

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

RECEIVED

FEB 14 2020

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

EMNRD-OCD ARTESIA

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46132	² Pool Code 98220	³ Pool Name PURPLE SAGE, WOLFCAMP (GAS)
⁴ Property Code 325764	⁵ Property Name JACK SLEEPER STATE COM 9 & 16-23S-28E	⁶ Well Number 221H
⁷ GRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 3014'

¹⁰Surface Location

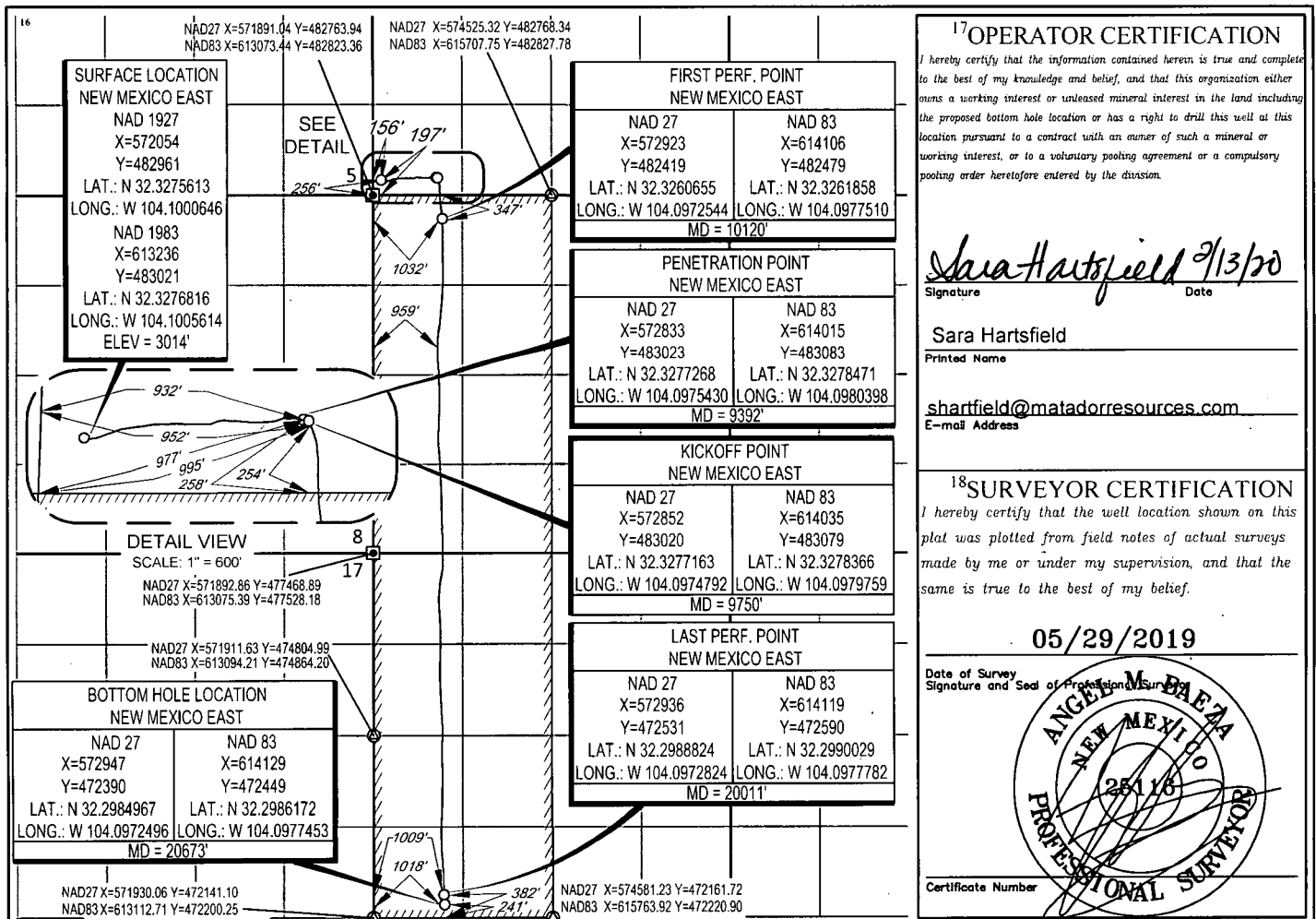
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	4	23-S	28-E	-	197'	SOUTH	156'	WEST	EDDY

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
M	16	23-S	28-E	-	241'	SOUTH	1018'	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.





RECEIVED

FEB 14 2020

EMNRD-OCDA RTESIA



Jack Sleeper Com 9 & 16-23S-28E No. 221H

Eddy County, NM

30-015-46132

October 07, 2019

Job No. LNM5507419

ORIGINAL

Certified Report



PRODIRECTIONAL

Survey Certification Letter

October 07, 2019



Operator Name: Matador Resources
Well Name: Jack Sleeper Com 9 & 16-23S-28E No. 221H
County/Parish: Eddy County,
State: NM
Rig Name: Patterson 274
Job Number: LNM5507419

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

Surveyor	Surveyed Depths	Projection to Bit	Dates Performed	Type of Survey
ProDirectional	494' MD – 20,613' MD	20,675' MD	07/05/19 – 09/14/19	MWD

Sincerely,

Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com

The Standard of Excellence in Directional Supervision



Matador Resources

Eddy County, NM

Jack Sleeper Com 9 & 16-23S-28E

No. 221H

OH

Survey: ProDirectional

Survey Report

07 October, 2019





ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Project:	Eddy County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Jack Sleeper Com 9 & 16-23S-28E		
Site Position:	From: Map	Northing:	483,051.00 usft
		Easting:	613,206.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.327765
		Longitude:	-104.100659
		Grid Convergence:	0.12 °

Well:	No. 221H, LNM5507419					
Well Position	+N/-S	0.00 usft	Northing:	483,021.00 usft	Latitude:	32.327682
	+E/-W	0.00 usft	Easting:	613,236.00 usft	Longitude:	-104.100562
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,014.00 usft	

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	7/19/2019	7.13	60.05	47,895.90

Design:	MWD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	179.80	



ProDirectional Survey Report



Company:	Matador Resources	Local/Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey Program		Date 10/7/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
94.00	397.00	Survey #1 (OH)	GYRO-NS-CT	OWSG XYZ Accel with XY Static and Continuous Gyro
494.00	20,675.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HRGM

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec. (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	483,021.00	613,236.00
94.00	0.93	6.09	94.00	-0.76	0.76	0.08	0.76	6.09	483,021.76	613,236.08
189.00	1.45	358.90	188.98	-2.73	2.73	0.14	2.73	2.93	483,023.73	613,236.14
283.00	1.50	355.33	282.94	-5.14	5.14	0.02	5.14	0.19	483,026.14	613,236.02
378.00	1.64	351.15	377.91	-7.73	7.72	-0.29	7.73	357.82	483,028.72	613,235.71
397.00	1.77	0.69	396.90	-8.29	8.29	-0.33	8.29	357.71	483,029.29	613,235.67
494.00	1.90	4.50	493.85	-11.39	11.39	-0.19	11.39	359.06	483,032.39	613,235.81
Pro MWD First Survey: 494' MD										
525.00	1.80	0.00	524.83	-12.39	12.39	-0.15	12.39	359.32	483,033.39	613,235.85
617.00	0.80	31.60	616.81	-14.38	14.38	0.19	14.38	0.75	483,035.38	613,236.19
709.00	0.70	27.30	708.80	-15.42	15.43	0.78	15.45	2.91	483,036.43	613,236.78
805.00	0.60	209.30	804.80	-15.51	15.51	0.81	15.53	2.98	483,036.51	613,236.81
900.00	1.40	207.50	899.79	-14.04	14.05	0.03	14.05	0.11	483,035.05	613,236.03
995.00	1.30	199.40	994.76	-12.00	12.00	-0.87	12.03	355.87	483,033.00	613,235.13
1,091.00	1.20	204.70	1,090.74	-10.06	10.06	-1.65	10.19	350.69	483,031.06	613,234.35
1,186.00	1.30	206.10	1,185.71	-8.20	8.19	-2.54	8.57	342.77	483,029.19	613,233.46
1,281.00	0.90	209.00	1,280.70	-6.58	6.57	-3.37	7.38	332.81	483,027.57	613,232.63
1,376.00	0.70	213.20	1,375.69	-5.44	5.43	-4.05	6.78	323.25	483,026.43	613,231.95
1,471.00	0.80	253.80	1,470.68	-4.78	4.76	-5.01	6.91	313.53	483,025.76	613,230.99
1,567.00	0.70	103.40	1,566.68	-4.45	4.44	-5.08	6.74	311.12	483,025.44	613,230.92
1,661.00	3.10	105.40	1,660.62	-3.63	3.63	-2.07	4.18	330.26	483,024.63	613,233.93



ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
1,756.00	4.90	107.00	1,755.38	-1.74	1.76	4.29	4.63	67.69	483,022.76	613,240.29	
1,851.00	5.20	111.30	1,850.01	1.03	-0.99	12.18	12.22	94.66	483,020.01	613,248.18	
1,946.00	2.80	104.80	1,944.78	3.21	-3.15	18.43	18.70	99.69	483,017.85	613,254.43	
2,041.00	2.20	93.40	2,039.69	3.93	-3.85	22.50	22.82	99.71	483,017.15	613,258.50	
2,136.00	2.90	69.20	2,134.59	3.20	-3.10	26.56	26.74	96.67	483,017.90	613,262.56	
2,231.00	2.20	82.40	2,229.50	2.12	-2.01	30.62	30.68	93.76	483,018.99	613,266.62	
2,326.00	1.60	90.00	2,324.45	1.89	-1.77	33.75	33.80	93.00	483,019.23	613,269.75	
2,421.00	1.10	89.00	2,419.42	1.88	-1.75	35.99	36.03	92.79	483,019.25	613,271.99	
2,484.00	1.00	95.90	2,482.41	1.93	-1.80	37.14	37.18	92.77	483,019.20	613,273.14	
2,587.00	1.00	101.10	2,585.39	2.20	-2.06	38.92	38.97	93.04	483,018.94	613,274.92	
2,683.00	0.80	77.60	2,681.38	2.22	-2.08	40.39	40.45	92.95	483,018.92	613,276.39	
2,778.00	0.90	73.10	2,776.37	1.87	-1.72	41.75	41.79	92.36	483,019.28	613,277.75	
2,873.00	0.80	88.70	2,871.36	1.64	-1.49	43.13	43.16	91.98	483,019.51	613,279.13	
2,969.00	3.70	71.50	2,967.28	0.65	-0.49	46.74	46.74	90.60	483,020.51	613,282.74	
3,064.00	4.40	69.60	3,062.04	-1.57	1.75	53.06	53.09	88.11	483,022.75	613,289.06	
3,159.00	7.10	68.90	3,156.55	-4.92	5.14	61.96	62.17	85.26	483,026.14	613,297.96	
3,254.00	7.70	69.00	3,250.76	-9.27	9.53	73.38	73.99	82.60	483,030.53	613,309.38	
3,349.00	7.30	69.20	3,344.95	-13.66	13.95	84.96	86.10	80.67	483,034.95	613,320.96	
3,445.00	7.20	68.70	3,440.18	-17.97	18.31	96.27	97.99	79.23	483,039.31	613,332.27	
3,540.00	7.30	68.00	3,534.42	-22.35	22.73	107.41	109.79	78.05	483,043.73	613,343.41	
3,635.00	7.30	67.60	3,628.65	-26.88	27.29	118.58	121.68	77.04	483,048.29	613,354.58	
3,731.00	8.60	79.70	3,723.73	-30.44	30.90	131.29	134.87	76.76	483,051.90	613,367.29	
3,826.00	8.50	80.80	3,817.68	-32.78	33.29	145.21	148.97	77.09	483,054.29	613,381.21	
3,921.00	8.40	81.20	3,911.65	-34.92	35.47	158.99	162.90	77.42	483,056.47	613,394.99	
4,016.00	8.40	81.80	4,005.63	-36.92	37.53	172.72	176.75	77.74	483,058.53	613,408.72	
4,111.00	8.40	82.20	4,099.61	-38.81	39.46	186.46	190.59	78.05	483,060.46	613,422.46	
4,206.00	8.50	82.60	4,193.58	-40.60	41.30	200.30	204.51	78.35	483,062.30	613,436.30	



ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
4,301.00	8.50	82.90		4,287.53	-42.33	43.08	214.23	218.52	78.63	483,064.08	613,450.23
4,397.00	8.60	82.20		4,382.47	-44.13	44.93	228.38	232.76	78.87	483,065.93	613,464.38
4,492.00	8.60	82.90		4,476.40	-45.92	46.77	242.47	246.94	79.08	483,067.77	613,478.47
4,587.00	8.40	82.60		4,570.36	-47.64	48.54	256.40	260.95	79.28	483,069.54	613,492.40
4,683.00	6.10	91.80		4,665.58	-48.35	49.28	268.45	272.94	79.60	483,070.28	613,504.45
4,778.00	5.80	91.90		4,760.07	-47.99	48.97	278.29	282.57	80.02	483,069.97	613,514.29
4,873.00	5.20	91.20		4,854.63	-47.71	48.72	287.39	291.49	80.38	483,069.72	613,523.39
4,967.00	4.80	90.30		4,948.28	-47.57	48.61	295.59	299.56	80.66	483,069.61	613,531.59
5,063.00	6.00	85.70		5,043.85	-47.90	48.96	304.61	308.52	80.87	483,069.96	613,540.61
5,158.00	5.80	87.50		5,138.35	-48.45	49.54	314.35	318.23	81.04	483,070.54	613,550.35
5,252.00	5.80	88.00		5,231.87	-48.79	49.92	323.84	327.67	81.24	483,070.92	613,559.84
5,348.00	5.80	91.20		5,327.37	-48.82	49.98	333.54	337.27	81.48	483,070.98	613,569.54
5,443.00	5.60	93.70		5,421.90	-48.39	49.58	342.97	346.53	81.77	483,070.58	613,578.97
5,537.00	5.10	91.80		5,515.49	-47.93	49.16	351.72	355.14	82.04	483,070.16	613,587.72
5,632.00	4.70	92.40		5,610.15	-47.60	48.86	359.83	363.13	82.27	483,069.86	613,595.83
5,727.00	5.80	88.60		5,704.75	-47.53	48.82	368.52	371.74	82.45	483,069.82	613,604.52
5,822.00	6.70	89.90		5,799.18	-47.62	48.94	378.86	382.01	82.64	483,069.94	613,614.86
5,917.00	8.50	91.30		5,893.34	-47.43	48.79	391.42	394.45	82.89	483,069.79	613,627.42
6,013.00	8.20	91.80		5,988.33	-47.00	48.42	405.35	408.24	83.19	483,069.42	613,641.35
6,108.00	7.30	91.80		6,082.46	-46.55	48.01	418.16	420.91	83.45	483,069.01	613,654.16
6,203.00	6.20	91.50		6,176.80	-46.19	47.69	429.32	431.96	83.66	483,068.69	613,665.32
6,298.00	4.70	89.30		6,271.37	-46.07	47.60	438.34	440.92	83.80	483,068.60	613,674.34
6,393.00	4.80	81.60		6,366.04	-46.67	48.23	446.16	448.76	83.83	483,069.23	613,682.16
6,488.00	6.40	72.30		6,460.59	-48.83	50.42	455.14	457.93	83.68	483,071.42	613,691.14
6,583.00	5.80	66.50		6,555.05	-52.32	53.95	464.59	467.71	83.38	483,074.95	613,700.59
6,678.00	5.50	73.70		6,649.59	-55.49	57.14	473.36	476.80	83.12	483,078.14	613,709.36
6,773.00	5.20	75.50		6,744.17	-57.81	59.49	481.90	485.56	82.96	483,080.49	613,717.90



ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
6,868.00	7.10	85.60	6,838.63	-59.30	61.02	491.92	495.69	82.93	483,082.02	613,727.92	
6,963.00	7.60	94.20	6,932.85	-59.25	61.01	504.04	507.72	83.10	483,082.01	613,740.04	
7,059.00	5.80	95.90	7,028.19	-58.25	60.05	515.20	518.68	83.35	483,081.05	613,751.20	
7,154.00	6.80	93.70	7,122.61	-57.36	59.19	525.58	528.91	83.57	483,080.19	613,761.58	
7,249.00	5.30	97.00	7,217.08	-56.43	58.30	535.55	538.72	83.79	483,079.30	613,771.55	
7,344.00	5.60	84.80	7,311.66	-56.28	58.18	544.52	547.62	83.90	483,079.18	613,780.52	
7,440.00	6.80	99.00	7,407.10	-55.78	57.72	554.80	557.80	84.06	483,078.72	613,790.80	
7,535.00	8.90	91.90	7,501.20	-54.61	56.59	567.70	570.52	84.31	483,077.59	613,803.70	
7,631.00	9.10	95.50	7,596.02	-53.58	55.62	582.68	585.33	84.55	483,076.62	613,818.68	
7,726.00	7.20	98.30	7,690.06	-51.96	54.04	596.05	598.50	84.82	483,075.04	613,832.05	
7,821.00	8.10	88.80	7,784.22	-51.19	53.32	608.64	610.97	84.99	483,074.32	613,844.64	
7,916.00	7.40	87.30	7,878.35	-51.58	53.75	621.44	623.76	85.06	483,074.75	613,857.44	
8,011.00	6.60	89.90	7,972.64	-51.84	54.05	633.01	635.31	85.12	483,075.05	613,869.01	
8,106.00	8.00	86.00	8,066.87	-52.26	54.52	645.06	647.36	85.17	483,075.52	613,881.06	
8,201.00	6.10	86.20	8,161.15	-53.02	55.31	656.70	659.02	85.19	483,076.31	613,892.70	
8,296.00	6.80	78.80	8,255.55	-54.41	56.74	667.25	669.66	85.14	483,077.74	613,903.25	
8,392.00	5.70	84.90	8,350.97	-55.90	58.27	677.57	680.08	85.09	483,079.27	613,913.57	
8,487.00	6.70	69.90	8,445.42	-58.19	60.59	687.48	690.14	84.96	483,081.59	613,923.48	
8,582.00	5.80	67.30	8,539.86	-61.91	64.35	697.11	700.08	84.73	483,085.35	613,933.11	
8,677.00	7.00	87.20	8,634.28	-64.01	66.48	707.32	710.44	84.63	483,087.48	613,943.32	
8,772.00	6.60	93.30	8,728.61	-63.94	66.45	718.56	721.62	84.72	483,087.45	613,954.56	
8,867.00	6.00	90.70	8,823.04	-63.53	66.08	728.97	731.96	84.82	483,087.08	613,964.97	
8,963.00	6.30	90.90	8,918.48	-63.35	65.93	739.25	742.19	84.90	483,086.93	613,975.25	
9,057.00	6.00	93.20	9,011.94	-62.96	65.58	749.32	752.18	85.00	483,086.58	613,985.32	
9,153.00	5.40	95.30	9,107.47	-62.23	64.88	758.82	761.59	85.11	483,085.88	613,994.82	
9,248.00	5.10	98.90	9,202.07	-61.13	63.81	767.45	770.10	85.25	483,084.81	614,003.45	
9,343.00	4.40	100.00	9,296.74	-59.82	62.53	775.21	777.73	85.39	483,083.53	614,011.21	



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Jack Sleeper Com 9 & 16-23S-28E
Well: No. 221H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:
Well No. 221H
Well @ 3042.50usft
Well @ 3042.50usft
Grid
Minimum Curvature
WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
9,437.00	4.00	100.20	9,390.49	-58.59	61.32	781.99	784.39	85.52	483,082.32	614,017.99
9,532.00	3.20	95.80	9,485.30	-57.72	60.47	787.88	790.20	85.61	483,081.47	614,023.88
9,627.00	2.80	97.20	9,580.17	-57.14	59.91	792.82	795.08	85.68	483,080.91	614,028.82
9,729.00	2.50	97.20	9,682.06	-56.53	59.32	797.50	799.71	85.75	483,080.32	614,033.50
9,793.00	6.80	155.00	9,745.86	-52.91	55.70	800.49	802.43	86.02	483,076.70	614,036.49
9,824.00	11.20	157.40	9,776.47	-48.46	51.26	802.43	804.06	86.34	483,072.26	614,038.43
9,920.00	24.00	157.50	9,867.79	-21.66	24.50	813.53	813.90	88.27	483,045.50	614,049.53
10,015.00	32.90	167.60	9,951.28	21.54	-18.66	826.49	826.70	91.29	483,002.34	614,062.49
10,110.00	44.70	180.00	10,025.30	80.47	-77.56	832.06	835.67	95.33	482,943.44	614,068.06
10,205.00	57.20	179.90	10,085.03	154.10	-151.19	832.13	845.76	100.30	482,869.81	614,068.13
10,301.00	67.60	176.00	10,129.46	238.98	-236.07	835.31	868.03	105.78	482,784.93	614,071.31
10,424.00	73.80	172.30	10,170.10	354.42	-351.46	847.20	917.21	112.53	482,669.54	614,083.20
10,519.00	77.40	172.70	10,193.72	445.67	-442.68	859.21	966.54	117.26	482,578.32	614,095.21
10,614.00	79.20	175.40	10,212.99	538.22	-535.19	868.84	1,020.45	121.63	482,485.81	614,104.84
10,709.00	80.30	177.70	10,229.90	631.55	-628.50	874.46	1,076.89	125.71	482,392.50	614,110.46
10,804.00	84.40	178.90	10,242.54	725.65	-722.59	877.25	1,136.53	129.48	482,298.41	614,113.25
10,899.00	91.80	180.30	10,245.69	820.52	-817.47	877.91	1,199.57	132.96	482,203.53	614,113.91
10,991.00	92.20	179.90	10,242.48	912.47	-909.41	877.75	1,263.91	136.01	482,111.59	614,113.75
11,083.00	90.50	181.70	10,240.31	1,004.42	-1,001.37	876.47	1,330.76	138.81	482,019.63	614,112.47
11,175.00	89.40	179.30	10,240.39	1,096.41	-1,093.36	875.66	1,400.79	141.31	481,927.64	614,111.66
11,266.00	86.30	177.40	10,243.81	1,187.30	-1,184.24	878.28	1,474.38	143.44	481,836.76	614,114.28
11,358.00	91.50	180.00	10,245.57	1,279.22	-1,276.16	880.36	1,550.36	145.40	481,744.84	614,116.36
11,450.00	93.30	180.90	10,241.72	1,371.13	-1,368.07	879.64	1,626.47	147.26	481,652.93	614,115.64
11,542.00	93.00	181.60	10,236.66	1,462.96	-1,459.91	877.64	1,703.40	148.99	481,561.09	614,113.64
11,634.00	90.40	182.10	10,233.94	1,554.86	-1,551.81	874.67	1,781.34	150.59	481,469.19	614,110.67
11,725.00	89.30	183.70	10,234.17	1,645.72	-1,642.69	870.07	1,858.88	152.09	481,378.31	614,106.07
11,817.00	87.20	183.80	10,236.98	1,737.45	-1,734.45	864.05	1,937.75	153.52	481,286.55	614,100.05



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Jack Sleeper Com 9 & 16-23S-28E
Well: No. 221H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:
Well No. 221H
Well @ 3042.50usft
Well @ 3042.50usft
Grid
Minimum Curvature
WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
11,909.00	87.90	183.90	10,240.92	1,829.14	-1,826.15	857.88	2,017.62	154.84	481,194.85	614,093.88	
12,000.00	89.70	187.60	10,242.82	1,919.61	-1,916.66	848.77	2,096.18	156.11	481,104.34	614,084.77	
12,092.00	88.20	184.70	10,244.51	2,011.02	-2,008.10	838.91	2,176.29	157.33	481,012.90	614,074.91	
12,183.00	88.70	189.60	10,246.97	2,101.21	-2,098.33	827.59	2,255.64	158.48	480,922.67	614,063.59	
12,275.00	87.60	189.00	10,249.94	2,191.90	-2,189.07	812.73	2,335.07	159.63	480,831.93	614,048.73	
12,370.00	84.90	183.80	10,256.16	2,286.02	-2,283.24	802.17	2,420.05	160.64	480,737.76	614,038.17	
12,464.00	91.40	182.00	10,259.19	2,379.78	-2,377.01	797.42	2,507.20	161.45	480,643.99	614,033.42	
12,559.00	89.20	177.60	10,258.69	2,474.75	-2,471.98	797.75	2,597.52	162.11	480,549.02	614,033.75	
12,653.00	89.80	178.00	10,259.51	2,568.69	-2,565.91	801.36	2,688.13	162.66	480,455.09	614,037.36	
12,748.00	90.90	177.70	10,258.93	2,663.63	-2,660.84	804.92	2,779.92	163.17	480,360.16	614,040.92	
12,843.00	90.30	176.00	10,257.94	2,758.50	-2,755.69	810.14	2,872.30	163.62	480,265.31	614,046.14	
12,938.00	87.00	177.00	10,260.18	2,853.30	-2,850.47	815.94	2,964.95	164.03	480,170.53	614,051.94	
13,039.00	88.00	176.80	10,264.58	2,954.07	-2,951.22	821.40	3,063.40	164.45	480,069.78	614,057.40	
13,133.00	86.30	177.40	10,269.26	3,047.85	-3,044.98	826.15	3,155.06	164.82	479,976.02	614,062.15	
13,227.00	87.90	180.10	10,274.01	3,141.70	-3,138.83	828.19	3,246.25	165.22	479,882.17	614,064.19	
13,322.00	88.60	181.60	10,276.91	3,236.64	-3,233.77	826.78	3,337.79	165.66	479,787.23	614,062.78	
13,417.00	88.10	181.70	10,279.65	3,331.55	-3,328.69	824.05	3,429.17	166.10	479,692.31	614,060.05	
13,512.00	88.80	182.90	10,282.22	3,426.42	-3,423.58	820.24	3,520.46	166.53	479,597.42	614,056.24	
13,607.00	89.00	180.10	10,284.04	3,521.35	-3,518.52	817.75	3,612.30	166.92	479,502.48	614,053.75	
13,702.00	90.60	184.00	10,284.38	3,616.25	-3,613.43	814.35	3,704.06	167.30	479,407.57	614,050.35	
13,797.00	87.50	181.40	10,285.95	3,711.10	-3,708.30	809.88	3,795.70	167.68	479,312.70	614,045.88	
13,892.00	85.80	179.30	10,291.50	3,805.92	-3,803.12	809.30	3,888.28	167.99	479,217.88	614,045.30	
13,987.00	86.90	175.50	10,297.55	3,900.63	-3,897.81	813.60	3,981.82	168.21	479,123.19	614,049.60	
14,082.00	88.70	175.10	10,301.20	3,995.26	-3,992.42	821.38	4,076.04	168.37	479,028.58	614,057.38	
14,178.00	89.40	176.90	10,302.79	4,091.03	-4,088.17	828.07	4,171.19	168.55	478,932.83	614,064.07	
14,272.00	89.60	175.90	10,303.61	4,184.86	-4,181.98	833.98	4,264.32	168.72	478,839.02	614,069.98	
14,367.00	90.50	178.70	10,303.53	4,279.76	-4,276.86	838.45	4,358.27	168.91	478,744.14	614,074.45	



ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
14,462.00	89.60	176.20	10,303.44	4,374.67	-4,371.76	842.68	4,452.23	169.09	478,649.24	614,078.68	
14,557.00	91.40	177.40	10,302.62	4,469.54	-4,466.60	847.98	4,546.38	169.25	478,554.40	614,083.98	
14,653.00	91.30	178.10	10,300.35	4,565.45	-4,562.50	851.75	4,641.32	169.43	478,458.50	614,087.75	
14,748.00	90.20	178.00	10,299.11	4,660.39	-4,657.44	854.98	4,735.26	169.60	478,363.56	614,090.98	
14,843.00	91.70	179.70	10,297.54	4,755.36	-4,752.40	856.89	4,829.03	169.78	478,268.60	614,092.89	
14,938.00	91.00	179.90	10,295.30	4,850.33	-4,847.37	857.22	4,922.58	169.97	478,173.63	614,093.22	
15,033.00	89.80	178.80	10,294.63	4,945.33	-4,942.36	858.30	5,016.33	170.15	478,078.64	614,094.30	
15,128.00	88.40	177.30	10,296.13	5,040.26	-5,037.29	861.53	5,110.43	170.29	477,983.71	614,097.53	
15,223.00	89.90	177.40	10,297.54	5,135.16	-5,132.17	865.92	5,204.71	170.42	477,888.83	614,101.92	
15,318.00	90.80	176.50	10,296.96	5,230.04	-5,227.03	870.97	5,299.10	170.54	477,793.97	614,106.97	
15,413.00	90.40	177.10	10,295.96	5,324.91	-5,321.88	876.28	5,393.54	170.65	477,699.12	614,112.28	
15,508.00	92.80	180.20	10,293.31	5,419.83	-5,416.80	878.52	5,487.58	170.79	477,604.20	614,114.52	
15,603.00	93.40	180.10	10,288.17	5,514.69	-5,511.66	878.27	5,581.19	170.95	477,509.34	614,114.27	
15,698.00	89.10	181.30	10,286.10	5,609.63	-5,606.60	877.11	5,674.80	171.11	477,414.40	614,113.11	
15,726.00	88.90	183.40	10,286.59	5,637.60	-5,634.58	875.96	5,702.26	171.16	477,386.42	614,111.96	
15,821.00	89.45	186.04	10,287.95	5,732.23	-5,729.23	868.14	5,794.64	171.38	477,291.77	614,104.14	
15,916.00	87.47	192.70	10,290.51	5,825.82	-5,822.88	852.69	5,884.98	171.67	477,198.12	614,088.69	
16,011.00	86.42	188.77	10,295.58	5,918.94	-5,916.06	835.02	5,974.70	171.97	477,104.94	614,071.02	
16,106.00	85.54	185.96	10,302.24	6,012.87	-6,010.03	822.88	6,066.11	172.20	477,010.97	614,058.88	
16,201.00	85.00	182.40	10,310.07	6,107.25	-6,104.44	815.98	6,158.74	172.39	476,916.56	614,051.98	
16,296.00	87.30	178.00	10,316.45	6,202.01	-6,199.20	815.65	6,252.63	172.50	476,821.80	614,051.65	
16,391.00	88.70	176.20	10,319.77	6,296.84	-6,294.01	820.45	6,347.26	172.57	476,726.99	614,056.45	
16,486.00	92.70	176.10	10,318.61	6,391.62	-6,388.77	826.83	6,442.05	172.63	476,632.23	614,062.83	
16,581.00	93.70	176.30	10,313.31	6,486.28	-6,483.41	833.12	6,536.72	172.68	476,537.59	614,069.12	
16,676.00	93.80	177.80	10,307.09	6,580.97	-6,578.08	838.00	6,631.24	172.74	476,442.92	614,074.00	
16,771.00	92.00	180.20	10,302.29	6,675.83	-6,672.94	839.65	6,725.55	172.83	476,348.06	614,075.65	
16,867.00	91.80	180.20	10,299.10	6,771.77	-6,768.88	839.31	6,820.72	172.93	476,252.12	614,075.31	



ProDirectional Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
16,962.00	86.90	181.70	10,300.18	6,866.71	-6,863.83	837.74	6,914.77	173.04	476,157.17	614,073.74	
17,057.00	86.40	181.10	10,305.73	6,961.51	-6,958.64	835.42	7,008.61	173.15	476,062.36	614,071.42	
17,152.00	85.20	180.40	10,312.69	7,056.24	-7,053.37	834.18	7,102.53	173.26	475,967.63	614,070.18	
17,248.00	86.20	180.40	10,319.89	7,151.97	-7,149.10	833.51	7,197.53	173.35	475,871.90	614,069.51	
17,343.00	87.80	179.80	10,324.86	7,246.83	-7,243.97	833.35	7,291.74	173.44	475,777.03	614,069.35	
17,438.00	86.60	179.20	10,329.50	7,341.71	-7,338.85	834.18	7,386.10	173.52	475,682.15	614,070.18	
17,533.00	86.80	178.30	10,334.97	7,436.54	-7,433.67	836.25	7,480.56	173.58	475,587.33	614,072.25	
17,628.00	92.00	177.20	10,335.96	7,531.44	-7,528.55	839.97	7,575.27	173.63	475,492.45	614,075.97	
17,723.00	92.70	176.80	10,332.07	7,626.25	-7,623.34	844.94	7,670.03	173.68	475,397.66	614,080.94	
17,818.00	89.80	177.30	10,330.00	7,721.10	-7,718.18	849.83	7,764.83	173.72	475,302.82	614,085.83	
17,913.00	88.50	177.20	10,331.40	7,816.00	-7,813.06	854.39	7,859.64	173.76	475,207.94	614,090.39	
18,009.00	88.80	174.90	10,333.67	7,911.76	-7,908.80	861.00	7,955.53	173.79	475,112.20	614,097.00	
18,104.00	89.00	176.40	10,335.49	8,006.49	-8,003.51	868.20	8,050.46	173.81	475,017.49	614,104.20	
18,199.00	88.80	181.80	10,337.32	8,101.43	-8,098.44	869.69	8,145.01	173.87	474,922.56	614,105.69	
18,294.00	90.20	183.00	10,338.15	8,196.32	-8,193.35	865.72	8,238.96	173.97	474,827.65	614,101.72	
18,389.00	91.70	182.00	10,336.57	8,291.20	-8,288.24	861.57	8,332.91	174.07	474,732.76	614,097.57	
18,485.00	88.00	181.00	10,336.82	8,387.14	-8,384.19	859.06	8,428.09	174.15	474,636.81	614,095.06	
18,580.00	88.30	179.10	10,339.89	8,482.09	-8,479.14	858.98	8,522.54	174.22	474,541.86	614,094.98	
18,675.00	87.60	176.20	10,343.29	8,576.95	-8,573.99	862.87	8,617.30	174.25	474,447.01	614,098.87	
18,771.00	88.40	176.90	10,346.64	8,672.73	-8,669.75	868.64	8,713.16	174.28	474,351.25	614,104.64	
18,866.00	88.50	182.30	10,349.21	8,767.66	-8,764.68	869.30	8,807.69	174.34	474,256.32	614,105.30	
18,961.00	88.40	181.30	10,351.78	8,862.57	-8,859.60	866.32	8,901.85	174.42	474,161.40	614,102.32	
19,056.00	88.40	181.30	10,354.43	8,957.50	-8,954.54	864.17	8,996.14	174.49	474,066.46	614,100.17	
19,151.00	87.90	179.80	10,357.50	9,052.44	-9,049.48	863.26	9,090.56	174.55	473,971.52	614,099.26	
19,247.00	89.20	181.90	10,359.93	9,148.38	-9,145.43	861.83	9,185.95	174.62	473,875.57	614,097.83	
19,342.00	89.00	182.00	10,361.42	9,243.31	-9,240.37	858.60	9,280.17	174.69	473,780.63	614,094.60	
19,437.00	90.70	184.40	10,361.67	9,338.13	-9,335.21	853.30	9,374.12	174.78	473,685.79	614,089.30	



ProDirectional Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM (NAD83)	TVD Reference:	Well @ 3042.50usft
Site:	Jack Sleeper Com 9 & 16-23S-28E	MD Reference:	Well @ 3042.50usft
Well:	No. 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
19,533.00	90.30	181.70	10,360.83	9,433.96	-9,431.06	848.19	9,469.12	174.86	473,589.94	614,084.19	
19,628.00	90.00	179.70	10,360.58	9,528.94	-9,526.05	847.03	9,563.63	174.92	473,494.95	614,083.03	
19,723.00	89.50	179.80	10,361.00	9,623.94	-9,621.04	847.44	9,658.29	174.97	473,399.96	614,083.44	
19,818.00	88.00	178.00	10,363.07	9,718.90	-9,716.00	849.27	9,753.04	175.00	473,305.00	614,085.27	
19,913.00	87.60	177.10	10,366.72	9,813.76	-9,810.84	853.32	9,847.88	175.03	473,210.16	614,089.32	
20,008.00	88.00	176.40	10,370.36	9,908.55	-9,905.62	858.71	9,942.77	175.05	473,115.38	614,094.71	
20,104.00	88.10	176.60	10,373.63	10,004.34	-10,001.38	864.56	10,038.68	175.06	473,019.62	614,100.56	
20,199.00	88.50	175.70	10,376.45	10,099.10	-10,096.12	870.94	10,133.62	175.07	472,924.88	614,106.94	
20,294.00	89.20	178.50	10,378.36	10,193.97	-10,190.97	875.74	10,228.53	175.09	472,830.03	614,111.74	
20,389.00	90.90	179.60	10,378.27	10,288.95	-10,285.95	877.32	10,323.30	175.12	472,735.05	614,113.32	
20,484.00	89.80	177.70	10,377.69	10,383.93	-10,380.92	879.56	10,418.12	175.16	472,640.08	614,115.56	
20,579.00	88.00	175.30	10,379.52	10,478.74	-10,475.72	885.35	10,513.06	175.17	472,545.28	614,121.35	
20,613.00	88.40	175.40	10,380.58	10,512.62	-10,509.59	888.11	10,547.04	175.17	472,511.41	614,124.11	
Last Survey: 20613' MD											
20,675.00	88.40	175.40	10,382.32	10,574.41	-10,571.36	893.08	10,609.02	175.17	472,449.64	614,129.08	
PTB: 20675' MD											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
494.00	493.85	11.39	-0.19	Pro MWD First Survey: 494' MD
20,613.00	10,380.58	-10,509.59	888.11	Last Survey: 20613' MD
20,675.00	10,382.32	-10,571.36	893.08	PTB: 20675' MD