NM OIL CONSERVATION

ARTESIA DISTRICT

MAR 3 0 2017

VES SURVEY

30-015-43774

RECEIVED

١ _	Dustin Byers	certify that I am	employed by VE	S Survey Inter	national. Tha	ıt I did on the da	ay(s)	
of _	01/14/17 through	01/14/17	conduct or super	ise the taking	of a	Rate Gyro	survey	from a
deptl	n of0.00	feet to a depth of	9,660.00	_feet; that the	data is true,	correct, comple	te and	
withi	n the limitations of the	tool as set forth by	Vaughn Energy	Services, that	I am authoriz	ed and qualifie	d	
to ma	ake this report; that th	is survey was cond	ucted at the requ	est of	Matado	r Production Co	mpany	for the
	Brantley State Com	Well #	#221H	API #	30-0	15-43774		=
in _	Eddy	County / Paris	h New Me	exico ;	and that I ha	ve reviewed this	s report an	d
find t	hat it conforms to the	principles and proc	edures as set fo	rth by VES Sui	rvey Internati	ional.		

Dustin Byers Service Technician VES Survey International



Company: MATADOR PRODUCTION COMPANY

Lease/Well: BRANTLEY STATE COM 13 24 27 RB/221H

State/County: NEW MEXICO/EDDY Rig Name: PATTERSON 274 VS-Azi: 269.14 Degrees Latitude: 32.22315, Longitude: -104.13441

Grid North = True North -0.11 degs (NAD 27) Grid Correction Applied = -0.11 degs

Depth Reference: 28.5

DRILLOG HA GYRO SURVEY CALCULATIONS Filename: e-line-de_01.ut Minimum Curvature Method Report Date/Time: 1/19/2017 / 15:45	NM OIL CONSERVATION: ARTESIA DISTRICT MAR \$ 0 2017
VES Survey International West Texas 432-563-5444 Surveyor: Dustin Byers Brantley State Com 13 24 27 RB No. 221H / API 30-015-43774	RECEIVED

Measured	Incl	Drift				Vertical	Closure	Closure	Dogleg
Depth	Angle	Direction	σΣτ	S-/N+	+E/-W	Section	Distance	Direction	Severity
FT	Deg	Deg	FT	FT	FT	FT	FT	Deg	Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.64	143.23	100.00	-0.45	0.34	-0.33	0.56	143.23	0.64
200.00	0.30	149.33	199.99	-1.12	08.0	-0.79	1.38	144.38	0.35
300.00	0.25	358.21	299.99	-1.13	0.93	-0.91	1.46	140.47	0.53
400.00	0.51	87.48	399.99	-0.89	1.37	-1.36	1.63	122.97	0.57
500.00	1.13	114.24	499.98	-1.27	2.72	-2.70	3.00	115.13	0.71
00.009	1.14	112.87	599.96	-2.06	4.53	4.50	4.98	114.50	0.03
700.00	1.01	118.17	699.94	-2.87	6.22	-6.18	6.85	114.73	0.16
800.00	1.20	129.25	799.93	-3.94	7.80	-7.74	8.74	116.80	0.29
900.00	1.17	140.08	899.91	-5.38	9.27	-9.18	10.72	120.15	0.23
1000.00	1.07	146.18	999.89	-6.94	10.44	-10.33	12.54	123.61	0.15
1100.00	1.09	125.82	1099.87	-8.27	11.73	-11.60	14.35	125.19	0.38
1200.00	1.05	145.91	1199.85	-9.59	13.01	-12.86	16.16	126.38	0.37
1300.00	0.74	144.57	1299.84	-10.87	13.90	-13.73	17.64	128.03	0.32
1400.00	0.47	140.64	1399.83	-11.71	14.53	-14.35	18.66	128.87	0.27
1500.00	0.57	104.87	1499.83	-12.15	15.27	-15.08	19.51	128.52	0.33
1600.00	0.47	106.54	1599.83	-12.39	16.14	-15.95	20.35	127.53	0.10

V.E.S. Survey Date: 1/14/2017 Page 1 of 4

Measured	luci	Drift				Vertical	Closure	Closure	Dogleg
Depth	Anale	Direction	ΟVΓ	S-/N+	+E/-W	Section	Distance	Direction	Severity
ET.	Deg	Deg	FT	Ħ	Ħ	FT	FT	Deg	Deg/100
1700.00	1.62	85.74	1699.81	-12.41	17.94	-17.75	21.81	124.66	1.20-
1800.00	2.53	80.64	1799.74	-11.94	21.54	-21.36	24.63	119.00	0.93
1900.00	2.10	72.46	1899.66	-11.03	25.46	-25.29	27.75	113.42	0.55
2000.00	2.30	69.94	1999.59	-9.79	29.09	-28.94	30.69	108.60	0.22
2100.00	2.31	46.18	2099.51	-7.71	32.43	-32.31	33.33	103.37	0.95
2200.00	1.89	11.86	2199.44	4.70	34.22	-34.15	34.54	97.81	1.30
2300.00	2.35	339.78	2299.38	-1.16	33.85	-33.83	33.87	91.96	1.25
2400.00	1.88	340.49	2399.31	2.31	32.60	-32.63	32.68	85.94	0.48
2500.00	1.78	343.50	2499.26	5.35	31.61	-31.69	32.06	80.40	0.13
2600.00	2.19	345.92	2599.20	8.69	30.70	-30.83	31.91	74.19	0.42
2700.00	4.42	349.46	2699.03	14.33	29.53	-29.74	32.83	64.11	2.23
2800.00	5.93	355.97	2798.62	23.27	28.46	-28.81	36.77	50.73	1.62
2900.00	5.92	354.93	2898.08	33.56	27.65	-28.15	43.48	39.48	0.11
3000.00	5.53	342.69	2997.59	43.30	25.76	-26.40	50.38	30.74	1.28
3100.00	5.20	335.82	3097.15	52.04	22.46	-23.24	56.68	23.35	0.72
3200.00	5.28	332.56	3196.73	60.26	18.49	-19.39	63.04	17.05	0.31
3300.00	5.13	326.85	3296.32	68.09	13.92	-14.94	69.50	11.55	0.54
3400.00	5.35	325.93	3395.90	75.70	8.86	-10.00	76.22	6.68	0.23
3500.00	5.47	326.82	3495,46	83.55	3.64	4.89	83.63	2.49	0.15
3600.00	5.50	319.87	3595.00	91.21	-2.06	0.69	91.23	358.71	99.0
3700.00	5.45	317.17	3694.54	98.35	-8.37	6.90	98.71	355.13	0.26
3800.00	5.57	316.31	3794.08	105.34	-14.95	13.37	106.40	351.92	0.15
3900.00	5.61	326.62	3893.61	112.93	-20,99	19.29	114.87	349.47	1.00
4000.00	5.77	340.08	3993.12	121.74	-25.40	23.57	124.36	348.22	1.34
4100.00	4.71	358.28	4092.71	130.57	-27.23	25.27	133.38	348.22	1.96
4200.00	2.94	26.28	4192.49	136.98	-26.22	24.16	139.46	349.16	2.52
4300.00	2.83	21.75	4292.36	141.57	-24.17	22.04	143.62	350.31	0.25
4400.00	2.54	20.48	4392.25	145.94	-22.48	20.28	147.66	351.24	0.30
4500.00	3.21	22.22	4492.13	150.61	-20.64	18.38	152.02	352.20	0.67
4600.00	3.31	350.22	4591.97	156.04	-20.07	17.73	157.33	352.67	1.80
4700.00	3.53	353.12	4691.79	161.94	-20.93	18.50	163.29	352.63	0.28
4800.00	5.33	338.24	4791.49	169.31	-23.02	20.48	170.87	352.26	2.12
4900.00	5.02	340.71	4891.09	177.75	-26.19	23.52	179.67	351.62	0.38
5000.00	4.62	334.22	4990.73	185.50	-29.39	26.60	187.82	351.00	0.67
5100.00	4.27	328.35	5090.43	192.30	-33.09	30.20	195.13	350.24	0.58
5200.00	4.13	331.90	5190.17	198.64	-36.74	33.75	202.01	349.52	0.29
5300.00	3.93	334.13	5289.92	204.91	-39.93	36.85	208.76	348.97	0.25
5400.00	3.72	324.85	5389.70	210.64	-43.30	40.13	215.05	348.39	0.65
5500.00	2.74	332.86	5489.54	215.43	-46.26	43.02	220.34	347.88	1.08
				Page 2 of 4	of 4				

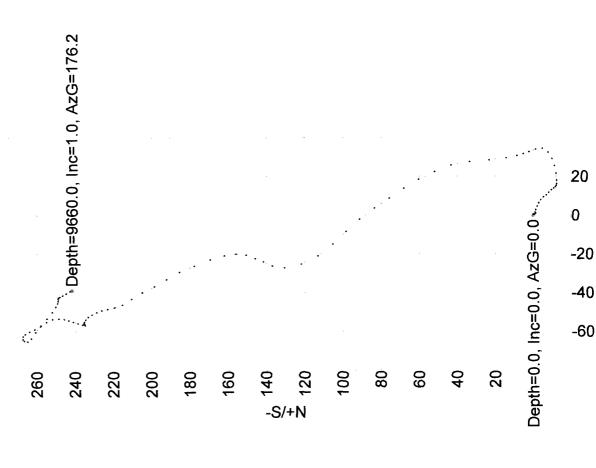
Measured	Incl	Drift				Vertical	Closure	Cíosure	Dogleg
Depth	Angle	Direction	ΔVT	S-/N+	+E/-W	Section	Distance	Direction	Severity
FI	Deg	Deg	Ħ	E	FT	t	FE	Deg	Deg/100
5600.00	2.27	353.27	5589.44	219.53	47.58	44.28	224.62	347.77	. 1.00-
5700.00	2.10	341.51	5689.37	223.24	48.39	45.04	228.42	347.77	0.48
5800.00	1.55	349.84	5789.32	226.31	49.22	45.81	231.60	347.73	0.61
5900.00	1.74	332.91	5889.28	229.00	-50.15	46.70	234.43	347.65	0.52
6000.00	1.33	335.26	5989.24	231.41	-51.32	47.84	237.03	347.49	0.41
6100.00	1.33	324.26	6089.21	233.41	-52.49	48.98	239.23	347.33	0.26
6200.00	0.94	298.32	6189.20	234.74	-53.89	50.36	240.84	347.07	0.64
6300.00	0.70	302.75	6289.19	235.46	-55.12	51.58	241.82	346.82	0.25
6400.00	0.35	242.63	6389.18	235.65	-55.91	52.37	242.19	346.65	0.61
6500.00	0.42	220.70	6489.18	235.23	-56.42	52.89	241.90	346.51	0.16
6600.00	0.12	325.59	6589.18	235.03	-56.72	53.19	241.78	346.43	0.47
6700.00	1.46	15.58	6689.17	236.35	-56.44	52.88	242.99	346.57	1.39
6800.00	1.47	15.07	6789.13	238.81	-55.76	52.17	245.24	346.86	0.01
00.0069	1.47	21.03	6889.10	241.24	-54.97	51.34	247.43	347.16	0.15
7000.00	1.39	15.57	6989.07	243.60	-54.19	50.52	249.56	347.46	0.16
7100.00	1.31	13.42	7089.04	245.88	-53.59	49.90	251.66	347.70	60.0
7200.00	1.94	356.91	7189.00	248.69	-53.42	49.68	254.36	347.88	0.78
7300.00	1.93	353.71	7288.95	252.05	-53.69	49.91	257.70	347.97	0.11
7400.00	2.23	321.91	7388.88	255.25	-55.08	51.24	261.12	347.82	1.17
7500.00	2.15	326.78	7488.81	258.35	-57.30	53.42	264.63	347.49	0.20
7600.00	1.81	341.74	7588.75	261.42	-58.83	54.90	267.96	347.32	0.62
7700.00	1.60	332.16	7688.71	264.16	-59.98	26.00	270.88	347.21	0.36
7800.00	1.31	321.73	7788.67	266.28	-61.33	57.33	273.26	347.03	0.39
7900.00	0.68	285.56	7888.66	267.34	-62.61	58.59	274.57	346.82	0.86
8000.00	0.94	269.74	7988.65	267.50	-64.01	59.98	275.05	346.54	0.34
8100.00	08.0	185.35	8088.64	266.80	-64.89	60.88	274.58	346.33	1.17
8200.00	1.25	187.28	8188.63	265.02	-62.09	61.11	272.90	346.20	0.45
8300.00	2.13	117.14	8288.59	263.09	-63.57	59.62	270.67	346.42	2.07
8400.00	2.34	128.72	8388.51	260.97	-60.32	56.40	267.85	346,98	0.50
8500.00	2.70	129.37	8488.42	258.19	-56.91	53.03	264.39	347.57	0.36
8600.00	2.76	134.28	8588.30	255.02	-53.36	49.53	260.54	348.18	0.24
8700.00	2.26	125.04	8688.21	252.21	-50.03	46.24	257.12	348.78	0.64
8800.00	1.56	123.49	8788.15	250.33	47.28	43.52	254.75	349.30	0.70
8900.00	0.79	108.99	8888.13	249.35	-45.49	41.75	253.47	349.66	0.82
9000.00	0.56	89.97	8988.12	249.13	44.35	40.61	253.05	349.91	0.31
9100.00	0.64	91.79	9088.12	249.11	43.31	39.56	252.85	350.14	0.08
9200.00	0.28	136.13	9188.12	248.92	42.59	38.85	252.54	350.29	0.48
9300.00	0.68	160.76	9288.11	248.19	42.22	38.49	251.75	350.34	0.44
9400.00	1.17	149.52	9388.10	246.75	41.51	37.80	250.21	350.45	0.52

Dogleg	. 0.19-
Severity	0.05
Deg/100	1.06
Closure	350.64
Direction	350.84
Deg	350.89
Closure	248.16
Distance	245.97
FT	244.79
Vertical	36.68
Section	35.50
FT	35.13
+E/-W FT	40.36 -39.15 -38.77
+N/-S FT	244.86 242.83 241.70
TYD T3	9488.07 9588.05 9648.03
Drift	148.14
Direction	150.07
Deg	176.22
Incl	1.36
Angle	1.35
Deg	0.99
Measured	9500.00
Depth	9600.00
FT	9660.00



VES Survey International
West Texas
432-563-5444
Surveyor: Dustin Byers
Brantley State Com 13 24 27 RB No. 221H / API 30-015-43774





V.E.S. Survey Date: 1/14/2017 -W/+E





NM OIL CONSERVATION:
ARTESIA DISTRICT
MAR 3 () 2017

RECEIVED



Brantley State Com No. 221H(OH) Eddy County, NM

January 29, 2017

Job No. LNM5130717

Dunonal.

Survey Completion Report



NM OIL CONSERVATION

ARTESIA DISTRICT

MAR 3 0 2017

January 29, 2017

RECEIVED



Operator Name:

Matador Resources

Well Name:

Brantley State Com 13-24S-27E RB No. 221H(OH)

County/Parish:

Eddy County,

State:

NM

Rig Name: Job Number: Patterson 274

LNM5130717

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	9,704' MD – 12,540' MD	12,654' MD	01/13/17 – 01/22/17	MWD-OWSG

Sincerely,

Mike Coats Well Planning

Professional Directional

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



MM OIL C**ONSERVATION** ARTESIA DISTRICT

RECEIVED

Matador Resources

Eddy County, NM Brantley State Com No. 221H OH Survey: ProDirectional

Survey Report

29 January, 2017



Survey Report

PRODIRECTIONAL

Matador Resources Brantley State Com Eddy County, NM No. 221H MWD P Company: Project: Wellbore: Design: Site: Well:

Eddy County, NM

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well No. 221H Local Co-ordinate Reference: North Reference: TVD Reference: MD Reference:

Minimum Curvature WellPlanner1 Survey Calculation Method:

Database:

Mean Sea Level

System Datum: US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS) New Mexico East 3001 Map System: Geo Datum: Map Zone: Project

Brantley State Com

0.00 usft

Position Uncertainty:

Site Position:

SES

From:

Мар

Grid Convergence: Longitude: Latitude: 444,957.00 usft 561,517.00 usft 13-3/16 " Slot Radius: Northing: Easting:

32.223147 -104.134405

0.11

32.223147 -104.134405 3,089.00 usft Ground Level: Longitude: Latitude: 444,957.00 usft usft 561,517.00 usft Wellhead Elevation: Northing: Easting: 0.00 usft 0.00 usft 0.00 usft No. 221H \$-/N+ +E/-W Position Uncertainty Well Position ¥**e**#

동

Wellbore

Magnetics

48,139.00000000 Field Strength 60.05 Dip Angle ε 7.40 Decilnation C 12/31/2016 Sample Date HDGM Model Name

Direction 269.64 ε Te On Depth: +E/JW (usft) 0.00 (mark) 0.00 ACTUAL Depth From (TVD) Phase: (usft) 0.00 MWD 6 Vertical Section: Audit Notes: Version: Design

Page 2 1/29/2017 8:46:11PM

Survey Report

PRODIRECTIONAL.

Matador Resources Eddy County, NM Brantiey State Com No. 221H OH MWD Company:
Project:
Site:
Well:
Wellbore:
Design:

Local Co-ordinate Reference: TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 221H
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Grid
Minimum Curvature
WellPlanner1

Survey Program	Date 1/29/2017	9/2017								
From (usft)	To (usft) Sun	Survey (Wellbore)		Tool Name	Description					
100.00	9,660.00 Survey #1 (OH) 12,654.00 Survey #2 (OH)	vey #1 (OH) vey #2 (OH)		GYD_DP_MS MWD - OWSG	Gyrodata gyro- MWD - OWSG	Gyrodata gyro-compassing and drop MWD - OWSG	nd drop			
Survey										
MD (usft)	<u>5</u> E	Azi (azimuth) (°)	OVT (frest)	V. Sec (usft)	N/S (usit)	E/W (usft)	Closure Distance (usft)	Closure Azimuth	Northing (usf?)	Easting (usft)
00:00	0.00	0.00	0.00	00.0	00.0	00.0	00.0	00.0	444,957.00	561,517.00
100.00	0.64	143.23	100.00	-0.33	-0.45	0.33	0.56	143.23	444,956.55	561,517.33
200.00	0.30	149.33	199.99	-0.80	-1.12	0.80	1.38	144.39	444,955.88	561,517.80
300.00	0.25	358.21	299.99	-0.92	-1.13	0.93	1.46	140.51	444,955.87	561,517.93
400.00	0.51	87.48	399.99	-1.36	-0.89	1.37	1.63	123.06	444,956.11	561,518.37
200.00	1.13	114.24	499.98	-2.70	-1.27	2.71	3.00	115.19	444,955.73	561,519.71
00.009	1.14	112.87	96.669	4.51	-2.07	4.53	4.98	114.54	444,954.93	561,521.53
700.00	1.01	118.17	699.94	-6.20	-2.87	6.22	6.85	114.76	444,954.13	561,523.22
800.00	1.20	129.25	799.93	-7.78	-3.95	7.81	8.75	116.82	444,953.05	561,524.81
900.00	1.17	140.08	899.90	-9.24	-5.39	9.27	10.73	120.18	444,951.61	561,526.27
1,000.00	1.07	146.18	999.89	-10.40	-6.95	10.45	12.55	123.64	444,950.05	561,527.45
1,100.00	1.09	125.82	1,099.87	-11.69	-8.28	11.74	14.37	125.21	444,948.72	561,528.74
1,200.00	1.05	145.91	1,199.85	-12.96	09'6-	13.02	16.18	126.39	444,947.40	561,530.02
1,300.00	0.74	144.57	1,299.84	-13.84	-10.88	13.91	17.66	128.04	444,946.12	561,530.91
1,400.00	0.47	140.64	1,399.83	-14.47	-11.73	14.55	18.69	128.88	444,945.27	561,531,55
1,500.00	0.57	104.87	1,499.83	-15.21	-12.17	15.29	19.54	128.53	444,944.83	561,532.29
1,600.00	0.47	106.54	1,599.83	-16.08	-12.42	16.16	20.38	127.54	444,944.58	561,533.16
1,700.00	1.62	85.74	1,699.81	-17.89	-12.43	17.96	21.84	124.68	444,944.57	561,534.96
1,800.00	2.53	80.64	1,799.74	-21.48	-11.96	21.55	24.65	119.04	444,945.04	561,538.55
1,900.00	2.10	72.46	1,899.66	-25.41	-11.05	25.48	27.77	113.45	444,945.95	561,542.48
2,000.00	2.30	69.94	1,999.59	-29.05	-9.81	29.11	30.72	108.63	444,947.19	561,546.11

Matador Resources Eddy County, NM Brantley State Com No. 221H OH

Company:
Project:
Site:
Well:
Wellbore:
Design:

Survey

ProDirectional

Survey Report

PRODIRECTIONAL

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))

Grid Minimum Curvature WellPlanner1

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Celculation Method: Database:

QM	울 (Azi (azimuth)	ē,	V. Sec	SN.	E/W	tance	Closure Azimuth	Northing	Easting
(nen)		Ε		(net)	(ns#)	(neff)	(ten)	E	(reff)	(Lest)
2,100.00	2	2.31 46.18	18 2,099.51	51 -32.40	-7.73	32.45	33.36	103.40	444,949.27	561,549.45
2,200.00	÷	11.86	86 2,199.44	-34.21	4.72	34.24	34.56	97.85	444,952.28	561,551,24
2,300.00		2.35 339.78	78 2,299.38	.33.86	-1.18	33.87	33.89	92.00	444,955.82	561,550.87
2,400.00	÷	1.88 340.49	49 2,399.31	-32.63	2.29	32.61	32.69	85.99	444,959.29	561,549.61
2,500.00	+	1.78 343.50	50 2,499.26	31.66	5.32	31.63	32.07	80.45	444,962.32	561,548.63
2,600.00	.2	2.19 345.92	92 2,599.20	20 -30.77	8.67	30.72	31.92	74.25	444,965.67	561,547.72
2,700.00	4.	4.42 349.46	46 2,699.03	13 -29.64	14.31	29.55	32.83	64.16	444,971.31	561,546.55
2,800.00	ις	5.93 355.97	97 2,798.62	.28.63	23.25	28.48	36.77	50.78	444,980.25	561,545.48
2,900.00	S	5.92 354.93	93 2,898.08	98 -27.87	33.54	27.66	43.48	39.52	444,990.54	561,544.66
3,000.00	5.	5.53 342.69	69 2,997.59	59 26.04	43.28	25.77	50.37	30.78	445,000.28	561,542.77
3,100.00	'n	5.20 335.82	82 3,097.15	5 -22.81	52.01	22.48	56.66	23.38	445,009.01	561,539.48
3,200.00	Ŋ	5.28 332.56	56 3,196.73	73 -18.88	60.23	18.51	63.01	17.08	445,017.23	561,535.51
3,300.00	ĸ	5.13 326.85	85 3,296.32	14.37	68.06	13.94	69.47	11.58	445,025.06	561,530.94
3,400.00	S	5.35 325.93	93 3,395.90	9.36	75.66	8.89	76.18	6.70	445,032.66	561,525.89
3,500.00	'n	5.47 326.82	82 3,495.46	6 4.19	83.51	3.67	83.59	2.51	445,040.51	561,520.67
3,600.00	ιά	5.50 319.87	87 3,595.00	1.46	91.16	-2.03	91.19	358.72	445,048.16	561,514.97
3,700.00	ιĠ	5.45 317.17	17 3,694.54	4 7.73	98.31	-8.35	98.66	355.15	445,055.31	561,508.65
3,800.00	ις	5.57 316.31	3,794.08	14.27	105.30	-14.93	106.36	351.93	445,062.30	561,502.07
3,900.00	Š	5.61 326.62	62 3,893.61	20.26	112.89	-20.97	114.83	349.48	445,069.89	561,496.03
4,000.00	5.	5.77 340.08	08 3,993.12	24.61	121.70	-25.37	124.32	348.22	445,078.70	561,491.63
4,100.00	4	4.71 358.28	28 4,092.71	1 26.39	130.53	-27.21	133.34	348.23	445,087.53	561,489.79
4,200.00	2.	2.94 26.28	28 4,192.49	19 25.34	136.94	-26.20	139.42	349.17	445,093.94	561,490.80
4,300.00	2	2.83 21.75	75 4,292.36	16 23.26	141.53	-24.15	143.57	350.32	445,098.53	561,492.85
4,400.00	2.	2.54 20.48	48 4,392.25	5 21.54	145.90	-22.46	147.62	351.25	445,102.90	561,494.54
4,500.00	e	3.21 22.22	22 4,492.13	3 19.68	150.57	-20.62	151,97	352.20	445,107.57	561,496.38
4,600.00	er,	3.31 350.22	22 4,591.97	19.07	156.00	-20.05	157.29	352.67	445,113.00	561,496.95
4,700.00	e.	3.53 353.12	12 4,691.80	19.90	161.90	-20.91	163.25	352.64	445,118.90	561,496.09

Survey Report

PRODIRECTIONAL

Company: Project: Site: Wan:	Matador R Eddy Cour Brantley S	Matador Resources Eddy County, NM Brantley State Com					Local Co-ordina TVD Reference: MD Reference:	Local Co-ordinate Reference: TVD Reference: MD Reference:	Well No. 221H Well @ 3118.00us Well @ 3118.00us	Weil No. 221H Weil @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Weil @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))	9' (Patt274)) 9' (Patt274))
Wellbore: Design:	OH MWD						North Reference: Survey Calculatio Database:	North Reference: Survey Calculation Method: Database:	Grid Minimum Curvature WellPlanner1	ę	
Survey								, and the state of			
MD (#sn)		ž C	Azi (azimuth) (*)	O'T (feat)	V. Sec (usft)	N/S (usft)	E/W	Closure Distance (usft)	Closure Azimuth	Northing (usft)	Easting (usft)
4,80	4,800.00	5.33		4,791.50	21.94	169.27	-23.00		352.26	445,126.27	561,494.00
4,90	4,900.00	5.02	340.71	4,891.09	25.05	177.72	-26.17	179.63	351.62	445,134.72	561,490.83
5,00	5,000.00	4.62	334.22	4,990.73	28.20	185.47	-29.37	187.79	351.00	445,142.47	561,487.63
5,10	5,100.00	4.27	328.35	5,090.43	31.86	192.27	-33.07	195.09	350.24	445,149.27	561,483.93
5,20	5,200.00	4.13	331.90	5,190.17	35.47	198.62	-36.72	201.98	349.52	445,155.62	561,480.28
5,30	5,300.00	3.93	334.13	5,289.92	38.63	204.88	-39.91	208.73	348.98	445,161.88	561,477.09
5,40	5,400.00	3.72	324.85	5,389.70	41.95	210.61	43.28	215.01	348.39	445,167.61	561,473.72
5,50	5,500.00	2.74	332.86	5,489.54	44.88	215.39	46.24	220.30	347.88	445,172.39	561,470.76
5,60	5,600.00	2.27	353.27	5,589.44	46.18	219.49	47.56	224.58	347.77	445,176.49	561,469.44
5,70	5,700.00	2.10	341.51	5,689.37	46.97	223.19	-48.37	228.37	347.77	445,180.19	561,468.63
5,80	5,800.00	1.55	349.84	5,789.32	47.77	226.26	49.19	231.54	347.73	445,183.26	561,467.81
5,90	5,900.00	1.74	332.91	5,889.28	48.68	228.94	-50.12	234.36	347.65	445,185.94	561,466.88
6,00	6,000.00	1.33	335.26	5,989.24	49.84	231.35	-51.30	236.97	347.50	445,188.35	561,465.70
6,10	6,100.00	1.33	324.26	6,089.22	50.99	233.34	-52.46	239.17	347.33	445,190.34	561,464.54
6,20	6,200.00	0.94	298.32	6,189.20	52.39	234.67	-53.86	240.78	347.07	445,191.67	561,463.14
06,30	6,300.00	0.70	302.75	6,289.19	53.62	235.39	-55.10	241.76	346.83	445,192.39	561,461.90
6,40	6,400.00	0.35	5 242.63	6,389.18	54.40	235.58	-55.88	242.12	346.66	445,192.58	561,461.12
6,50	6,500.00	0.42	220.70	6,489.18	54.91	235.17	-56.39	241.83	346.52	445,192.17	561,460.61
9'9	6,600.00	0.12	325.59	6,589.18	55.21	234.97	-56.69	241.72	346.44	445,191.97	561,460.31
6,70	6,700.00	1.46	15.58	6,689.17	54.92	236.29	-56.41	242.93	346.57	445,193.29	561,460.59
08'9	6,800.00	1.47	15.07	6,789.14	54.23	238.75	-55.73	245.17	346.86	445,195.75	561,461.27
06'9	00.006,9	1.47	21.03	6,889.10	53.42	241.19	-54.94	247.37	347.17	445,198.19	561,462.06
7,00	7,000.00	1.39	15.57	6,989.07	52.62	243.55	-54.15	249.50	347.46	445,200.55	561,462.85
7,10	7,100.00	1.31	13.42	7,089.04	52.02	245.84	-53.56	251.60	347.71	445,202.84	561,463.44
7,20	7,200.00	1.94	356.91	7,189.00	51.82	248.64	-53.39	254.30	347.88	445,205.64	561,463.61
7,30	7,300.00	1.93	353,71	7,288.95	52.08	252.00	-53.66	257.65	347.98	445,209.00	561,463.34
7,40	7,400.00	2.23	321.91	7,388.88	53.44	255.21	-55.05	261.08	347.83	445,212.21	561,461.95
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Survey Report

PRODIRECTIONAL

Matador Resources Eddy County, NM Brantley State Com No. 221H OH Company: Project: Site: Well: Wellbore: Design:

Local Co-ordinate Reference: North Reference: Survey Calculation Method: Database: TVD Reference: MD Reference:

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))

Grid Minimum Curvature WellPlanner1

Survey										
MD (#gen)	5 E	Azi (azimuth)	dvr (finish	V. Sec	SN S	EW	Closure Distance	Closure Azimuth	Northing	Easting
7,500.00	2.15		7,488.81	55.65	258.31	-57.28			445,215.31	561,459.72
7,600.00	1.81	341.74	7,588.75	57.15	261.38	-58.80			445,218.38	561,458.20
7,700.00	1.60	332.16	7,688.71	58.28	264,11	-59,95	5 270.83	347.21	445,221.11	561,457.05
7,800.00	1.31	321.73	7,788.68	59.63	266.24	-61.31	1 273,21	347.03	445,223,24	561,455.69
7,900.00	0.68	285.56	7,888.66	06:09	267.30	-62.58	8 274.53	346.82	445,224.30	561,454.42
8,000.00	0.94	269.74	7,988.65	62.29	267.45	-63.98	8 275.00	346.55	445,224.45	561,453.02
8,100.00	0.80	185.35	8,088.64	63.18	266.76	-64.86	6 274.53	346.33	445,223.76	561,452.14
8,200.00	1.25	187.28	8,188.63	63.40	264.98	-65.07	7 272.85	346.20	445,221.98	561,451.93
8,300.00	2.13	117.14	8,288.59	61.90	263.05	-63.55	5 270.62	346.42	445,220.05	561,453.45
8,400.00	2.34	128.72	8,388.52	58.66	260.92	-60.30	0 267.80	346.99	445,217.92	561,456.70
8,500.00	2.70	129.37	8,488.42	55.27	258.15	-56.89	9 264.35	347.57	445,215.15	561,460.11
8,600.00	2.76	134.28	8,588.31	51.74	254.98	-53.35	5 260.50		445,211.98	561,463.65
8,700.00	2.26	125.04	8,688.21	48.42	252.16	-50.01	1 257.08	348.78	445,209.16	561,466.99
8,800.00	1.56	123.49	8,788.15	45.68	250.28	47.26	6 254.70	349,31	445,207.28	561,469.74
8,900.00	0.79	108.99	8,888.13	43.90	249.31	-45.47	7 253.42	349.66	445,206.31	561,471.53
9,000.00	0.56	89.97	8,988.13	42.76	249.08	44.33	3 253.00	349.91	445,206.08	561,472.67
9,100.00	0.64	91.79	9,088.12	41.72	249.06	43.28	8 252.80	350.14	445,206.06	561,473.72
9,200.00	0.28	136.13	9,188.12	40.99	248.87	42.56	6 252.48	350,30	445,205.87	561,474.44
9,300.00	0.68	160.76	9,288.11	40.63	248.13	42.19	9 251.70	350.35	445,205.13	561,474.81
9,400.00	1,17	149.52	9,388.10	39.93	246.69	41.48	8 250.16	350.46	445,203.69	561,475.52
9,500.00	1.36	148.14	9,488.08	38.79	244.81	40.33	3 248.11	350.64	445,201.81	561,476.67
9,600.00	1.35	150.07	9,588.05	37.59	242.78	-39.12	2 245.91	350.85	445,199.78	561,477.88
00.099,6	0.99	176.22	9,648.04	37.21	241.65	-38.73	3 244.73	350.89	445,198.65	561,478.27
9,704.00	6.10	278.30	9,691.95	39.50	241.61	41.02	2 245.06	350.36	445,198.61	561,475.98
Pro MWD First 9,736.00	Pro MWD First Survey: 9704" MD 9,736.00	D 280.70	9,723.63	43.91	242.37	45.44	4 246.59	349.38	445,199.37	561,471.56
9,768.00	13.60	281.80	9,754.95	50.32	243.65	-51.85	5 249.11	347.99	445,200.65	561,465.15

Survey Report

PRODIRECTIONAL PRODIRECTIONAL

Matador Resources Eddy County, NM Brantley State Com No. 221H OH Company:
Project:
Site:
Well:
Wellbore:

Survey

Well No. 221H Local Co-ordinate Reference: TVD Reference: North Reference: Survey Calculation Method: Database: MD Reference:

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Grid Minimum Curvature WellPlanner1

281.50 9,784.85 58.32 -56.86 -525.0 280.30 9,815.16 68.38 247.23 -69.61 256.52 278.50 9,841.51 68.38 247.23 -69.61 256.32 278.50 9,847.36 90.18 249.29 -46.54 269.35 277.70 9,900.59 125.42 256.68 -177.03 265.50 277.70 9,901.23 158.20 256.89 -143.91 249.55 278.00 9,965.14 142.29 256.89 -143.91 249.50 278.00 9,965.13 146.29 -170.03 265.50 -178.49 312.76 286.20 10,007.79 17.687 256.82 -178.49 312.76 365.60 286.10 10,007.36 217.07 256.82 -178.49 312.76 365.60 286.10 10,007.36 217.07 256.47 -241.89 323.56 286.10 10,143.61 308.39 262.77 -218.68 323.56 <tr< th=""><th>MD (usft)</th><th><u> </u></th><th>Azi (azimuth) (*)</th><th>OVT (fish)</th><th>V. Sec (usft)</th><th>N/S (usft)</th><th>E/W (usft)</th><th>Closure Distance (usft)</th><th>Closure Azimuth</th><th>Northing (usft)</th><th>Easting (usft)</th><th></th></tr<>	MD (usft)	<u> </u>	Azi (azimuth) (*)	OVT (fish)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth	Northing (usft)	Easting (usft)	
20.30 280.30 9,615.16 68.36 247.23 -69.91 256.25 23.80 273.60 9,644.82 90.18 249.29 -81.74 265.25 28.00 278.50 9,644.82 90.18 249.29 -85.54 263.55 30.30 277.70 9,900.59 109.02 255.68 -107.03 285.50 31.30 272.60 9,857.39 105.02 256.82 -180.65 303.26 32.80 289.10 10,007.79 176.87 256.82 -177.49 294.50 35.00 289.10 10,007.79 176.87 256.82 -178.49 312.76 43.30 267.70 10,007.39 176.87 256.82 -178.49 312.76 45.50 268.10 10,112.06 272.77 256.82 -178.49 312.76 45.50 268.20 10,112.06 272.77 256.42 -178.49 312.76 45.50 268.00 10,112.06 272.77 256.42 -178.49	0.799.00	17.00	281.50	9,784.85	58.32	245.30	-59.86	252.50	346.29	445,202.30	561,457.14	
23.80 277.50 9,644.82 90.18 249.29 -81.74 262.35 28.00 277.50 9,873.60 193.96 215.52 -95.54 260.56 30.90 277.70 9,800.59 109.02 255.68 -127.03 265.50 31.30 277.60 9,807.39 125.42 256.68 -127.03 265.50 32.60 268.30 9,891.23 156.68 -147.03 265.50 303.26 38.60 268.30 10,007.79 176.87 256.82 -178.49 324.50 43.30 267.70 10,007.50 217.07 256.77 -218.88 336.05 45.50 268.10 10,112.06 272.77 255.17 -216.88 336.05 55.00 268.00 10,143.61 306.33 256.71 -216.88 336.05 55.00 268.00 10,143.61 306.33 257.47 -216.88 336.05 55.00 268.00 10,143.61 365.60 247.41 429.14 <td>,831.00</td> <td>20.30</td> <td>280.30</td> <td>9,815.16</td> <td>68.36</td> <td>247.23</td> <td>-69.91</td> <td>256.92</td> <td>344.21</td> <td>445,204.23</td> <td>561,447.09</td> <td></td>	,831.00	20.30	280.30	9,815.16	68.36	247.23	-69.91	256.92	344.21	445,204.23	561,447.09	
28.00 278.80 9.873.60 93.96 251.52 -95.54 289.05 30.90 277.70 9.900.59 109.02 253.71 -110.62 276.78 31.30 276.00 9.927.99 125.42 256.89 -127.03 285.50 32.60 277.26 9.967.14 142.29 256.89 -177.03 285.50 32.80 277.20 16.007.79 176.87 256.82 -178.49 285.50 32.80 286.00 10,007.79 176.87 256.32 -178.49 312.76 43.30 286.10 10,007.39 196.08 27.77 256.17 -187.69 326.56 43.30 286.10 10,007.30 10,407.30 256.17 -178.49 326.56 44.30 286.20 10,112.06 27.77 256.47 -178.49 338.05 50.50 286.20 10,112.06 27.77 256.47 -243.7 469.14 64.90 286.20 10,112.06 27.74 256.47 <td>,863.00</td> <td>23.80</td> <td>279.50</td> <td>9,844.82</td> <td>80.18</td> <td>249.29</td> <td>-81.74</td> <td>262.35</td> <td>341.85</td> <td>445,206.29</td> <td>561,435.26</td> <td></td>	,863.00	23.80	279.50	9,844.82	80.18	249.29	-81.74	262.35	341.85	445,206.29	561,435.26	
30.90 277.70 9,900.59 109.02 255.68 -110.02 276.70 276.70 256.68 -127.03 286.50	,895.00	28.00	278.90	9,873.60	93.96	251.52	-95.54	269.05	339.20	445,208.52	561,421.46	
31.30 276.00 9,927.99 125.42 256.68 -127.03 285.50 32.60 272.60 9,955.14 142.29 256.94 -143.91 294.50 32.80 286.20 10,007.79 159.03 256.52 -160.65 303.26 35.00 286.20 10,007.79 176.87 256.87 -178.49 303.26 38.80 267.70 10,033.38 196.08 256.13 -178.49 312.76 43.30 267.10 10,075.60 217.07 256.17 -218.68 336.05 45.50 288.0 10,172.06 238.74 254.27 -216.38 349.86 47.30 288.0 10,173.33 346.59 256.27 -316.33 349.86 55.00 265.0 10,173.33 346.59 257.74 -316.33 349.86 56.20 10,173.33 346.59 257.74 -387.16 429.19 56.10 266.20 10,173.33 346.59 257.43 517.89	,926.00	30.90	277.70	9,900.59	109.02	253.71	-110.62	276.78	336.44	445,210.71	561,406.38	
32.60 272.60 9.955.14 142.29 256.94 -143.91 294.50 32.80 269.30 9.981.23 159.03 257.22 -160.65 303.26 35.00 268.20 10,007.79 176.87 256.82 -178.49 312.76 38.00 267.70 10,033.38 196.08 256.13 -197.69 323.56 44.30 267.10 10,079.65 217.07 255.17 -218.68 336.05 45.50 268.10 10,079.65 238.74 254.27 -240.35 349.88 45.50 268.10 10,143.61 308.33 252.77 -240.35 349.88 50.50 268.20 10,143.61 308.33 252.71 -240.35 349.88 50.50 268.20 10,143.61 385.60 247.74 -310.53 400.37 56.20 268.20 10,143.61 465.86 244.11 427.10 429.19 56.20 268.20 10,247.44 468.18 247.74 -246	,958.00	31.30	276.00	9,927.99	125.42	255.68	-127.03	285.50	333.58	445,212.68	561,389.97	
32.80 269.30 9,981.23 159.03 257.22 -160.65 303.26 35.00 286.20 10,007.79 176.87 256.82 -178.49 312.76 38.80 287.70 10,033.38 196.08 256.17 -197.69 323.55 43.30 287.10 10,079.65 217.07 256.17 -216.88 336.05 45.50 288.10 10,079.65 238.74 254.27 -240.35 349.88 47.30 288.80 10,143.61 308.93 252.71 -214.37 373.49 55.00 286.20 10,143.61 308.93 252.71 -240.35 349.88 55.00 286.20 10,143.61 386.59 247.74 -387.16 459.64 61.00 226.20 10,143.61 455.6 244.74 -387.16 459.64 61.00 226.20 10,247.44 488.18 240.73 469.71 577.80 69.10 226.20 10,268.28 10,268.28 517.89 5	00.066,	32.60	272.60	9,955.14	142.29	256.94	-143.91	294.50	330.75	445,213.94	561,373.09	
35.00 268.20 10,007.79 176.87 256.82 -178.49 312.76 38.60 267.70 10,003.38 196.08 256.17 -197.69 323.55 43.30 267.10 10,007.50 277.07 256.17 -218.68 336.05 45.50 268.10 10,079.65 238.74 254.27 -240.35 349.88 47.30 268.00 10,143.61 308.33 262.71 -274.37 373.49 50.50 268.00 10,143.61 308.93 252.71 -310.53 349.89 56.20 268.00 10,143.61 308.93 250.96 -348.17 429.19 56.20 264.70 10,201.13 346.59 247.74 -387.16 429.19 61.00 265.00 10,225.61 425.56 244.11 -427.10 441.94 64.90 10,225.61 425.56 247.11 -427.10 449.14 64.90 10,226.20 10,227.44 468.18 240.73 -512.36	,021.00	32.80	269.30	9,981.23	159.03	257.22	-160.65	303.26	328.01	445,214.22	561,356.35	
38.80 267.70 10,033.38 196.08 256.17 -197.69 323.55 43.30 267.10 10,057.50 217.07 255.17 -218.68 386.05 45.50 268.10 10,079.65 238.74 254.27 -240.35 349.88 45.50 268.00 10,112.06 272.77 253.41 -274.37 374.98 50.50 268.80 10,143.61 308.93 252.71 -310.53 349.88 50.50 268.80 10,143.61 308.93 252.71 -310.53 400.37 56.20 268.70 10,173.33 346.59 247.14 429.19 409.37 56.20 264.70 10,225.61 425.56 244.11 427.10 439.19 64.90 266.90 10,247.44 468.18 240.73 489.71 557.84 69.10 266.20 10,247.44 468.18 237.79 512.86 565.30 71.40 266.23 10,268.28 517.89 57.34 567.34	,053.00	35.00	268.20	10,007.79	176.87	256.82	-178.49	312.76	325.20	445,213.82	561,338.51	
43.30 267.10 10,057.50 217.07 255.17 -216.68 336.05 45.50 268.10 10,079.65 238.74 254.27 -240.35 349.88 47.30 268.00 10,112.06 272.77 253.41 -274.37 373.49 50.50 268.00 10,112.33 346.59 250.71 -310.53 400.37 53.00 266.00 10,173.33 346.59 257.74 -387.16 400.37 56.20 264.70 10,201.13 385.60 247.14 -387.16 429.19 64.90 264.90 10,225.61 425.56 244.11 -387.16 459.64 64.90 266.20 10,247.44 468.18 247.11 427.10 491.34 69.40 266.20 10,268.28 517.89 573.85 -512.86 577.86 71.40 266.21 10,268.28 517.89 234.87 -572.17 618.18 72.40 266.40 10,286.68 570.69 234.01 -5	,085.00	38.80	267.70	10,033.38	196.08	256.13	-197.69	323.55	322.34	445,213.13	561,319.31	
45.50 268.10 10,079.65 238.74 254.27 -240.35 349.88 47.30 269.00 10,112.06 272.77 253.41 -274.37 373.49 50.50 268.80 10,143.61 308.93 252.71 -310.53 373.49 50.50 268.80 10,143.61 308.93 250.74 -310.53 420.37 55.20 266.70 10,201.13 385.60 247.74 -387.16 429.19 64.90 266.20 10,226.14 425.56 244.11 -427.10 491.94 69.10 266.20 10,226.20 511.36 237.79 -512.86 565.30 69.44 266.20 10,226.28 517.89 237.35 -519.39 571.06 71.40 266.20 10,226.28 517.89 234.87 -519.39 571.06 72.40 266.20 10,226.28 576.45 234.87 -519.39 571.06 72.40 266.40 10,236.28 570.69 234.87 -	,117.00	43.30	267.10	10,057.50	217.07	255.17	-218.68	336.05	319.40	445,212.17	561,298.32	
47.30 269.00 10,112.06 272.77 253.41 -274.37 373.49 50.50 268.80 10,143.61 308.93 252.71 -310.53 400.37 50.50 266.20 10,173.33 346.59 250.96 -348.17 429.19 56.20 264.70 10,201.13 385.60 247.74 -387.16 429.19 61.00 264.90 10,225.61 425.56 244.11 -427.10 491.94 64.90 266.00 10,247.44 468.18 240.73 -469.71 577.80 69.10 266.20 10,265.80 511.36 237.79 -512.86 565.30 71.40 266.23 10,266.28 517.89 234.87 -512.86 565.30 7240 266.40 10,286.68 570.69 234.01 -572.94 605.36 71.80 266.80 10,316.36 776.59 224.91 -776.93 712.35 88.00 266.70 10,316.17 767.50 224.94 -7	,148.00	45.50	268.10	10,079.65	238.74	254.27	-240.35	349.88	316.61	445,211.27	561,276.65	
50.50 268.80 10,143.61 308.93 252.71 -310.53 400.37 53.00 265.90 10,173.33 346.59 250.96 -348.17 429.19 56.20 264.70 10,201.13 385.60 247.74 -387.16 459.64 61.00 264.90 10,225.61 425.66 244.11 427.10 491.34 69.10 266.20 10,247.44 468.18 240.73 469.71 527.80 69.10 266.20 10,265.80 511.36 237.79 -512.86 565.30 71.40 266.23 10,268.28 517.89 237.35 -519.39 571.06 72.40 266.40 10,286.68 570.69 234.87 -557.94 605.36 81.80 268.70 10,315.28 704.64 228.34 770.69 771.03 88.00 266.70 10,315.28 735.55 228.58 776.99 771.03 88.90 267.40 10,316.17 767.50 224.94 776.9	,195.00	47.30	269.00	10,112.06	272.77	253.41	-274.37	373.49	312.73	445,210.41	561,242.63	
53.00 265.90 10,173.33 346.59 250.96 -348.17 429.19 56.20 264.70 10,201.13 385.60 247.74 -387.16 459.64 61.00 264.70 10,201.13 385.60 247.74 489.71 459.64 61.00 266.20 10,247.44 468.18 240.73 -469.71 527.80 69.10 266.20 10,247.44 468.18 240.73 -469.71 527.80 69.44 266.20 10,247.44 468.18 237.79 -512.86 565.30 71.40 266.20 10,268.28 517.89 237.35 -519.39 571.06 72.40 266.40 10,286.68 570.69 234.01 -557.94 605.36 81.80 266.80 10,313.58 704.64 228.34 776.39 771.03 88.00 266.70 10,316.77 767.50 224.94 776.99 771.03	,243.00	50.50	268.80	10,143.61	308.93	252.71	-310.53	400.37	309.14	445,209.71	561,206.47	
56.20 264.70 10,201.13 385.60 247.74 -387.16 459.64 61.00 264.90 10,225.61 425.56 244.11 -427.10 491.34 64.90 264.90 10,225.61 425.56 244.11 -427.10 491.34 64.90 266.00 10,247.44 468.18 240.73 -469.71 527.80 69.10 266.20 10,265.80 517.89 237.75 -519.39 571.06 71.40 266.70 10,286.68 570.69 234.01 -557.94 605.36 72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 85.70 266.80 10,313.58 704.64 228.34 -706.08 771.03 88.00 266.70 10,316.28 735.55 226.58 -736.99 771.03 88.80 266.70 10,316.77 767.50 224.94 -768.93 801.16	,291.00	53.00	265.90	10,173.33	346.59	250.96	-348.17	429.19	305.78	445,207.96	561,168.83	
61.00 264.90 10,225.61 425.56 244.11 427.10 491.94 64.90 266.00 10,247.44 468.18 240.73 -469.71 527.80 69.10 266.20 10,265.80 511.36 237.79 -512.86 565.30 69.44 266.23 10,268.28 517.89 237.35 -519.39 571.06 71.40 266.40 10,286.68 570.69 234.87 -557.94 605.36 72.40 268.40 10,310.09 672.85 229.67 -674.31 712.35 85.70 266.80 10,313.58 704.64 228.34 -706.08 771.03 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	339.00	56.20	264.70	10,201.13	385.60	247.74	-387.16	459.64	302.62	445,204.74	561,129.84	
64.90 266.00 10,247.44 468.18 240.73 469.71 527.80 69.10 266.20 10,265.80 511.36 237.79 -512.86 565.30 69.44 266.23 10,268.28 517.89 237.35 -519.39 571.06 71.40 266.40 10,282.02 556.45 234.87 -557.94 605.36 72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 81.80 266.80 10,310.09 672.85 229.67 -674.31 712.35 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.77 767.50 224.94 -786.93 801.16	386.00	61.00	264.90	10,225.61	425.56	244.11	427.10	491.94	299.75	445,201.11	561,089.90	
69.10 266.20 10,265.80 511.36 237.79 -512.86 565.30 69.44 266.23 10,268.28 517.89 237.35 -519.39 571.06 71.40 266.40 10,282.02 556.45 234.01 -557.94 605.36 72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 81.80 268.40 10,310.09 672.85 229.67 -674.31 712.35 86.70 266.80 10,313.58 704.64 228.34 -706.08 771.03 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.00 267.40 10,316.17 767.50 224.94 -768.93 801.16	434.00	64.90	266.00	10,247.44	468.18	240.73	-469.71	527.80	297.14	445,197.73	561,047.29	
69.44 266.23 10,268.28 517.89 237.35 -519.39 571.06 71.40 266.40 10,286.02 556.45 234.87 -557.94 605.36 72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 81.80 268.40 10,310.09 672.85 229.67 -674.31 712.35 85.70 266.80 10,313.58 704.64 228.34 -706.08 771.03 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	481.00	69.10	266.20	10,265.80	511.36	237.79	-512.86	565.30	294.87	445,194.79	561,004.14	
71.40 266.40 10,282.02 556.45 234.87 -557.94 605.36 72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 81.80 268.70 10,310.09 672.85 229.67 -674.31 712.35 85.70 266.80 10,313.58 704.64 228.34 -706.08 742.09 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	,488.00	69.44	266.23	10,268.28	517.89	237.35	-519.39	571.06	294.56	445,194.35	560,997.61	
71.40 266.40 10,282.02 556.45 234.87 -557.94 605.36 72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 81.80 268.40 10,310.09 672.85 229.67 -674.31 712.35 85.70 266.80 10,313.58 704.64 228.34 -706.08 742.09 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	Ung: 10488' M											
72.40 266.70 10,286.68 570.69 234.01 -572.17 618.18 81.80 268.40 10,310.09 672.85 229.67 -674.31 712.35 85.70 266.80 10,313.58 704.64 228.34 -706.08 742.09 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	,529.00	71.40	266.40	10,282.02	556.45	234.87	-557.94	605.36	292.83	445,191.87	560,959.06	
81.80 268.40 10,310.09 672.85 229.67 -674.31 712.35 85.70 266.80 10,313.58 704.64 228.34 -706.08 742.09 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	544.00	72.40	266.70	10,286.68	570.69	234.01	-572.17	618.18	292.24	445,191.01	560,944.83	
85.70 266.80 10,313.58 704.64 228.34 -706.08 742.09 88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	649.00	81.80	268.40	10,310.09	672.85	229.67	-674.31	712.35	288.81	445,186.67	560,842.69	
88.00 266.70 10,315.28 735.55 226.58 -736.99 771.03 88.80 267.40 10,316.17 767.50 224.94 -768.93 801.16	681.00	85.70	266.80	10,313.58	704.64	228.34	-706.08	742.09	287.92	445,185.34	560,810.92	
88.80 267.40 10.316.17 767.50 224.94 -768.93 801.16	,712.00	88.00	266.70	10,315.28	735.55	226.58	-736.99	771.03	287.09	445,183.58	560,780.01	
	,744.00	88.80	267.40	10,316.17	767.50	224.94	-768.93	801.16	286.31	445,181.94	560,748.07	

ProDirectional Survey Report

PRODIRECTIONAL

Well No. 221H Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Grid Minimum Curvature WellPlanner1		(usft) (usft) 445,179.86 560.653.12		445,184.48 560,464.48	445,185.47 560,369.53	445,182.53 560,275.67	445,176.32 560,180.98	445,168.21 560,087.39	445,159.33 559,993.36	445,151.21 559,899.59	445,147.14 559,806.30	445,146.81 559,711.61	445,147.55 559,617.75	445,149.37 559,522.82	445,156.32 559,429.23	445,166.08 559,334.79	445,171.40 559,241.10	445,171.49 559,147.20	445,167.64 559,053.48	445,161.19 558,958.93	445,151.89 558.845.78	
Well No. 221H Well @ 3118.00usft (GL Well @ 3118.00usft (GL Grid Minimum Curvature WellPlanner1	zimuth	284.47	283.19	282.20	281.26	280.30	279.32	278.40	277.56	276.85	276.34	276.00	275.73	275.51	275.45	275.47	275.38	275.17	274.89	274.56	274.17	
Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:	Closure Distance	(usft) 892.17	983.67	1,076.82	1,170.00	1,261.65	1,353.90	1,445.13	1,537.02	1,629.03	1,721.23	1,815.34	1,908.79	2,003.43	2,097.27	2,192.21	2,285.97	2,379.48	2,472.51	2,566.21	2,678.32	
Local Co-ordinate Reference TVD Reference: MD Reference: North Reference: Survey Calculation Method: Detabase:	EW	(usft) -863.88	-957.73	-1,052.52	-1,147.47	-1,241.33	-1,336.02	-1,429.61	-1,523.64	-1,617.41	-1,710.70	-1,805.39	-1,899.25	-1,994.18	-2,087.77	-2,182.21	-2,275.90	-2,369.80	-2,463.52	-2,558.07	-2,671.22	
	SN	(ueft) 222.86	224.42	227.48	228.47	225.53	219.32	211.21	202.33	194.21	190.14	189.81	190.55	192.37	199.32	209.08	214.40	214.49	210.64	204.19	194.89	
	V. Sac	(usft) 862.47	956.30	1,051.07	1,146.02	1,239.89	1,334.62	1,428.26	1,522.34	1,616.16	1,709.47	1,804.16	1,898.02	1,992.93	2,086.48	2,180.86	2,274.50	2,368.40	2,462.15	2,556.74	2,669.94	
	5	(usft) 10,315.43	10,310.43	10,304.87	10,304.29	10,308.40	10,312.79	10,311.31	10,301.30	10,288.41	10,277.76	10,270.14	10,265.31	10,261.91	10,257.48	10,257.23	10,262.64	10,261.66	10,255.67	10,249.21	10,238.88	
	Azi (azimuth)	7) 270.10	271.80	271.90	269.30	267.10	265.40	264.70	264.50	265.60	269.40	270.20	270.70	271.50	277.00	274.80	271.70	268.40	266.90	265.30	265.30	
Matador Resources Eddy County, NM Brantley State Com No. 221H OH	<u>n</u> c	92.10	94.00	92.70	88.00	87.00	87.70	94.10	98.00	97.60	95.40	93.80	92.10	92.00	93.40	86.90	86.50	94.70	92.60	95.20	Last Survey(OH): 12540' MD, 10249.21' TVD 12,654.00	PTB(OH): 12654' MD, 10238.88' TVD
Company: Matador F Project: Eddy Cou Site: Brantley S Well: No. 221H Wellbore: OH Design: MWD	Survey	10,839.00	10,933.00	11,028.00	11,123.00	11,217.00	11,312.00	11,406.00	11,501.00	11,596.00	11,690.00	11,785.00	11,879.00	11,974.00	12,068.00	12,163.00	12,257.00	12,351.00	12,445.00	12,540.00	Last Survey(OH): 12,654.00	PTB(OH): 12654*

ProDirectional Survey Report

PRODIRECTIONAL

Well No. 221H Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Grid Minimum Curvature WellPlanner1			
Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:		Comment	41.02 Pro MWD First Survey: 9704' MD -519.39 HL Xing: 10488' MD 2,558.07 Last Survey(OH): 12540' MD, 10249.21' TVD 2,671.22 PTB(OH): 12654' MD, 10238.88' TVD
		nates +E/-W (usft)	41.02 -519.39 -2,558.07 -2,671.22
		Local Coordinates +N/-S +E (usft) (usft)	241.61 237.35 204.19 194.89
urces NM Com		Vertical Depth (usft)	9,691.95 10,268.28 10,249.21 10,238.88
Matador Resources Eddy County, NM Brantley State Com No. 221H OH	ttons	Measured Depth (usft)	9,704.00 10,488.00 12,540.00 12,654.00
Company: Project: Site: Well: Wellscore: Design:	Design Annotations		

ikobin**tori**opia



NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 3 0 2017

RECEIVED



Brantley State Com No. 221H(ST01) Eddy County, NM

January 29, 2017

Job No. LNM5130717

Survey Completion Report



Survey Gertification Letter

NM OIL CONSERVATION

ARTESIA DISTRICT

MAR 3 0 2017

RECEIVED

January 29, 2017



Operator Name:

Matador Resources

Well Name:

Brantley State Com 13-24S-27E RB No. 221H(ST01)

County/Parish:

Eddy County,

State:

NM

Rig Name:

Patterson 274

Job Number:

LNM5130717

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	12,280' MD - 15,278' MD	15,311' MD	01/24/17 - 01/29/17	MWD-OWSG

Sincerely,

Mike Coats Well Planning

Professional Directional

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



MAN OIL CONSERVATION. ARTESIA DISTRICT

MAR 3 () 2017

RECEIVED

Matador Resources

Eddy County, NM Brantley State Com No. 221H ST01 Survey: ProDirectional

Survey Report

08 February, 2017



Survey Report

PRODIRECTIONAL

Matador Resources **Brantley State Com** Eddy County, NM No. 221H ST01 Company: Wellbore: **Project:** Site: Well:

ST01-12280'-15278', Proj. 15311' Design:

Local Co-ordinate Reference: Survey Calculation Method: North Reference: TVD Reference: MD Reference: Database:

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well No. 221H

Minimum Curvature WellPlanner1

Mean Sea Level

System Datum: US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS) Eddy County, NM New Mexico East 3001 Map System: Geo Datum: Map Zone: Project

Grid Convergence: Longitude: Latitude: 444,957.00 usft 561,517.00 usft 13-3/16 " Northing: Easting:

Brantley State Com

104° 8° 3.858 W

0.11

32* 13' 23.330 N

32° 13' 23.330 N 104° 8' 3.858 W 3,089.00 usft Ground Level: Longitude: Latitude: usft 444,957.00 usft 561,517.00 usft Wellhead Elevation: Northing: Easting: 0.00 usft 0.00 usft 0.00 usft No. 221H ±€/-W S-/N+ Position Uncertainty Well Position Well

Slot Radius:

0.00 usft

Position Uncertainty:

Site Position:

Site

Map

48,144.00 Field Strength 60.05 Dip Angle 7.42 Declination £ 12/31/2016 Sample Date HDGM Model Name ST01 Magnetics Wellbore

12,257.00 Direction 269.64 £ Tie On Depth: (ueft) 0.00 ACTUAL ST01-12280'-15278', Proj. 15311' Depth From (TVD) Phase: 0.00 6. Vertical Section: Audit Notes: Version: Design

561,534.96

444,944.57

124.68

44,944.58

561,532.29 561,533.16

444,944.83

128.53 127.54

19.54 20.38

15.29 16.16

-12.17 -12.42 -12.43

> -16.08 -17.89

-15.21

1,499.83 ,599.83

104.87 106.54 85.74

0.57 0.47 1.62

1,500.00 1,600.00 1,700.00

1,799.74 1,699.81

ProDirectional

Survey Report



Matador Resources Eddy County, NM Company: Project: Sitte:

Brantley State Com No. 221H

ST01 Wellbore:

ST01-12280'-15278', Proj. 15311' Design:

2/8/2017

Date

Survey Program

Local Co-ordinate Reference: TVD Reference:

North Reference: MD Reference:

Survey Calculation Method: Database:

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well No. 221H

Minimum Curvature WellPlanner1

561,530.02 561,531.55 561,517.00 561,517.33 561,517.80 561,517.93 561,518.37 561,519.71 561,521,53 561,523.22 561,524.81 561,526.27 561,527.45 561,528.74 561,530.91 Easting (usft) 444,955.88 144,956.11 444,951.61 444,948.72 444,945.27 444,957.00 444,956.55 144,955.73 144,954.93 444,954.13 444,953.05 444,950.05 444,947.40 444,946.12 144,955.87 Northing (usft) 116.82 120.18 128.88 9.0 143.23 144.39 123.06 115.19 114.54 114.76 123.64 125.21 126.39 128.04 140.51 Closure Distance Closure Azimuth £ 0.56 1.38 1.46 1.63 4.98 6.85 8.75 10.73 12.55 14.37 16.18 0.0 3.00 17.66 18.69 (Fest) Gyrodata gyro-compassing and drop 0.93 10.45 11.74 13.02 14.55 0.00 0.33 0.80 1.37 2.71 4.53 6.22 7.81 9.27 13.91 E/W (usft) MWD - OWSG MWD - OWSG Description -1.13 -0.89 -3.95 -5.39 -8.28 -9.60 -10.88 -11.73 -2.87 -2.07 -1.27 -0.92 -1.36 -7.78 4.51 -6.20 -10.40 -11.69 -12.96 -13.84 -14.47 0.80 -2.70 -9.24 MWD - OWSG GYD_DP_MS MWD - OWSG **Tool Name** V. Sec (usft) 799.93 899.90 999.89 1,199.85 1,399.83 100.00 199.99 299.99 399,99 499.98 599.96 699.94 78.660, 1,299.84 ₽ ₩ ₩ 146.18 143.23 149.33 112.87 118.17 129.25 140.08 125.82 145.91 144.57 140.64 358.21 114.24 Azi (azimuth) Survey (Wellbore) 15,311.00 Survey #1 (ST01) 9,660.00 Survey #1 (OH) 12,257.00 Survey #2 (OH) 0.25 0.64 0.30 1.1 5 1.20 1.17 1.07 1.09 5. 0.74 0.47 0.51 (nsft) ž E 9,704.00 12,280.00 100.00 700.00 800.00 900.00 1,100.00 1,200.00 1,300.00 ,400.00 200.00 300.00 400.00 500.00 600.00 00.000, From (usft) MD (usft) Survey

561,538.55	561,542.48	
444,945.04	444,945.95	
119.04	113.45	:
24.65	77.72	
21.55	25.48	
-11.96	-11.05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
-21.48	-25.41	
1,799.74	1,899.66	
80.64	72.46	
2.53	2.10	
1,800.00	1,900.00	

Page 3

2/8/2017 3:07:20PM

Survey Report

PRODIRECTIONAL

No. 221H ST01 ST01-12280-15278', Proj. 15311' Matador Resources Eddy County, NM Brantley State Com

Company:
Project:
Site:
Well:

Design:

Local Co-ordinate Reference: North Reference: Survey Calculation Method: Database: TVD Reference: MD Reference:

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Grid Minimum Curvature WellPlanner1

Survey										
(tysn)	<u> </u>	Azi (azimuth) (°)	TVD (fish)	V. Sec (usft)	N/S (ueft)	EAW (usft)	Closure Distance (usft)	Closure Azimuth	Northing (usft)	Easting (usft)
2,000.00	2.30	69.94	1,999.59	-29.05	-9.81	29.11			444,947.19	561,546.11
2,100.00	2.31	46.18	2,099.51	-32.40	-7.73	32.	32.45 33.36		444,949.27	561,549.45
2,200.00	1.89	11.86	2,199.44	-34.21	4.72	34.24	24 34.56	97.85	444,952.28	561,551.24
2,300.00	2.35	339.78	2,299.38	-33.86	-1.18	33.87	87 33.89	92.00	444,955.82	561,550.87
2,400.00	1.88	340.49	2,399.31	-32.63	2.29	32.61	61 32.69	85.99	444,959.29	561,549.61
2,500.00	1.78	343.50	2,499.26	-31.66	5.32	31.63	63 32.07	80.45	444,962.32	561,548.63
2,600.00	2.19	345.92	2,599.20	-30.77	8.67	30.72	31.92	74.25	444,965.67	561,547.72
2,700.00	4.42	349.46	2,699.03	-29.64	14.31	29.55	55 32.83	64.16	444,971.31	561,546.55
2,800.00	5.93	355.97	2,798.62	-28.63	23.25	28.48	48 36.77	50.78	444,980.25	561,545.48
2,900.00	5.92	354.93	2,898.08	-27.87	33.54	27.66	66 43.48	39.52	444,990.54	561,544.66
3,000.00	5.53	342.69	2,997.59	-26.04	43.28	25.77	77 50.37	30.78	445,000.28	561,542.77
3,100.00	5.20	335.82	3,097.15	-22.81	52.01	22.48	48 56.66	23.38	445,009.01	561,539.48
3,200.00	5.28	332.56	3,196.73	-18.88	60.23	18.51	51 63.01	17.08	445,017.23	561,535.51
3,300.00	5.13	326.85	3,296.32	-14.37	90'89	13.94	94 69.47	11.58	445,025.06	561,530.94
3,400.00	5.35	325.93	3,395.90	-9.36	75.66	κό	8.89 76.18	6.70	445,032.66	561,525.89
3,500.00	5.47	326.82	3,495.46	4.19	83.51	e,	3.67 83.59	2.51	445,040.51	561,520.67
3,600.00	5.50	319.87	3,595.00	1.46	91.16	-2.03	91.19	358.72	445,048.16	561,514.97
3,700.00	5.45	317.17	3,694.54	7.73	98.31	-8.35	35 98.66	355.15	445,055.31	561,508.65
3,800.00	5.57	316.31	3,794.08	14.27	105.30	-14.93	93 106.36	351.93	445,062.30	561,502.07
3,900.00	5.61	326.62	3,893.61	20.26	112.89	-20.97	97 114.83	349.48	445,069.89	561,496.03
4,000.00	5.77	340.08	3,993.12	24.61	121.70	-25.37	37 124.32	348.22	445,078.70	561,491.63
4,100.00	4.71	358.28	4,092.71	26.39	130.53	-27.21	21 133.34	348.23	445,087.53	561,489.79
4,200.00	2.94	26.28	4,192.49	25.34	136.94	-26.20	20 139.42	349.17	445,093.94	561,490.80
4,300.00	2.83	21.75	4,292.36	23.26	141.53	-24.15	143.57	350.32	445,098.53	561,492.85
4,400.00	2.54	20.48	4,392.25	21.54	145.90	-22.46	147.62	351.25	445,102.90	561,494.54
4,500.00	3.21	22.22	4,492.13	19.68	150.57	-20.62	52 151.97	352.20	445,107.57	561,496.38
4,600.00	3.31	350.22	4,591.97	19.07	156.00	-20.05	157.29	352.67	445,113.00	561,496.95

Survey Report

PRODIRECTIONAL.

Matador Resources Eddy County, NM Brantley State Com No. 221H ST01 ST01-12280'-15278', Proj. 15311' Company:
Project:
Site:
Well:
Wellbore:
Design:

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:

Well No. 221H
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Grid
Minimum Curvature
WellPlanner1

						Carabass.		MeilLiatinet		
Survey										
MD (#\$#)	<u> </u>	Azi (azimuth) (*)	O (feat)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth	Northing (usft)	Easting (usft)
4,700.00	-	3.53 353.12	4,691.80	19.90	161.90	-20.91		352.64	445,118.90	561,496.09
4,800.00	·S	5.33 338.24	4,791.50	21.94	169.27	-23.00	170.83	352.26	445,126.27	561,494.00
4,900.00	5	5.02 340.71	4,891.09	25.05	177.72	-26.17	179.63	351.62	445,134.72	561,490.83
5,000.00	4	4.62 334.22	4,990.73	28.20	185.47	-29.37	187.79	351.00	445,142.47	561,487.63
5,100.00	4	4.27 328.35	5,090.43	31.86	192.27	-33.07	195.09	350.24	445,149.27	561,483.93
5,200.00	4	4.13 331.90	5,190.17	35.47	198.62	-36.72	201.98	349.52	445,155.62	561,480.28
5,300.00	e	334.13	5,289.92	38.63	204.88	-39.91	208.73	348.98	445,161.88	561,477.09
5,400.00	က	3.72 324.85	5,389.70	41.95	210.61	43.28	215.01	348.39	445,167.61	561,473.72
5,500.00	2	2.74 332.86	5,489.54	44.88	215.39	46.24	220.30	347.88	445,172.39	561,470.76
2,600.00	2	2.27 353.27	5,589.44	46.18	219.49	-47.56	224.58	347.77	445,176.49	561,469.44
5,700.00	2	2.10 341.51	5,689.37	46.97	223.19	-48.37	228.37	347.77	445,180.19	561,468.63
5,800.00	-	1.55 349.84	5,789.32	47.77	226.26	49.19	231.54	347.73	445,183.26	561,467.81
5,900.00	-	1.74 332.91	5,889.28	48.68	228.94	-50.12	234.36	347.65	445,185.94	561,466.88
6,000.00	-	1.33 335.26	5,989.24	49.84	231.35	-51.30	236.97	347.50	445,188.35	561,465.70
6,100.00	-	1.33 324.26	6,089.22	50.99	233.34	-52.46	239.17	347.33	445,190.34	561,464.54
6,200.00	0	0.94 298.32	6,189.20	52.39	234.67	-53.86	240.78	347.07	445,191.67	561,463.14
6,300.00	0	0.70 302.75	6,289.19	53.62	235.39	-55.10	241.76	346.83	445,192.39	561,461.90
6,400.00	0	0.35 242.63	6,389.18	54.40	235.58	-55.88	242.12	346.66	445,192.58	561,461.12
6,500.00	0	0.42 220.70	6,489.18	54.91	235.17	-56.39	241.83	346.52	445,192.17	561,460.61
00'009'9	0	0.12 325.59	6,589.18	55.21	234.97	-56.69	241.72	346.44	445,191.97	561,460.31
6,700.00	-	1.46 15.58	6,689.17	54.92	236.29	-56.41	242.93	346.57	445,193.29	561,460.59
6,800.00	-	1.47 15.07	6,789.14	54.23	238.75	-55.73	245.17	346.86	445,195.75	561,461.27
6,900.00	-	1.47 21.03	6,889.10	53.42	241.19	-54.94	247.37	347.17	445,198.19	561,462.06
7,000.00	-	1.39 15.57	6,989.07	52.62	243.55	-54.15	249.50	347.46	445,200.55	561,462.85
7,100.00	-	13.42	7,089.04	52.02	245.84	-53.56	251.60	347.71	445,202.84	561,463.44
7,200.00	-	1.94 356.91	7,189.00	51.82	248.64	-53.39	254.30	347.88	445,205.64	561,463.61
7,300.00	-	1.93 353.71	7,288.95	52.08	252.00	-53.66	257.65	347.98	445,209.00	561,463.34

Survey Report

PRODIRECTIONAL

Well No 221H

Local Co-or TVD Referen MD Referen North Refer Survey Call Database:

Matador Resources Eddy County, NM Brantley State Com No. 221H ST01 ST01-12280-15278', Proj. 15311'

usft (GL: 3089' + KB: 29' (Patt274)) usft (GL: 3089' + KB: 29' (Patt274))

e

-ordinate Reference:	Well No. 221H
brance:	Well @ 3118.00u
rence:	Well @ 3118.00u
ference:	Grid
Salculation Method:	Minimum Curvatu
22	WellPlanner1

MD (usft)	ž C	Azi (azimuth) (*)	ov Ov (first)	V. Sec (ueft)	N/S (usft)	EW (usft)	Closure Distance (usft)	Closure Azimuth	Northing (usft)	Easting (usft)
7,400.00	2.23	321.91	7,388.88	53.44	255.21	-55.05	261.08	347.83	445,212.21	561,461.95
7,500.00	2.15	326.78	7,488.81	55,65	258.31	-57.28	264.58	347.50	445,215.31	561,459.72
7,600.00	1.81	341.74	7,588.75	57,15	261.38	-58.80	267.91	347.32	445,218.38	561,458.20
7,700.00	1.60	332.16	7,688.71	58.28	264.11	-59.95	270.83	347.21	445,221.11	561,457.05
7,800.00	1.31	321.73	7,788.68	59.63	266.24	-61.31	273.21	347.03	445,223.24	561,455.69
7,900.00	0.68	285.56	7,888.66	06'09	267.30	-62.58	274.53	346.82	445,224.30	561,454.42
8,000.00	0.94	269.74	7,988.65	62.29	267.45	-63.98	275.00	346.55	445,224.45	561,453.02
8,100.00	0.80	185.35	8,088.64	63.18	266.76	-64.86	274.53	346.33	445,223.76	561,452.14
8,200.00	1.25	187.28	8,188.63	63.40	264.98	-65.07	272.85	346.20	445,221.98	561,451.93
8,300.00	2.13	117.14	8,288.59	61.90	263.05	-63.55	270.62	346.42	445,220.05	561,453.45
8,400.00	2.34	128.72	8,388.52	58.66	260.92	-60.30	267.80	346.99	445,217.92	561,456.70
8,500.00	2.70	129.37	8,488.42	55.27	258.15	-56.89	264.35	347.57	445,215.15	561,460.11
8,600.00	2.76	134.28	8,588.31	51,74	254.98	-53.35	260.50	348.18	445,211.98	561,463.65
8,700.00	2.26	125.04	8,688.21	48.42	252.16	-50.01	257.08	348.78	445,209.16	561,466.99
8,800.00	1.56	123.49	8,788.15	45.68	250.28	47.26	254.70	349.31	445,207.28	561,469.74
8,900.00	0.79	108.99	8,888.13	43.90	249.31	45.47	253.42	349.66	445,206.31	561,471.53
9,000.00	0.56	89.97	8,988.13	42.76	249.08	44.33	253.00	349.91	445,206.08	561,472.67
9,100.00	0.64	91.79	9,088.12	41.72	249.06	43.28	252.80	350.14	445,206.06	561,473.72
9,200.00	0.28	136.13	9,188.12	40.99	248.87	42.56	252.48	350.30	445,205.87	561,474.44
9,300.00	0.68	160.76	9,288.11	40.63	248.13	-42.19	251.70	350.35	445,205.13	561,474.81
9,400.00	1.17	149.52	9,388.10	39.93	246.69	41.48	250.16	350.46	445,203.69	561,475.52
9,500.00	1.36	148.14	9,488.08	38.79	244.81	40.33	248.11	350.64	445,201.81	561,476.67
9,600.00	1.35	150.07	9,588.05	37.59	242.78	-39.12	245.91	350.85	445,199.78	561,477.88
9,660.00	0.99	176.22	9,648.04	37.21	241.65	-38.73	244.73	350.89	445,198.65	561,478.27
9,704.00	6.10	278.30	9,691.95	39.50	241.61	41.02	245.06	350.36	445,198.61	561,475.98
9,736.00	10.00	280.70	9,723.63	43.91	242.37	45.44	246.59	349.38	445,199.37	561,471.56
9,768.00	13.60	281.80	9,754.95	50.32	243.65	-51.85	249.11	347.99	445,200.65	561,465.15

Survey Report

PRODIRECTIONAL

ST01-12280'-15278', Proj. 15311'

Matador Resources Eddy County, NM Brantley State Com No. 221H ST01

Company:
Project:
Site:
Well:
Wellichere:
Design:

3.00usft (GL: 3089' + KB: 29' (Patt274)) 3.00usft (GL: 3089' + KB: 29' (Patt274)) Well No. 221H

urvature WellPlanner1

	2	Local Co-ordinate Reference: Well No. 221
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Survey										
MD (nsft)	<u> </u>	Azi (azimuth)	dVT (See)	V. Sec (usft)	S/N (Jan)	E/W	Closure Distance	Closure Azimuth	Northing (usft)	Easting
9,799.00	17.00	281.50	9,784.85	58.32	245.30	-59.86		346.29	445,202.30	561,457.14
9,831.00	20.30	280.30	9,815,16	68.36	247.23	-69.91	256.92	344.21	445,204.23	561,447.09
9,863.00	23.80	279.50	9,844.82	80.18	249.29	-81.74	262.35	341.85	445,206.29	561,435.26
9,895.00	28.00	278.90	9,873.60	93.96	251.52	-95.54	269.05	339.20	445,208.52	561,421.46
9,926.00	30.90	277.70	9,900.59	109.02	253.71	-110.62	276.78	336.44	445,210.71	561,406.38
9,958.00	31.30	276.00	9,927.99	125.42	255.68	-127.03	285.50	333.58	445,212.68	561,389.97
00.066,6	32.60	272.60	9,955.14	142.29	256.94	-143,91	294.50	330.75	445,213.94	561,373.09
10,021.00	32.80	269.30	9,981.23	159.03	257.22	-160.65	303.26	328.01	445,214.22	561,356.35
10,053.00	35.00	268.20	10,007.79	176.87	256.82	-178.49	312.76	325.20	445,213.82	561,338.51
10,085.00	38.80	267.70	10,033.38	196.08	256.13	-197.69	323.55	322.34	445,213.13	561,319.31
10,117.00	43.30	267.10	10,057.50	217.07	255.17	-218.68	336.05	319.40	445,212.17	561,298.32
10,148.00	45.50	268.10	10,079.65	238.74	254.27	-240.35	349.88	316.61	445,211.27	561,276.65
10,195.00	47.30	269.00	10,112.06	772.77	253.41	-274.37	373.49	312.73	445,210.41	561,242.63
10,243.00	50.50	268.80	10,143.61	308.93	252.71	-310.53	400.37	309.14	445,209.71	561,206.47
10,291.00	53.00	265.90	10,173.33	346,59	250.96	-348.17	429.19	305.78	445,207.96	561,168.83
10,339.00	56.20	264.70	10,201.13	385.60	247.74	-387.16	459.64	302.62	445,204.74	561,129.84
10,386.00	61.00	264.90	10,225.61	425.56	244.11	-427.10	491.94	299.75	445,201.11	561,089.90
10,434.00	64.90	266.00	10,247.44	468.18	240.73	469.71	527.80	297.14	445,197.73	561,047.29
10,481.00	69,10	266.20	10,265.80	511.36	237.79	-512.86	565.30	294.87	445,194.79	561,004.14
10,529.00	71.40	266.40	10,282.02	556.45	234.87	-557.94	605.36	292.83	445,191.87	560,959.06
10,544.00	72.40	266.70	10,286.68	570.69	234.01	-572.17	618.18	292.24	445,191.01	560,944.83
10,649.00	81.80	268.40	10,310.09	672.85	229.67	-674.31	712.35	288.81	445,186.67	560,842.69
10,681.00	85.70	266.80	10,313.58	704.64	228.34	-706.08	742.09	287.92	445,185.34	560,810.92
10,712.00	88.00	266.70	10,315.28	735.55	226.58	-736.99	771.03	287.09	445,183.58	560,780.01
10,744.00	88.80	267.40	10,316.17	767.50	224.94	-768.93	801.16	286.31	445,181.94	560,748.07
10,839.00	92.10	270.10	10,315.43	862.47	222.86	-863.88	892.17	284.47	445,179.86	560,653.12
10,933.00	94.00	271.80	10,310.43	956.30	224.42	-957.73	983.67	283.19	445,181.42	560,559.27

Survey Report

PRODIRECTIONAL

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Detabase:

ST01-12280'-15278', Proj. 15311'

Matador Resources Eddy County, NM Brantley State Com No. 221H ST01

Company:
Project:
Site:
Well:
Wellbore:

Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))

Grid Minimum Curvature WellPlanner1

Survey										
MD	꼰	Azi (azimuth)	5£	V. Sec	ØZ.	EW	Closure Distance	Closure Azimuth	Northing	Easting
(neft)	E	ε	(nst)	(net)	(men)	(nst)	(Ten)		(nett)	(nett)
11,028.00	92.70	271.90	10,304.87	1,051.07	227.48	-1,052.52	1,076.82	282.20	445,184.48	560,464.48
11,123.00	88.00	269.30	10,304.29	1,146.02	228.47	-1,147.47	1,170.00	281.26	445,185.47	560,369.53
11,217.00	87.00	267.10	10,308.40	1,239.89	225.53	-1,241.33	1,261.65	280.30	445,182.53	560,275.67
11,312.00	87.70	265.40	10,312.79	1,334.62	219.32	-1,336.02	1,353.90	279.32	445,176.32	560,180.98
11,406.00	94.10	264.70	10,311.31	1,428.26	211.21	-1,429.61	1,445.13	278.40	445,168.21	560,087.39
11,501.00	98.00	264.50	10,301.30	1,522.34	202.33	-1,523.64	1,537.02	277.56	445,159.33	559,993.36
11,596.00	97.60	265.60	10,288.41	1,616.16	194.21	-1,617.41	1,629.03	276.85	445,151.21	559,899.59
11,690.00	95.40	269.40	10,277.76	1,709.47	190.14	-1,710.70	1,721.23	276.34	445,147.14	559,806.30
11,785.00	93.80	270.20	10,270.14	1,804.16	189.81	-1,805.39	1,815.34	276.00	445,146.81	559,711.61
11,879.00	92.10	270.70	10,265.31	1,898.02	190.55	-1,899.25	1,908.79	275.73	445,147.55	559,617.75
11,974.00	92.00	271.50	10,261.91	1,992.93	192.37	-1,994.18	2,003.43	275.51	445,149.37	559,522.82
12,068.00	93.40	277.00	10,257.48	2,086.48	199.32	-2,087.77	2,097.27	275.45	445,156.32	559,429.23
12,163.00	86.90	274.80	10,257.23	2,180.86	209.08	-2,182.21	2,192.21	275.47	445,166.08	559,334.79
12,257.00	86.50	271.70	10,262.64	2,274.50	214.40	-2,275.90	2,285.97	275.38	445,171.40	559,241.10
12,280.00	85.00	271.50	10,264.35	2,297.43	215.04	-2,298.82	2,308.86	275.34	445,172.04	559,218.18
First ST01 Survey: 12280' MD	3y: 12280' MD									
12,295.00	83.50	273.00	10,265.85	2,312.34	215.63	-2,313.74	2,323.76	275.32	445,172.63	559,203.26
12,310.00	84.00	274.80	10,267.48	2,327.20	216.64	-2,328.61	2,338.67	275.32	445,173.64	559,188.39
12,349.00	87.30	278.10	10,270.44	2,365.81	221.01	-2,367.24	2,377.54	275.33	445,178.01	559,149.76
12,444.00	88.10	277.20	10,274.25	2,459.80	233.65	-2,461.32	2,472.38	275.42	445,190.65	559,055.68
12,538.00	91.00	273.60	10,274.99	2,553.30	242.49	-2,554,87	2,566.36	275,42	445,199.49	558,962.13
12,632.00	92.80	271.00	10,271.87	2,647.13	246.26	-2,648.73	2,660.16	275.31	445,203.26	558,868.27
12,727.00	93.70	269.20	10,266.49	2,741.97	246.43	-2,743.58	2,754.62	275.13	445,203.43	558,773.42
12,821.00	93.80	268.10	10,260.34	2,835.76	244.22	-2,837.35	2,847.84	274.92	445,201.22	558,679.65
12,915.00	92.10	267.10	10,255.50	2,929.57	240.29	-2,931,14	2,940.97	274.69	445,197.29	558,585.86
13,010.00	95.40	268.80	10,249.29	3,024.31	236.89	-3,025.85	3,035.11	274.48	445,193.89	558,491.15
13,104.00	93.70	269.00	10,241.83	3,118.00	235.09	-3,119,54	3,128.38	274.31	445,192.09	558,397.46

556,286.33

556,418.98 556,325.24

445,164.10 445,166.55 445,167.75

272.33

5,102.23 5,195.99 5,234.91

-5,098.02 -5,191.76 -5,230.67

207.10

5,096.62 5,190.34 5,229.24

10,142.54

271.20

94.80

15,089.00 15,183.00 15,222.00

10,135.98 10,133.62

271.80 27.1.72

93.73

93.20

209.55

272.31 272.31 556,230.50

445,169.36

272.30

5,290.77

-5,286.50

212.36

5,285.06

10,129.60

271.60

Last Survey(ST01): 15278' MD, 10130' TVD

HL Xing: 15222' MD, 10134' TVD 15,278.00 94.50

ProDirectional

Survey Report

PRODIRECTIONAL

Company: Project: Site: Well: Wellichelichelichelichelichelichelichelic	Matador F Eddy Cou Brantley S No. 221H ST01 ST01-122	Matador Resources Eddy County, NM Brantley State Com No. 221H ST01 ST01-12280'-15278', Proj. 15311'	'roj. 15311'				Local Co-ordinate Reference TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:	Local Co-ordinate Reference: TVD Reference: North Reference: Survey Calculation Method: Database:	Well No. 221H Well @ 3118.00usft Well @ 3118.00usft Grid Minimum Curvature	Well No. 221H Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274)) Grid Minimum Curvature WellPlanner1	(Patt274)) r (Patt274))	
Survey												
MD (usft)		3 E	Azi (azimuth) (")	CVT (first)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth	Northing (usft)	Easting (usft)	
13,18	13,199.00	93.80	271.00	10,235.62	3,212.79	235.09	-3,214.33	3,222.92	274.18	445,192.09	558,302.67	
13,29	13,293.00	93.20	271.40	10,229.88	3,306.58	237.06	-3,308.13	3,316.62	274.10	445,194.06	558,208.87	
13,38	13,387.00	91.90	270.20	10,225.70	3,400.46	238.37	-3,402.03	3,410.37	274.01	445,195.37	558,114.97	
13,48	13,482.00	94.70	270.10	10,220.23	3,495.29	238.62	-3,496.86	3,504.99	273.90	445,195.62	558,020.14	
13,57	13,576.00	94.20	270.90	10,212.94	3,589.00	239.44	-3,590.57	3,598.55	273.82	445,196.44	557,926.43	
13,6	13,670.00	92.30	272.20	10,207.61	3,682.79	241.98	-3,684.38	3,692.32	273.76	445,198.98	557,832.62	
13,76	13,765.00	89.10	272.30	10,206.45	3,777.67	245.70	-3,779.29	3,787.27	273.72	445,202.70	557,737.71	
13,8	13,859.00	89.60	272.90	10,207.51	3,871.54	249.97	-3,873.18	3,881.24	273.69	445,206.97	557,643.82	
13,94	13,954.00	91.60	271.90	10,206.52	3,966.42	253.95	-3,968.09	3,976.21	273.66	445,210.95	557,548.91	
14,04	14,048.00	90.20	270.40	10,205.04	4,060.37	255.83	-4,062.05	4,070.10	273.60	445,212.83	557,454.95	
14,14	14,143.00	93.10	266.70	10,202.31	4,155.28	253.43	4,156.96	4,164.68	273.49	445,210.43	557,360.04	
14,28	14,237.00	90.70	267.80	10,199.19	4,249.14	248.93	4,250.79	4,258.07	273.35	445,205.93	557,266.21	
14,33	14,332.00	90.80	264.10	10,197.95	4,343.92	242.22	4,345.53	4,352.27	273.19	445,199.22	557,171.47	
14,42	14,427.00	88.80	265.40	10,198.28	4,438.57	233.53	-4,440.12	4,446.26	273.01	445,190.53	557,076.88	
14,52	14,521.00	92.30	263.80	10,197.38	4,532.18	224.68	4,533.68	4,539.25	272.84	445,181.68	556,983.32	
14,61	14,616.00	94.30	264.70	10,191.91	4,626.60	215.18	4,628.04	4,633.04	272.66	445,172.18	556,888.96	
14,71	14,710.00	96.80	266.90	10,182.82	4,719.93	208.33	4,721.34	4,725.93	272.53	445,165.33	556,795.66	
14,80	14,805.00	97.70	269.20	10,170.82	4,814,13	205.12	-4,815.51	4,819.88	272.44	445,162.12	556,701.49	
14,90	14,900.00	96.50	270.10	10,159.08	4,908.40	204.54	4,909.78	4,914.04	272.39	445,161.54	556,607.22	
14,99	14,994.00	94.40	270.90	10,150.16	5,001.96	205.36	-5,003.35	5,007.56	272.35	445,162.36	556,513.65	
												-

Survey Report

PRODIRECTIONAL

Matador Resources Eddy County, NM Brantley State Com No. 221H ST01 Company:
Project:
Site:
Well:
Wellbore:
Design:

ST01-12280'-15278', Proj. 15311'

Local Co-ordinate Reference: TVD Reference: North Reference: Survey Calculation Method: MD Reference: Database:

Well No. 221H
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patt274))
Grid
Minimum Curvature
WellPlanner1

Survey										
MD (usft)	J E	Azi (azimuth) (°)	CATT (frem)	V. Sec (usft)	N/S (usft)	E/W	Closure Distance (usft)	Closure Distance Closure Azimuth (*)	Northing (usft)	Easting (usft)
15,311.00	94.50	271.60	10,127.01	5,317.94	213.28	-5,319.39	5,323.66	272.30	445,170.28	556,197.61
PTB: 15311' MD, 10127' TVD), 10127' TVD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +Nu-S +E/-W	₹ \$	Comment
12,280.00	10,264.35	46.	8.82	First ST01 Survey: 12280' MD
15,222.00	10,133.62	210.75 -5,	230,67	-6,230,67 HL Xing: 16222' MD, 10134' TVD
15,278.00	10,129.60		286,50	-5,286,50 Last Survey(ST01); 15278' MD, 10130' TVD
15,311.00	10,127,01	Ť	-5,319.39	PTB: 15311' MD, 10127' TVD

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