



PHOENIX
TECHNOLOGY SERVICES

March 16, 2015

Oil Conservation Division
State of New Mexico
1625 N. French Drive
Hobbs, New Mexico 88240

HOBBS OCD

MAR 23 2015

RECEIVED

Dear District 1 - Hobbs

Re: Matador Resources
Ranger State 22-20S-35E RN #122H WB2 Surface
Lea County, New Mexico
API #30-025-42353
Job No. 1512714

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	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Michael Branson	122H	200	1,967	01/24/15	01/26/15	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,

Bobbi Jo Jorgensen

Bobbi Jo Jorgensen
Operations Administrator

Certified mail receipt number: 7014 2120 0004 3423 7262

Phoenix Technology Services
SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1512714

OPERATOR Matador Resources Co

WELL NAME Ranger State 33-20S-35E RN #122H WB2 Surface CTY & STATE Lea County, NM

API WELL NUMBER 30-025-42353

PROPOSED DIRECTION 173.04

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
0 ft	0 ft	0	0	.00 ft	.00 ft	Surface

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
24-Jan-15	200 ft	0.8	183.4

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
26-Jan-15	1,967 ft	2.0	192.8

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

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
26-Jan-15	2,025 ft	93.7	171.1

Michael Branson

PRINT YOUR NAME ABOVE

Michael Branson

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.82
DECLINATION OR GRID	GRID

2/20/2015

TODAY'S DATE

MWD SUPERVISOR 1 Michael Branson

DIRECTIONAL DRILLER 1

Brent Shipley

MWD SUPERVISOR 2 Brent Barton

DIRECTIONAL DRILLER 2

Dustin Barnett



Matador Resources

**Lea County, NM (NAD 27)
Ranger State 33-20S-35E RN
#122H**

Wellbore #2 Job#1512714

Survey: Phoenix MWD Surveys

Standard Survey Report

16 March, 2015





Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #122H
Project:	Lea County, NM (NAD 27)	TVD Reference:	GL3703+KB25 @ 3728.00usft (Patterson 297)
Site:	Ranger State 33-20S-35E RN	MD Reference:	GL3703+KB25 @ 3728.00usft (Patterson 297)
Well:	#122H	North Reference:	Grid
Wellbore:	Wellbore #2 Job#1512714	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

Project	Lea County, NM (NAD 27)		
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	Ranger State 33-20S-35E RN		
Site Position:		Northing:	559,769.00 usft
From:	Map	Easting:	767,152.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 32' 9.33233 N
		Longitude:	103° 27' 59.29937 W
		Grid Convergence:	0.47 °

Well	#122H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,703.00 usft
		Latitude:	32° 32' 9.33233 N
		Longitude:	103° 27' 59.29937 W
		Ground Level:	

Wellbore	Wellbore #2 Job#1512714				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	1/20/2015	7.29	60.40	48,408

Design	Surveys (Patterson 297)				
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	179.53	

Survey Program	Date 3/16/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.00	1,967.00	Phoenix MWD Surveys (Wellbore #2 Job#	PHX+MWD+BGGM	PHX+MWD+BGGM v3:standard declination	
2,129.00	5,874.00	Gyro Surveys (Wellbore #2 Job#1512714)	NS-GYRO-MS	North sensing gyrocompassing m/s	
5,949.00	15,488.00	Phoenix MWD Surveys 2 (Wellbore #2 Job	PHX+MWD+BGGM	PHX+MWD+BGGM v3:standard declination	

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	
200.00	0.80	183.40	199.99	-1.39	-0.08	1.39	0.40	0.40	0.00	
First Phoenix MWD Survey										
400.00	1.70	187.60	399.94	-5.73	-0.56	5.72	0.45	0.45	2.10	
600.00	1.00	165.70	599.89	-10.36	-0.52	10.36	0.43	-0.35	-10.95	
789.00	1.80	44.60	788.86	-9.84	1.97	9.86	1.31	0.42	-64.07	
802.00	2.20	33.20	801.85	-9.49	2.25	9.51	4.33	3.08	-87.69	
883.00	5.80	5.60	882.64	-4.11	3.50	4.14	4.92	4.44	-34.07	
976.00	7.70	1.30	975.00	6.79	4.10	-6.76	2.11	2.04	-4.62	



Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #122H
Project:	Lea County, NM (NAD 27)	TVD Reference:	GL3703+KB25 @ 3728.00usft (Patterson 297)
Site:	Ranger State 33-20S-35E RN	MD Reference:	GL3703+KB25 @ 3728.00usft (Patterson 297)
Well:	#122H	North Reference:	Grid
Wellbore:	Wellbore #2 Job#1512714	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 297)	Database:	Compass 5000 GCR

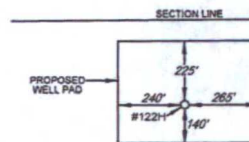
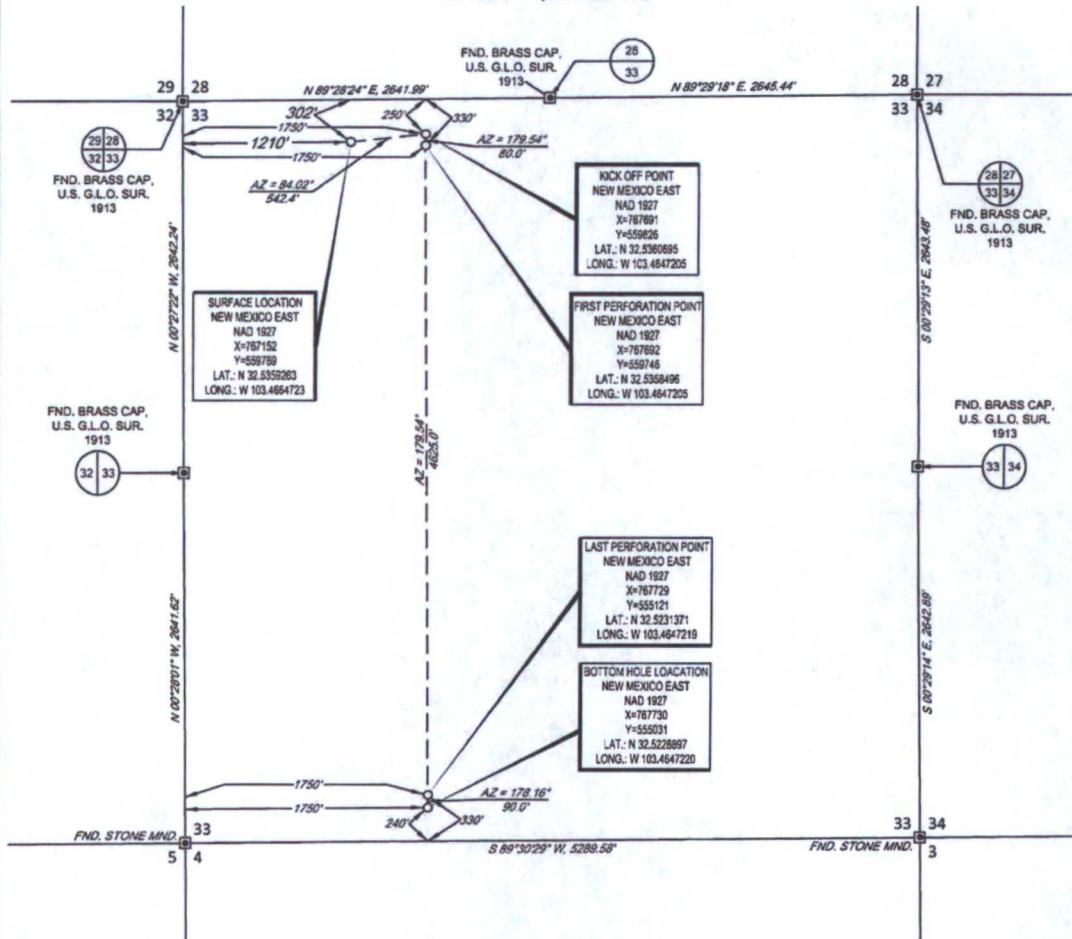
Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,070.00	8.60	359.50	1,068.05	20.12	4.19	-20.08	1.00	0.96	-1.91
1,164.00	7.70	0.50	1,161.10	33.44	4.18	-33.41	0.97	-0.96	1.06
1,257.00	5.80	5.70	1,253.45	44.35	4.70	-44.31	2.14	-2.04	5.59
1,351.00	4.40	26.00	1,347.08	52.32	6.75	-52.26	2.41	-1.49	21.60
1,444.00	2.90	50.50	1,439.89	57.02	10.13	-56.94	2.29	-1.61	26.34
1,538.00	2.10	108.20	1,533.82	57.99	13.60	-57.88	2.67	-0.85	61.38
1,632.00	3.10	145.90	1,627.73	55.35	16.67	-55.21	2.05	1.06	40.11
1,726.00	3.30	176.10	1,721.59	50.55	18.27	-50.40	1.78	0.21	32.13
1,820.00	2.80	185.60	1,815.45	45.56	18.23	-45.41	0.75	-0.53	10.11
1,913.00	2.50	191.50	1,908.35	41.32	17.61	-41.17	0.44	-0.32	6.34
1,967.00	2.00	192.80	1,962.31	39.24	17.16	-39.10	0.93	-0.93	2.41
Final Phoenix MWD Survey Prior to Gyros									
2,025.00	2.00	192.80	2,020.28	37.27	16.72	-37.13	0.00	0.00	0.00
Projection to Bit - KOP #122H - BHL #122H									

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.00	199.99	-1.39	-0.08	First Phoenix MWD Survey	
1,967.00	1,962.31	39.24	17.16	Final Phoenix MWD Survey Prior to Gyros	
2,025.00	2,020.28	37.27	16.72	Projection to Bit	

Checked By: _____ Approved By: _____ Date: _____



SECTION 33, TOWNSHIP 20-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: RANGER STATE 33-20S-35E RN #122H

SECTION 33 TWP 20-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 302' FNL & 1210' FWL

DISTANCE & DIRECTION
FROM INT. OF NM-18 N & NM-128, GO NORTH ON NM-18 N ±16.3 MILES, THENCE LEFT (NORTH) ON NM-207 N ±6.6 MILES, THENCE LEFT (WEST) ON NM-176 WAVE, O. ±6.4 MILES, THENCE LEFT (WEST) TO STAY ON NM-176 W. ±10.2 MILES, THENCE RIGHT (NORTH) SIMS RD. ± 2.1 MILES, CONTINUE ON E-35 ±2.9 MILES TO A POINT ±1050 FEET NORTH OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



Michael Blake Brown, P.S. No. 18329
DECEMBER 22, 2014

TOPOGRAPHIC
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