

Marathon Oil Permian, LLC

Eddy County, NM (NAD27)

Catapult Fee 23-26-1

WXY #10H

30.015 - 44690

OH

Plan: Plan #1

NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 15 2018

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Standard Planning Report

01 February, 2018



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Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well WXY #10H
Company:	Marathon Oil Permian, LLC	TVD Reference:	KB = 25' @ 3244.00usft (Precision 594)
Project:	Eddy County, NM (NAD27)	MD Reference:	KB = 25' @ 3244.00usft (Precision 594)
Site:	Catapult Fee 23-26-1	North Reference:	Grid
Well:	WXY #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project:	Eddy County, NM (NAD27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Catapult Fee 23-26-1			
Site Position:		Northing:	482,945.77 usft	Latitude:	32° 19' 39.724 N
From:	Map	Easting:	528,174.41 usft	Longitude:	104° 14' 31.635 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 °

Well	WXY #10H					
Well Position	+N-S	0.00 usft	Northing:	482,945.77 usft	Latitude:	32° 19' 39.723 N
	+E-W	90.01 usft	Easting:	528,264.41 usft	Longitude:	104° 14' 30.586 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,219.00 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/1/2018	7.38	60.07	48,027

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(bearing)
	0.00	0.00	0.00	0.00

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Bulk Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	12.00	110.00	2,595.62	-21.41	58.83	2.00	2.00	0.00	110.00	
7,660.00	12.00	110.00	7,545.05	-381.23	1,047.41	0.00	0.00	0.00	0.00	
8,260.00	0.00	0.00	8,140.67	-402.64	1,106.24	2.00	-2.00	0.00	180.00	
8,369.33	0.00	0.00	8,250.01	-402.64	1,106.24	0.00	0.00	0.00	0.00	
9,276.33	90.70	359.99	8,822.92	177.32	1,106.17	10.00	10.00	0.00	359.99	
13,608.15	90.70	359.99	8,770.00	4,508.82	1,105.63	0.00	0.00	0.00	0.00	BHL[CFWXY#10H]

Planning Report

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Project:	Eddy County, NM (NAD27)	MD Reference:	KB = 25' @ 3244.00usft (Precision 594)
Site:	Catapult Fee 23-26-1	North Reference:	Grid
Well:	WXY #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
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
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 2.0° / 100									
2,100.00	2.00	110.00	2,099.98	-0.60	1.64	-0.60	2.00	2.00	0.00
2,200.00	4.00	110.00	2,199.84	-2.39	6.56	-2.39	2.00	2.00	0.00
2,300.00	6.00	110.00	2,299.45	-5.37	14.75	-5.37	2.00	2.00	0.00
2,400.00	8.00	110.00	2,398.70	-9.54	26.20	-9.54	2.00	2.00	0.00
2,500.00	10.00	110.00	2,497.47	-14.89	40.90	-14.89	2.00	2.00	0.00
2,600.00	12.00	110.00	2,595.62	-21.41	58.83	-21.41	2.00	2.00	0.00
EOB - HOLD									
2,700.00	12.00	110.00	2,693.44	-28.52	78.36	-28.52	0.00	0.00	0.00
2,800.00	12.00	110.00	2,791.25	-35.63	97.90	-35.63	0.00	0.00	0.00
2,900.00	12.00	110.00	2,889.07	-42.74	117.44	-42.74	0.00	0.00	0.00
3,000.00	12.00	110.00	2,986.88	-49.86	136.98	-49.86	0.00	0.00	0.00
3,100.00	12.00	110.00	3,084.70	-56.97	156.51	-56.97	0.00	0.00	0.00
3,200.00	12.00	110.00	3,182.51	-64.08	176.05	-64.08	0.00	0.00	0.00
3,300.00	12.00	110.00	3,280.33	-71.19	195.59	-71.19	0.00	0.00	0.00
3,400.00	12.00	110.00	3,378.14	-78.30	215.13	-78.30	0.00	0.00	0.00
3,500.00	12.00	110.00	3,475.96	-85.41	234.66	-85.41	0.00	0.00	0.00
3,600.00	12.00	110.00	3,573.77	-92.52	254.20	-92.52	0.00	0.00	0.00
3,700.00	12.00	110.00	3,671.59	-99.63	273.74	-99.63	0.00	0.00	0.00
3,800.00	12.00	110.00	3,769.40	-106.74	293.27	-106.74	0.00	0.00	0.00
3,900.00	12.00	110.00	3,867.22	-113.85	312.81	-113.85	0.00	0.00	0.00
4,000.00	12.00	110.00	3,965.03	-120.97	332.35	-120.97	0.00	0.00	0.00
4,100.00	12.00	110.00	4,062.84	-128.08	351.89	-128.08	0.00	0.00	0.00
4,200.00	12.00	110.00	4,160.66	-135.19	371.42	-135.19	0.00	0.00	0.00
4,300.00	12.00	110.00	4,258.47	-142.30	390.96	-142.30	0.00	0.00	0.00
4,400.00	12.00	110.00	4,356.29	-149.41	410.50	-149.41	0.00	0.00	0.00
4,500.00	12.00	110.00	4,454.10	-156.52	430.04	-156.52	0.00	0.00	0.00
4,600.00	12.00	110.00	4,551.92	-163.63	449.57	-163.63	0.00	0.00	0.00
4,700.00	12.00	110.00	4,649.73	-170.74	469.11	-170.74	0.00	0.00	0.00
4,800.00	12.00	110.00	4,747.55	-177.85	488.65	-177.85	0.00	0.00	0.00
4,900.00	12.00	110.00	4,845.36	-184.96	508.19	-184.96	0.00	0.00	0.00
5,000.00	12.00	110.00	4,943.18	-192.08	527.72	-192.08	0.00	0.00	0.00
5,100.00	12.00	110.00	5,040.99	-199.19	547.26	-199.19	0.00	0.00	0.00

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Well:	WXY #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,200.00	12.00	110.00	5,138.81	-206.30	566.80	-206.30	0.00	0.00	0.00	
5,300.00	12.00	110.00	5,236.62	-213.41	586.33	-213.41	0.00	0.00	0.00	
5,400.00	12.00	110.00	5,334.44	-220.52	605.87	-220.52	0.00	0.00	0.00	
5,500.00	12.00	110.00	5,432.25	-227.63	625.41	-227.63	0.00	0.00	0.00	
5,600.00	12.00	110.00	5,530.07	-234.74	644.95	-234.74	0.00	0.00	0.00	
5,700.00	12.00	110.00	5,627.88	-241.85	664.48	-241.85	0.00	0.00	0.00	
5,800.00	12.00	110.00	5,725.70	-248.96	684.02	-248.96	0.00	0.00	0.00	
5,900.00	12.00	110.00	5,823.51	-256.07	703.56	-256.07	0.00	0.00	0.00	
6,000.00	12.00	110.00	5,921.33	-263.19	723.10	-263.19	0.00	0.00	0.00	
6,100.00	12.00	110.00	6,019.14	-270.30	742.63	-270.30	0.00	0.00	0.00	
6,200.00	12.00	110.00	6,116.95	-277.41	762.17	-277.41	0.00	0.00	0.00	
6,300.00	12.00	110.00	6,214.77	-284.52	781.71	-284.52	0.00	0.00	0.00	
6,400.00	12.00	110.00	6,312.58	-291.63	801.24	-291.63	0.00	0.00	0.00	
6,500.00	12.00	110.00	6,410.40	-298.74	820.78	-298.74	0.00	0.00	0.00	
6,600.00	12.00	110.00	6,508.21	-305.85	840.32	-305.85	0.00	0.00	0.00	
6,700.00	12.00	110.00	6,606.03	-312.96	859.86	-312.96	0.00	0.00	0.00	
6,800.00	12.00	110.00	6,703.84	-320.07	879.39	-320.07	0.00	0.00	0.00	
6,900.00	12.00	110.00	6,801.66	-327.18	898.93	-327.18	0.00	0.00	0.00	
7,000.00	12.00	110.00	6,899.47	-334.30	918.47	-334.30	0.00	0.00	0.00	
7,100.00	12.00	110.00	6,997.29	-341.41	938.01	-341.41	0.00	0.00	0.00	
7,200.00	12.00	110.00	7,095.10	-348.52	957.54	-348.52	0.00	0.00	0.00	
7,300.00	12.00	110.00	7,192.92	-355.63	977.08	-355.63	0.00	0.00	0.00	
7,400.00	12.00	110.00	7,290.73	-362.74	996.62	-362.74	0.00	0.00	0.00	
7,500.00	12.00	110.00	7,388.55	-369.85	1,016.16	-369.85	0.00	0.00	0.00	
7,600.00	12.00	110.00	7,486.36	-376.96	1,035.69	-376.96	0.00	0.00	0.00	
7,660.00	12.00	110.00	7,545.05	-381.23	1,047.41	-381.23	0.00	0.00	0.00	
DROP 2.0° / 100										
7,700.00	11.20	110.00	7,584.23	-383.98	1,054.97	-383.98	2.00	-2.00	0.00	
7,800.00	9.20	110.00	7,682.65	-390.04	1,071.61	-390.04	2.00	-2.00	0.00	
7,900.00	7.20	110.00	7,781.62	-394.91	1,085.01	-394.91	2.00	-2.00	0.00	
8,000.00	5.20	110.00	7,881.03	-398.61	1,095.16	-398.61	2.00	-2.00	0.00	
8,100.00	3.20	110.00	7,980.76	-401.11	1,102.04	-401.11	2.00	-2.00	0.00	
8,200.00	1.20	110.00	8,080.68	-402.42	1,105.65	-402.42	2.00	-2.00	0.00	
8,260.00	0.00	0.00	8,140.67	-402.64	1,106.24	-402.64	2.00	-2.00	0.00	
EOD - HOLD										
8,300.00	0.00	0.00	8,180.67	-402.64	1,106.24	-402.64	0.00	0.00	0.00	
8,369.33	0.00	0.00	8,250.00	-402.64	1,106.24	-402.64	0.00	0.00	0.00	
Curve KOP - Build 10.0° / 100										
8,400.00	3.07	359.99	8,280.66	-401.82	1,106.24	-401.82	10.00	10.00	0.00	
8,450.00	8.07	359.99	8,330.41	-396.97	1,106.24	-396.97	10.00	10.00	0.00	
8,500.00	13.07	359.99	8,379.54	-387.80	1,106.24	-387.80	10.00	10.00	0.00	
8,550.00	18.07	359.99	8,427.69	-374.39	1,106.24	-374.39	10.00	10.00	0.00	
8,600.00	23.07	359.99	8,474.49	-356.83	1,106.24	-356.83	10.00	10.00	0.00	
8,650.00	28.07	359.99	8,519.58	-335.26	1,106.23	-335.26	10.00	10.00	0.00	
8,700.00	33.07	359.99	8,562.62	-309.84	1,106.23	-309.84	10.00	10.00	0.00	
8,750.00	38.07	359.99	8,603.28	-280.77	1,106.23	-280.77	10.00	10.00	0.00	
8,800.00	43.07	359.99	8,641.25	-248.26	1,106.22	-248.26	10.00	10.00	0.00	
8,850.00	48.07	359.99	8,676.24	-212.57	1,106.22	-212.57	10.00	10.00	0.00	
8,900.00	53.07	359.99	8,707.99	-173.96	1,106.21	-173.96	10.00	10.00	0.00	
8,950.00	58.07	359.99	8,736.26	-132.74	1,106.21	-132.74	10.00	10.00	0.00	
8,999.13	62.98	359.99	8,760.42	-89.98	1,106.20	-89.98	10.00	10.00	0.00	
FTP[CFWXY#10H]										
9,000.00	63.07	359.99	8,760.82	-89.20	1,106.20	-89.20	10.00	10.00	0.00	

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Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,050.00	68.07	359.99	8,781.49	-43.70	1,106.20	-43.70	10.00	10.00	0.00	
9,100.00	73.07	359.99	8,798.12	3.44	1,106.19	3.44	10.00	10.00	0.00	
9,150.00	78.07	359.99	8,810.58	51.85	1,106.19	51.85	10.00	10.00	0.00	
9,200.00	83.07	359.99	8,818.77	101.15	1,106.18	101.15	10.00	10.00	0.00	
9,250.00	88.07	359.99	8,822.64	150.99	1,106.17	150.99	10.00	10.00	0.00	
9,276.33	90.70	359.99	8,822.92	177.31	1,106.17	177.31	10.00	10.00	0.00	
EOC - HOLD										
9,300.00	90.70	359.99	8,822.63	200.98	1,106.17	200.98	0.00	0.00	0.00	
9,400.00	90.70	359.99	8,821.41	300.98	1,106.15	300.98	0.00	0.00	0.00	
9,500.00	90.70	359.99	8,820.19	400.97	1,106.14	400.97	0.00	0.00	0.00	
9,600.00	90.70	359.99	8,818.97	500.96	1,106.13	500.96	0.00	0.00	0.00	
9,700.00	90.70	359.99	8,817.75	600.95	1,106.12	600.95	0.00	0.00	0.00	
9,800.00	90.70	359.99	8,816.52	700.95	1,106.10	700.95	0.00	0.00	0.00	
9,900.00	90.70	359.99	8,815.30	800.94	1,106.09	800.94	0.00	0.00	0.00	
10,000.00	90.70	359.99	8,814.08	900.93	1,106.08	900.93	0.00	0.00	0.00	
10,100.00	90.70	359.99	8,812.86	1,000.92	1,106.07	1,000.92	0.00	0.00	0.00	
10,200.00	90.70	359.99	8,811.64	1,100.92	1,106.05	1,100.92	0.00	0.00	0.00	
10,300.00	90.70	359.99	8,810.42	1,200.91	1,106.04	1,200.91	0.00	0.00	0.00	
10,400.00	90.70	359.99	8,809.19	1,300.90	1,106.03	1,300.90	0.00	0.00	0.00	
10,500.00	90.70	359.99	8,807.97	1,400.89	1,106.02	1,400.89	0.00	0.00	0.00	
10,600.00	90.70	359.99	8,806.75	1,500.89	1,106.00	1,500.89	0.00	0.00	0.00	
10,700.00	90.70	359.99	8,805.53	1,600.88	1,105.99	1,600.88	0.00	0.00	0.00	
10,800.00	90.70	359.99	8,804.31	1,700.87	1,105.98	1,700.87	0.00	0.00	0.00	
10,900.00	90.70	359.99	8,803.09	1,800.86	1,105.97	1,800.86	0.00	0.00	0.00	
11,000.00	90.70	359.99	8,801.86	1,900.86	1,105.95	1,900.86	0.00	0.00	0.00	
11,100.00	90.70	359.99	8,800.64	2,000.85	1,105.94	2,000.85	0.00	0.00	0.00	
11,200.00	90.70	359.99	8,799.42	2,100.84	1,105.93	2,100.84	0.00	0.00	0.00	
11,300.00	90.70	359.99	8,798.20	2,200.83	1,105.92	2,200.83	0.00	0.00	0.00	
11,400.00	90.70	359.99	8,796.98	2,300.83	1,105.90	2,300.83	0.00	0.00	0.00	
11,500.00	90.70	359.99	8,795.76	2,400.82	1,105.89	2,400.82	0.00	0.00	0.00	
11,600.00	90.70	359.99	8,794.53	2,500.81	1,105.88	2,500.81	0.00	0.00	0.00	
11,700.00	90.70	359.99	8,793.31	2,600.80	1,105.87	2,600.80	0.00	0.00	0.00	
11,800.00	90.70	359.99	8,792.09	2,700.80	1,105.86	2,700.80	0.00	0.00	0.00	
11,900.00	90.70	359.99	8,790.87	2,800.79	1,105.84	2,800.79	0.00	0.00	0.00	
12,000.00	90.70	359.99	8,789.65	2,900.78	1,105.83	2,900.78	0.00	0.00	0.00	
12,100.00	90.70	359.99	8,788.43	3,000.77	1,105.82	3,000.77	0.00	0.00	0.00	
12,200.00	90.70	359.99	8,787.20	3,100.77	1,105.81	3,100.77	0.00	0.00	0.00	
12,300.00	90.70	359.99	8,785.98	3,200.76	1,105.79	3,200.76	0.00	0.00	0.00	
12,400.00	90.70	359.99	8,784.76	3,300.75	1,105.78	3,300.75	0.00	0.00	0.00	
12,500.00	90.70	359.99	8,783.54	3,400.74	1,105.77	3,400.74	0.00	0.00	0.00	
12,600.00	90.70	359.99	8,782.32	3,500.74	1,105.76	3,500.74	0.00	0.00	0.00	
12,700.00	90.70	359.99	8,781.10	3,600.73	1,105.74	3,600.73	0.00	0.00	0.00	
12,800.00	90.70	359.99	8,779.87	3,700.72	1,105.73	3,700.72	0.00	0.00	0.00	
12,900.00	90.70	359.99	8,778.65	3,800.71	1,105.72	3,800.71	0.00	0.00	0.00	
13,000.00	90.70	359.99	8,777.43	3,900.71	1,105.71	3,900.71	0.00	0.00	0.00	
13,100.00	90.70	359.99	8,776.21	4,000.70	1,105.69	4,000.70	0.00	0.00	0.00	
13,200.00	90.70	359.99	8,774.99	4,100.69	1,105.68	4,100.69	0.00	0.00	0.00	
13,300.00	90.70	359.99	8,773.76	4,200.68	1,105.67	4,200.68	0.00	0.00	0.00	
13,400.00	90.70	359.99	8,772.54	4,300.68	1,105.66	4,300.68	0.00	0.00	0.00	
13,500.00	90.70	359.99	8,771.32	4,400.67	1,105.64	4,400.67	0.00	0.00	0.00	
13,608.15	90.70	359.99	8,770.00	4,508.81	1,105.63	4,508.81	0.00	0.00	0.00	
TD at 13608.15 - BHL[CFWXY#10H]										

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well WXY #10H
Company:	Marathon Oil Permian, LLC	TVD Reference:	KB = 25' @ 3244.00usft (Precision 594)
Project:	Eddy County, NM (NAD27)	MD Reference:	KB = 25' @ 3244.00usft (Precision 594)
Site:	Catapult Fee 23-26-1	North Reference:	Grid
Well:	WXY #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
miss target	(°)	(bearing)	(usft)	(usft)	(usft)	(usft)	(usft)		
Shape									
BHL[CFWXY#10H]	0.00	0.00	8,770.00	4,508.82	1,105.63	487,454.18	529,369.94	32° 20' 24.329 N	104° 14' 17.654 W
- plan hits target center									
- Point									
FTP[CFWXY#10H]	0.00	0.00	8,823.00	-125.29	1,106.80	482,820.49	529,371.11	32° 19' 38.474 N	104° 14' 17.689 W
- plan misses target center by 71.85usft at 8999.13usft MD (8760.42 TVD, -89.98 N, 1106.20 E)									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N-S (usft)	+E-W (usft)	
2,000.00	2,000.00	0.00	0.00	KOP - Build 2.0° / 100
2,600.00	2,595.62	-21.41	58.83	EOB - HOLD
7,660.00	7,545.05	-381.23	1,047.41	DROP 2.0° / 100
8,260.00	8,140.67	-402.64	1,106.24	EOD - HOLD
8,369.33	8,250.00	-402.64	1,106.24	Curve KOP - Build 10.0° / 100
9,276.33	8,822.92	177.31	1,106.17	EOC - HOLD
13,608.15	8,770.00	4,508.81	1,105.63	TD at 13608.15

30-01544690



EDDY COUNTY, NM (NAD27)
CATAPULT FEE 23-26-1
WXY #10H
PLAN #1
PRECISION 594

WELL DETAILS:

GROUND LEVEL: 3219.00
EASTING: 528264.41 32° 19' 59.723 NOL* 14° 30.586 W
LONGITUDE: 482945.77

SECTION DETAILS

NO	INC	AL	TVD	+N-S	+E-W	DLEG	TRABE	USERT	TRABE*
2045.30	9.00	0.30	2000.00	0.30	0.30	0.30	0.30	0.30	0.30
2465.30	2.30	13.00	2595.92	-21.41	58.83	2.30	15.30	-21.41	58.83
4200.00	5.00	0.30	845.00	-58.12	130.24	5.00	0.30	-58.12	130.24
8569.33	0.00	0.30	9250.01	-62.94	39.24	0.00	0.00	-62.94	39.24
9276.53	90.73	359.99	8522.92	177.52	106.17	3.00	259.99	177.52	106.17
12607.05	92.79	559.99	8701.00	459.92	115.63	3.00	0.00	459.92	115.63

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting
BH(CFWXY#10H)	9770.00	4508.82	1105.83	487454.18	529369.94
FTPC(WXY#10H)	8823.00	-125.29	1106.80	482620.49	529371.11

DRILLING TARGET: 8925 ± 0.5' / 90.7° INC.

TARGET WINDOW: 5' UP // 15' DOWN

PROJECT DETAILS: EDDY COUNTY, NM (NAD27)
CEOIDETIC SYSTEM: US STATE PLANE 1927 (EXACT SOLUTION)
DATUM: NAD 1927 (NADCON CONUS)
ELLIPSOID: CLARKE 1866
ZONE: NEW MEXICO EAST 300
SYSTEM DATUM: MEAN SEA LEVEL

SITE DETAILS: CATAPULT FEE 23-26-1
EASTING: 528264.41
POSITIONAL UNCERTAINTY: 0.00
CONVERGENCE: 0.05
LOCAL NORTH: GRID

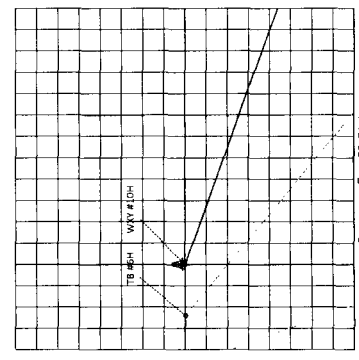
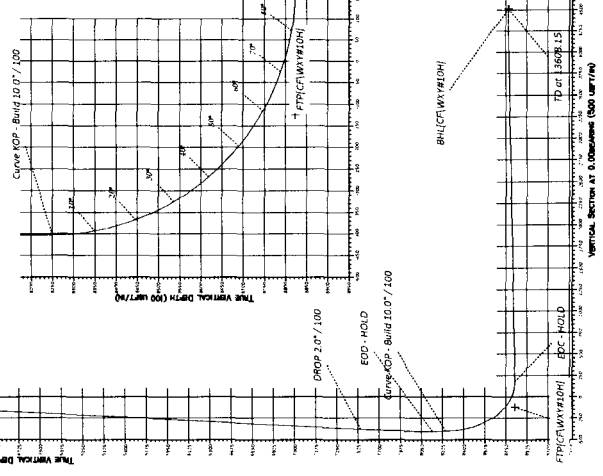
US STATE PLANE 1927 (EXACT SOLUTION)
ELLIPSOID: CLARKE 1866
ZONE: NEW MEXICO EAST 300
LOCAL ORIGIN: N.E. 7' 41" 41", 78° NORTH
LATITUDE: 32° 19' 59.723 N
LONGITUDE: 104° 14' 20.586 W
GRID EAST: 528264.41
GRID NORTH: 482945.77
SCALE FACTOR: 0.9999999999999999
GEOMETRIC HEIGHT: 1000
MEAN SEA LEVEL: 0.00
SP. ANGLE FROM HORIZONTAL: 92.73°
MAGNETIC FIELD STRENGTH: 0.527
TO CORRECT MAGNETIC NORTH TO GRID, ADD 1.5°
TO CORRECT TRUE NORTH TO GRID, SUBTRACT 0.25°

FORMATION TOP DETAILS

NO FORMATION DATA IS AVAILABLE

ARTESIA DISTRICT
FEB 15 2018

RECEIVED



Adjusted to Grid North
True North -0.01°
Magnetic North: 7.33°
Magnetic Field
Strength: 0.527
Declination: 7.33°
Date: 2/10/2018



Scientific Drilling