



PHOENIX
TECHNOLOGY SERVICES

June 9, 2016

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 16 2016

Dear District 2 - Artesia

RECEIVED

Re: Matador Resources
Dr. K 24-23S-27E RB 206H
Eddy County, New Mexico
API #30-015-43379
Job No. 60070

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Brian Pittman	206H	512	14,280	05/14/16	05/31/16	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,
Claudia Carreon

Claudia Carreon
Operations Administrator

Certified mail receipt number: 7015 0640 0000 9907 5470

**Phoenix Technology Services
SURVEY DATA CERTIFICATION**



PHOENIX JOB NUMBER **60070** ENERGY COMPANY **Matador Resources**

WELL NAME **Dr. K 24-23S-27E RB 206H** COUNTY & STATE **Eddy County, New Mexico**

API WELL NUMBER **30-015-43379** PROPOSED DIRECTION **89.96°**

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
447.00 ft	447.00 ft	1.60°	126.00°	3.00 S	3.00 E	NOV Gyro

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
14-May-16	512.00 ft	2.60°	117.20°

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
31-May-16	14,280.00 ft	91.40°	87.60°

TO THE BEST OF MY KNOWLEDGE I CERTIFY THIS SURVEY DATA TO BE TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
31-May-16	14,350.00 ft	91.40°	87.60°

Brian Pittman

PRINT YOUR NAME ABOVE

Brian Pittman

SIGN YOUR NAME ABOVE

5/31/2016

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.38
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1 **Shane King** DIRECTIONAL DRILLER 1 **Dustin Barnett**
MWD SUPERVISOR 2 **Brian Pittman** DIRECTIONAL DRILLER 2 **Vinn Adams**



Matador Resources

**Eddy County, NM (NAD27 NME)
Dr. K 24-23S-27E RB
206H**

OH / Job 60070

Survey: Phoenix MWD Surveys

Standard Survey Report

01 June, 2016

**NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 16 2016**

RECEIVED



**PHOENIX
TECHNOLOGY SERVICES**



Phoenix Technology Services
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 206H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RKB @ 3154.50usft (Patterson 297)
Site:	Dr. K 24-23S-27E RB	MD Reference:	RKB @ 3154.50usft (Patterson 297)
Well:	206H	North Reference:	Grid
Wellbore:	OH / Job 60070	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

Project	Eddy County, NM (NAD27 NME)		
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	Dr. K 24-23S-27E RB				
Site Position:	Northing:	469,008.00 usft	Latitude:	32° 17' 21.44697 N	
From: Map	Easting:	555,731.00 usft	Longitude:	104° 9' 10.74395 W	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.10 °

Well	206H					
Well Position	+N/-S	0.00 usft	Northing:	468,978.00 usft	Latitude:	32° 17' 21.15008 N
	+E/-W	0.00 usft	Easting:	555,731.00 usft	Longitude:	104° 9' 10.74453 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3.127.00 usft	

Wellbore	OH / Job 60070				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/4/2016	7.48	60.12	48,222

Design	Surveys (Patterson 297)							
Audit Notes:	Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00		
Vertical Section:	Depth From (TVD) (usft)	0.00	+N/-S (usft)	0.00	+E/-W (usft)	0.00	Direction (°)	89.96

Survey Program	Date	6/1/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
512.00	14,350.00	Phoenix MWD Surveys (OH / Job 60070)	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM	

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)
447.00	1.60	126.00	447.00	-3.00	3.00	3.00	0.00	0.00	0.00
Tie-in to NOV FloSurveys									
512.00	2.60	117.20	511.96	-4.21	5.05	5.04	1.61	1.54	-13.54
First Phoenix MWD Survey									
694.00	0.80	58.70	693.88	-5.43	9.80	9.80	1.26	-0.99	-32.14
875.00	0.70	55.50	874.86	-4.15	11.79	11.79	0.06	-0.06	-1.77
1,062.00	4.70	22.30	1,061.62	3.59	15.64	15.65	2.21	2.14	-17.75
1,249.00	4.30	17.20	1,248.05	17.37	20.62	20.64	0.30	-0.21	-2.73
1,436.00	7.70	10.10	1,434.00	36.41	24.90	24.92	1.86	1.82	-3.80
1,624.00	6.50	28.20	1,620.57	58.19	32.13	32.17	1.34	-0.64	9.63



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Well:	206H	North Reference:	Grid
Wellbore:	OH / Job 60070	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

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)
1,811.00	8.20	355.60	1,806.11	80.83	36.11	36.17	2.37	0.91	-17.43
1,999.00	6.20	9.60	1,992.63	104.21	36.78	36.85	1.41	-1.06	7.45
2,186.00	8.60	8.10	2,178.06	128.01	40.43	40.52	1.29	1.28	-0.80
2,374.00	7.20	4.70	2,364.27	153.67	43.38	43.49	0.78	-0.74	-1.81
2,468.00	7.60	4.20	2,457.49	165.74	44.32	44.43	0.43	0.43	-0.53
2,655.00	9.60	6.70	2,642.38	193.56	47.04	47.18	1.09	1.07	1.34
2,842.00	11.30	3.10	2,826.27	227.34	49.85	50.01	0.97	0.91	-1.93
3,029.00	11.30	1.40	3,009.65	263.95	51.29	51.48	0.18	0.00	-0.91
3,216.00	14.00	6.70	3,192.10	304.74	54.38	54.59	1.57	1.44	2.83
3,404.00	14.80	7.80	3,374.19	351.12	60.29	60.54	0.45	0.43	0.59
3,591.00	15.50	9.00	3,554.69	399.46	67.44	67.72	0.41	0.37	0.64
3,778.00	14.80	0.80	3,735.21	448.03	71.68	72.00	1.20	-0.37	-4.39
3,966.00	15.90	357.90	3,916.50	497.78	71.08	71.42	0.71	0.59	-1.54
4,153.00	15.90	359.00	4,096.35	548.99	69.69	70.07	0.16	0.00	0.59
4,340.00	14.00	359.60	4,277.01	597.22	69.09	69.50	1.02	-1.02	0.32
4,527.00	13.40	359.50	4,458.69	641.51	68.74	69.19	0.32	-0.32	-0.05
4,715.00	13.60	5.40	4,641.51	685.30	70.63	71.11	0.74	0.11	3.14
4,901.00	17.50	3.30	4,820.66	735.01	74.30	74.81	2.12	2.10	-1.13
5,088.00	14.10	5.50	5,000.57	785.77	78.10	78.65	1.85	-1.82	1.18
5,276.00	17.20	14.30	5,181.61	835.52	87.16	87.75	2.07	1.65	4.68
5,463.00	16.40	11.70	5,360.63	888.16	99.35	99.97	0.59	-0.43	-1.39
5,650.00	12.30	9.10	5,541.76	933.70	107.85	108.51	2.22	-2.19	-1.39
5,837.00	12.00	2.50	5,724.58	972.79	111.85	112.53	0.76	-0.16	-3.53
6,025.00	11.10	0.90	5,908.77	1,010.41	112.99	113.70	0.51	-0.48	-0.85
6,212.00	6.20	334.20	6,093.65	1,037.53	108.87	109.60	3.32	-2.62	-14.28
6,399.00	6.80	330.10	6,279.45	1,056.21	98.96	99.70	0.41	0.32	-2.19
6,587.00	6.80	358.70	6,468.18	1,077.00	93.16	93.91	1.78	0.00	15.21
6,774.00	5.70	2.70	6,652.07	1,097.34	93.34	94.11	0.63	-0.59	2.14
6,961.00	3.70	11.80	6,838.43	1,112.53	95.02	95.79	1.14	-1.07	4.87
7,149.00	1.80	348.20	7,026.21	1,121.35	95.65	96.43	1.16	-1.01	-12.55
7,336.00	0.70	357.60	7,213.17	1,125.37	95.00	95.79	0.60	-0.59	5.03
7,523.00	0.40	280.40	7,400.16	1,126.63	94.31	95.10	0.39	-0.16	-41.28
7,711.00	0.60	252.30	7,588.15	1,126.45	92.73	93.52	0.17	0.11	-14.95
7,898.00	0.70	274.20	7,775.14	1,126.23	90.66	91.44	0.14	0.05	11.71
8,085.00	0.80	292.80	7,962.13	1,126.82	88.32	89.10	0.14	0.05	9.95
8,272.00	0.80	258.30	8,149.11	1,127.07	85.83	86.62	0.25	0.00	-18.45
8,459.00	1.10	208.00	8,338.09	1,125.19	83.77	84.55	0.47	0.16	-27.97
8,640.00	1.50	195.40	8,517.04	1,121.34	82.38	83.16	0.26	0.22	-5.88
8,671.00	1.70	200.70	8,548.03	1,120.52	82.11	82.89	0.80	0.65	17.10
8,765.00	0.60	126.60	8,642.01	1,118.92	82.01	82.79	1.75	-1.17	-78.83
8,812.00	2.30	98.80	8,688.99	1,118.63	83.14	83.92	3.81	3.62	-59.15
8,859.00	6.40	98.20	8,735.85	1,118.11	86.67	87.45	8.72	8.72	-1.28
8,905.00	10.00	93.50	8,781.37	1,117.50	93.19	93.97	7.95	7.83	-10.22



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Wellbore:	OH / Job 60070	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

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)
8,952.00	13.50	89.20	8,827.38	1,117.33	102.75	103.53	7.67	7.45	-9.15
8,999.00	17.10	92.20	8,872.71	1,117.14	115.15	115.93	7.84	7.66	6.38
9,046.00	21.10	93.07	8,917.11	1,116.42	130.51	131.29	8.53	8.51	1.85
9,093.00	25.70	91.20	8,960.23	1,115.76	149.15	149.93	9.91	9.79	-3.98
9,140.00	30.20	90.80	9,001.74	1,115.38	171.17	171.95	9.58	9.57	-0.85
9,186.00	34.60	90.40	9,040.57	1,115.13	195.81	196.59	9.58	9.57	-0.87
9,233.00	37.90	91.70	9,078.47	1,114.60	223.60	224.37	7.21	7.02	2.77
9,280.00	41.40	93.60	9,114.65	1,113.20	253.55	254.32	7.88	7.45	4.04
9,327.00	45.60	92.90	9,148.74	1,111.37	285.84	286.62	8.99	8.94	-1.49
9,374.00	50.00	90.30	9,180.30	1,110.43	320.63	321.41	10.22	9.36	-5.53
9,421.00	54.40	88.10	9,209.11	1,110.97	357.75	358.53	10.06	9.36	-4.68
9,468.00	58.70	88.70	9,235.01	1,112.06	396.94	397.72	9.21	9.15	1.28
9,515.00	62.60	88.90	9,258.04	1,112.91	437.89	438.67	8.31	8.30	0.43
9,545.00	66.00	89.80	9,271.05	1,113.22	464.92	465.69	11.65	11.33	3.00
9,577.00	70.30	89.60	9,282.95	1,113.37	494.61	495.39	13.45	13.44	-0.63
9,608.00	75.40	89.10	9,292.09	1,113.71	524.22	525.00	16.52	16.45	-1.61
9,728.00	92.90	88.70	9,304.28	1,116.00	643.11	643.89	14.59	14.58	-0.33
9,747.00	92.39	88.48	9,303.40	1,116.47	662.08	662.86	2.91	-2.66	-1.17
FPP Crossing: 9747' MD									
9,822.00	90.40	87.60	9,301.57	1,119.04	737.01	737.79	2.91	-2.66	-1.17
9,916.00	90.20	87.40	9,301.08	1,123.14	830.92	831.71	0.30	-0.21	-0.21
10,010.00	87.10	86.40	9,303.29	1,128.22	924.75	925.53	3.47	-3.30	-1.06
10,104.00	89.60	86.40	9,306.00	1,134.12	1,018.51	1,019.31	2.66	2.66	0.00
10,199.00	91.00	89.00	9,305.50	1,137.93	1,113.43	1,114.22	3.11	1.47	2.74
10,293.00	91.00	88.60	9,303.86	1,139.90	1,207.39	1,208.19	0.43	0.00	-0.43
10,388.00	90.20	88.40	9,302.87	1,142.38	1,302.35	1,303.15	0.87	-0.84	-0.21
10,481.00	90.00	88.50	9,302.70	1,144.90	1,395.32	1,396.12	0.24	-0.22	0.11
10,575.00	89.40	88.60	9,303.19	1,147.28	1,489.29	1,490.09	0.65	-0.64	0.11
10,669.00	88.20	89.90	9,305.16	1,148.51	1,583.25	1,584.06	1.88	-1.28	1.38
10,763.00	88.20	92.20	9,308.12	1,146.79	1,677.19	1,677.99	2.45	0.00	2.45
10,858.00	86.10	90.30	9,312.84	1,144.71	1,772.04	1,772.83	2.98	-2.21	-2.00
10,952.00	85.60	90.20	9,319.64	1,144.31	1,865.79	1,866.59	0.54	-0.53	-0.11
11,047.00	84.30	89.70	9,328.01	1,144.39	1,960.42	1,961.22	1.47	-1.37	-0.53
11,140.00	85.90	88.00	9,335.95	1,146.25	2,053.05	2,053.85	2.51	1.72	-1.83
11,235.00	88.60	85.40	9,340.51	1,151.71	2,147.77	2,148.57	3.94	2.84	-2.74
11,329.00	89.50	85.50	9,342.07	1,159.17	2,241.46	2,242.27	0.96	0.96	0.11
11,423.00	91.30	87.60	9,341.41	1,164.82	2,335.28	2,336.09	2.94	1.91	2.23
11,518.00	92.20	88.80	9,338.51	1,167.81	2,430.18	2,431.00	1.58	0.95	1.28
11,612.00	86.90	88.90	9,339.25	1,169.69	2,524.13	2,524.94	5.64	-5.64	0.11
11,706.00	86.40	89.60	9,344.74	1,170.92	2,617.96	2,618.77	0.91	-0.53	0.74
11,801.00	88.40	88.90	9,349.05	1,172.16	2,712.85	2,713.66	2.23	2.11	-0.74
11,895.00	89.50	89.50	9,350.77	1,173.48	2,806.82	2,807.64	1.33	1.17	0.64
11,989.00	90.00	90.00	9,351.18	1,173.89	2,900.82	2,901.64	0.75	0.53	0.53
12,084.00	90.00	89.70	9,351.18	1,174.14	2,995.82	2,996.64	0.32	0.00	-0.32



Phoenix Technology Services

Survey Report



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Site:	Dr. K 24-23S-27E RB	MD Reference:	RKB @ 3154.50usft (Patterson 297)
Well:	206H	North Reference:	Grid
Wellbore:	OH / Job 80070	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

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)
12,177.00	90.00	89.70	9,351.18	1,174.62	3,088.82	3,089.63	0.00	0.00	0.00
12,272.00	85.30	90.00	9,355.08	1,174.87	3,183.71	3,184.53	4.96	-4.95	0.32
12,366.00	89.10	90.40	9,359.67	1,174.54	3,277.58	3,278.40	4.06	4.04	0.43
12,460.00	89.80	90.90	9,360.57	1,173.48	3,371.57	3,372.39	0.92	0.74	0.53
12,554.00	88.60	90.40	9,361.88	1,172.41	3,465.55	3,466.37	1.38	-1.28	-0.53
12,650.00	86.80	90.40	9,365.73	1,171.74	3,561.47	3,562.28	1.88	-1.88	0.00
12,744.00	87.60	90.50	9,370.33	1,171.00	3,655.35	3,656.17	0.86	0.85	0.11
12,839.00	86.20	90.00	9,375.46	1,170.59	3,750.21	3,751.02	1.56	-1.47	-0.53
12,933.00	86.70	90.30	9,381.28	1,170.34	3,844.03	3,844.84	0.62	0.53	0.32
13,027.00	86.50	89.20	9,386.86	1,170.75	3,937.86	3,938.68	1.19	-0.21	-1.17
13,122.00	89.60	90.30	9,390.09	1,171.17	4,032.79	4,033.61	3.46	3.26	1.16
13,216.00	91.70	91.10	9,389.02	1,170.02	4,126.77	4,127.59	2.39	2.23	0.85
13,311.00	91.80	91.00	9,386.12	1,168.28	4,221.71	4,222.53	0.15	0.11	-0.11
13,405.00	88.60	89.40	9,385.80	1,167.95	4,315.69	4,316.51	3.81	-3.40	-1.70
13,499.00	88.60	89.10	9,388.09	1,169.18	4,409.66	4,410.47	0.32	0.00	-0.32
13,593.00	89.70	89.60	9,389.49	1,170.25	4,503.64	4,504.46	1.29	1.17	0.53
13,687.00	88.70	88.60	9,390.80	1,171.72	4,597.62	4,598.43	1.50	-1.06	-1.06
13,781.00	87.50	87.50	9,393.92	1,174.92	4,691.51	4,692.33	1.73	-1.28	-1.17
13,875.00	85.30	86.40	9,399.82	1,179.91	4,785.18	4,786.00	2.62	-2.34	-1.17
13,970.00	87.10	87.50	9,406.11	1,184.95	4,879.83	4,880.66	2.22	1.89	1.16
14,064.00	89.80	87.20	9,408.66	1,189.30	4,973.69	4,974.52	2.89	2.87	-0.32
14,158.00	90.90	87.60	9,408.08	1,193.56	5,067.59	5,068.42	1.25	1.17	0.43
14,253.00	91.80	87.50	9,405.84	1,197.62	5,162.48	5,163.31	0.95	0.95	-0.11
14,260.00	91.70	87.53	9,405.63	1,197.92	5,169.47	5,170.30	1.53	-1.48	0.37
LPP Crossing: 14260' MD									
14,280.00	91.40	87.60	9,405.09	1,198.77	5,189.44	5,190.28	1.53	-1.48	0.37
Final Phoenix MWD Survey									
14,350.00	91.40	87.60	9,403.38	1,201.70	5,259.36	5,260.20	0.00	0.00	0.00
Projection to TD									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
447.00	447.00	-3.00	3.00	Tie-in to NOV FloSurveys
512.00	511.96	-4.21	5.05	First Phoenix MWD Survey
9,747.00	9,303.40	1,116.47	662.08	FPP Crossing: 9747' MD
14,260.00	9,405.63	1,197.92	5,169.47	LPP Crossing: 14260' MD
14,280.00	9,405.09	1,198.77	5,189.44	Final Phoenix MWD Survey
14,350.00	9,403.38	1,201.70	5,259.36	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

