



Matador Resources

Eddy County, NM

SST State 06-19S-29E AH

123H

30-015-44325

OH

Design: OH Surveys 91.56'-12206' PTB 12270'

Standard Survey Report

28 March, 2018





Pro Directional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: SST State 06-19S-29E AH
Well: 123H
Wellbore: OH
Design: OH Surveys 91.56'-12206' PTB 12270'

Local Co-ordinate Reference: Well 123H
TVD Reference: Rig @ 3424.50usft (GL:3396'+KB:28.5')
MD Reference: Rig @ 3424.50usft (GL:3396'+KB:28.5')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project	Eddy County, NM		
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		

Site		SST State 06-19S-29E AH				
Site Position:		Northing:	612,596.00 usft	Latitude:	32.6839191	
From:	Map	Easting:	570,065.00 usft	Longitude:	-104.1056071	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.12 °

Well	123H					
Well Position	+N/-S	0.00 usft	Northing:	613,967.00 usft	Latitude:	32.6876870
	+E/-W	0.00 usft	Easting:	570,162.00 usft	Longitude:	-104.1052822
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,396.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	3/8/2018	7.42	60.50	48,110.10

Design	OH Surveys 91.56'-12206' PTB 12270'				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	270.46	

Survey Program	Date 3/28/2018				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
91.56	2,291.88	Survey #2 (OH)	GYRO-NS-CT	OWSG XYZ Accel with XY Static and Continuous	
2,336.00	12,270.00	ProMWD #2 (OH)	MWD+HDGM	OWSG MWD + HRGM	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.56	0.29	133.51	91.56	-0.16	0.17	-0.17	0.32	0.32	0.00
183.24	0.43	122.24	183.24	-0.50	0.63	-0.63	0.17	0.15	-12.29
274.92	0.51	143.34	274.91	-1.01	1.16	-1.17	0.21	0.09	23.01
366.60	0.55	166.92	366.59	-1.77	1.51	-1.52	0.24	0.04	25.72
458.28	0.95	197.86	458.26	-2.92	1.37	-1.40	0.61	0.44	33.75
549.96	2.47	159.85	549.90	-5.50	1.82	-1.86	1.98	1.66	-41.46
641.64	2.92	126.71	641.49	-8.75	4.37	-4.44	1.74	0.49	-36.15
733.32	2.74	120.03	733.05	-11.24	8.14	-8.23	0.41	-0.20	-7.29
825.00	1.96	125.66	824.66	-13.25	11.31	-11.42	0.89	-0.85	6.14



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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)
916.68	1.50	128.61	916.29	-14.92	13.52	-13.64	0.51	-0.50	3.22
1,008.36	1.26	133.71	1,007.95	-16.36	15.19	-15.32	0.29	-0.26	5.56
1,100.04	1.49	97.77	1,099.60	-17.22	17.10	-17.24	0.96	0.25	-39.20
1,191.72	2.20	79.52	1,191.24	-17.06	20.01	-20.15	1.00	0.77	-19.91
1,283.40	2.07	67.25	1,282.85	-16.10	23.27	-23.40	0.52	-0.14	-13.38
1,375.08	1.41	64.47	1,374.49	-14.97	25.81	-25.93	0.73	-0.72	-3.03
1,466.76	1.41	60.45	1,466.14	-13.93	27.81	-27.92	0.11	0.00	-4.38
1,558.44	1.25	58.39	1,557.80	-12.85	29.65	-29.75	0.18	-0.17	-2.25
1,650.12	0.84	59.73	1,649.46	-11.99	31.08	-31.17	0.45	-0.45	1.46
1,741.80	0.79	50.49	1,741.13	-11.25	32.15	-32.23	0.15	-0.05	-10.08
1,833.48	0.71	46.55	1,832.80	-10.45	33.05	-33.13	0.10	-0.09	-4.30
1,925.16	0.64	59.32	1,924.48	-9.80	33.90	-33.98	0.18	-0.08	13.93
2,016.84	0.66	46.19	2,016.15	-9.18	34.72	-34.79	0.16	0.02	-14.32
2,108.52	0.67	42.25	2,107.83	-8.41	35.46	-35.53	0.05	0.01	-4.30
2,200.20	0.85	29.03	2,199.50	-7.42	36.15	-36.21	0.27	0.20	-14.42
2,291.88	0.57	32.85	2,291.17	-6.44	36.73	-36.78	0.31	-0.31	4.17
2,336.00	0.60	31.70	2,335.29	-6.06	36.97	-37.02	0.07	0.07	-2.61
2,466.00	0.30	32.80	2,465.28	-5.20	37.51	-37.55	0.23	-0.23	0.85
2,559.00	0.30	34.80	2,558.28	-4.79	37.78	-37.82	0.01	0.00	2.15
2,746.00	0.30	4.50	2,745.28	-3.90	38.10	-38.13	0.08	0.00	-16.20
2,839.00	0.30	41.20	2,838.28	-3.48	38.28	-38.31	0.20	0.00	39.46
3,026.00	0.30	22.90	3,025.28	-2.66	38.79	-38.81	0.05	0.00	-9.79
3,119.00	0.60	31.10	3,118.27	-2.02	39.14	-39.15	0.33	0.32	8.82
3,213.00	0.60	16.80	3,212.27	-1.12	39.53	-39.54	0.16	0.00	-15.21
3,306.00	0.70	11.50	3,305.26	-0.10	39.79	-39.79	0.13	0.11	-5.70
3,400.00	0.70	349.40	3,399.26	1.03	39.80	-39.79	0.29	0.00	-23.51
3,493.00	0.70	339.40	3,492.25	2.12	39.49	-39.47	0.13	0.00	-10.75
3,586.00	0.80	329.40	3,585.24	3.21	38.96	-38.94	0.18	0.11	-10.75
3,680.00	1.20	316.80	3,679.23	4.49	37.95	-37.92	0.48	0.43	-13.40
3,773.00	1.50	310.90	3,772.20	6.00	36.37	-36.32	0.36	0.32	-6.34
3,960.00	1.90	302.80	3,959.12	9.28	31.91	-31.84	0.25	0.21	-4.33
4,053.00	2.00	301.90	4,052.07	10.97	29.24	-29.15	0.11	0.11	-0.97
4,146.00	2.20	297.20	4,145.00	12.64	26.27	-26.17	0.28	0.22	-5.05
4,240.00	2.40	292.60	4,238.93	14.22	22.85	-22.74	0.29	0.21	-4.89
4,333.00	0.60	228.70	4,331.90	14.65	20.69	-20.57	2.37	-1.94	-68.71
4,426.00	0.60	223.80	4,424.89	13.98	19.99	-19.87	0.06	0.00	-5.27
4,520.00	0.70	251.60	4,518.88	13.44	19.10	-18.99	0.35	0.11	29.57
4,613.00	0.80	265.50	4,611.88	13.21	17.91	-17.81	0.22	0.11	14.95
4,707.00	0.80	267.10	4,705.87	13.13	16.60	-16.50	0.02	0.00	1.70
4,894.00	1.10	278.10	4,892.84	13.31	13.52	-13.42	0.19	0.16	5.88
4,988.00	1.30	27.90	4,986.83	14.38	13.13	-13.01	2.09	0.21	116.81
5,081.00	1.90	39.30	5,079.79	16.51	14.60	-14.47	0.73	0.65	12.26
5,174.00	2.00	37.00	5,172.74	19.00	16.55	-16.40	0.14	0.11	-2.47



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5,268.00	1.90	31.00	5,266.69	21.64	18.34	-18.17	0.24	-0.11	-6.38
5,361.00	1.30	131.90	5,359.66	22.26	19.92	-19.74	2.68	-0.65	108.49
5,455.00	1.30	117.20	5,453.64	21.06	21.66	-21.49	0.35	0.00	-15.64
5,548.00	1.40	101.40	5,546.61	20.35	23.72	-23.55	0.41	0.11	-16.99
5,641.00	1.00	81.30	5,639.59	20.25	25.63	-25.47	0.62	-0.43	-21.61
5,734.00	0.90	44.90	5,732.58	20.89	26.95	-26.78	0.65	-0.11	-39.14
5,827.00	1.10	6.80	5,825.57	22.30	27.57	-27.39	0.73	0.22	-40.97
5,920.00	1.40	327.00	5,918.55	24.14	27.06	-26.86	0.96	0.32	-42.80
6,013.00	0.80	77.40	6,011.54	25.23	27.07	-26.87	1.98	-0.65	118.71
6,107.00	0.50	9.40	6,105.53	25.78	27.78	-27.57	0.82	-0.32	-72.34
6,200.00	0.70	335.50	6,198.53	26.70	27.61	-27.39	0.43	0.22	-36.45
6,294.00	1.10	128.50	6,292.52	26.66	28.08	-27.86	1.86	0.43	162.77
6,480.00	1.60	215.10	6,478.49	23.42	27.98	-27.79	1.01	0.27	46.56
6,573.00	1.40	214.20	6,571.45	21.42	26.60	-26.42	0.22	-0.22	-0.97
6,667.00	1.50	221.70	6,665.42	19.55	25.13	-24.98	0.23	0.11	7.98
6,760.00	2.00	219.80	6,758.38	17.39	23.28	-23.14	0.54	0.54	-2.04
6,853.00	1.50	224.20	6,851.34	15.27	21.40	-21.27	0.56	-0.54	4.73
6,947.00	0.90	220.70	6,945.32	13.83	20.06	-19.95	0.64	-0.64	-3.72
7,039.00	0.80	222.80	7,037.31	12.81	19.15	-19.05	0.11	-0.11	2.28
7,133.00	0.90	221.90	7,131.29	11.78	18.21	-18.12	0.11	0.11	-0.96
7,217.00	3.70	278.90	7,215.23	11.71	15.09	-15.00	3.93	3.33	67.86
7,264.00	11.00	281.70	7,261.81	12.86	9.20	-9.09	15.55	15.53	5.96
7,310.00	18.30	280.40	7,306.28	15.05	-2.22	2.34	15.88	15.87	-2.83
7,357.00	22.60	277.70	7,350.31	17.60	-18.44	18.58	9.36	9.15	-5.74
7,404.00	28.30	280.40	7,392.73	20.82	-38.36	38.53	12.37	12.13	5.74
7,497.00	36.00	273.00	7,471.44	26.24	-87.43	87.64	9.29	8.28	-7.96
7,591.00	42.20	265.60	7,544.40	25.26	-146.59	146.79	8.25	6.60	-7.87
7,684.00	51.00	264.40	7,608.23	19.33	-213.83	213.98	9.51	9.46	-1.29
7,723.58	54.36	265.07	7,632.23	16.45	-245.17	245.29	8.60	8.49	1.70
FTP: 7723.58' MD									
7,777.00	58.90	265.90	7,661.60	12.95	-289.63	289.73	8.60	8.50	1.55
7,871.00	68.10	270.10	7,703.52	10.14	-373.59	373.66	10.57	9.79	4.47
7,964.00	77.90	271.90	7,730.68	11.72	-462.40	462.48	10.70	10.54	1.94
8,058.00	87.30	273.80	7,742.77	16.37	-555.39	555.51	10.20	10.00	2.02
8,151.00	90.30	273.10	7,744.72	21.96	-648.19	648.35	3.31	3.23	-0.75
8,244.00	90.20	273.00	7,744.31	26.91	-741.06	741.25	0.15	-0.11	-0.11
8,338.00	91.50	270.50	7,742.92	29.78	-835.00	835.21	3.00	1.38	-2.66
8,431.00	92.10	269.20	7,740.00	29.54	-927.95	928.16	1.54	0.65	-1.40
8,525.00	91.60	268.70	7,736.96	27.82	-1,021.88	1,022.07	0.75	-0.53	-0.53
8,618.00	91.10	269.30	7,734.77	26.20	-1,114.84	1,115.02	0.84	-0.54	0.65
8,711.00	93.10	267.60	7,731.36	23.68	-1,207.74	1,207.89	2.82	2.15	-1.83
8,804.00	93.90	267.00	7,725.68	19.31	-1,300.46	1,300.57	1.07	0.86	-0.65
8,898.00	93.10	265.70	7,719.95	13.34	-1,394.09	1,394.15	1.62	-0.85	-1.38



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8,992.00	92.80	266.60	7,715.11	7.03	-1,487.75	1,487.76	1.01	-0.32	0.96
9,084.00	93.40	266.10	7,710.13	1.19	-1,579.43	1,579.39	0.85	0.65	-0.54
9,178.00	94.20	265.80	7,703.90	-5.44	-1,672.99	1,672.89	0.91	0.85	-0.32
9,272.00	93.50	265.60	7,697.59	-12.47	-1,766.51	1,766.36	0.77	-0.74	-0.21
9,365.00	92.60	267.50	7,692.64	-18.06	-1,859.21	1,859.00	2.26	-0.97	2.04
9,459.00	92.50	268.60	7,688.46	-21.25	-1,953.06	1,952.83	1.17	-0.11	1.17
9,552.00	93.10	268.10	7,683.92	-23.93	-2,045.91	2,045.65	0.84	0.65	-0.54
9,645.00	92.50	269.80	7,679.37	-25.63	-2,138.78	2,138.50	1.94	-0.65	1.83
9,738.00	92.70	271.00	7,675.16	-24.98	-2,231.68	2,231.41	1.31	0.22	1.29
9,832.00	93.50	270.50	7,670.07	-23.75	-2,325.53	2,325.27	1.00	0.85	-0.53
9,925.00	90.90	271.00	7,666.50	-22.54	-2,418.45	2,418.19	2.85	-2.80	0.54
10,019.00	91.10	270.90	7,664.86	-20.98	-2,512.42	2,512.17	0.24	0.21	-0.11
10,112.00	88.90	270.90	7,664.86	-19.52	-2,605.40	2,605.16	2.37	-2.37	0.00
10,205.00	89.10	270.90	7,666.48	-18.06	-2,698.38	2,698.15	0.22	0.22	0.00
10,298.00	89.40	270.40	7,667.70	-17.00	-2,791.36	2,791.14	0.63	0.32	-0.54
10,391.00	89.60	270.10	7,668.51	-16.60	-2,884.36	2,884.13	0.39	0.22	-0.32
10,484.00	90.60	269.70	7,668.35	-16.76	-2,977.36	2,977.13	1.16	1.08	-0.43
10,577.00	91.20	268.80	7,666.89	-17.98	-3,070.34	3,070.09	1.16	0.65	-0.97
10,671.00	90.50	270.10	7,665.50	-18.88	-3,164.32	3,164.06	1.57	-0.74	1.38
10,764.00	90.00	270.40	7,665.09	-18.47	-3,257.32	3,257.06	0.63	-0.54	0.32
10,857.00	90.20	271.70	7,664.93	-16.77	-3,350.30	3,350.06	1.41	0.22	1.40
10,950.00	90.60	271.60	7,664.28	-14.09	-3,443.26	3,443.03	0.44	0.43	-0.11
11,044.00	91.00	271.30	7,662.97	-11.71	-3,537.22	3,537.01	0.53	0.43	-0.32
11,137.00	89.90	271.80	7,662.24	-9.20	-3,630.18	3,629.99	1.30	-1.18	0.54
11,231.00	88.50	271.40	7,663.55	-6.57	-3,724.13	3,723.96	1.55	-1.49	-0.43
11,324.00	88.90	271.20	7,665.66	-4.46	-3,817.08	3,816.92	0.48	0.43	-0.22
11,417.00	89.60	271.40	7,666.88	-2.35	-3,910.05	3,909.91	0.78	0.75	0.22
11,511.00	91.00	272.10	7,666.38	0.52	-4,004.00	4,003.88	1.67	1.49	0.74
11,604.00	90.50	271.90	7,665.17	3.76	-4,096.94	4,096.84	0.58	-0.54	-0.22
11,698.00	90.80	271.40	7,664.10	6.47	-4,190.89	4,190.81	0.62	0.32	-0.53
11,791.00	90.60	271.00	7,662.96	8.42	-4,283.86	4,283.79	0.48	-0.22	-0.43
11,884.00	90.30	270.80	7,662.23	9.88	-4,376.85	4,376.79	0.39	-0.32	-0.22
11,978.00	90.30	270.20	7,661.74	10.70	-4,470.84	4,470.79	0.64	0.00	-0.64
12,071.00	92.60	270.60	7,659.39	11.35	-4,563.81	4,563.75	2.51	2.47	0.43
12,142.77	94.14	270.91	7,655.17	12.29	-4,635.44	4,635.39	2.19	2.15	0.43
LTP: 12142.77' MD									
12,164.00	94.60	271.00	7,653.55	12.64	-4,656.61	4,656.56	2.19	2.15	0.43
12,206.00	95.30	271.00	7,649.92	13.37	-4,698.45	4,698.40	1.67	1.67	0.00
Last Survey: 12206.00' MD, 7649.92' TVD									
12,270.00	95.30	271.00	7,644.01	14.49	-4,762.16	4,762.12	0.00	0.00	0.00
PTB: 12270.00' MD, 7644.01' TVD									



Pro Directional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: SST State 06-19S-29E AH
Well: 123H
Wellbore: OH
Design: OH Surveys 91.56'-12206' PTB 12270'

Local Co-ordinate Reference: Well 123H
TVD Reference: Rig @ 3424.50usft (GL:3396'+KB:28.5')
MD Reference: Rig @ 3424.50usft (GL:3396'+KB:28.5')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,723.58	7,632.23	16.45	-245.17	FTP: 7723.58' MD
12,142.77	7,655.17	12.29	-4,635.44	LTP: 12142.77' MD
12,206.00	7,649.92	13.37	-4,698.45	Last Survey: 12206.00' MD, 7649.92' TVD
12,270.00	7,644.01	14.49	-4,762.16	PTB: 12270.00' MD, 7644.01' TVD

Checked By: _____ Approved By: _____ Date: _____