.1	4,092.5	1.34	0.28	1.31
14,853.0	89.80	0.47	10,689.4	4,184.2	161.0	4,185.5	0.19	0.00	-0.19
14,947.0	89.01	358.98	10,690.4	4,278.2	160.6	4,279.5	1.79	-0.84	-1.59
15,040.0	90.37	359.85	10,690.9	4,371.2	159.6	4,372.5	1.74	1.46	0.94
15,134.0	89.45	358.89	10,691.0	4,465.2	158.6	4,466.5	1.41	-0.98	-1.02
15,228.0	88.00	356.95	10,693.1	4,559.1	155.2	4,560.3	2.58	-1.54	-2.06
15,322.0	88.48	358.36	10,696.0	4,653.0	151.3	4,654.2	1.58	0.51	1.50
15,415.0	89.85	358.71	10,697.4	4,746.0	148.9	4,747.1	1.52	1.47	0.38
15,508.0	90.11	359.94	10,697.4	4,838.9	147.8	4,840.1	1.35	0.28	1.32
15,602.0	90.86	0.65	10,696.6	4,932.9	148.3	4,934.1	1.10	0.80	0.76
15,695.0	92.00	1.26	10,694.3	5,025.9	149.9	5,027.0	1.39	1.23	0.66
15,789.0	88.48	0.56	10,693.9	5,119.9	151.4	5,121.0	3.82	-3.74	-0.74
15,883.0	89.41	1.61	10,695.6	5,213.8	153.2	5,215.0	1.49	0.99	1.12
15,976.0	88.18	1.96	10,697.6	5,306.8	156.0	5,308.0	1.38	-1.32	0.38
16,070.0	89.32	3.72	10,699.6	5,400.6	160.7	5,401.9	2.23	1.21	1.87
16,163.0	87.47	3.19	10,702.2	5,493.4	166.3	5,494.7	2.07	-1.99	-0.57
16,257.0	88.95	1.70	10,705.2	5,587.3	170.3	5,588.6	2.23	1.57	-1.59
16,350.0	89.80	0.47	10,706.2	5,680.2	172.1	5,681.6	1.61	0.91	-1.32
16,443.0	89.19	359.59	10,707.0	5,773.2	172.1	5,774.6	1.15	-0.66	-0.95
16,536.0	86.99	357.57	10,710.1	5,866.2	169.8	5,867.5	3.21	-2.37	-2.17
16,629.0	88.75	357.83	10,713.6	5,959.0	166.1	5,960.3	1.91	1.89	0.28
16,723.0	90.55	358.98	10,714.1	6,053.0	163.5	6,054.2	2.27	1.91	1.22
16,817.0	88.22	356.95	10,715.2	6,146.9	160.1	6,148.1	3.29	-2.48	-2.16
16,910.0	89.49	356.51	10,717.0	6,239.7	154.8	6,240.9	1.45	1.37	-0.47
17,003.0	91.16	357.75	10,716.5	6,332.6	150.2	6,333.7	2.24	1.80	1.33
17,097.0	91.47	358.80	10,714.3	6,426.5	147.3	6,427.6	1.16	0.33	1.12
17,191.0	90.68	357.04	10,712.6	6,520.4	143.9	6,521.5	2.05	-0.84	-1.87
17,285.0	90.95	355.72	10,711.2	6,614.2	138.0	6,615.2	1.43	0.29	-1.40
17,378.0	92.00	357.92	10,708.8	6,707.1	132.8	6,708.0	2.62	1.13	2.37
17,472.0	90.46	357.48	10,706.8	6,801.0	129.1	6,801.9	1.70	-1.64	-0.47
17,565.0	89.80	358.45	10,706.6	6,893.9	125.8	6,894.8	1.26	-0.71	1.04
17,659.0	90.07	4.07	10,706.7	6,987.8	127.8	6,988.7	5.99	0.29	5.98
17,716.0	89.85	5.56	10,706.7	7,044.6	132.6	7,045.6	2.64	-0.38	2.62
LTP @ 17716.0'MD, 330'FNL & 810.3'FEL									
17,753.0	89.71	6.53	10,706.9	7,081.4	136.5	7,082.4	2.64	-0.38	2.62
17,780.0	90.11	6.45	10,706.9	7,108.3	139.6	7,109.2	1.51	1.48	-0.30

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Money Graham Fed Com #238H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2892.0usft (H&P 245)
Site:	(Money Graham) Sec-32_T-26-S_R-29-E	MD Reference:	KB @ 2892.0usft (H&P 245)
Well:	Money Graham Fed Com #238H	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)
LAST SVY									
17,852.0	90.11	6.45	10,706.8	7,179.8	147.7	7,180.8	0.00	0.00	0.00
Projection to TD @ 17852'MD, 195.7'FNL & 797.2'FEL									

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									
FTP (Money Graham	0.00	0.00	10,647.0	-150.0	129.0	364,039.00	644,475.00	32° 0' 1.393 N	104° 0' 2.226 W
- actual wellpath misses target center by 165.2usft at 10585.5usft MD (10531.7 TVD, -47.0 N, 70.8 E)									
- Point									
LTP (Money Graham	0.00	0.01	10,706.0	7,048.0	193.0	371,237.00	644,539.00	32° 1' 12.624 N	104° 0' 1.225 W
- actual wellpath misses target center by 59.8usft at 17725.7usft MD (10706.8 TVD, 7054.3 N, 133.6 E)									
- Point									
PBHL (Money Graham	0.50	0.52	10,706.0	7,178.0	195.0	371,367.00	644,541.00	32° 1' 13.911 N	104° 0' 1.197 W
- actual wellpath misses target center by 47.4usft at 17852.0usft MD (10706.8 TVD, 7179.8 N, 147.7 E)									
- Rectangle (sides W100.0 H7,329.0 D30.0)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
507.0	507.0	Rustler Anhydrite				
682.1	682.0	Top Salt				
2,393.6	2,392.0	Base Salt				
2,734.3	2,732.0	Delaware Mountain Gp				
2,849.3	2,847.0	Bell Canyon				
2,849.3	2,847.0	Lamar				
2,889.3	2,887.0	Ramsey Sand				
3,865.7	3,862.0	Cherry Canyon				
4,842.3	4,837.0	Brushy Canyon				
6,433.6	6,427.0	Bone Spring Lime				
7,358.9	7,352.0	1st Bone Spring Sand				
7,939.1	7,932.0	2nd Bone Spring Sand				
9,191.3	9,184.0	3rd Bone Spring Sand				
9,449.3	9,442.0	3rd BS W Sand				
9,539.4	9,532.0	Wolfcamp A				
9,649.4	9,642.0	Wolfcamp A Y Sand				
9,779.5	9,772.0	Wolfcamp A Fat				
10,039.5	10,032.0	Wolfcamp B				
10,601.2	10,542.0	Wolfcamp B2				



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Money Graham Fed Com #238H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2892.0usft (H&P 245)
Site:	(Money Graham) Sec-32_T-26-S_R-29-E	MD Reference:	KB @ 2892.0usft (H&P 245)
Well:	Money Graham Fed Com #238H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,407.9	10,388.9	-149.8	86.4	FTP @ 10407.9'MD, 100'FSL & 792.2'FEL
17,716.0	10,706.7	7,044.6	132.6	LTP @ 17716.0'MD, 330'FNL & 810.3'FEL
17,780.0	10,706.9	7,108.3	139.6	LAST SVY
17,852.0	10,706.8	7,179.8	147.7	Projection to TD @ 17852'MD, 195.7'FNL & 797.2'FEL

Checked By: _____ Approved By: _____ Date: _____