

Scientific Drilling

300513162

Matador Resources

Eddy County, NM (NAD27 East)

Scott Walker 36-22S-27E RB

#204H

OH

Design: OH

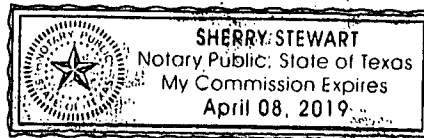
Regulatory Report (Grid North)

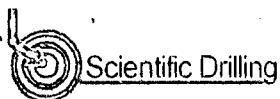
16 September, 2015

This survey is correct to the best of my knowledge and is supported by actual field data.

Notarized this date 16th of September, 2015.

Notary Signature
County of Midland
State of Texas





Regulatory Report (Grid North)

Company:	Matador Resources	Local Co-ordinate Reference:	Well #204H
Project:	Eddy County, NM (NAD27 East)	TVD Reference:	KB = 28' @ 3076.00usft (Patterson 297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	KB = 28' @ 3076.00usft (Patterson 297)
Well:	#204H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Project	Eddy County, NM (NAD27 East)		
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	Scott Walker 36-22S-27E RB				
Site Position:		Northing:	488,183.85 usft	Latitude:	32° 20' 31.200 N
From:	Lat/Long	Easting:	556,620.44 usft	Longitude:	104° 9' 0.000 W
Position Uncertainty:	2.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.10 °

Well	#204H					
Well Position	+N/-S	0.00 usft	Northing:	488,183.85 usft	Latitude:	32° 20' 31.200 N
	+E/-W	0.00 usft	Easting:	556,620.44 usft	Longitude:	104° 9' 0.000 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	3,076.00 usft	Ground Level:	3,048.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/26/2015	7.55	60.18	48,317

Design	OH				
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 (bearing)	
	0.00	0.00	0.00	175.12	

Survey Program	Date 8/26/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	504.00	Survey Gyro (OH)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	

Survey							
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.45	147.68	100.00	-0.33	0.21	147.68	0.39
165.00	0.44	146.66	165.00	-0.76	0.48	147.40	0.90
258.00	0.35	123.06	257.99	-1.21	0.92	142.80	1.52
350.00	1.15	179.88	349.99	-2.29	1.16	153.19	2.56
443.00	1.69	193.50	442.96	-4.55	0.84	169.58	4.63
504.00	1.87	184.57	503.93	-6.42	0.55	175.12	6.44

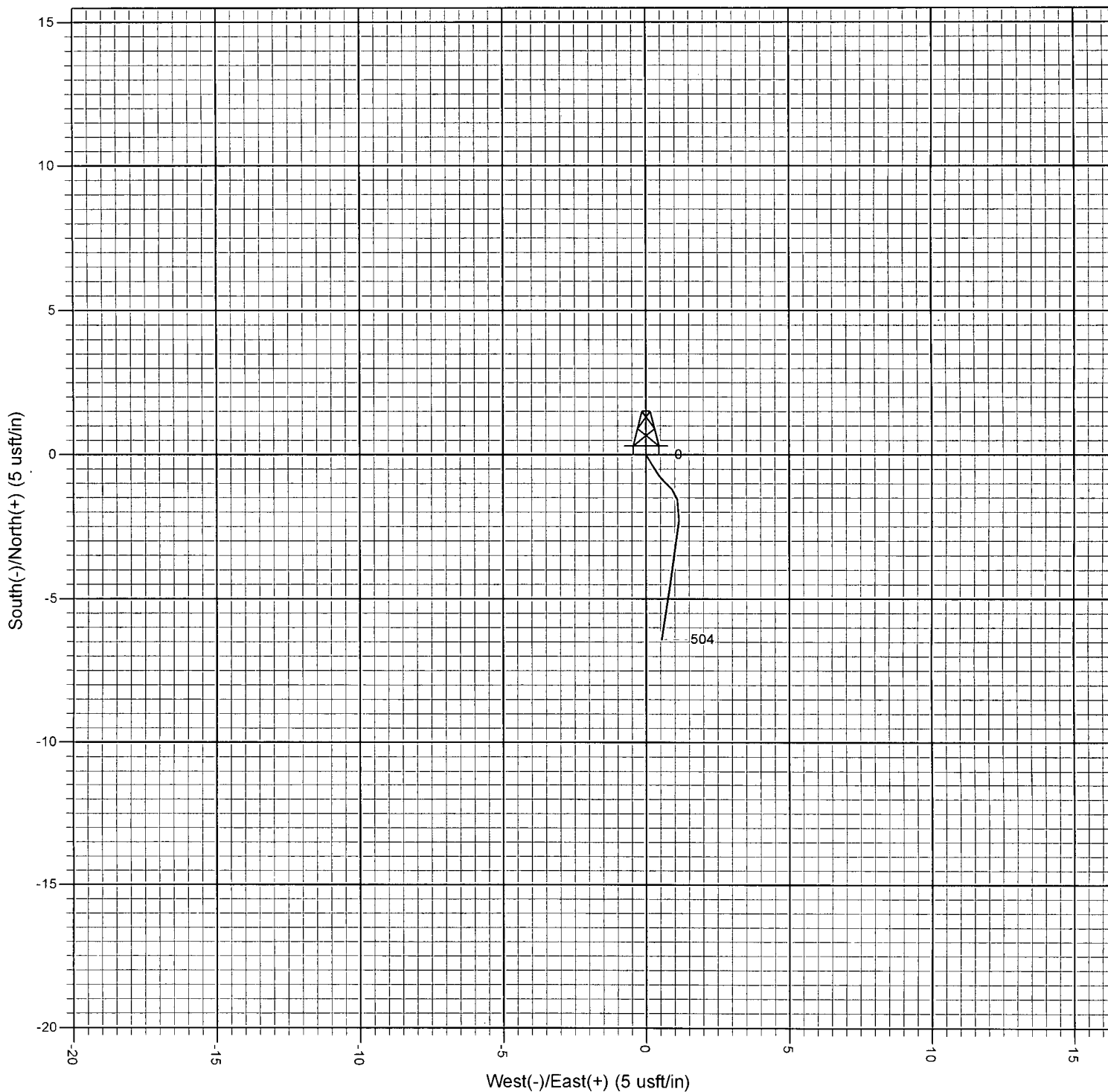
Checked By:	Approved By:	Date:
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Project: Eddy County, NM (NAD27 East)
Scott Walker 36-22S-27E RB
Well: #204H
Wellbore: OH
Design: OH

WELL DETAILS: #204H
KB = 28' @ 3076.00usft (Patterson 297)
Ground Level: 3048.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	488183.85	556620.44	32° 20' 31.200 N	104° 9' 0.000 W	



PROJECT DETAILS: Eddy County, NM (NAD27 East)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Scott Walker 36-22S-27E RB
Site Centre Latitude: 32° 20' 31.200 N
Longitude: 104° 9' 0.000 W
Positional Uncertainty: 2.00
Convergence: 0.10
Local North: Grid

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER

1513824

ENERGY COMPANY

Matador Resources

WELL NAME

Scott Walker 36-22S-27E RB 204H - WB1

COUNTY & STATE

Eddy County, New Mexico

API WELL NUMBER

30-015-43162

PROPOSED DIRECTION

89.31°

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
504.00 ft	503.93 ft	1.87°	184.57°	-6.42 ft	.55 ft	Gyro

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
30-Jun-15	581.00 ft	2.10°	187.00°

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
8-Jul-15	10,241.00 ft	1.5°	181.0°

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
8-Jul-15	10,300.00 ft	1.5°	181.0°

SURVEY INSTRUMENT

TYPE

Phoenix MWD

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

Seth Møllerup

PRINT YOUR NAME ABOVE

Seth Møllerup

SIGN YOUR NAME ABOVE

8-Jul-15

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.47
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1

Shane King

DIRECTIONAL DRILLER 1

Van Johnson

MWD SUPERVISOR 2

Seth Møllerup

DIRECTIONAL DRILLER 2

Dustin Barnett

12329 Cutten Rd.,

Houston, Texas 77066

(713)337-0600 (Voice), (713)337-0599 (Fax)



Matador Resources

Eddy County, NM (NAD27 NME)

Scott Walker 36-22S-27E RB

204H

Pilot Hole / Job 1513824

Design: Surveys (Patterson 297)

Standard Survey Report

15 September, 2015





Phoenix Technology Services LP

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker, 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid:
Wellbore:	Pilot Hole / Job 1513824	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						Scott Walker 36-22S-27E RB					
Site Position:		Northing:		488,337.00 usft		Latitude:		32° 20' 32.71294 N			
From:		Map		Easting:		556,768.00 usft		Longitude:		104° 8' 58.27695 W	
Position Uncertainty:		0.00 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.10 °	

Well:	204H					
Well Position	+N/-S	0.00 usft	Northing:	488,337.00 usft	Latitude:	32° 20' 32.71294 N
	+E/-W	0.00 usft	Easting:	556,768.00 usft	Longitude:	104° 8' 58.27695 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,076.00 usft

Wellbore		Pilot Hole / Job 1513824			
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/22/2015	7.57	60.18	48,336

Design:		Surveys (Patterson 297):						
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		175.12

Survey Program		Date	7/28/2015		
From	To				
(usft)	(usft)	Survey (Wellbore)	Tool Name	Description	
100.00	504.00	SDI Gyro Survey (Pilot Hole / Job 1513824	Scientific Gyro	Scientific Drilling Intl. Standard Wireline Keeper	
581.00	10,300.00	Phoenix MWD Surveys (Pilot Hole / Job 15	PHX+MWD+HDGM	PHX+MWD+HDGM	

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
100.00	0.45	147.68	100.00	-0.33	0.21	0.35	0.45	0.45	0.00
165.00	0.44	146.66	165.00	-0.76	0.48	0.79	0.02	-0.02	-1.57
258.00	0.35	123.06	257.99	-1.21	0.92	1.28	0.20	-0.10	-25.38
350.00	1.15	179.88	349.99	-2.29	1.16	2.38	1.09	0.87	61.76
443.00	1.69	193.50	442.96	-4.55	0.84	4.61	0.68	0.58	14.65
504.00	1.87	184.57	503.93	-6.42	0.55	6.44	0.54	0.30	-14.64
581.00	2.10	187.00	580.88	-9.07	0.28	9.06	0.32	0.30	3.16
First Phoenix Survey									
689.00	1.40	205.80	688.83	-12.22	-0.54	12.13	0.83	-0.65	17.41



Phoenix Technology Services LP

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker 36-22S-27E, RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid
Wellbore:	Pilot Hole / Job: 1513824	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)
783.00	2.10	296.50	782.80	-12.49	-2.58	12.22	2.70	0.74	96.49
877.00	4.90	323.60	876.62	-8.49	-6.51	7.90	3.38	2.98	28.83
970.00	6.20	332.50	969.19	-0.84	-11.18	-0.12	1.67	1.40	9.57
1,064.00	7.00	337.70	1,062.56	8.97	-15.70	-10.27	1.06	0.85	5.53
1,158.00	7.60	341.20	1,155.80	20.15	-19.88	-21.77	0.79	0.64	3.72
1,251.00	8.40	345.50	1,247.90	32.55	-23.56	-34.43	1.07	0.86	4.62
1,345.00	8.30	351.60	1,340.90	45.91	-26.27	-47.98	0.95	-0.11	6.49
1,439.00	7.30	353.20	1,434.03	58.55	-27.97	-60.72	1.09	-1.06	1.70
1,533.00	7.00	349.50	1,527.30	70.11	-29.72	-72.39	0.58	-0.32	-3.94
1,626.00	6.60	337.10	1,619.65	80.61	-32.83	-83.11	1.63	-0.43	-13.33
1,720.00	5.70	336.80	1,713.11	89.88	-36.77	-92.68	0.96	-0.96	-0.32
1,814.00	5.00	328.50	1,806.70	97.66	-40.75	-100.77	1.11	-0.74	-8.83
1,907.00	5.20	315.60	1,899.34	104.13	-45.82	-107.64	1.25	0.22	-13.87
2,001.00	5.00	313.10	1,992.96	109.97	-51.79	-113.97	0.32	-0.21	-2.66
2,095.00	5.80	292.60	2,086.55	114.59	-59.17	-119.21	2.21	0.85	-21.81
2,188.00	6.90	283.50	2,178.99	117.70	-68.94	-123.14	1.60	1.18	-9.78
2,282.00	6.30	284.60	2,272.36	120.32	-79.42	-126.64	0.65	-0.64	1.17
2,336.00	5.40	282.10	2,326.08	121.60	-84.77	-128.37	1.73	-1.67	-4.63
2,459.00	4.50	278.90	2,448.62	123.56	-95.20	-131.21	0.77	-0.73	-2.60
2,646.00	2.10	267.80	2,635.30	124.56	-105.87	-133.12	1.32	-1.28	-5.94
2,833.00	1.80	280.80	2,822.19	124.98	-112.18	-134.07	0.28	-0.16	6.95
3,020.00	1.90	280.80	3,009.09	126.11	-118.11	-135.70	0.05	0.05	0.00
3,207.00	2.20	280.00	3,195.97	127.32	-124.69	-137.46	0.16	0.16	-0.43
3,395.00	2.30	279.30	3,383.83	128.55	-131.96	-139.31	0.06	0.05	-0.37
3,582.00	2.10	282.90	3,570.69	129.93	-139.01	-141.28	0.13	-0.11	1.93
3,769.00	1.80	291.20	3,757.58	131.75	-145.08	-143.61	0.22	-0.16	4.44
3,957.00	1.60	290.20	3,945.50	133.73	-150.30	-146.02	0.11	-0.11	-0.53
4,144.00	1.50	292.20	4,132.43	135.55	-155.02	-148.24	0.06	-0.05	1.07
4,331.00	1.00	301.40	4,319.39	137.33	-158.68	-150.32	0.29	-0.27	4.92
4,519.00	1.00	308.00	4,507.36	139.19	-161.37	-152.41	0.06	0.00	3.51
4,706.00	1.00	312.70	4,694.33	141.30	-163.85	-154.73	0.04	0.00	2.51
4,893.00	0.90	306.00	4,881.30	143.27	-166.24	-156.89	0.08	-0.05	-3.58
5,080.00	1.00	302.90	5,068.28	145.02	-168.80	-158.85	0.06	0.05	-1.66
5,268.00	0.80	277.40	5,256.26	146.08	-171.48	-160.14	0.24	-0.11	-13.56
5,455.00	0.70	243.70	5,443.24	145.75	-173.80	-160.00	0.24	-0.05	-18.02
5,643.00	0.50	193.20	5,631.23	144.44	-175.01	-158.80	0.29	-0.11	-26.86
5,830.00	1.60	239.60	5,818.20	142.32	-177.45	-156.90	0.70	0.59	24.81
6,017.00	0.40	141.20	6,005.17	140.49	-179.30	-155.23	0.91	-0.64	-52.62
6,205.00	2.30	95.40	6,193.12	139.63	-175.13	-154.01	1.09	1.01	-24.36
6,392.00	3.00	159.80	6,379.95	134.68	-169.70	-148.62	1.54	0.37	34.44
6,573.00	4.30	157.90	6,560.58	123.95	-165.51	-137.57	0.72	0.72	-1.05
6,761.00	5.60	188.40	6,747.91	108.34	-164.20	-121.91	1.54	0.69	16.22
6,948.00	4.40	188.90	6,934.19	92.23	-166.64	-106.06	0.64	-0.64	0.27



Phoenix Technology Services LP

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well: 204H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid
Wellbore:	Pilot Hole / Job 1513824	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)
7,135.00	3.40	247.10	7,120.82	82.98	-172.86	-97.38	2.08	-0.53	31.12
7,322.00	1.30	261.30	7,307.66	80.50	-180.07	-95.52	1.16	-1.12	7.59
7,510.00	1.20	236.90	7,495.61	79.10	-183.83	-94.45	0.29	-0.05	-12.98
7,697.00	1.40	244.80	7,682.57	77.06	-187.53	-92.73	0.14	0.11	4.22
7,885.00	0.70	317.10	7,870.54	76.92	-190.39	-92.83	0.72	-0.37	38.46
8,072.00	2.70	107.80	8,057.48	76.41	-186.98	-92.04	1.78	1.07	80.59
8,259.00	3.90	166.80	8,244.22	68.87	-181.33	-84.04	1.82	0.64	31.55
8,446.00	5.30	234.80	8,430.73	57.69	-186.94	-73.38	2.82	0.75	36.36
8,634.00	1.50	214.20	8,618.37	50.65	-195.42	-67.09	2.09	-2.02	-10.96
8,821.00	2.40	186.80	8,805.27	44.74	-197.26	-61.35	0.68	0.48	-14.65
9,009.00	2.20	196.90	8,993.11	37.38	-198.77	-54.15	0.24	-0.11	5.37
9,196.00	1.90	195.60	9,179.99	30.96	-200.65	-47.91	0.16	-0.16	-0.70
9,383.00	2.20	181.20	9,366.88	24.38	-201.56	-41.44	0.32	0.16	-7.70
9,571.00	1.90	198.80	9,554.76	17.83	-202.64	-34.99	0.37	-0.16	9.36
9,758.00	1.60	169.40	9,741.67	12.32	-203.16	-29.56	0.50	-0.16	-15.72
9,946.00	1.60	167.10	9,929.60	7.19	-202.09	-24.35	0.03	0.00	-1.22
10,040.00	1.20	167.80	10,023.57	4.94	-201.59	-22.07	0.43	-0.43	0.74
10,133.00	1.50	177.70	10,116.55	2.78	-201.34	-19.89	0.41	0.32	10.65
10,241.00	1.50	181.00	10,224.51	-0.05	-201.30	-17.07	0.08	0.00	3.06
Final Pilot Hole Survey									
10,300.00	1.50	181.00	10,283.49	-1.59	-201.33	-15.53	0.00	0.00	0.00
Pilot Projection to TD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
581.00	580.88	-9.07	0.28	First Phoenix Survey
10,241.00	10,224.51	-0.05	-201.30	Final Pilot Hole Survey
10,300.00	10,283.49	-1.59	-201.33	Pilot Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER

1513824

ENERGY COMPANY

Matador Resources

WELL NAME

Scott Walker 36-22S-27E-RB 204H-WB2

COUNTY & STATE

Eddy County, New Mexico

API WELL NUMBER

30-015-43162

PROPOSED DIRECTION

89:31°

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
6,573.00 ft	6,560.58 ft	4.30°	157.90°	123.95 ft	165.51 ft	Phoenix MWD

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
16-Jul-15	6,668.00 ft	3.80°	184.1°

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
6-Aug-15	13,617.00 ft	89.2°	89.6°

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
6-Aug-15	13,760.00 ft	89.2°	89.6°

Seth Mollerup

PRINT YOUR NAME ABOVE

Seth Mollerup

SIGN YOUR NAME ABOVE

6-Aug-15

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	GRID
7.47	
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1

Shane King

DIRECTIONAL DRILLER 1

Brent Shipley

MWD SUPERVISOR 2

Seth Mollerup

DIRECTIONAL DRILLER 2

Tim Owens

12329 Cutten Rd., Houston, Texas 777066

(713)337-0600 (Voice), (713)337-0599 (Fax)



Matador Resources

Eddy County, New Mexico (NAD27 NME)
Scott Walker 36-22S-27E RB
204H

ST1 / Job 1513824

Design: Surveys (Patterson 297)

Standard Survey Report

07 August, 2015

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 24 2015
RECEIVED





Phoenix Technology Services

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, New Mexico (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid
Wellbore:	ST1 / Job 1513824	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

Project:	Eddy County, New Mexico (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:	Scott Walker 36-22S-27E RB		
Site Position:		Northing:	488,337.00 usft
From:	Map	Easting:	556,768.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 20' 32.71294 N
		Longitude:	104° 8' 58.27695 W
		Grid Convergence:	0.10 °

Well:	204H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 20' 32.71294 N
		Longitude:	104° 8' 58.27695 W
		Ground Level:	3,076.00 usft

Wellbore:	ST1 / Job 1513824		
Magnetics	Model Name	Sample Date	Declination
	HDGM	6/22/15	7.57
			Dip Angle
			60.18
			Field Strength
			48,336

Design:	Surveys (Patterson 297)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	6,573.00
Vertical Section	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			89.31

Survey Program	Date 8/07/15		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	504.00	SDI Gyro Survey (Pilot Hole)	Scientific Gyro
581.00	6,573.00	Phoenix MWD Surveys (Pilot Hole)	PHX+MWD+HDGM
6,668.00	13,760.00	Phoenix MWD Surveys (ST1 / Job 151382)	PHX+MWD+HDGM
			Description
			Scientific Drilling Intl. Standard Wireline Keeper
			PHX+MWD+HDGM
			PHX+MWD+HDGM

Survey	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(%/100usft)	(%/100usft)	(%/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.45	147.68	100.00	-0.33	0.21	0.21	0.45	0.45	0.00
	165.00	0.44	146.66	165.00	-0.76	0.48	0.47	0.02	-0.02	-1.57
	258.00	0.35	123.06	257.99	-1.21	0.92	0.90	0.20	-0.10	-25.38
	350.00	1.15	179.88	349.99	-2.29	1.16	1.13	1.09	0.87	61.76
	443.00	1.69	193.50	442.96	-4.55	0.84	0.78	0.68	0.58	14.65
	504.00	1.87	184.57	503.93	-6.42	0.55	0.47	0.54	0.30	-14.64
	581.00	2.10	187.00	580.88	-9.07	0.28	0.17	0.32	0.30	3.16
	689.00	1.40	205.80	688.83	-12.22	-0.54	-0.69	0.83	-0.65	17.41



Phoenix Technology Services

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, New Mexico (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid
Wellbore:	ST1 / Job 1513824	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)
783.00	2.10	296.50	782.80	-12.49	-2.58	-2.73	2.70	0.74	96.49
877.00	4.90	323.60	876.62	-8.49	-6.51	-6.61	3.38	2.98	28.83
970.00	6.20	332.50	969.19	-0.84	-11.18	-11.19	1.67	1.40	9.57
1,064.00	7.00	337.70	1,062.56	8.97	-15.70	-15.59	1.06	0.85	5.53
1,158.00	7.60	341.20	1,155.80	20.15	-19.88	-19.63	0.79	0.64	3.72
1,251.00	8.40	345.50	1,247.90	32.55	-23.56	-23.17	1.07	0.86	4.62
1,345.00	8.30	351.60	1,340.90	45.91	-26.27	-25.71	0.95	-0.11	6.49
1,439.00	7.30	353.20	1,434.03	58.55	-27.97	-27.26	1.09	-1.06	1.70
1,533.00	7.00	349.50	1,527.30	70.11	-29.72	-28.87	0.58	-0.32	-3.94
1,626.00	6.60	337.10	1,619.65	80.61	-32.83	-31.86	1.63	-0.43	-13.33
1,720.00	5.70	336.80	1,713.11	89.88	-36.77	-35.69	0.96	-0.96	-0.32
1,814.00	5.00	328.50	1,806.70	97.66	-40.75	-39.57	1.11	-0.74	-8.83
1,907.00	5.20	315.60	1,899.34	104.13	-45.82	-44.56	1.25	0.22	-13.87
2,001.00	5.00	313.10	1,992.96	109.97	-51.79	-50.46	0.32	-0.21	-2.66
2,095.00	5.80	292.60	2,086.55	114.59	-59.17	-57.78	2.21	0.85	-21.81
2,188.00	6.90	283.50	2,178.99	117.70	-68.94	-67.51	1.60	1.18	-9.78
2,282.00	6.30	284.60	2,272.36	120.32	-79.42	-77.96	0.65	-0.64	1.17
2,336.00	5.40	282.10	2,326.08	121.60	-84.77	-83.30	1.73	-1.67	-4.63
2,459.00	4.50	278.90	2,448.62	123.56	-95.20	-93.70	0.77	-0.73	-2.60
2,646.00	2.10	267.80	2,635.30	124.56	-105.87	-104.36	1.32	-1.28	-5.94
2,833.00	1.80	280.80	2,822.19	124.98	-112.18	-110.66	0.28	-0.16	6.95
3,020.00	1.90	280.80	3,009.09	126.11	-118.11	-116.58	0.05	0.05	0.00
3,207.00	2.20	280.00	3,195.97	127.32	-124.69	-123.15	0.16	0.16	-0.43
3,395.00	2.30	279.30	3,383.83	128.55	-131.96	-130.41	0.06	0.05	-0.37
3,582.00	2.10	282.90	3,570.69	129.93	-139.01	-137.43	0.13	-0.11	1.93
3,769.00	1.80	291.20	3,757.58	131.75	-145.08	-143.49	0.22	-0.16	4.44
3,957.00	1.60	290.20	3,945.50	133.73	-150.30	-148.68	0.11	-0.11	-0.53
4,144.00	1.50	292.20	4,132.43	135.55	-155.02	-153.37	0.06	-0.05	1.07
4,331.00	1.00	301.40	4,319.39	137.33	-158.68	-157.01	0.29	-0.27	4.92
4,519.00	1.00	308.00	4,507.36	139.19	-161.37	-159.68	0.06	0.00	3.51
4,706.00	1.00	312.70	4,694.33	141.30	-163.85	-162.14	0.04	0.00	2.51
4,893.00	0.90	306.00	4,881.30	143.27	-166.24	-164.50	0.08	-0.05	-3.58
5,080.00	1.00	302.90	5,068.28	145.02	-168.80	-167.04	0.06	0.05	-1.66
5,268.00	0.80	277.40	5,256.26	146.08	-171.48	-169.71	0.24	-0.11	-13.56
5,455.00	0.70	243.70	5,443.24	145.75	-173.80	-172.03	0.24	-0.05	-18.02
5,643.00	0.50	193.20	5,631.23	144.44	-175.01	-173.26	0.29	-0.11	-26.86
5,830.00	1.60	239.60	5,818.20	142.32	-177.45	-175.73	0.70	0.59	24.81
6,017.00	0.40	141.20	6,005.17	140.49	-179.30	-177.59	0.91	-0.64	-52.62
6,205.00	2.30	95.40	6,193.12	139.63	-175.13	-173.43	1.09	1.01	-24.36
6,392.00	3.00	159.80	6,379.95	134.68	-169.70	-168.07	1.54	0.37	34.44
6,573.00	4.30	157.90	6,560.58	123.95	-165.51	-164.01	0.72	0.72	-1.05
Tie-in to OH									
6,668.00	3.80	184.10	6,655.35	117.51	-164.40	-162.97	2.00	-0.53	27.58



Phoenix Technology Services

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, New Mexico (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid
Wellbore:	ST1 / Job 1513824	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)
First ST Survey									
6,762.00	5.80	187.50	6,749.02	109.69	-165.24	-163.91	2.15	2.13	3.62
6,856.00	5.40	237.40	6,842.62	102.59	-169.59	-168.34	5.03	-0.43	53.09
6,950.00	5.40	251.10	6,936.21	98.78	-177.50	-176.30	1.37	0.00	14.57
7,044.00	6.30	267.30	7,029.72	97.10	-186.84	-185.65	1.99	0.96	17.23
7,138.00	7.40	285.20	7,123.06	98.45	-197.83	-196.63	2.54	1.17	19.04
7,231.00	8.80	308.40	7,215.16	104.44	-209.19	-207.92	3.79	1.51	24.95
7,325.00	8.50	314.10	7,308.09	113.74	-219.81	-218.43	0.97	-0.32	6.06
7,418.00	7.90	316.00	7,400.14	123.12	-229.19	-227.69	0.71	-0.65	2.04
7,512.00	10.00	326.40	7,492.99	134.57	-238.20	-236.56	2.81	2.23	11.06
7,606.00	10.20	327.00	7,585.54	148.34	-247.25	-245.44	0.24	0.21	0.64
7,699.00	10.30	333.60	7,677.06	162.70	-255.43	-253.45	1.27	0.11	7.10
7,793.00	8.30	334.60	7,769.82	176.35	-262.07	-259.93	2.13	-2.13	1.06
7,887.00	6.20	333.00	7,863.06	187.01	-267.29	-265.02	2.24	-2.23	-1.70
7,980.00	5.20	351.50	7,955.61	195.65	-270.19	-267.82	2.24	-1.08	19.89
8,074.00	3.20	12.30	8,049.35	202.43	-270.26	-267.81	2.64	-2.13	22.13
8,168.00	2.10	76.70	8,143.27	205.39	-268.03	-265.54	3.16	-1.17	68.51
8,261.00	2.10	93.60	8,236.21	205.67	-264.67	-262.17	0.66	0.00	18.17
8,355.00	1.90	84.60	8,330.15	205.71	-261.40	-258.90	0.40	-0.21	-9.57
8,449.00	1.00	48.20	8,424.12	206.41	-259.24	-256.73	1.33	-0.96	-38.72
8,542.00	0.60	352.00	8,517.11	207.43	-258.70	-256.18	0.89	-0.43	-60.43
8,636.00	0.40	231.90	8,611.11	207.71	-259.03	-256.51	0.93	-0.21	-127.77
8,662.00	0.50	226.90	8,637.11	207.58	-259.18	-256.66	0.41	0.38	-19.23
8,694.00	1.10	70.50	8,669.11	207.59	-258.99	-256.47	4.91	1.88	-488.75
8,725.00	5.30	61.10	8,700.06	208.38	-257.46	-254.93	13.61	13.55	-30.32
8,756.00	9.70	59.60	8,730.78	210.39	-253.95	-251.40	14.21	14.19	-4.84
8,787.00	14.60	59.40	8,761.08	213.71	-248.33	-245.74	15.81	15.81	-0.65
8,819.00	17.70	54.80	8,791.81	218.56	-240.88	-238.23	10.47	9.69	-14.38
8,850.00	21.30	54.60	8,821.03	224.54	-232.44	-229.72	11.61	11.61	-0.65
8,881.00	25.50	56.20	8,849.48	231.52	-222.30	-219.50	13.70	13.55	5.16
8,912.00	29.30	58.60	8,876.99	239.19	-210.28	-207.38	12.76	12.26	7.74
8,944.00	32.10	61.20	8,904.51	247.37	-196.14	-193.15	9.68	8.75	8.13
8,975.00	34.80	65.80	8,930.37	254.96	-180.85	-177.76	11.94	8.71	14.84
9,006.00	36.40	70.90	8,955.59	261.60	-164.08	-160.92	10.88	5.16	16.45
9,037.00	37.70	76.40	8,980.33	266.84	-146.17	-142.95	11.48	4.19	17.74
9,069.00	39.80	80.70	9,005.29	270.80	-126.55	-123.28	10.67	6.56	13.44
9,100.00	42.70	81.50	9,028.60	273.96	-106.36	-103.05	9.51	9.35	2.58
9,131.00	46.20	80.90	9,050.72	277.28	-84.91	-81.56	11.37	11.29	-1.94
9,162.00	49.50	80.00	9,071.52	281.10	-62.25	-58.86	10.86	10.65	-2.90
9,193.00	52.60	79.40	9,091.01	285.41	-38.53	-35.09	10.11	10.00	-1.94
9,225.00	56.30	80.00	9,109.61	290.06	-12.92	-9.42	11.66	11.56	1.88
9,256.00	60.40	80.90	9,125.88	294.43	13.10	16.64	13.45	13.23	2.90
9,287.00	62.70	81.40	9,140.64	298.63	40.03	43.62	7.55	7.42	1.61
9,318.00	64.50	81.00	9,154.43	302.87	67.47	71.11	5.92	5.81	-1.29



Phoenix Technology Services

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, New Mexico (NAD27.NME)	TVD Reference:	RKB @ 3103.50usft (Patterson 297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson 297)
Well:	204H	North Reference:	Grid
Wellbore Design:	ST1 / Job 1513824	Survey Calculation Method:	Minimum Curvature
	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)
9,350.00	66.00	81.00	9,167.82	307.42	96.17	99.87	4.69	4.69	0.00
9,450.00	70.40	82.10	9,204.95	321.05	187.99	191.84	4.52	4.40	1.10
9,481.00	71.30	81.70	9,215.12	325.17	216.98	220.88	3.15	2.90	-1.29
9,513.00	73.10	82.90	9,224.90	329.25	247.17	251.12	6.66	5.63	3.75
9,544.00	76.00	81.70	9,233.16	333.26	276.78	280.77	10.07	9.35	-3.87
9,576.00	79.60	79.40	9,239.92	338.40	307.62	311.68	13.26	11.25	-7.19
9,607.00	81.50	78.90	9,245.01	344.15	337.65	341.77	6.33	6.13	-1.61
9,639.00	82.40	78.30	9,249.49	350.42	368.71	372.91	3.37	2.81	-1.88
9,670.00	81.40	77.90	9,253.86	356.74	398.74	403.01	3.47	-3.23	-1.29
9,701.00	80.60	78.10	9,258.71	363.11	428.69	433.04	2.66	-2.58	0.65
9,733.00	81.20	79.40	9,263.77	369.27	459.68	464.10	4.43	1.88	4.06
9,764.00	83.60	77.80	9,267.87	375.35	489.80	494.29	9.28	7.74	-5.16
9,795.00	87.10	78.50	9,270.38	381.69	520.04	524.59	11.51	11.29	2.26
9,827.00	88.00	78.10	9,271.75	388.18	551.34	555.98	3.08	2.81	-1.25
9,890.00	89.70	82.40	9,273.02	398.84	613.40	618.16	7.34	2.70	6.83
9,921.00	91.30	86.80	9,272.75	401.75	644.26	649.05	15.10	5.16	14.19
9,986.00	91.30	87.20	9,271.27	405.16	709.15	713.98	0.62	0.00	0.62
10,081.00	91.50	88.90	9,268.95	408.39	804.06	808.92	1.80	0.21	1.79
10,175.00	87.00	87.70	9,270.18	411.17	897.99	902.87	4.95	-4.79	-1.28
10,241.00	86.90	88.30	9,273.69	413.47	963.85	968.76	0.92	-0.15	0.91
10,335.00	88.80	88.80	9,277.22	415.85	1,057.75	1,062.68	2.09	2.02	0.53
10,429.00	86.80	88.40	9,280.83	418.15	1,151.65	1,156.60	2.17	-2.13	-0.43
10,524.00	86.50	87.90	9,286.38	421.21	1,246.44	1,251.42	0.61	-0.32	-0.53
10,618.00	92.30	89.60	9,287.36	423.26	1,340.37	1,345.37	6.43	6.17	1.81
10,712.00	86.90	89.70	9,288.02	423.83	1,434.33	1,439.33	5.75	-5.74	0.11
10,807.00	83.90	89.90	9,295.64	424.16	1,529.01	1,534.01	3.16	-3.16	0.21
10,902.00	84.80	89.20	9,304.99	424.90	1,623.54	1,628.54	1.20	0.95	-0.74
10,997.00	84.30	89.20	9,314.01	426.22	1,718.11	1,723.11	0.53	-0.53	0.00
11,091.00	85.70	88.90	9,322.20	427.78	1,811.73	1,816.75	1.52	1.49	-0.32
11,185.00	86.00	88.00	9,329.01	430.31	1,905.45	1,910.49	1.01	0.32	-0.96
11,279.00	88.20	88.10	9,333.76	433.51	1,999.27	2,004.35	2.34	2.34	0.11
11,373.00	89.10	88.90	9,335.98	435.97	2,093.21	2,098.31	1.28	0.96	0.85
11,468.00	90.20	88.00	9,336.56	438.54	2,188.17	2,193.29	1.50	1.16	-0.95
11,561.00	91.60	89.60	9,335.10	440.48	2,281.13	2,286.27	2.29	1.51	1.72
11,636.00	92.70	91.40	9,332.28	439.83	2,356.07	2,361.20	2.81	1.47	2.40
11,730.00	90.90	92.00	9,329.33	437.04	2,449.98	2,455.07	2.02	-1.91	0.64
11,825.00	88.30	91.50	9,329.99	434.14	2,544.93	2,549.97	2.79	-2.74	-0.53
11,919.00	90.60	92.00	9,330.90	431.27	2,638.87	2,643.87	2.50	2.45	0.53
12,014.00	86.90	89.10	9,332.97	430.36	2,733.82	2,738.80	4.95	-3.89	-3.05
12,108.00	86.10	88.90	9,338.71	432.00	2,827.63	2,832.63	0.88	-0.85	-0.21
12,202.00	85.80	89.20	9,345.35	433.55	2,921.38	2,926.39	0.45	-0.32	0.32
12,296.00	87.80	89.50	9,350.59	434.62	3,015.22	3,020.24	2.15	2.13	0.32
12,391.00	87.60	89.30	9,354.41	435.61	3,110.14	3,115.16	0.30	-0.21	-0.21



Phoenix Technology Services

Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 204H
Project:	Eddy County, New Mexico (NAD27 NME)	TVD Reference:	RKB @ 3103.50usft (Patterson-297)
Site:	Scott Walker 36-22S-27E RB	MD Reference:	RKB @ 3103.50usft (Patterson-297)
Well:	204H	North Reference:	Grid
Wellbore:	ST1 / Job 1513824	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)
12,485.00	90.60	88.10	9,355.88	437.74	3,204.09	3,209.13	3.44	3.19	-1.28
12,579.00	90.30	87.80	9,355.14	441.10	3,298.03	3,303.10	0.45	-0.32	-0.32
12,673.00	89.50	87.00	9,355.31	445.37	3,391.93	3,397.05	1.20	-0.85	-0.85
12,767.00	86.80	87.40	9,358.34	449.96	3,485.76	3,490.93	2.90	-2.87	0.43
12,862.00	88.20	90.30	9,362.49	451.86	3,580.64	3,585.82	3.39	1.47	3.05
12,956.00	92.50	92.40	9,361.91	449.65	3,674.58	3,679.73	5.09	4.57	2.23
13,051.00	90.40	91.00	9,359.51	446.83	3,769.50	3,774.61	2.66	-2.21	-1.47
13,145.00	89.90	90.30	9,359.26	445.76	3,863.50	3,868.58	0.92	-0.53	-0.74
13,239.00	86.40	89.70	9,362.30	445.76	3,957.43	3,962.51	3.78	-3.72	-0.64
13,333.00	85.90	89.70	9,368.61	446.26	4,051.22	4,056.30	0.53	-0.53	0.00
13,428.00	88.80	90.30	9,373.00	446.25	4,146.11	4,151.18	3.12	3.05	0.63
13,522.00	88.00	89.80	9,375.62	446.17	4,240.07	4,245.13	1.00	-0.85	-0.53
13,617.00	89.20	89.60	9,377.95	446.67	4,335.04	4,340.10	1.28	1.26	-0.21
Final ST Survey									
13,760.00	89.20	89.60	9,379.94	447.67	4,478.02	4,483.09	0.00	0.00	0.00
Projection to TD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,573.00	6,560.58	123.95	-165.51	Tie-in to OH
6,668.00	6,655.35	117.51	-164.40	First ST Survey
13,617.00	9,377.95	446.67	4,335.04	Final ST Survey
13,760.00	9,379.94	447.67	4,478.02	Projection to TD

Checked By: _____ Approved By: _____ Date: _____