

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 06 2017

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. SHL: fee BHL: NMNM-117120
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator: MATADOR PRODUCTION COMPANY		7. If Unit or CA Agreement, Name and No. will comm. w/ fee lease
3a. Address: 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240		8. Lease Name and Well No. Zach McCormick Fed Com 121H
3b. Phone No. (include area code) 972 371 5241		9. API Well No. 30-015- 44244
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 712' FNL & 351' FWL 18-24S-29E At proposed prod. zone 661' FNL & 240' FEL 18-24S-29E		10. Field and Pool, or Exploratory 50371 PIERCE CROSSING; BONE SPRING
14. Distance in miles and direction from nearest town or post office* 2 AIR MILES E OF MALAGA, NM		11. Sec., T. R. M. or Blk. and Survey or Area SHL: Lot 1 18-24S-29E NMPM BHL: NENE 18-24S-29E NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) SHL: 351' BHL: 240'	16. No. of acres in lease BLM lease = 520 acres comm. area = 159.60 acres	17. Spacing Unit dedicated to this well Lot 1, NENW, & N2NE4 18-24S-29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 29' (Zach Mc'k 1) BHL: 4660' (ditto)	19. Proposed Depth TVD: 8340' MD: 13216'	20. BLM/BIA Bond No. on file BLM NMB-001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2953' UNGRADED	22. Approximate date work will start* 12/01/2016	23. Estimated duration 3 MONTHS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature:	Name (Printed/Typed) BRIAN WOOD (PHONE: 505 466-8120)	Date 08/12/2016
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Title: CONSULTANT (FAX: 505 466-9682)

Approved by (Signature):	Name (Printed/Typed) Cody R. Layton	Date 06/02/17
Title: FIELD MANAGER	Office BLM-CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

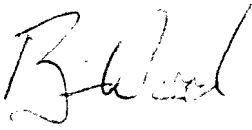
**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

August 12, 2016

To Who it May Concern regarding Zach McCormick Fed Com 121H:

Matador Resources Company has a private surface owner agreement with Evelyn Kay Walker Faulk (P. O. Box 115, Malaga NM 88263) for the existing road in NENE Section 13, T. 24 S., R. 28 E.; Eddy County, NM and with Roy Burkham (P. O. Box 84, Malaga NM 88263) for the existing road and existing pad in Lot 1 Section 18, T. 24 S., R. 29 E., Eddy County, NM.

A handwritten signature in black ink, appearing to read "B. Wood", written in a cursive style.

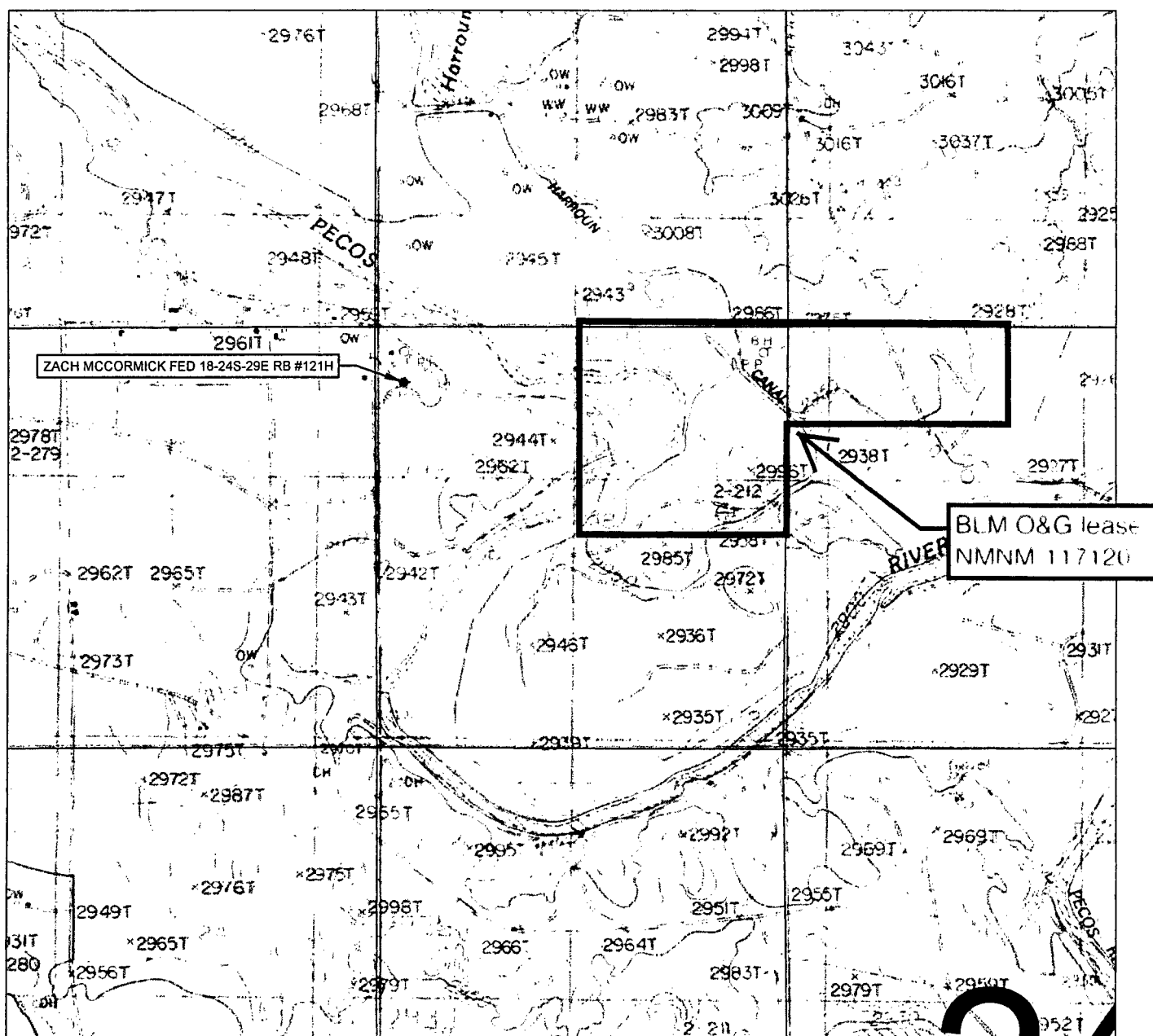
Brian Wood

Operating Rights

Matador Production Company proposed this well to its partners and is negotiating a form of Joint Operating Agreement naming Matador Production Company as the Operator. Per our discussions with our partners, all parties are agreeable to name Matador Production Company as Operator for this well. Matador's partners include: Horned Frog Oil and Gas, LP, RSC Resources LP, Amy Flores, Marty Young, BucJag Investments, LLC, and COG.

Please let us know if you have any questions or concerns.

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #121H

SECTION 18 TWP 24-S RGE 29-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 2953'
 DESCRIPTION 712' FNL & 351' FWL

LATITUDE N 32.2229376 LONGITUDE W 104.0306372



SCALE: 1" = 2000'
 0' 1000' 2000'



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.

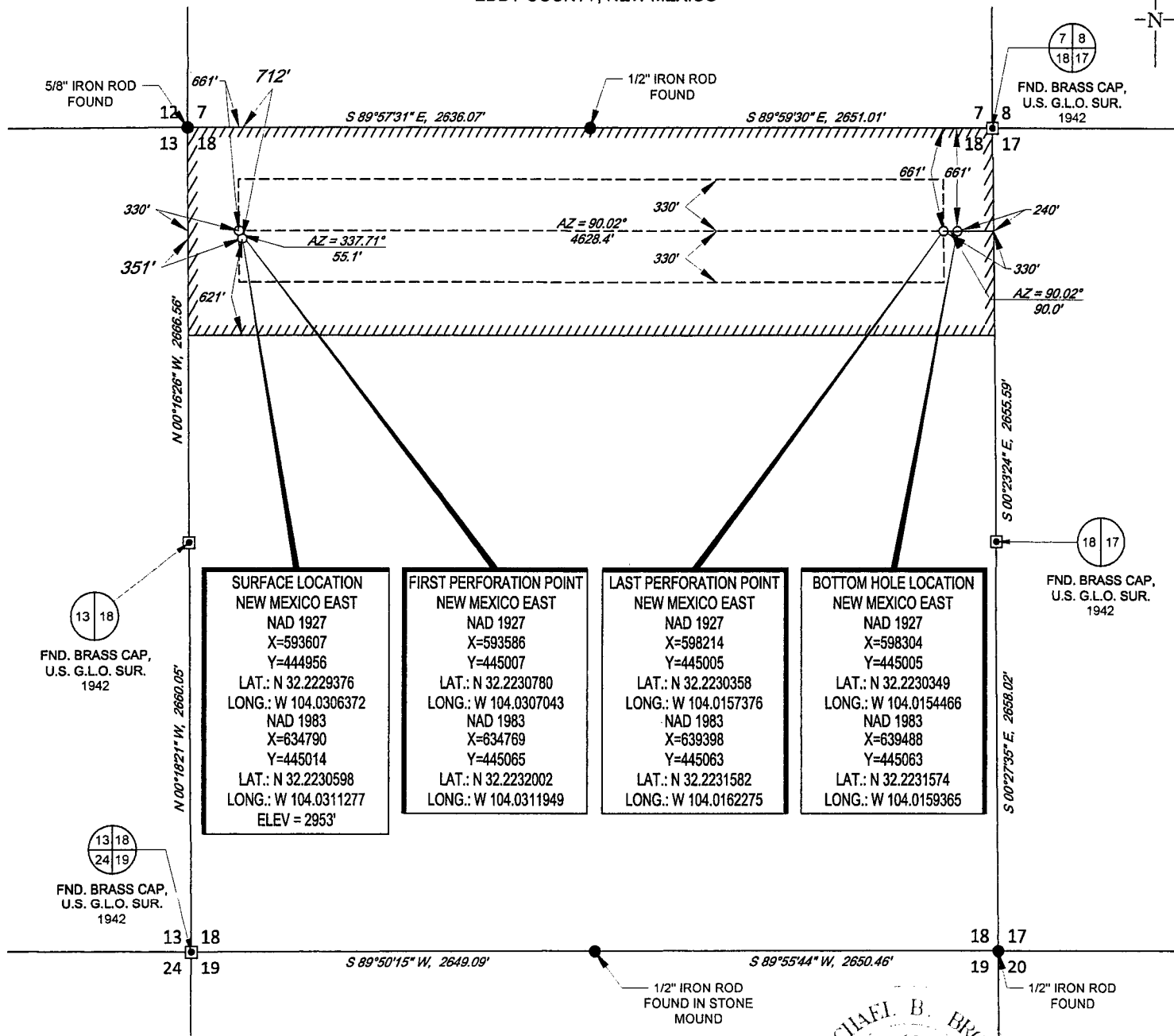
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET.

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SCALE: 1" = 1000'
0' 500' 1000'



SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #121H

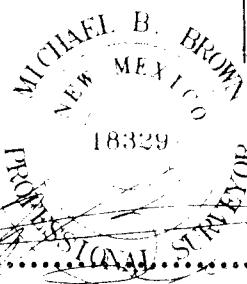
SECTION 18 TWP 24-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 712' FNL & 351' FWL

DISTANCE & DIRECTION

.....
.....
.....

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.

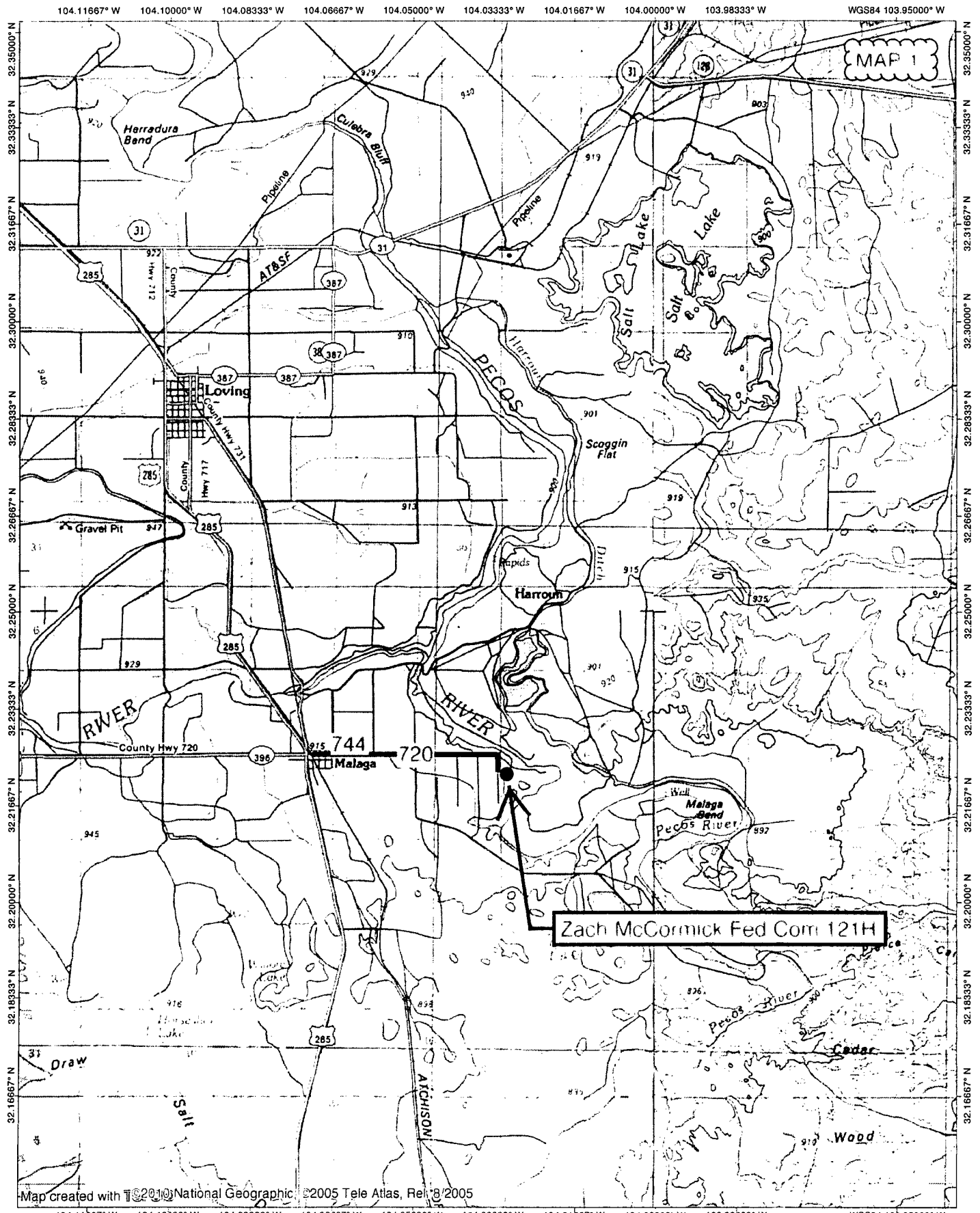
AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.



Michael Blake Brown, P.S. No. 18329
MAY 09, 2016



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Map created with TSC2010 National Geographic ©2005 Tele Atlas, Rel: 8/2005

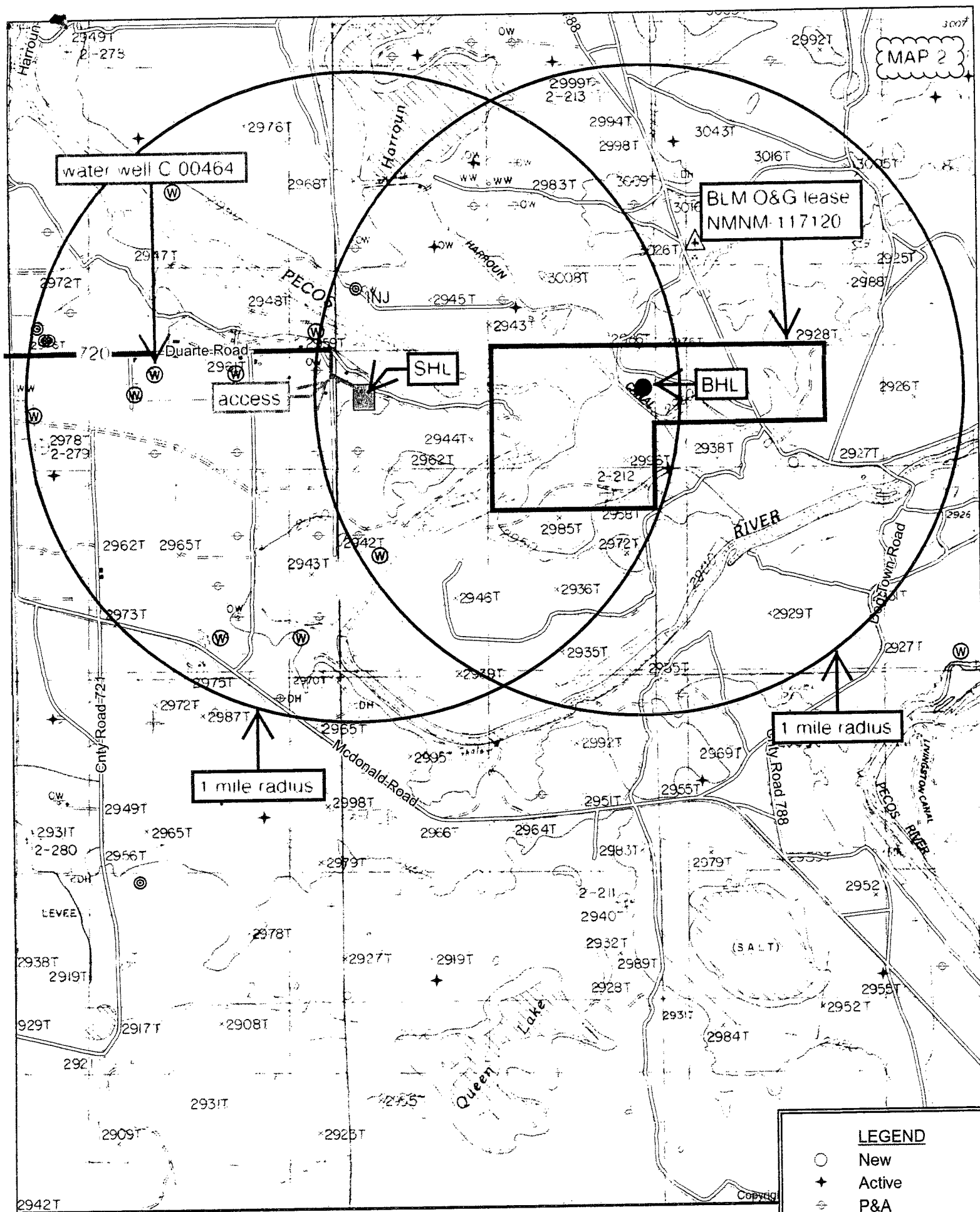
NATIONAL
GEOGRAPHIC

0.0 0.5 1.0 1.5 2.0 2.5 3.0 miles
0 1 2 3 4 5 km

TN MN

7.5°

12/18/15



Quad: MALAGA
Scale: 1 inch = 2,000 ft.

LEGEND	
○	New
★	Active
✕	P&A
⊙	INJ
⊗	SWD
⊕	Water

MAP 3

400 ft

722,228,085, 104,031,127

Zach McCormick Fed Com 121H

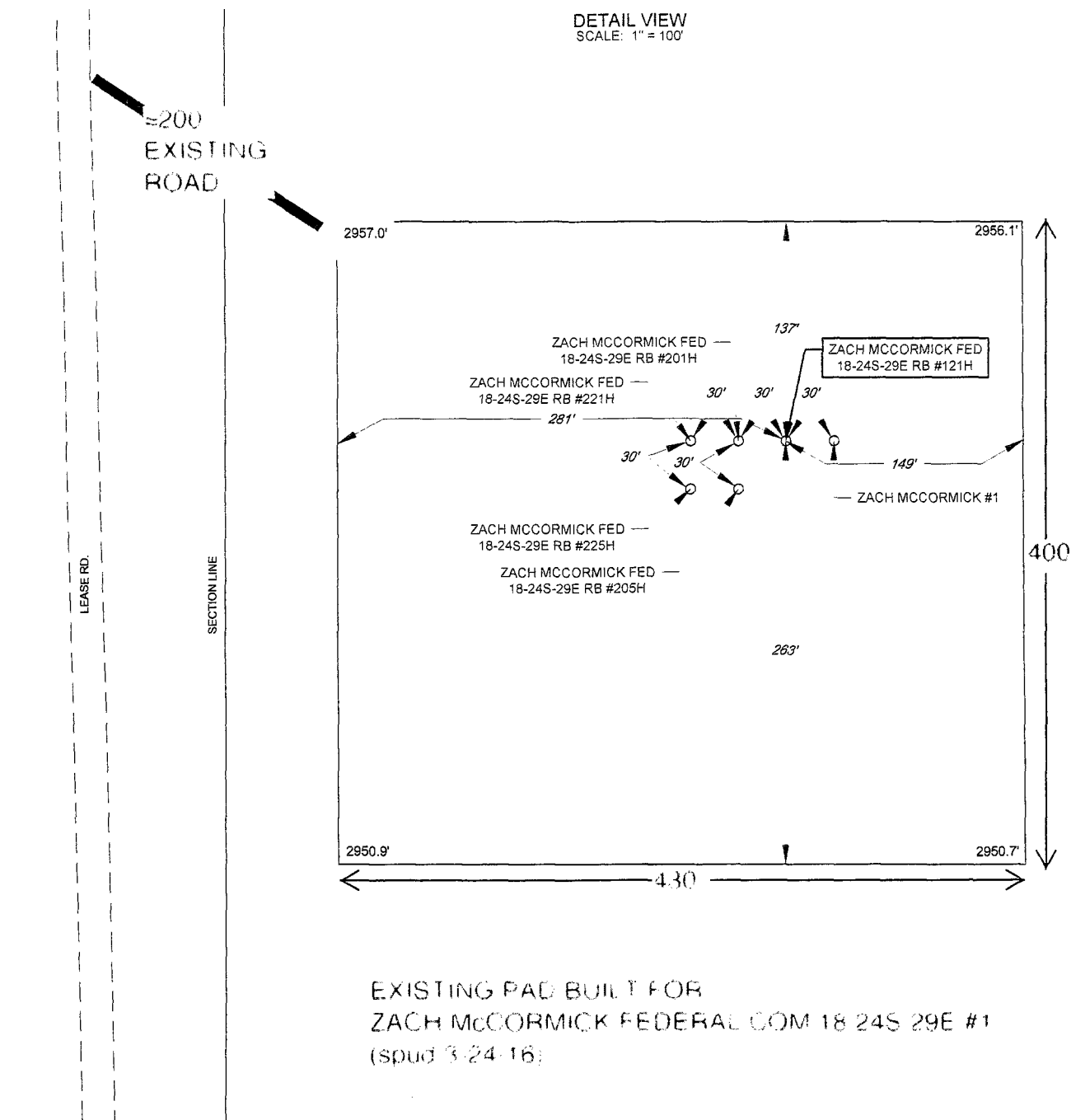
720



MAP 4

SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



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 PROPOSED PAD SITE 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.



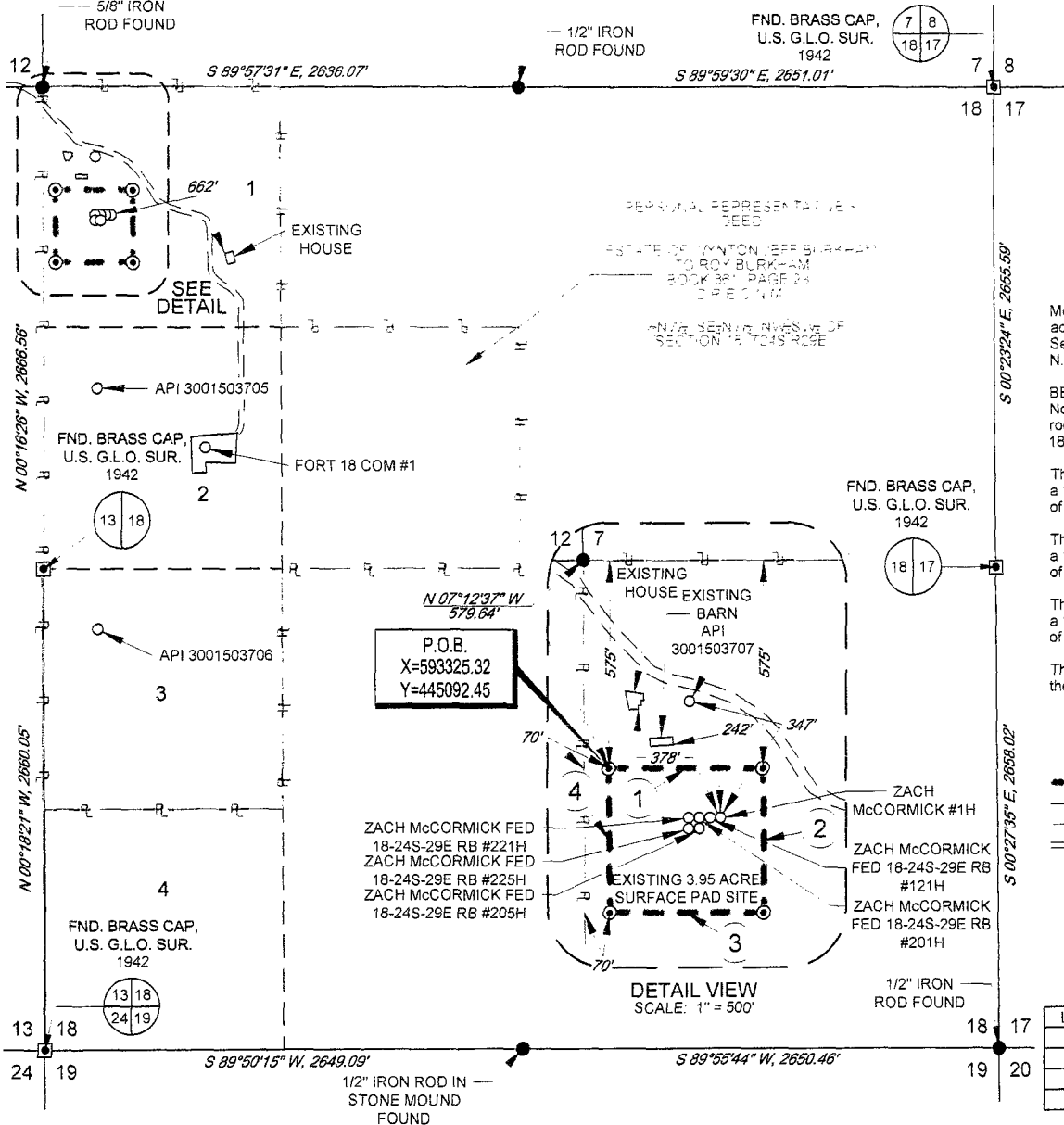
WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

SCALE: 1" = 1000'

SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO
EXISTING 3.95 ACRE SITE

MAP 5



ZACK McCORMICK FED
18-24S-29E RB #201H
SURFACE PAD SITE

Mets and Bounds Description of an existing 3.95 acre surface pad site located within Lot 1, of Section 18, Township 24 South, Range 29 East, N.M.P.M. in Eddy County, New Mexico.

BEGINNING at a 1/2" iron rod with cap set for the Northwest corner of this site, from whence an iron rod found for the Northeast corner of said Section 18, bears N 07°12'37" W, a distance of 579.64 feet;

Thence S 89°57'31" E, a distance of 430.00 feet to a 1/2" iron rod with cap set for the Northeast corner of this site;

Thence S 00°16'26" E, a distance of 400.00 feet to a 1/2" iron rod with cap set for the Southeast corner of this site;

Thence N 89°57'31" W, a distance of 430.00 feet to a 1/2" iron rod with cap set for the Southwest corner of this site;

Thence N 00°16'26" W, a distance of 400.00 feet to the Point of Beginning.

LEGEND

- EXISTING SITE
- SURVEY/SECTION LINE
- TRACT BORDER
- == ROAD WAY
- IRON ROD SET
- IRON ROD FOUND
- MONUMENT

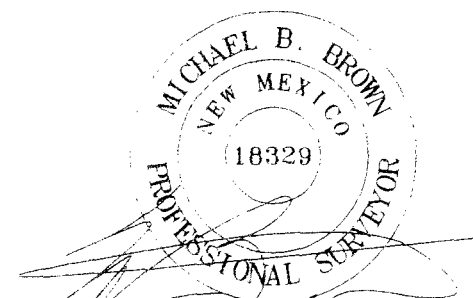
ZACK McCORMICK FED
18-24S-29E RB #201H
SURFACE PAD SITE

LINE	BEARING	DISTANCE
1	S 89°57'31" E	430.00'
2	S 00°16'26" E	400.00'
3	N 89°57'31" W	430.00'
4	N 00°16'26" W	400.00'



TOPOGRAPHIC
LOCALITY INNOVATION LEGACY

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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, R.P.L.S. No. 18329
MAY 10, 2016

ZACK McCORMICK FED
18-24S-29E RB #201H
SURFACE PAD SITE

REVISION:

A.C.C. 05/10/16

DATE: 02/10/16

FILE: 80 ZACK McCORMICK FED 18-24S-29E RB #201H SURFACE PAD SITE REV1

DRAWN BY: GJU

SHEET: 1 OF 1

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. P.O.B. = POINT OF BEGINNING

Matador Production Company
Zach McCormick Fed Com 121H
SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 1

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	Bearing
Quaternary	GL	water
top of salt	808.5'	salt
Lamar/base of salt	2681.5'	barren
Bell Canyon	2731.5'	barren
Cherry Canyon	3661.5'	hydrocarbon
Brushy Canyon	4886.5'	hydrocarbon
Bone Spring Lime	6465.5'	hydrocarbon
1st Bone Spring Sand	7407.5'	hydrocarbon
2nd Bone Spring Carbonate	7720.5'	hydrocarbon
2nd Bone Spring Sand	8319.5'	hydrocarbon (& target formation)
TVD (2nd Bone Spring Sand)	8340'	ditto
MD (2nd Bone Spring Sand)	13216'	ditto

2. NOTABLE ZONES

Closest water well (C 00983) is 1249' to the northwest. Depth to water is 40' in this 92' deep well.

3. PRESSURE CONTROL

A BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be installed. The BOP will be used below surface casing to TD. See attached BOP and choke manifold diagrams.

An accumulator meeting the requirements of Onshore Order 2 for the pressure rating of the BOP stack will be present. Rotating head will be installed as needed.

Matador Production Company
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SHL 712' FNL & 351' FWL Sec. 18
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T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 2

Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as recommended in Onshore Order 2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs. Test pressures will be as follows: After surface casing is set and the BOP is nipped up, the BOP pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate #1, pressure tests will be made to 250 psi low and 3000 psi high. On the intermediate #2, pressure tests will be made to 250 psi low and 7500 psi high. The annular preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 psi low and 1500 psi high on the intermediate #1 and #2 casing. In the case of running a speed head with landing mandrel for 9-5/8" and 7" casing the initial, after surface casing is set, BOP test pressures will be 250 psi low and 3000 psi high with wellhead seals tested to 5000 psi once the 9-5/8" casing has been landed and cemented. The BOP will then be lifted to install the 'C-section' of the wellhead. Matador will nipple the BOP back up and the pressure tests will be made to 250 psi low and 7500 psi high and the annular will be tested to 250 psi low and 1500 psi high.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

4. CASING & CEMENT

Hole will extend east of the last perforation point to allow for pump installation. All perforations will be $\geq 330'$ from the dedication perimeter.

Matador Production Company
 Zach McCormick Fed Com 121H
 SHL 712' FNL & 351' FWL Sec. 18
 BHL 661' FNL & 240' FEL Sec. 18
 T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 3

Hole O. D.	Set @ (MD)	Casing O. D.	Age	Weight (lb/ft)	Grade	Thread Collar	Collapse	Burst	Tension
17.5"	650'	13.375"	New	54.5	J-55	BTC	1.125	1.125	1.8
12.25"	2750'	9.625"	New	40	J-55	BTC	1.125	1.125	1.8
8.75"	13216'	5.5"	New	20	P-110	BTC/TXP	1.125	1.125	1.8

Name	Type	Sacks	Yield	Cubic Feet	Weight	Blend & Centralizers
Surface	Lead	240	1.82	436.8	12.8	Class C + bentonite + 2% CaCl ₂ + 3% NaCl + LCM
	Tail	350	1.38	483	14.8	Class C + 5% NaCl + LCM
TOC = 0'		100% Excess				Centralizers per Onshore Order 2.III.B.1f
Intermediate	Lead	570	2.13	1214.1	12.6	Class C + bentonite + 1% CaCl ₂ + 8% NaCl + LCM
	Tail	270	1.38	372.6	14.8	Class C + 5% NaCl + LCM
TOC = 0'		100% Excess				2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface
Production	Lead	830	2.35	1950.5	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	1450	1.39	2015.5	13.2	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 1600'		35% Excess				2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC)

5. MUD PROGRAM

An electronic Pason mud monitoring system satisfying the requirements of Onshore Order 1 will be used. All mud products needed for weight addition and

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SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 4

fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	17.5"	8.30	28	NC	FW Spud Mud
Intermediate	12.25"	10.00	30-32	NC	Brine Water
Production	8.75"	9.00	30-32	NC	FW/Cut Brine

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud-logging program will be used from $\approx 7500'$ to TD.

No electric logs are planned. GR will be collected through the MWD tools from intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to TOC.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 3500 psi. Expected bottom hole temperature is $\approx 140^\circ$ F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H_2S from the surface to the Bone Spring to meet the BLM's minimum requirements for the submission of an " H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since Matador has an H_2S safety package on all wells, an " H_2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

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SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 5

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take $\approx$ 3 months to drill and complete the well.

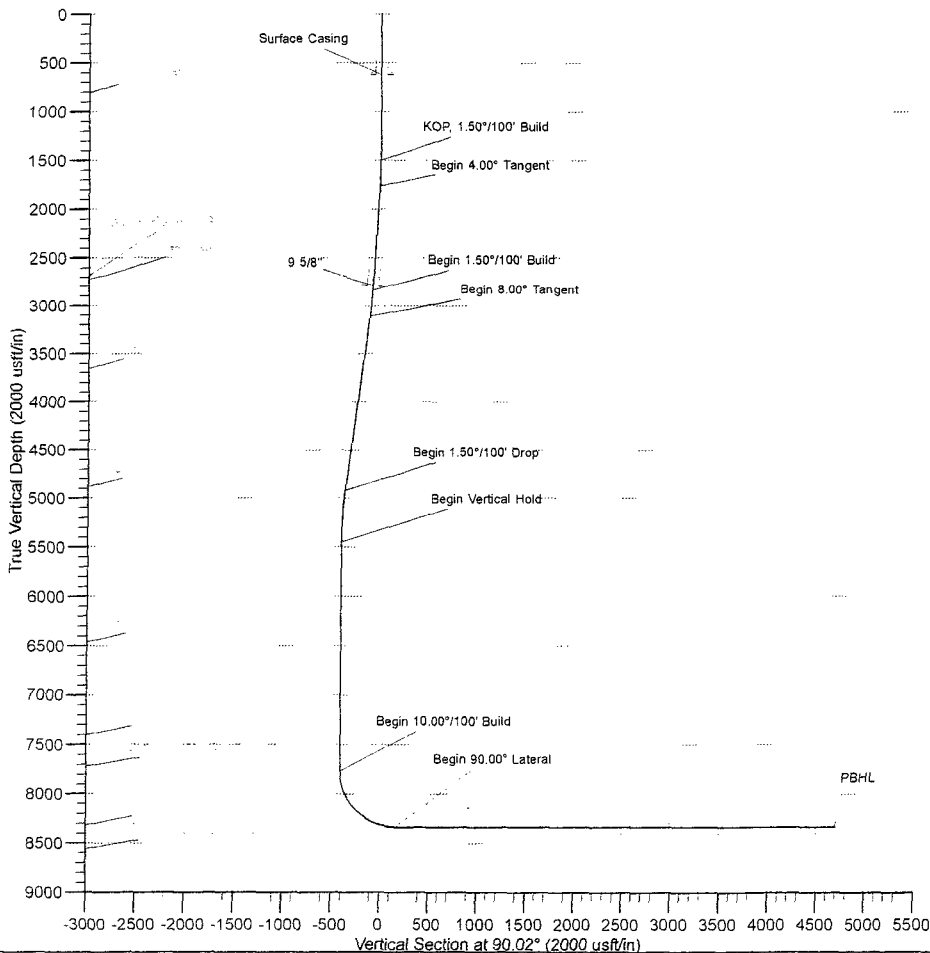
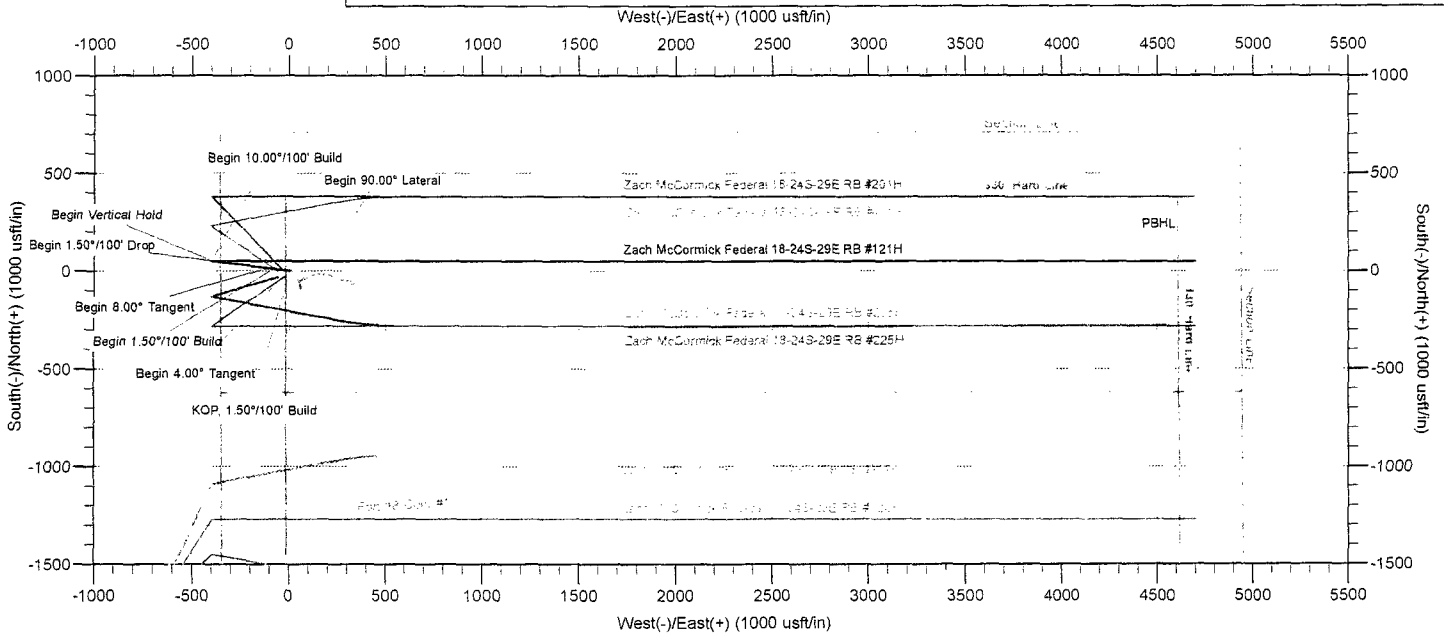


Company: Matador Resources
Site: Zach McCormick Federal 18-24S-29E RB
Well: #121H
Project: Eddy County, New Mexico (NAD 27)
Rig: Patterson 297



ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1766.67	4.00	277.27	1766.45	1 18	-9.23	-9.23	9.30	Begin 4.00° Tangent
2850.00	4.00	277.27	2847.14	10.75	-84.19	-84.19	84.87	Begin 1.50°/100' Build
3116.66	8.00	277.27	3112.29	14.27	-111.84	-111.84	112.74	Begin 8.00° Tangent
4943.57	8.00	277.27	4921.42	46.46	-364.05	-364.06	367.00	Begin 1.50°/100' Drop
5476.91	0.00	0.00	5453.02	51.17	-400.92	-400.94	404.17	Begin Vertical Hold
7790.92	0.00	0.00	7767.04	51.17	-400.92	-400.94	404.17	Begin 10.00°/100' Build
8690.92	90.00	90.02	8340.00	50.92	172.04	172.02	977 13	Begin 90.00° Lateral
13216.38	90.00	90.02	8340.00	48.97	4697.49	4697.47	5502.58	PBHL



Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.16°

Magnetic Field
Strength: 48068.8nT
Dip Angle: 60.00°
Date: 6/22/2016
Model: BGGM2016

US State Plane 1927 (Exact solution)
New Mexico East 3001

Created By: HLH
Date: 13:01, June 24 2016
Plan: Design #1



Company: Matador Resources
Site: Zach McCormick Federal 18-24S-29E RB
Well: #121H
Project: Eddy County, New Mexico (NAD 27)
Rig: Patterson 297

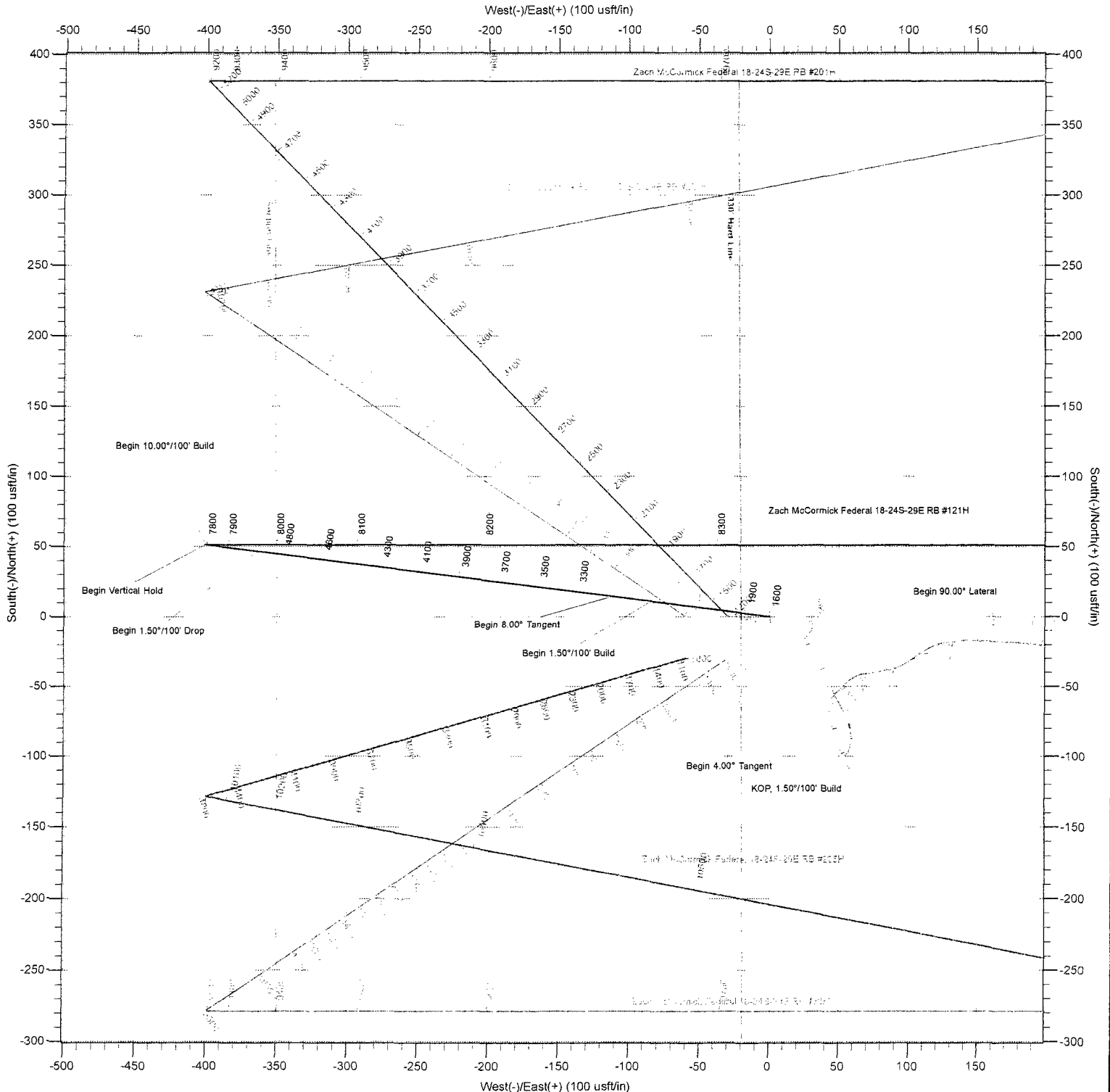


US State Plane 1927 (Exact solution)
New Mexico East 3001

Created By: HLH
Date: 11:07, June 24 2016
Plan: Design #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1766.67	4.00	277.27	1766.45	1.18	-9.23	-9.23	9.30	Begin 4.00° Tangent
2850.00	4.00	277.27	2847.14	10.75	-84.19	-84.19	84.87	Begin 1.50°/100' Build
3116.66	8.00	277.27	3112.29	14.27	-111.84	-111.84	112.74	Begin 8.00° Tangent
4943.57	8.00	277.27	4921.42	46.46	-364.05	-364.06	367.00	Begin 1.50°/100' Drop
5476.91	0.00	0.00	5453.02	51.17	-400.92	-400.94	404.17	Begin Vertical Hold
7790.92	0.00	0.00	7767.04	51.17	-400.92	-400.94	404.17	Begin 10.00°/100' Build
8690.92	90.00	90.02	8340.00	50.92	172.04	172.02	977.13	Begin 90.00° Lateral
13216.38	90.00	90.02	8340.00	48.97	4697.49	4697.47	5502.58	PBHL





Matador Resources

Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#121H

Wellbore #1

Plan: Design #1

Standard Planning Report

24 June, 2016



Planning Report



Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, New Mexico (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		

Well	#121H					
Well Position	+N/-S	444,955.60 usft	Northing:	444,955.60 usft	Latitude:	32° 13' 22.575 N
	+E/-W	593,606.65 usft	Easting:	593,606.65 usft	Longitude:	104° 1' 50.294 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level:	2,952.85 usft

Wellbore	Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	BGGM2016	6/22/2016	7.32	60.00	48,069	

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	90.02	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,766.67	4.00	277.27	1,766.45	1.18	-9.23	1.50	1.50	0.00	277.27	VP - Zach McCorm
2,850.00	4.00	277.27	2,847.14	10.75	-84.19	0.00	0.00	0.00	0.00	
3,116.66	8.00	277.27	3,112.29	14.27	-111.84	1.50	1.50	0.00	0.00	
4,943.57	8.00	277.27	4,921.42	46.46	-364.05	0.00	0.00	0.00	0.00	
5,476.91	0.00	0.00	5,453.03	51.17	-400.92	1.50	-1.50	0.00	180.00	VP - Zach McCorm
7,790.92	0.00	0.00	7,767.04	51.17	-400.92	0.00	0.00	0.00	0.00	
8,690.92	90.00	90.02	8,340.00	50.92	172.04	10.00	10.00	0.00	90.02	
13,216.38	90.00	90.02	8,340.00	48.97	4,697.49	0.00	0.00	0.00	0.00	PBHL - Zach McCo



Planning Report

Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well#121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 1.50°/100' Build									
1,600.00	1.50	277.27	1,599.99	0.17	-1.30	-1.30	1.50	1.50	0.00
1,700.00	3.00	277.27	1,699.91	0.66	-5.19	-5.19	1.50	1.50	0.00
1,766.67	4.00	277.27	1,766.45	1.18	-9.23	-9.23	1.50	1.50	0.00
Begin 4.00° Tangent									
1,800.00	4.00	277.27	1,799.70	1.47	-11.54	-11.54	0.00	0.00	0.00
1,900.00	4.00	277.27	1,899.46	2.36	-18.46	-18.46	0.00	0.00	0.00
2,000.00	4.00	277.27	1,999.22	3.24	-25.38	-25.38	0.00	0.00	0.00
2,100.00	4.00	277.27	2,098.97	4.12	-32.29	-32.30	0.00	0.00	0.00
2,200.00	4.00	277.27	2,198.73	5.00	-39.21	-39.22	0.00	0.00	0.00
2,300.00	4.00	277.27	2,298.48	5.89	-46.13	-46.14	0.00	0.00	0.00
2,400.00	4.00	277.27	2,398.24	6.77	-53.05	-53.06	0.00	0.00	0.00
2,500.00	4.00	277.27	2,498.00	7.65	-59.97	-59.98	0.00	0.00	0.00
2,600.00	4.00	277.27	2,597.75	8.54	-66.89	-66.90	0.00	0.00	0.00
2,700.00	4.00	277.27	2,697.51	9.42	-73.81	-73.82	0.00	0.00	0.00
2,800.00	4.00	277.27	2,797.27	10.30	-80.73	-80.74	0.00	0.00	0.00
2,850.00	4.00	277.27	2,847.14	10.75	-84.19	-84.19	0.00	0.00	0.00
Begin 1.50°/100' Build									
2,900.00	4.75	277.27	2,897.00	11.23	-87.97	-87.98	1.50	1.50	0.00
3,000.00	6.25	277.27	2,996.54	12.44	-97.48	-97.49	1.50	1.50	0.00
3,100.00	7.75	277.27	3,095.79	13.98	-109.57	-109.58	1.50	1.50	0.00
3,116.66	8.00	277.27	3,112.29	14.27	-111.84	-111.84	1.50	1.50	0.00
Begin 8.00° Tangent									
3,200.00	8.00	277.27	3,194.82	15.74	-123.34	-123.35	0.00	0.00	0.00
3,300.00	8.00	277.27	3,293.85	17.50	-137.15	-137.15	0.00	0.00	0.00
3,400.00	8.00	277.27	3,392.87	19.27	-150.95	-150.96	0.00	0.00	0.00
3,500.00	8.00	277.27	3,491.90	21.03	-164.76	-164.76	0.00	0.00	0.00
3,600.00	8.00	277.27	3,590.93	22.79	-178.56	-178.57	0.00	0.00	0.00
3,700.00	8.00	277.27	3,689.95	24.55	-192.37	-192.38	0.00	0.00	0.00
3,800.00	8.00	277.27	3,788.98	26.31	-206.17	-206.18	0.00	0.00	0.00
3,900.00	8.00	277.27	3,888.01	28.08	-219.98	-219.99	0.00	0.00	0.00
4,000.00	8.00	277.27	3,987.03	29.84	-233.78	-233.79	0.00	0.00	0.00
4,100.00	8.00	277.27	4,086.06	31.60	-247.59	-247.60	0.00	0.00	0.00
4,200.00	8.00	277.27	4,185.09	33.36	-261.39	-261.40	0.00	0.00	0.00
4,300.00	8.00	277.27	4,284.11	35.12	-275.20	-275.21	0.00	0.00	0.00
4,400.00	8.00	277.27	4,383.14	36.89	-289.00	-289.02	0.00	0.00	0.00
4,500.00	8.00	277.27	4,482.17	38.65	-302.81	-302.82	0.00	0.00	0.00
4,600.00	8.00	277.27	4,581.19	40.41	-316.61	-316.63	0.00	0.00	0.00



Planning Report



Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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)
4,700.00	8.00	277.27	4,680.22	42.17	-330.42	-330.43	0.00	0.00	0.00
4,800.00	8.00	277.27	4,779.25	43.93	-344.23	-344.24	0.00	0.00	0.00
4,900.00	8.00	277.27	4,878.27	45.70	-358.03	-358.05	0.00	0.00	0.00
4,943.57	8.00	277.27	4,921.42	46.46	-364.05	-364.06	0.00	0.00	0.00
Begin 1.50°/100' Drop									
5,000.00	7.15	277.27	4,977.36	47.41	-371.43	-371.44	1.50	-1.50	0.00
5,100.00	5.65	277.27	5,076.73	48.82	-382.49	-382.51	1.50	-1.50	0.00
5,200.00	4.15	277.27	5,176.36	49.90	-390.97	-390.99	1.50	-1.50	0.00
5,300.00	2.65	277.27	5,276.18	50.65	-396.86	-396.87	1.50	-1.50	0.00
5,400.00	1.15	277.27	5,376.12	51.07	-400.15	-400.17	1.50	-1.50	0.00
5,476.91	0.00	0.00	5,453.03	51.17	-400.92	-400.94	1.50	-1.50	0.00
Begin Vertical Hold									
5,500.00	0.00	0.00	5,476.12	51.17	-400.92	-400.94	0.00	0.00	0.00
5,600.00	0.00	0.00	5,576.12	51.17	-400.92	-400.94	0.00	0.00	0.00
5,700.00	0.00	0.00	5,676.12	51.17	-400.92	-400.94	0.00	0.00	0.00
5,800.00	0.00	0.00	5,776.12	51.17	-400.92	-400.94	0.00	0.00	0.00
5,900.00	0.00	0.00	5,876.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,000.00	0.00	0.00	5,976.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,100.00	0.00	0.00	6,076.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,200.00	0.00	0.00	6,176.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,300.00	0.00	0.00	6,276.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,400.00	0.00	0.00	6,376.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,500.00	0.00	0.00	6,476.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,600.00	0.00	0.00	6,576.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,700.00	0.00	0.00	6,676.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,800.00	0.00	0.00	6,776.12	51.17	-400.92	-400.94	0.00	0.00	0.00
6,900.00	0.00	0.00	6,876.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,000.00	0.00	0.00	6,976.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,100.00	0.00	0.00	7,076.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,200.00	0.00	0.00	7,176.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,300.00	0.00	0.00	7,276.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,400.00	0.00	0.00	7,376.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,500.00	0.00	0.00	7,476.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,600.00	0.00	0.00	7,576.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,700.00	0.00	0.00	7,676.12	51.17	-400.92	-400.94	0.00	0.00	0.00
7,790.92	0.00	0.00	7,767.04	51.17	-400.92	-400.94	0.00	0.00	0.00
Begin 10.00°/100' Build									
7,800.00	0.91	90.02	7,776.12	51.17	-400.85	-400.87	10.00	10.00	0.00
7,850.00	5.91	90.02	7,826.01	51.17	-397.88	-397.89	10.00	10.00	0.00
7,900.00	10.91	90.02	7,875.46	51.17	-390.57	-390.59	10.00	10.00	0.00
7,950.00	15.91	90.02	7,924.08	51.16	-378.98	-379.00	10.00	10.00	0.00
8,000.00	20.91	90.02	7,971.51	51.15	-363.19	-363.21	10.00	10.00	0.00
8,050.00	25.91	90.02	8,017.38	51.15	-343.34	-343.36	10.00	10.00	0.00
8,100.00	30.91	90.02	8,061.35	51.13	-319.56	-319.58	10.00	10.00	0.00
8,150.00	35.91	90.02	8,103.07	51.12	-292.04	-292.05	10.00	10.00	0.00
8,200.00	40.91	90.02	8,142.24	51.11	-260.98	-261.00	10.00	10.00	0.00
8,250.00	45.91	90.02	8,178.55	51.09	-226.64	-226.65	10.00	10.00	0.00
8,300.00	50.91	90.02	8,211.73	51.08	-189.25	-189.27	10.00	10.00	0.00
8,350.00	55.91	90.02	8,241.53	51.06	-149.12	-149.14	10.00	10.00	0.00
8,400.00	60.91	90.02	8,267.71	51.04	-106.54	-106.56	10.00	10.00	0.00
8,450.00	65.91	90.02	8,290.09	51.02	-61.85	-61.87	10.00	10.00	0.00
8,500.00	70.91	90.02	8,308.48	51.00	-15.37	-15.39	10.00	10.00	0.00
8,550.00	75.91	90.02	8,322.76	50.98	32.53	32.51	10.00	10.00	0.00



Planning Report



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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.00	80.91	90.02	8,332.80	50.96	81.50	81.48	10.00	10.00	0.00
8,650.00	85.91	90.02	8,338.54	50.94	131.15	131.13	10.00	10.00	0.00
8,690.92	90.00	90.02	8,340.00	50.92	172.04	172.02	10.00	10.00	0.00
Begin 90.00° Lateral									
8,700.00	90.00	90.02	8,340.00	50.92	181.11	181.10	0.00	0.00	0.00
8,800.00	90.00	90.02	8,340.00	50.88	281.11	281.10	0.00	0.00	0.00
8,900.00	90.00	90.02	8,340.00	50.83	381.11	381.10	0.00	0.00	0.00
9,000.00	90.00	90.02	8,340.00	50.79	481.11	481.10	0.00	0.00	0.00
9,100.00	90.00	90.02	8,340.00	50.75	581.11	581.10	0.00	0.00	0.00
9,200.00	90.00	90.02	8,340.00	50.70	681.11	681.10	0.00	0.00	0.00
9,300.00	90.00	90.02	8,340.00	50.66	781.11	781.10	0.00	0.00	0.00
9,400.00	90.00	90.02	8,340.00	50.62	881.11	881.10	0.00	0.00	0.00
9,500.00	90.00	90.02	8,340.00	50.57	981.11	981.10	0.00	0.00	0.00
9,600.00	90.00	90.02	8,340.00	50.53	1,081.11	1,081.10	0.00	0.00	0.00
9,700.00	90.00	90.02	8,340.00	50.49	1,181.11	1,181.10	0.00	0.00	0.00
9,800.00	90.00	90.02	8,340.00	50.44	1,281.11	1,281.10	0.00	0.00	0.00
9,900.00	90.00	90.02	8,340.00	50.40	1,381.11	1,381.10	0.00	0.00	0.00
10,000.00	90.00	90.02	8,340.00	50.36	1,481.11	1,481.10	0.00	0.00	0.00
10,100.00	90.00	90.02	8,340.00	50.31	1,581.11	1,581.10	0.00	0.00	0.00
10,200.00	90.00	90.02	8,340.00	50.27	1,681.11	1,681.10	0.00	0.00	0.00
10,300.00	90.00	90.02	8,340.00	50.23	1,781.11	1,781.10	0.00	0.00	0.00
10,400.00	90.00	90.02	8,340.00	50.19	1,881.11	1,881.10	0.00	0.00	0.00
10,500.00	90.00	90.02	8,340.00	50.14	1,981.11	1,981.10	0.00	0.00	0.00
10,600.00	90.00	90.02	8,340.00	50.10	2,081.11	2,081.10	0.00	0.00	0.00
10,700.00	90.00	90.02	8,340.00	50.06	2,181.11	2,181.10	0.00	0.00	0.00
10,800.00	90.00	90.02	8,340.00	50.01	2,281.11	2,281.10	0.00	0.00	0.00
10,900.00	90.00	90.02	8,340.00	49.97	2,381.11	2,381.10	0.00	0.00	0.00
11,000.00	90.00	90.02	8,340.00	49.93	2,481.11	2,481.10	0.00	0.00	0.00
11,100.00	90.00	90.02	8,340.00	49.88	2,581.11	2,581.10	0.00	0.00	0.00
11,200.00	90.00	90.02	8,340.00	49.84	2,681.11	2,681.10	0.00	0.00	0.00
11,300.00	90.00	90.02	8,340.00	49.80	2,781.11	2,781.10	0.00	0.00	0.00
11,400.00	90.00	90.02	8,340.00	49.75	2,881.11	2,881.10	0.00	0.00	0.00
11,500.00	90.00	90.02	8,340.00	49.71	2,981.11	2,981.10	0.00	0.00	0.00
11,600.00	90.00	90.02	8,340.00	49.67	3,081.11	3,081.10	0.00	0.00	0.00
11,700.00	90.00	90.02	8,340.00	49.62	3,181.11	3,181.10	0.00	0.00	0.00
11,800.00	90.00	90.02	8,340.00	49.58	3,281.11	3,281.10	0.00	0.00	0.00
11,900.00	90.00	90.02	8,340.00	49.54	3,381.11	3,381.10	0.00	0.00	0.00
12,000.00	90.00	90.02	8,340.00	49.49	3,481.11	3,481.10	0.00	0.00	0.00
12,100.00	90.00	90.02	8,340.00	49.45	3,581.11	3,581.10	0.00	0.00	0.00
12,200.00	90.00	90.02	8,340.00	49.41	3,681.11	3,681.10	0.00	0.00	0.00
12,300.00	90.00	90.02	8,340.00	49.37	3,781.11	3,781.10	0.00	0.00	0.00
12,400.00	90.00	90.02	8,340.00	49.32	3,881.11	3,881.10	0.00	0.00	0.00
12,500.00	90.00	90.02	8,340.00	49.28	3,981.11	3,981.10	0.00	0.00	0.00
12,600.00	90.00	90.02	8,340.00	49.24	4,081.11	4,081.10	0.00	0.00	0.00
12,700.00	90.00	90.02	8,340.00	49.19	4,181.11	4,181.10	0.00	0.00	0.00
12,800.00	90.00	90.02	8,340.00	49.15	4,281.11	4,281.10	0.00	0.00	0.00
12,900.00	90.00	90.02	8,340.00	49.11	4,381.11	4,381.10	0.00	0.00	0.00
13,000.00	90.00	90.02	8,340.00	49.06	4,481.11	4,481.10	0.00	0.00	0.00
13,100.00	90.00	90.02	8,340.00	49.02	4,581.11	4,581.10	0.00	0.00	0.00
13,200.00	90.00	90.02	8,340.00	48.98	4,681.11	4,681.10	0.00	0.00	0.00
13,216.38	90.00	90.02	8,340.00	48.97	4,697.49	4,697.47	0.00	0.00	0.00
PBHL									



Planning Report

Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #121H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well#121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP - Zach McCormick - plan hits target center - Point	0.00	0.00	5,453.03	51.17	-400.92	445,006.77	593,205.73	32° 13' 23.093 N	104° 1' 54.959 W
PBHL - Zach McCormick - plan hits target center - Point	0.00	0.00	8,340.00	48.97	4,697.49	445,004.57	598,304.14	32° 13' 22.926 N	104° 0' 55.608 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
625.00	625.00	Surface Casing	10-3/4	12-1/4
2,800.00	2,797.27	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
808.85	808.85	Top of Salt		0.00	90.02
2,684.30	2,681.85	Lamar/Base of Salt		0.00	90.02
2,734.42	2,731.85	Bell Canyon		0.00	90.02
3,671.62	3,661.85	Cherry Canyon		0.00	90.02
4,908.66	4,886.85	Brushy Canyon		0.00	90.02
6,489.73	6,465.85	Bone Spring Lime		0.00	90.02
7,431.73	7,407.85	1st Bone Spring Sand		0.00	90.02
7,744.73	7,720.85	2nd Bone Spring Carbonate		0.00	90.02
8,538.52	8,319.85	2nd Bone Spring Sand		0.00	90.02

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.00	1,500.00	0.00	0.00	KOP, 1.50°/100' Build
1,766.67	1,766.45	1.18	-9.23	Begin 4.00° Tangent
2,850.00	2,847.14	10.75	-84.19	Begin 1.50°/100' Build
3,116.66	3,112.29	14.27	-111.84	Begin 8.00° Tangent
4,943.57	4,921.42	46.46	-364.05	Begin 1.50°/100' Drop
5,476.91	5,453.03	51.17	-400.92	Begin Vertical Hold
7,790.92	7,767.04	51.17	-400.92	Begin 10.00°/100' Build
8,690.92	8,340.00	50.92	172.04	Begin 90.00° Lateral
13,216.38	8,340.00	48.97	4,697.49	PBHL



Matador Resources

Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#121H

Wellbore #1
Design #1

Anticollision Report

24 June, 2016



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Reference	Design #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 u
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program Date 6/23/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,216.38	Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Fort 18 Com						
#1 - 122H - Surveys	8,805.36	8,338.90	1,319.99	1,258.71	21.541	CC, ES
#1 - 122H - Surveys	9,100.00	8,328.76	1,352.44	1,288.24	21.067	SF
Zach McCormick Federal 18-24S-29E RB						
#1 - Wellbore #1 - Surveys	773.72	771.90	27.73	22.76	5.576	CC
#1 - Wellbore #1 - Surveys	1,532.92	1,531.40	31.14	20.80	3.011	ES
#1 - Wellbore #1 - Surveys	8,767.66	8,350.96	90.89	30.04	1.494	Level 3, SF
#122H - Wellbore #1 - Design #1	13,216.38	13,213.61	1,320.00	1,069.52	5.270	CC, ES, SF
#201H - Wellbore #1 - Design #1	1,105.88	1,105.73	30.02	22.55	4.021	CC
#201H - Wellbore #1 - Design #1	1,200.00	1,199.59	30.23	22.09	3.715	ES
#201H - Wellbore #1 - Design #1	1,300.00	1,298.97	32.07	23.23	3.626	SF
#202H - Wellbore #1 - Design #1	7,867.86	7,913.57	990.00	933.13	17.409	CC
#202H - Wellbore #1 - Design #1	7,950.00	8,006.09	990.14	932.74	17.251	ES
#202H - Wellbore #1 - Design #1	13,216.38	14,654.05	1,716.59	1,554.41	10.584	SF
#205H - Wellbore #1 - Design #1	1,000.00	999.75	42.45	35.74	6.330	CC, ES
#205H - Wellbore #1 - Design #1	8,000.00	8,003.22	331.96	274.78	5.806	SF
#206H - Wellbore #1 - Design #1	4,354.61	4,367.97	1,638.95	1,607.17	51.583	CC
#206H - Wellbore #1 - Design #1	8,000.00	7,987.63	1,650.25	1,593.01	28.828	ES
#206H - Wellbore #1 - Design #1	13,216.38	14,598.34	2,166.35	1,966.73	10.852	SF
#221H - Wellbore #1 - Design #1	1,000.00	1,000.08	60.04	53.33	8.951	CC, ES
#221H - Wellbore #1 - Design #1	7,900.00	7,901.21	180.36	123.44	3.169	SF
#222H - Wellbore #1 - Design #1	7,873.51	7,902.18	1,140.00	1,083.17	20.060	CC
#222H - Wellbore #1 - Design #1	7,950.00	7,972.56	1,140.11	1,082.84	19.907	ES
#222H - Wellbore #1 - Design #1	13,216.38	15,449.51	2,418.90	2,288.95	18.614	SF
#225H - Wellbore #1 - Design #1	1,000.00	1,000.10	67.12	60.41	10.007	CC, ES
#225H - Wellbore #1 - Design #1	7,900.00	7,905.28	180.25	123.59	3.182	SF
#226H - Wellbore #1 - Design #1	3,795.55	3,809.61	1,781.32	1,754.11	65.465	CC
#226H - Wellbore #1 - Design #1	8,000.00	7,987.63	1,800.22	1,743.15	31.545	ES
#226H - Wellbore #1 - Design #1	13,216.38	15,415.49	2,757.01	2,591.73	16.681	SF



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys												Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	156.55	-1,268.75	550.40	1,383.00				
100.00	100.00	103.03	103.03	0.13	0.16	156.58	-1,268.75	549.57	1,382.69	1,382.41	0.28	4,874.606	
200.00	200.00	204.84	204.82	0.49	0.51	156.65	-1,268.75	547.70	1,381.96	1,380.97	0.99	1,391.169	
300.00	300.00	306.05	306.00	0.84	0.88	156.73	-1,268.76	545.60	1,381.15	1,379.43	1.72	803.909	
400.00	400.00	406.84	406.77	1.20	1.24	156.82	-1,268.76	543.33	1,380.26	1,377.82	2.44	565.911	
500.00	500.00	507.62	507.53	1.56	1.61	156.91	-1,268.76	540.91	1,379.32	1,376.16	3.16	436.504	
600.00	600.00	608.40	608.27	1.92	1.97	157.01	-1,268.77	538.33	1,378.32	1,374.44	3.88	355.162	
700.00	700.00	708.82	708.65	2.28	2.32	157.11	-1,268.77	535.70	1,377.30	1,372.72	4.59	300.337	
800.00	800.00	812.66	812.45	2.64	2.69	157.23	-1,268.78	532.50	1,376.11	1,370.80	5.31	258.999	
900.00	900.00	916.45	916.16	3.00	3.06	157.38	-1,268.78	528.54	1,374.64	1,368.60	6.04	227.572	
1,000.00	1,000.00	1,020.18	1,019.79	3.35	3.42	157.57	-1,268.79	523.83	1,372.91	1,366.14	6.77	202.862	
1,100.00	1,100.00	1,114.06	1,113.59	3.71	3.75	157.71	-1,268.79	520.07	1,371.38	1,363.93	7.45	184.000	
1,200.00	1,200.00	1,213.65	1,213.11	4.07	4.10	157.85	-1,268.80	516.48	1,370.02	1,361.86	8.16	167.869	
1,300.00	1,300.00	1,317.10	1,316.48	4.43	4.46	158.01	-1,268.80	512.31	1,368.51	1,359.63	8.88	154.044	
1,400.00	1,400.00	1,418.86	1,418.13	4.79	4.83	158.19	-1,268.81	507.68	1,366.82	1,357.22	9.60	142.343	
1,500.00	1,500.00	1,516.34	1,515.51	5.15	5.17	158.37	-1,268.82	503.23	1,365.13	1,354.83	10.31	132.473	
1,600.00	1,599.99	1,613.76	1,612.85	5.50	5.51	-118.81	-1,268.82	499.37	1,364.31	1,353.31	11.00	124.048	
1,607.91	1,607.89	1,621.53	1,620.62	5.52	5.54	-118.81	-1,268.82	499.08	1,364.31	1,353.25	11.05	123.437	
1,700.00	1,699.91	1,712.46	1,711.49	5.84	5.86	-118.81	-1,268.83	495.83	1,364.89	1,353.20	11.69	116.771	
1,766.67	1,766.45	1,779.10	1,778.09	6.07	6.09	-118.86	-1,268.83	493.50	1,366.00	1,353.85	12.15	112.397	
1,800.00	1,799.70	1,812.42	1,811.39	6.19	6.20	-118.90	-1,268.83	492.34	1,366.70	1,354.31	12.39	110.340	
1,900.00	1,899.46	1,908.28	1,907.20	6.54	6.54	-119.03	-1,268.84	489.38	1,368.94	1,355.87	13.07	104.728	
2,000.00	1,999.22	2,006.74	2,005.64	6.90	6.88	-119.19	-1,268.84	487.04	1,371.46	1,357.69	13.77	99.616	
2,100.00	2,098.97	2,109.66	2,108.52	7.26	7.24	-119.34	-1,268.84	484.26	1,373.87	1,359.39	14.48	94.875	
2,200.00	2,198.73	2,215.39	2,214.18	7.61	7.61	-119.46	-1,268.85	480.54	1,375.97	1,360.76	15.21	90.471	
2,300.00	2,298.48	2,320.55	2,319.22	7.97	7.98	-119.54	-1,268.85	475.64	1,377.65	1,361.71	15.94	86.439	
2,400.00	2,398.24	2,423.90	2,422.43	8.33	8.35	-119.58	-1,268.86	469.99	1,379.03	1,362.37	16.66	82.757	
2,500.00	2,498.00	2,525.75	2,524.10	8.70	8.71	-119.61	-1,268.87	463.95	1,380.23	1,362.84	17.39	79.384	
2,600.00	2,597.75	2,625.23	2,623.39	9.06	9.06	-119.63	-1,268.88	457.89	1,381.37	1,363.27	18.10	76.314	
2,700.00	2,697.51	2,722.02	2,720.02	9.43	9.41	-119.66	-1,268.89	452.37	1,382.66	1,363.84	18.81	73.493	
2,800.00	2,797.27	2,818.79	2,816.67	9.79	9.76	-119.71	-1,268.89	447.44	1,384.18	1,364.65	19.53	70.888	
2,850.00	2,847.14	2,867.17	2,864.99	9.97	9.94	-119.75	-1,268.90	445.19	1,385.02	1,365.14	19.88	69.659	
2,900.00	2,897.00	2,915.44	2,913.21	10.16	10.11	-119.79	-1,268.90	443.10	1,386.09	1,365.86	20.24	68.496	
3,000.00	2,996.54	3,011.71	3,009.42	10.53	10.45	-119.93	-1,268.90	439.41	1,389.41	1,368.47	20.94	66.348	
3,100.00	3,095.79	3,110.34	3,107.99	10.91	10.79	-120.17	-1,268.91	436.06	1,394.22	1,372.56	21.66	64.365	
3,116.66	3,112.29	3,126.75	3,124.39	10.97	10.85	-120.22	-1,268.91	435.51	1,395.16	1,373.38	21.78	64.051	
3,200.00	3,194.82	3,208.80	3,206.40	11.30	11.13	-120.52	-1,268.91	432.87	1,400.01	1,377.62	22.39	62.541	
3,300.00	3,293.85	3,308.20	3,305.75	11.69	11.48	-120.90	-1,268.92	429.80	1,405.92	1,382.81	23.11	60.825	
3,400.00	3,392.87	3,408.61	3,406.11	12.08	11.83	-121.26	-1,268.92	426.56	1,411.85	1,388.00	23.85	59.201	
3,500.00	3,491.90	3,509.07	3,506.51	12.47	12.18	-121.62	-1,268.93	423.14	1,417.75	1,393.17	24.58	57.670	
3,600.00	3,590.93	3,606.71	3,604.09	12.87	12.53	-121.97	-1,268.93	419.88	1,423.74	1,398.43	25.31	56.251	
3,700.00	3,689.95	3,704.26	3,701.60	13.26	12.87	-122.33	-1,268.94	416.92	1,429.91	1,403.88	26.04	54.917	
3,800.00	3,788.98	3,802.03	3,799.33	13.66	13.21	-122.69	-1,268.94	414.25	1,436.27	1,409.51	26.77	53.661	
3,900.00	3,888.01	3,901.38	3,898.65	14.06	13.55	-123.06	-1,268.94	411.65	1,442.74	1,415.24	27.50	52.464	
4,000.00	3,987.03	4,071.27	3,997.97	14.46	14.14	-123.43	-1,268.95	409.05	1,449.26	1,420.78	28.48	50.886	
4,100.00	4,086.06	4,100.09	4,097.29	14.87	14.25	-123.79	-1,268.95	406.45	1,455.85	1,426.88	28.97	50.253	
4,200.00	4,185.09	4,199.44	4,196.61	15.27	14.59	-124.15	-1,268.95	403.85	1,462.49	1,432.78	29.71	49.229	
4,300.00	4,284.11	4,298.80	4,295.93	15.67	14.94	-124.51	-1,268.96	401.25	1,469.19	1,438.75	30.45	48.256	
4,400.00	4,383.14	4,398.15	4,395.25	16.08	15.29	-124.86	-1,268.96	398.65	1,475.95	1,444.77	31.18	47.330	
4,500.00	4,482.17	4,497.50	4,494.57	16.49	15.64	-125.21	-1,268.97	396.05	1,482.76	1,450.84	31.92	46.449	
4,600.00	4,581.19	4,596.50	4,593.53	16.89	15.98	-125.56	-1,268.97	393.47	1,489.64	1,456.98	32.66	45.611	
4,700.00	4,680.22	4,695.24	4,692.24	17.30	16.33	-125.90	-1,268.97	390.98	1,496.61	1,463.21	33.40	44.815	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys												Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.00	4,779.25	4,793.97	4,790.94	17.71	16.67	-126.25	-1,268.98	388.57	1,503.67	1,469.54	34.13	44.056	
4,900.00	4,878.27	4,892.68	4,889.62	18.12	17.02	-126.59	-1,268.98	386.24	1,510.83	1,475.96	34.87	43.332	
4,943.57	4,921.42	4,935.68	4,932.61	18.30	17.17	-126.74	-1,268.98	385.25	1,513.98	1,478.79	35.19	43.027	
5,000.00	4,977.36	4,991.41	4,988.33	18.53	17.37	-126.97	-1,268.98	384.00	1,517.84	1,482.24	35.60	42.635	
5,100.00	5,076.73	5,090.36	5,087.26	18.92	17.71	-127.30	-1,268.99	381.83	1,523.50	1,487.17	36.33	41.938	
5,200.00	5,176.36	5,189.47	5,186.35	19.30	18.06	-127.54	-1,268.99	379.75	1,527.65	1,490.61	37.04	41.238	
5,300.00	5,276.18	5,288.72	5,285.57	19.67	18.40	-127.68	-1,268.99	377.75	1,530.26	1,492.51	37.75	40.532	
5,400.00	5,376.12	5,388.03	5,384.87	20.03	18.75	-127.73	-1,268.99	375.83	1,531.32	1,492.86	38.46	39.821	
5,476.91	5,453.03	5,464.42	5,461.24	20.29	19.01	149.57	-1,269.00	374.42	1,531.07	1,492.09	38.99	39.272	
5,500.00	5,476.12	5,487.35	5,484.17	20.36	19.09	149.59	-1,269.00	374.00	1,530.86	1,491.72	39.14	39.108	
5,600.00	5,576.12	5,586.93	5,583.73	20.70	19.44	149.64	-1,269.00	372.25	1,529.97	1,490.14	39.83	38.414	
5,700.00	5,676.12	5,686.92	5,683.70	21.03	19.79	149.70	-1,269.00	370.51	1,529.09	1,488.58	40.52	37.741	
5,800.00	5,776.12	5,786.90	5,783.67	21.37	20.14	149.76	-1,269.00	368.76	1,528.22	1,487.01	41.20	37.090	
5,900.00	5,876.12	5,886.89	5,883.64	21.70	20.48	149.81	-1,269.01	367.02	1,527.34	1,485.45	41.89	36.459	
6,000.00	5,976.12	5,986.87	5,983.61	22.04	20.83	149.87	-1,269.01	365.27	1,526.47	1,483.88	42.58	35.849	
6,100.00	6,076.12	6,086.86	6,083.58	22.37	21.18	149.93	-1,269.01	363.53	1,525.59	1,482.32	43.27	35.258	
6,200.00	6,176.12	6,186.84	6,183.55	22.71	21.53	149.98	-1,269.01	361.78	1,524.72	1,480.76	43.96	34.685	
6,300.00	6,276.12	6,286.83	6,283.52	23.05	21.87	150.04	-1,269.02	360.04	1,523.85	1,479.20	44.65	34.129	
6,400.00	6,376.12	6,386.81	6,383.49	23.39	22.22	150.10	-1,269.02	358.29	1,522.98	1,477.64	45.34	33.590	
6,500.00	6,476.12	6,486.79	6,483.46	23.73	22.57	150.15	-1,269.02	356.55	1,522.11	1,476.08	46.03	33.066	
6,600.00	6,576.12	6,586.78	6,583.43	24.07	22.92	150.21	-1,269.02	354.80	1,521.25	1,474.52	46.72	32.558	
6,700.00	6,676.12	6,686.76	6,683.40	24.41	23.27	150.27	-1,269.03	353.06	1,520.38	1,472.97	47.42	32.064	
6,800.00	6,776.12	6,786.18	6,784.80	24.75	23.62	150.33	-1,269.03	351.25	1,519.51	1,471.39	48.12	31.579	
6,900.00	6,876.12	6,886.26	6,884.86	25.09	23.99	150.40	-1,269.03	349.45	1,518.41	1,469.59	48.83	31.096	
7,000.00	6,976.12	6,986.32	6,984.87	25.43	24.35	150.50	-1,269.04	346.08	1,517.06	1,467.52	49.54	30.622	
7,100.00	7,076.12	7,100.34	7,096.84	25.78	24.72	150.61	-1,269.04	342.64	1,515.44	1,465.18	50.25	30.155	
7,200.00	7,176.12	7,204.32	7,200.74	26.12	25.08	150.74	-1,269.05	338.64	1,513.55	1,462.59	50.97	29.697	
7,300.00	7,276.12	7,310.04	7,306.35	26.46	25.45	150.90	-1,269.05	333.91	1,511.38	1,459.69	51.69	29.242	
7,400.00	7,376.12	7,412.23	7,408.41	26.81	25.81	151.08	-1,269.06	328.62	1,508.87	1,456.48	52.39	28.801	
7,500.00	7,476.12	7,502.81	7,498.89	27.15	26.12	151.21	-1,269.07	324.50	1,506.68	1,453.62	53.05	28.399	
7,600.00	7,576.12	7,614.30	7,610.26	27.49	26.51	151.39	-1,269.07	319.20	1,504.40	1,450.60	53.79	27.966	
7,700.00	7,676.12	7,712.55	7,708.35	27.84	26.86	151.57	-1,269.08	313.78	1,501.77	1,447.28	54.49	27.562	
7,790.92	7,767.04	7,801.18	7,796.86	28.15	27.17	151.73	-1,269.09	309.19	1,499.54	1,444.42	55.11	27.208	
7,800.00	7,776.12	7,810.03	7,805.71	28.18	27.20	81.74	-1,269.09	308.75	1,499.29	1,444.11	55.18	27.173	
7,850.00	7,826.01	7,858.58	7,854.19	28.34	27.37	62.14	-1,269.09	306.36	1,496.73	1,441.22	55.51	26.965	
7,900.00	7,875.46	7,908.24	7,903.80	28.48	27.54	62.88	-1,269.09	303.95	1,492.18	1,436.35	55.83	26.727	
7,950.00	7,924.08	7,957.42	7,952.92	28.61	27.72	63.94	-1,269.10	301.48	1,485.70	1,429.56	56.15	26.461	
8,000.00	7,971.51	8,005.10	8,000.53	28.74	27.88	65.32	-1,269.10	299.01	1,477.43	1,420.98	56.45	26.173	
8,050.00	8,017.38	8,046.54	8,041.92	28.85	28.03	66.89	-1,269.10	296.97	1,467.64	1,410.92	56.72	25.874	
8,100.00	8,061.35	8,087.05	8,082.39	28.96	28.17	68.72	-1,269.11	295.12	1,456.57	1,399.58	56.99	25.559	
8,150.00	8,103.07	8,125.48	8,120.78	29.07	28.30	70.75	-1,269.11	293.50	1,444.44	1,387.20	57.24	25.233	
8,200.00	8,142.24	8,161.55	8,156.82	29.18	28.43	72.94	-1,269.11	292.11	1,431.54	1,374.05	57.49	24.900	
8,250.00	8,178.55	8,195.46	8,190.71	29.30	28.55	75.25	-1,269.11	290.90	1,418.14	1,360.40	57.74	24.562	
8,300.00	8,211.73	8,227.31	8,222.55	29.42	28.66	77.63	-1,269.11	289.79	1,404.52	1,346.53	57.99	24.222	
8,350.00	8,241.53	8,255.69	8,250.91	29.57	28.76	79.98	-1,269.12	288.79	1,391.00	1,332.76	58.24	23.884	
8,400.00	8,267.71	8,280.37	8,275.58	29.74	28.85	82.23	-1,269.12	287.93	1,377.90	1,319.40	58.50	23.553	
8,450.00	8,290.09	8,301.17	8,296.36	29.93	28.92	84.30	-1,269.12	287.21	1,365.56	1,306.78	58.78	23.233	
8,500.00	8,308.48	8,317.93	8,313.11	30.16	28.98	86.14	-1,269.12	286.62	1,354.26	1,295.19	59.07	22.926	
8,550.00	8,322.76	8,330.39	8,325.56	30.41	29.02	87.68	-1,269.12	286.19	1,344.28	1,284.90	59.38	22.637	
8,600.00	8,332.80	8,338.69	8,333.85	30.70	29.05	88.89	-1,269.12	285.91	1,335.83	1,276.12	59.71	22.370	
8,650.00	8,338.54	8,342.71	8,337.88	31.02	29.06	89.74	-1,269.12	285.77	1,329.09	1,269.03	60.06	22.129	
8,690.92	8,340.00	8,342.78	8,337.95	31.30	29.06	90.16	-1,269.12	285.77	1,324.94	1,264.58	60.35	21.953	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys												Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.00	8,340.00	8,342.48	8,337.64	31.37	29.06	90.15	-1,269.12	285.78	1,324.19	1,263.77	60.42	21.917	
8,800.00	8,340.00	8,339.08	8,334.25	32.18	29.05	90.00	-1,269.12	285.90	1,320.00	1,258.78	61.23	21.559	
8,805.36	8,340.00	8,338.90	8,334.07	32.23	29.05	90.00	-1,269.12	285.90	1,319.99	1,258.71	61.28	21.541 CC, ES	
8,900.00	8,340.00	8,335.67	8,330.84	33.15	29.04	89.86	-1,269.12	286.01	1,323.38	1,261.22	62.16	21.292	
9,000.00	8,340.00	8,332.23	8,327.40	34.26	29.03	89.71	-1,269.12	286.13	1,334.25	1,271.09	63.16	21.125	
9,100.00	8,340.00	8,328.76	8,323.94	35.50	29.02	89.56	-1,269.12	286.25	1,352.44	1,288.24	64.20	21.067 SF	
9,200.00	8,340.00	8,325.28	8,320.45	36.86	29.00	89.41	-1,269.12	286.37	1,377.66	1,312.43	65.23	21.120	
9,300.00	8,340.00	8,321.77	8,316.94	38.33	28.99	89.25	-1,269.12	286.49	1,409.53	1,343.30	66.23	21.283	
9,400.00	8,340.00	8,318.23	8,313.41	39.89	28.98	89.10	-1,269.12	286.61	1,447.61	1,380.44	67.16	21.554	
9,500.00	8,340.00	8,314.67	8,309.85	41.53	28.97	88.95	-1,269.12	286.74	1,491.42	1,423.40	68.02	21.925	
9,600.00	8,340.00	8,311.17	8,306.35	43.25	28.95	88.79	-1,269.12	286.86	1,540.48	1,471.68	68.80	22.391	
9,700.00	8,340.00	8,307.68	8,302.86	45.03	28.94	88.64	-1,269.12	286.98	1,594.31	1,524.81	69.49	22.942	
9,800.00	8,340.00	8,304.19	8,299.37	46.87	28.93	88.49	-1,269.12	287.10	1,652.43	1,582.32	70.10	23.572	
9,900.00	8,340.00	8,300.70	8,295.89	48.76	28.92	88.34	-1,269.12	287.22	1,714.41	1,643.77	70.63	24.272	
10,000.00	8,340.00	8,297.21	8,292.40	50.70	28.90	88.19	-1,269.12	287.35	1,779.84	1,708.75	71.10	25.035	
10,100.00	8,340.00	8,293.72	8,288.91	52.67	28.89	88.04	-1,269.12	287.47	1,848.37	1,776.88	71.49	25.854	
10,200.00	8,340.00	8,290.23	8,285.42	54.68	28.88	87.89	-1,269.12	287.59	1,919.65	1,847.82	71.83	26.723	
10,300.00	8,340.00	8,286.74	8,281.94	56.73	28.87	87.73	-1,269.12	287.71	1,993.40	1,921.28	72.13	27.638	
10,400.00	8,340.00	8,283.25	8,278.45	58.80	28.86	87.58	-1,269.12	287.83	2,069.35	1,996.97	72.38	28.592	
10,500.00	8,340.00	8,279.76	8,274.96	60.90	28.84	87.43	-1,269.12	287.96	2,147.26	2,074.68	72.59	29.582	
10,600.00	8,340.00	8,276.27	8,271.47	63.02	28.83	87.28	-1,269.12	288.08	2,226.94	2,154.17	72.77	30.603	
10,700.00	8,340.00	8,272.78	8,267.98	65.17	28.82	87.13	-1,269.12	288.20	2,308.19	2,235.27	72.92	31.653	
10,800.00	8,340.00	8,269.29	8,264.50	67.33	28.81	86.98	-1,269.12	288.32	2,390.85	2,317.80	73.05	32.729	
10,900.00	8,340.00	8,265.80	8,261.01	69.51	28.79	86.83	-1,269.12	288.44	2,474.80	2,401.63	73.16	33.827	
11,000.00	8,340.00	8,262.31	8,257.52	71.71	28.78	86.68	-1,269.12	288.56	2,559.89	2,486.63	73.25	34.945	
11,100.00	8,340.00	8,258.82	8,254.03	73.92	28.77	86.53	-1,269.12	288.69	2,646.02	2,572.68	73.33	36.082	
11,200.00	8,340.00	8,255.33	8,250.54	76.14	28.76	86.38	-1,269.12	288.81	2,733.09	2,659.69	73.40	37.235	
11,300.00	8,340.00	8,251.84	8,247.06	78.37	28.75	86.23	-1,269.12	288.93	2,821.01	2,747.55	73.46	38.403	
11,400.00	8,340.00	8,248.35	8,243.57	80.62	28.73	86.07	-1,269.11	289.05	2,909.71	2,836.20	73.51	39.585	
11,500.00	8,340.00	8,244.86	8,240.08	82.87	28.72	85.92	-1,269.11	289.17	2,999.12	2,925.57	73.55	40.779	
11,600.00	8,340.00	8,241.37	8,236.59	85.14	28.71	85.77	-1,269.11	289.29	3,089.17	3,015.59	73.58	41.984	
11,700.00	8,340.00	8,237.88	8,233.11	87.41	28.70	85.62	-1,269.11	289.42	3,179.81	3,106.20	73.61	43.199	
11,800.00	8,340.00	8,234.39	8,229.62	89.70	28.69	85.47	-1,269.11	289.54	3,271.00	3,197.36	73.63	44.423	
11,900.00	8,340.00	8,230.90	8,226.13	91.98	28.67	85.32	-1,269.11	289.66	3,362.68	3,289.02	73.65	45.655	
12,000.00	8,340.00	8,227.41	8,222.64	94.28	28.66	85.17	-1,269.11	289.78	3,454.82	3,381.15	73.67	46.894	
12,100.00	8,340.00	8,223.92	8,219.15	96.58	28.65	85.02	-1,269.11	289.90	3,547.38	3,473.69	73.69	48.141	
12,200.00	8,340.00	8,220.43	8,215.67	98.89	28.64	84.87	-1,269.11	290.03	3,640.33	3,566.63	73.70	49.393	
12,300.00	8,340.00	8,216.94	8,212.18	101.20	28.62	84.72	-1,269.11	290.15	3,733.65	3,659.93	73.71	50.651	
12,400.00	8,340.00	8,213.45	8,208.69	103.52	28.61	84.57	-1,269.11	290.27	3,827.29	3,753.57	73.72	51.914	
12,500.00	8,340.00	8,222.68	8,217.92	105.84	28.65	84.97	-1,269.11	290.01	3,921.21	3,847.44	73.77	53.154	
12,600.00	8,340.00	8,217.86	8,213.11	108.17	28.63	84.76	-1,269.11	290.16	4,015.47	3,941.69	73.78	54.428	
12,700.00	8,340.00	8,212.91	8,208.16	110.50	28.61	84.55	-1,269.11	290.32	4,110.00	4,036.22	73.78	55.707	
12,800.00	8,340.00	8,207.81	8,203.06	112.84	28.59	84.33	-1,269.11	290.49	4,204.77	4,130.99	73.78	56.989	
12,900.00	8,340.00	8,202.57	8,197.82	115.18	28.57	84.10	-1,269.11	290.66	4,299.78	4,225.99	73.78	58.275	
13,000.00	8,340.00	8,197.17	8,192.43	117.52	28.56	83.87	-1,269.11	290.84	4,395.00	4,321.22	73.79	59.565	
13,100.00	8,340.00	8,191.61	8,186.87	119.87	28.54	83.63	-1,269.11	291.03	4,490.43	4,416.64	73.79	60.857	
13,200.00	8,340.00	8,185.88	8,181.14	122.21	28.52	83.39	-1,269.11	291.23	4,586.05	4,512.26	73.79	62.152	
13,216.38	8,340.00	8,184.93	8,180.19	122.60	28.51	83.35	-1,269.11	291.26	4,601.72	4,527.94	73.79	62.364	



Anticollision Report



Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 125-GYRO-NS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	96.99	-3.60	29.35	29.63				
100.00	100.00	98.18	98.18	0.13	0.14	96.89	-3.54	29.30	29.52	29.25	0.26	112.642	
138.88	138.88	137.07	137.07	0.27	0.19	96.80	-3.49	29.26	29.47	29.01	0.45	64.796	
200.00	200.00	198.06	198.06	0.49	0.43	96.56	-3.38	29.39	29.58	28.67	0.91	32.424	
300.00	300.00	298.21	298.20	0.84	0.78	96.19	-3.20	29.50	29.67	28.05	1.62	18.315	
400.00	400.00	398.29	398.29	1.20	1.13	95.95	-3.04	29.21	29.37	27.04	2.33	12.615	
500.00	500.00	498.35	498.34	1.56	1.48	96.88	-3.44	28.50	28.71	25.67	3.04	9.454	
600.00	600.00	598.31	598.30	1.92	1.83	98.92	-4.37	27.84	28.18	24.44	3.74	7.526	
700.00	700.00	698.22	698.21	2.28	2.17	101.19	-5.41	27.32	27.85	23.40	4.45	6.255	
773.72	773.72	771.90	771.87	2.54	2.43	102.80	-6.14	27.04	27.73	22.76	4.97	5.576 CC	
800.00	800.00	798.13	798.11	2.64	2.52	103.27	-6.37	27.01	27.76	22.60	5.16	5.380	
900.00	900.00	897.94	897.91	3.00	2.87	104.45	-7.06	27.39	28.28	22.42	5.87	4.822	
1,000.00	1,000.00	997.87	997.84	3.35	3.22	105.37	-7.75	28.20	29.25	22.68	6.57	4.451	
1,100.00	1,100.00	1,097.84	1,097.80	3.71	3.57	105.90	-8.31	29.16	30.32	23.05	7.28	4.166	
1,200.00	1,200.00	1,197.82	1,197.78	4.07	3.92	105.98	-8.67	30.28	31.50	23.52	7.99	3.944	
1,300.00	1,300.00	1,298.05	1,298.00	4.43	4.27	106.03	-8.96	31.18	32.44	23.74	8.70	3.730	
1,400.00	1,400.00	1,398.45	1,398.40	4.79	4.62	107.39	-9.66	30.82	32.30	22.90	9.40	3.435	
1,500.00	1,500.00	1,498.51	1,498.44	5.15	4.97	109.52	-10.46	29.50	31.30	21.19	10.11	3.095	
1,532.92	1,532.92	1,531.40	1,531.33	5.26	5.08	-166.86	-10.84	29.05	31.14	20.80	10.34	3.011 ES	
1,600.00	1,599.99	1,598.43	1,598.34	5.50	5.32	-165.39	-11.69	28.22	31.81	20.99	10.81	2.942	
1,700.00	1,699.91	1,698.28	1,698.19	5.84	5.67	-164.52	-12.94	27.27	35.20	23.70	11.51	3.060	
1,766.67	1,766.45	1,764.90	1,764.80	6.07	5.90	-164.58	-13.79	26.61	38.84	26.87	11.97	3.245	
1,800.00	1,799.70	1,798.17	1,798.07	6.19	6.02	-164.69	-14.22	26.25	40.91	28.71	12.20	3.354	
1,900.00	1,899.46	1,897.92	1,897.80	6.54	6.37	-164.96	-15.51	25.13	47.10	34.21	12.90	3.653	
2,000.00	1,999.22	1,996.90	1,996.76	6.90	6.71	-165.00	-17.17	24.58	53.97	40.38	13.59	3.971	
2,100.00	2,098.97	2,095.10	2,094.89	7.26	7.06	-164.15	-20.59	25.80	63.17	48.90	14.27	4.426	
2,200.00	2,198.73	2,194.20	2,193.86	7.61	7.41	-163.00	-25.15	27.94	73.67	58.71	14.97	4.922	
2,300.00	2,298.48	2,291.62	2,291.08	7.97	7.75	-161.92	-30.53	31.14	85.61	69.97	15.64	5.474	
2,400.00	2,398.24	2,388.66	2,387.74	8.33	8.09	-160.61	-37.62	35.94	99.82	83.52	16.30	6.123	
2,500.00	2,498.00	2,489.14	2,487.73	8.70	8.44	-159.18	-46.01	41.21	114.84	97.81	17.03	6.745	
2,600.00	2,597.75	2,591.66	2,589.98	9.06	8.81	-158.50	-52.39	44.59	127.18	109.41	17.77	7.158	
2,700.00	2,697.51	2,692.98	2,691.19	9.43	9.16	-158.41	-56.77	46.72	137.58	119.09	18.49	7.441	
2,800.00	2,797.27	2,793.54	2,791.68	9.79	9.51	-158.54	-60.12	48.15	146.91	127.71	19.20	7.651	
2,850.00	2,847.14	2,843.69	2,841.81	9.97	9.69	-158.73	-61.37	48.83	151.35	131.79	19.56	7.739	
2,900.00	2,897.00	2,893.46	2,891.56	10.16	9.86	-158.96	-62.52	49.51	156.06	136.15	19.91	7.839	
3,000.00	2,996.54	2,992.63	2,990.70	10.53	10.21	-159.60	-64.83	50.90	167.35	146.73	20.61	8.119	
3,100.00	3,095.79	3,092.11	3,090.14	10.91	10.55	-160.41	-67.08	51.99	180.80	159.48	21.32	8.480	
3,116.66	3,112.29	3,108.55	3,106.58	10.97	10.61	-160.56	-67.45	52.19	183.30	161.86	21.44	8.550	
3,200.00	3,194.82	3,191.31	3,189.31	11.30	10.90	-161.34	-69.27	53.16	195.94	173.92	22.03	8.895	
3,300.00	3,293.85	3,289.71	3,287.69	11.69	11.25	-162.18	-71.29	54.28	211.06	188.33	22.73	9.286	
3,400.00	3,392.87	3,388.91	3,386.85	12.08	11.59	-162.90	-73.40	55.48	226.31	202.88	23.44	9.657	
3,500.00	3,491.90	3,488.23	3,486.15	12.47	11.94	-163.47	-75.69	56.47	241.47	217.33	24.14	10.002	
3,600.00	3,590.93	3,587.78	3,585.68	12.87	12.29	-163.99	-77.73	57.07	256.20	231.35	24.85	10.308	
3,700.00	3,689.95	3,687.26	3,685.13	13.26	12.64	-164.49	-79.58	57.58	270.79	245.23	25.56	10.593	
3,800.00	3,788.98	3,786.68	3,784.53	13.66	12.99	-164.92	-81.45	57.98	285.30	259.03	26.27	10.859	
3,900.00	3,888.01	3,886.53	3,884.38	14.06	13.34	-165.34	-83.07	58.09	299.46	272.47	26.99	11.097	
4,000.00	3,987.03	3,985.27	3,983.11	14.46	13.68	-165.77	-84.33	58.19	313.51	285.82	27.69	11.321	
4,100.00	4,086.06	4,084.30	4,082.13	14.87	14.03	-166.18	-85.60	58.46	327.73	299.33	28.40	11.540	
4,200.00	4,185.09	4,184.77	4,182.59	15.27	14.38	-166.55	-86.84	58.43	341.67	312.55	29.12	11.735	
4,300.00	4,284.11	4,283.71	4,281.53	15.67	14.73	-166.90	-87.86	58.22	355.38	325.55	29.82	11.916	
4,400.00	4,383.14	4,382.18	4,379.99	16.08	15.07	-167.23	-88.87	58.15	369.23	338.70	30.53	12.094	
4,500.00	4,482.17	4,479.24	4,477.04	16.49	15.41	-167.52	-90.05	58.17	383.25	352.02	31.23	12.273	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys												Offset Site Error:	0.00 usft
Survey Program: 125-GYRO-NS												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,600.00	4,581.19	4,581.60	4,579.39	16.89	15.77	-167.79	-91.31	58.04	397.13	365.18	31.96	12.427	
4,700.00	4,680.22	4,680.07	4,677.86	17.30	16.12	-168.03	-92.45	57.72	410.82	378.16	32.66	12.578	
4,800.00	4,779.25	4,778.86	4,776.64	17.71	16.46	-168.27	-93.49	57.39	424.47	391.10	33.37	12.720	
4,900.00	4,878.27	4,878.99	4,876.77	18.12	16.81	-168.50	-94.63	57.25	438.35	404.27	34.09	12.860	
4,943.57	4,921.42	4,923.56	4,921.33	18.30	16.97	-168.58	-95.15	56.97	444.20	409.79	34.40	12.911	
5,000.00	4,977.36	4,978.81	4,976.57	18.53	17.16	-168.68	-95.65	56.57	451.34	416.54	34.80	12.969	
5,100.00	5,076.73	5,079.13	5,076.88	18.92	17.51	-168.79	-97.26	55.80	461.99	426.48	35.52	13.008	
5,200.00	5,176.36	5,180.43	5,178.16	19.30	17.87	-168.81	-98.68	54.68	469.77	433.54	36.23	12.965	
5,300.00	5,276.18	5,281.90	5,279.61	19.67	18.22	-168.77	-99.90	53.23	474.63	437.68	36.95	12.846	
5,400.00	5,376.12	5,388.80	5,386.48	20.03	18.59	-168.92	-98.81	51.57	476.10	438.41	37.68	12.634	
5,476.91	5,453.03	5,464.71	5,462.33	20.29	18.86	108.07	-96.14	50.43	474.91	436.70	38.21	12.428	
5,500.00	5,476.12	5,487.39	5,485.00	20.36	18.93	108.00	-95.35	50.14	474.38	436.01	38.37	12.363	
5,600.00	5,576.12	5,587.07	5,584.62	20.70	19.28	107.66	-92.07	48.85	472.14	433.08	39.06	12.088	
5,700.00	5,676.12	5,692.91	5,690.34	21.03	19.64	107.18	-87.39	47.28	469.40	429.63	39.77	11.803	
5,800.00	5,776.12	5,792.74	5,789.96	21.37	19.99	106.52	-81.24	45.56	465.97	425.51	40.46	11.517	
5,900.00	5,876.12	5,891.59	5,888.65	21.70	20.33	105.93	-75.78	43.89	462.80	421.65	41.15	11.248	
6,000.00	5,976.12	5,987.01	5,983.92	22.04	20.66	105.35	-70.58	42.74	460.17	418.35	41.82	11.004	
6,100.00	6,076.12	6,084.88	6,081.65	22.37	21.00	104.73	-65.35	42.25	458.29	415.79	42.50	10.783	
6,177.43	6,153.55	6,155.04	6,151.70	22.64	21.24	104.26	-61.52	42.49	457.51	414.51	43.00	10.640	
6,200.00	6,176.12	6,172.94	6,169.57	22.71	21.30	104.14	-60.61	42.82	457.62	414.50	43.12	10.612	
6,300.00	6,276.12	6,261.06	6,257.52	23.05	21.61	103.51	-56.19	46.03	459.97	416.25	43.72	10.521	
6,400.00	6,376.12	6,361.13	6,357.31	23.39	21.95	102.70	-50.74	51.12	463.70	419.29	44.41	10.441	
6,500.00	6,476.12	6,451.19	6,447.11	23.73	22.26	102.02	-46.16	56.17	468.12	423.12	45.00	10.402	
6,600.00	6,576.12	6,536.53	6,532.03	24.07	22.56	101.35	-42.07	63.52	475.59	430.08	45.51	10.450	
6,700.00	6,676.12	6,642.84	6,637.90	24.41	22.93	100.93	-40.36	73.08	484.12	437.83	46.29	10.458	
6,800.00	6,776.12	6,752.64	6,747.43	24.75	23.31	100.60	-38.98	80.59	490.61	443.50	47.11	10.415	
6,900.00	6,876.12	6,850.47	6,845.10	25.09	23.65	100.38	-37.99	85.88	496.76	447.97	47.78	10.375	
7,000.00	6,976.12	6,952.90	6,947.32	25.43	24.01	100.04	-36.20	92.33	501.66	453.15	48.51	10.342	
7,100.00	7,076.12	7,046.01	7,040.15	25.78	24.34	99.53	-32.66	98.55	507.60	458.47	49.13	10.332	
7,200.00	7,176.12	7,143.07	7,136.71	26.12	24.68	98.77	-27.19	106.71	515.01	465.22	49.79	10.343	
7,300.00	7,276.12	7,234.85	7,227.99	26.46	25.00	98.10	-22.25	114.84	523.01	472.62	50.39	10.380	
7,400.00	7,376.12	7,325.64	7,318.24	26.81	25.32	97.63	-19.16	124.16	532.72	481.76	50.96	10.453	
7,500.00	7,476.12	7,430.30	7,422.33	27.15	25.69	97.32	-17.68	135.01	542.82	491.09	51.73	10.493	
7,600.00	7,576.12	7,516.29	7,507.86	27.49	25.99	97.14	-17.09	143.89	553.07	500.84	52.23	10.589	
7,700.00	7,676.12	7,608.01	7,598.79	27.84	26.31	97.05	-17.70	155.84	566.06	513.25	52.81	10.719	
7,790.92	7,767.04	7,693.25	7,683.19	28.15	26.62	96.95	-18.17	167.76	578.73	525.37	53.36	10.846	
7,800.00	7,776.12	7,702.39	7,692.24	28.18	26.65	96.90	-18.23	169.06	579.94	526.52	53.42	10.856	
7,850.00	7,826.01	7,755.87	7,745.20	28.34	26.84	96.84	-18.63	176.46	583.93	530.11	53.82	10.849	
7,900.00	7,875.46	7,807.98	7,796.85	28.48	27.03	96.90	-19.04	183.40	583.31	529.13	54.19	10.764	
7,950.00	7,924.08	7,859.76	7,848.19	28.61	27.21	97.08	-19.57	190.13	578.25	523.70	54.55	10.600	
8,000.00	7,971.51	7,911.71	7,899.72	28.74	27.40	97.46	-20.79	196.54	568.65	513.74	54.91	10.355	
8,050.00	8,017.38	7,964.67	7,952.30	28.85	27.59	98.08	-22.77	202.62	554.55	499.26	55.30	10.029	
8,100.00	8,061.35	8,010.84	7,998.15	28.96	27.75	98.90	-24.83	207.59	536.11	480.53	55.58	9.646	
8,150.00	8,103.07	8,054.30	8,041.29	29.07	27.90	99.94	-26.86	212.40	513.94	458.10	55.83	9.205	
8,200.00	8,142.24	8,097.07	8,083.76	29.18	28.06	11.34	-29.00	217.09	488.04	431.95	56.09	8.701	
8,250.00	8,178.55	8,131.99	8,118.40	29.30	28.18	13.02	-30.83	221.02	458.81	402.58	56.24	8.159	
8,300.00	8,211.73	8,163.66	8,149.77	29.42	28.29	15.12	-32.29	225.14	426.95	370.62	56.33	7.580	
8,350.00	8,241.53	8,200.58	8,186.32	29.57	28.43	18.25	-33.79	230.09	392.23	335.66	56.57	6.933	
8,400.00	8,267.71	8,233.20	8,218.65	29.74	28.54	22.57	-35.15	234.27	354.70	297.92	56.78	6.247	
8,450.00	8,290.09	8,261.76	8,246.95	29.93	28.65	28.61	-36.39	237.85	314.90	257.93	56.97	5.527	
8,500.00	8,308.48	8,286.33	8,271.31	30.16	28.73	37.01	-37.47	240.86	273.37	216.20	57.16	4.782	
8,550.00	8,322.76	8,306.60	8,291.41	30.41	28.81	48.14	-38.33	243.32	230.82	173.45	57.37	4.023	

CC - Min centre to center distance or convergent point. SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 125-GYRO-NS													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Separation Factor	
8,600.00	8,332.80	8,322.74	8,307.42	30.70	28.87	61.34	-38.98	245.27	188.33	130.66	57.67	3.266	
8,650.00	8,338.54	8,334.61	8,319.20	31.02	28.91	74.12	-39.43	246.72	147.74	89.57	58.18	2.540	
8,690.92	8,340.00	8,341.20	8,325.73	31.30	28.93	82.19	-39.65	247.53	118.56	59.63	58.93	2.012	
8,700.00	8,340.00	8,342.34	8,326.87	31.37	28.94	82.90	-39.69	247.67	112.99	53.83	59.16	1.910	
8,767.66	8,340.00	8,350.96	8,335.41	31.92	28.97	88.27	-39.96	248.74	90.89	30.04	60.85	1.494 Level 3, SF	
8,800.00	8,340.00	8,355.01	8,339.43	32.18	28.98	90.81	-40.08	249.24	96.39	35.62	60.77	1.586	
8,900.00	8,340.00	8,367.52	8,351.84	33.15	29.03	98.53	-40.44	250.79	159.70	100.65	59.04	2.705	
9,000.00	8,340.00	8,379.79	8,364.02	34.26	29.07	105.76	-40.77	252.30	247.80	189.50	58.30	4.250	
9,100.00	8,340.00	8,391.62	8,375.75	35.50	29.11	112.24	-41.08	253.75	342.08	284.04	58.04	5.894	
9,200.00	8,340.00	8,403.30	8,387.34	36.86	29.15	118.06	-41.38	255.15	438.57	380.63	57.94	7.569	
9,300.00	8,340.00	8,415.19	8,399.14	38.33	29.20	123.38	-41.68	256.58	536.08	478.18	57.90	9.259	
9,400.00	8,340.00	8,427.03	8,410.89	39.89	29.24	128.07	-41.97	258.00	634.15	576.25	57.89	10.953	
9,500.00	8,340.00	8,438.77	8,422.55	41.53	29.28	132.18	-42.27	259.40	732.54	674.63	57.91	12.650	
9,600.00	8,340.00	8,450.46	8,434.15	43.25	29.32	135.77	-42.56	260.79	831.15	773.22	57.93	14.347	
9,700.00	8,340.00	8,460.61	8,444.22	45.03	29.36	138.55	-42.81	261.99	929.92	871.95	57.97	16.042	
9,800.00	8,340.00	8,470.50	8,454.05	46.87	29.40	140.98	-43.05	263.14	1,028.81	970.80	58.01	17.736	
9,900.00	8,340.00	8,479.96	8,463.44	48.76	29.43	143.07	-43.28	264.22	1,127.80	1,069.75	58.05	19.427	
10,000.00	8,340.00	8,488.99	8,472.41	50.70	29.46	144.90	-43.49	265.24	1,226.86	1,168.77	58.10	21.117	
10,100.00	8,340.00	8,497.72	8,481.09	52.67	29.49	146.51	-43.70	266.20	1,326.00	1,267.85	58.15	22.805	
10,200.00	8,340.00	8,506.11	8,489.42	54.68	29.52	147.93	-43.89	267.11	1,425.18	1,366.99	58.19	24.490	
10,300.00	8,340.00	8,514.20	8,497.46	56.73	29.55	149.20	-44.08	267.98	1,524.42	1,466.18	58.24	26.174	
10,400.00	8,340.00	8,522.03	8,505.25	58.80	29.58	150.34	-44.26	268.80	1,623.70	1,565.40	58.29	27.855	
10,500.00	8,340.00	8,529.29	8,512.46	60.90	29.61	151.33	-44.43	269.55	1,723.01	1,664.67	58.34	29.533	
10,600.00	8,340.00	8,536.08	8,519.22	63.02	29.63	152.20	-44.59	270.25	1,822.36	1,763.97	58.39	31.209	
10,700.00	8,340.00	8,542.64	8,525.74	65.17	29.65	152.99	-44.74	270.90	1,921.74	1,863.30	58.44	32.883	
10,800.00	8,340.00	8,550.00	8,533.07	67.33	29.68	153.82	-44.93	271.62	2,021.16	1,962.66	58.49	34.553	
10,900.00	8,340.00	8,555.09	8,538.13	69.51	29.70	154.37	-45.05	272.11	2,120.60	2,062.05	58.54	36.222	
11,000.00	8,340.00	8,561.01	8,544.02	71.71	29.72	154.98	-45.21	272.67	2,220.06	2,161.46	58.59	37.888	
11,100.00	8,340.00	8,566.74	8,549.73	73.92	29.74	155.54	-45.35	273.20	2,319.54	2,260.90	58.65	39.552	
11,200.00	8,340.00	8,575.00	8,557.95	76.14	29.77	156.31	-45.58	273.96	2,419.05	2,360.35	58.70	41.210	
11,300.00	8,340.00	8,578.32	8,561.25	78.37	29.78	156.60	-45.66	274.26	2,518.58	2,459.83	58.75	42.870	
11,400.00	8,340.00	8,584.88	8,567.78	80.62	29.80	157.16	-45.83	274.84	2,618.12	2,559.31	58.80	44.523	
11,500.00	8,340.00	8,591.30	8,574.18	82.87	29.83	157.69	-45.99	275.41	2,717.67	2,658.81	58.86	46.173	
11,600.00	8,340.00	8,597.58	8,580.44	85.14	29.85	158.18	-46.13	275.95	2,817.23	2,758.32	58.91	47.819	
11,700.00	8,340.00	8,603.99	8,586.82	87.41	29.87	158.66	-46.26	276.51	2,916.81	2,857.84	58.97	49.462	
11,800.00	8,340.00	8,610.45	8,593.26	89.70	29.89	159.13	-46.38	277.06	3,016.39	2,957.37	59.03	51.101	
11,900.00	8,340.00	8,616.80	8,599.58	91.98	29.92	159.58	-46.48	277.60	3,115.99	3,056.90	59.09	52.737	
12,000.00	8,340.00	8,623.03	8,605.79	94.28	29.94	160.00	-46.56	278.12	3,215.59	3,156.45	59.14	54.369	
12,100.00	8,340.00	8,625.00	8,607.75	96.58	29.94	160.13	-46.58	278.29	3,315.20	3,256.01	59.19	56.006	
12,200.00	8,340.00	8,632.30	8,615.02	98.89	29.97	160.59	-46.67	278.89	3,414.83	3,355.57	59.26	57.628	
12,300.00	8,340.00	8,636.48	8,619.19	101.20	29.99	160.85	-46.71	279.23	3,514.46	3,455.15	59.31	59.253	
12,400.00	8,340.00	8,640.54	8,623.24	103.52	30.00	161.10	-46.75	279.55	3,614.11	3,554.74	59.37	60.875	
12,500.00	8,340.00	8,644.50	8,627.18	105.84	30.01	161.33	-46.79	279.86	3,713.77	3,654.34	59.43	62.494	
12,600.00	8,340.00	8,650.00	8,632.67	108.17	30.03	161.65	-46.84	280.29	3,813.43	3,753.95	59.49	64.105	
12,700.00	8,340.00	8,650.00	8,632.67	110.50	30.03	161.65	-46.84	280.29	3,913.11	3,853.57	59.54	65.727	
12,800.00	8,340.00	8,655.88	8,638.53	112.84	30.05	161.97	-46.89	280.73	4,012.79	3,953.19	59.60	67.329	
12,900.00	8,340.00	8,659.52	8,642.16	115.18	30.07	162.17	-46.92	281.00	4,112.49	4,052.83	59.66	68.934	
13,000.00	8,340.00	8,663.07	8,645.70	117.52	30.08	162.36	-46.95	281.27	4,212.19	4,152.47	59.72	70.534	
13,100.00	8,340.00	8,666.54	8,649.16	119.87	30.09	162.53	-46.98	281.52	4,311.90	4,252.12	59.78	72.132	
13,200.00	8,340.00	8,675.00	8,657.60	122.21	30.12	162.96	-47.06	282.12	4,411.62	4,351.77	59.85	73.708	
13,216.38	8,340.00	8,675.00	8,657.60	122.60	30.12	162.96	-47.06	282.12	4,427.95	4,368.09	59.86	73.970	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	3.53	3.53	0.00	0.00	-158.67	-1,673.62	-653.49	1,796.68					
100.00	100.00	103.53	103.53	0.13	0.14	-158.67	-1,673.62	-653.49	1,796.68	1,796.41	0.27	6,724.871		
200.00	200.00	203.53	203.53	0.49	0.50	-158.67	-1,673.62	-653.49	1,796.68	1,795.69	0.98	1,825.684		
300.00	300.00	303.53	303.53	0.84	0.86	-158.67	-1,673.62	-653.49	1,796.68	1,794.98	1.70	1,056.214		
400.00	400.00	403.53	403.53	1.20	1.22	-158.67	-1,673.62	-653.49	1,796.68	1,794.26	2.42	743.044		
500.00	500.00	503.53	503.53	1.56	1.57	-158.67	-1,673.62	-653.49	1,796.68	1,793.54	3.13	573.114		
600.00	600.00	603.53	603.53	1.92	1.93	-158.67	-1,673.62	-653.49	1,796.68	1,792.83	3.85	466.441		
700.00	700.00	703.53	703.53	2.28	2.29	-158.67	-1,673.62	-653.49	1,796.68	1,792.11	4.57	393.247		
800.00	800.00	803.53	803.53	2.64	2.65	-158.67	-1,673.62	-653.49	1,796.68	1,791.39	5.29	339.909		
900.00	900.00	903.53	903.53	3.00	3.01	-158.67	-1,673.62	-653.49	1,796.68	1,790.68	6.00	299.311		
1,000.00	1,000.00	1,006.55	1,006.55	3.35	3.38	-158.67	-1,673.62	-653.49	1,796.68	1,789.95	6.73	266.949		
1,100.00	1,100.00	1,192.02	1,191.94	3.71	4.04	-158.70	-1,669.55	-650.89	1,794.13	1,786.38	7.75	231.601		
1,200.00	1,200.00	1,326.16	1,325.80	4.07	4.52	-158.76	-1,662.28	-646.24	1,787.67	1,779.09	8.58	208.394		
1,300.00	1,300.00	1,425.92	1,425.32	4.43	4.88	-158.80	-1,656.42	-642.49	1,780.83	1,771.54	9.29	191.669		
1,400.00	1,400.00	1,525.68	1,524.83	4.79	5.24	-158.84	-1,650.56	-638.74	1,773.99	1,763.99	10.01	177.294		
1,500.00	1,500.00	1,625.43	1,624.34	5.15	5.60	-158.89	-1,644.70	-634.99	1,767.16	1,756.44	10.72	164.830		
1,600.00	1,599.99	1,725.14	1,723.81	5.50	5.97	-76.35	-1,638.84	-631.25	1,760.01	1,748.58	11.43	153.992		
1,700.00	1,699.91	1,824.70	1,823.12	5.84	6.33	-76.64	-1,632.99	-627.50	1,752.26	1,740.13	12.13	144.434		
1,766.67	1,766.45	1,909.04	1,889.22	6.07	6.64	-76.88	-1,629.09	-625.01	1,746.77	1,734.10	12.67	137.899		
1,800.00	1,799.70	1,924.06	1,922.24	6.19	6.69	-76.97	-1,627.15	-623.77	1,743.96	1,731.12	12.84	135.850		
1,900.00	1,899.46	2,023.36	2,021.30	6.54	7.06	-77.24	-1,621.31	-620.04	1,735.57	1,722.02	13.55	128.128		
2,000.00	1,999.22	2,122.67	2,120.37	6.90	7.42	-77.51	-1,615.48	-616.31	1,727.22	1,712.96	14.26	121.153		
2,100.00	2,098.97	2,221.97	2,219.43	7.26	7.79	-77.79	-1,609.64	-612.57	1,718.90	1,703.93	14.97	114.825		
2,200.00	2,198.73	2,321.28	2,318.49	7.61	8.16	-78.07	-1,603.81	-608.84	1,710.63	1,694.95	15.68	109.062		
2,300.00	2,298.48	2,420.58	2,417.56	7.97	8.52	-78.35	-1,597.97	-605.11	1,702.40	1,686.00	16.40	103.793		
2,400.00	2,398.24	2,519.89	2,516.62	8.33	8.89	-78.64	-1,592.13	-601.38	1,694.21	1,677.09	17.12	98.958		
2,500.00	2,498.00	2,619.19	2,615.68	8.70	9.26	-78.93	-1,586.30	-597.64	1,686.06	1,668.22	17.84	94.508		
2,600.00	2,597.75	2,718.50	2,714.75	9.06	9.62	-79.22	-1,580.46	-593.91	1,677.96	1,659.40	18.56	90.399		
2,700.00	2,697.51	2,817.80	2,813.81	9.43	9.99	-79.51	-1,574.63	-590.18	1,669.90	1,650.61	19.28	86.594		
2,800.00	2,797.27	2,965.80	2,961.30	9.79	10.55	-79.97	-1,568.46	-583.68	1,660.90	1,640.75	20.15	82.426		
2,850.00	2,847.14	3,050.89	3,045.87	9.97	10.87	-80.26	-1,566.50	-578.58	1,654.92	1,634.32	20.61	80.313		
2,900.00	2,897.00	3,127.57	3,121.87	10.16	11.17	-80.66	-1,561.98	-573.14	1,647.88	1,626.84	21.03	78.343		
3,000.00	2,996.54	3,225.56	3,218.92	10.53	11.55	-81.34	-1,556.49	-565.79	1,632.91	1,611.15	21.76	75.027		
3,100.00	3,095.79	3,323.12	3,315.53	10.91	11.94	-82.13	-1,552.05	-558.47	1,617.68	1,595.18	22.50	71.892		
3,116.66	3,112.29	3,339.34	3,331.58	10.97	12.00	-82.27	-1,552.15	-557.26	1,615.12	1,592.50	22.63	71.386		
3,200.00	3,194.82	3,420.37	3,411.82	11.30	12.32	-82.79	-1,543.65	-551.18	1,602.39	1,579.15	23.25	68.934		
3,300.00	3,293.85	3,517.60	3,508.11	11.69	12.71	-83.43	-1,530.25	-543.89	1,587.29	1,563.30	23.99	66.157		
3,400.00	3,392.87	3,614.84	3,604.40	12.08	13.09	-84.07	-1,490.85	-536.60	1,572.40	1,547.65	24.74	63.547		
3,500.00	3,491.90	3,712.07	3,700.69	12.47	13.48	-84.73	-1,479.45	-529.31	1,557.71	1,532.21	25.50	61.090		
3,600.00	3,590.93	3,809.30	3,796.98	12.87	13.87	-85.41	-1,468.05	-522.02	1,543.24	1,516.98	26.26	58.776		
3,700.00	3,689.95	3,906.54	3,893.26	13.26	14.26	-86.09	-1,456.65	-514.73	1,528.98	1,501.96	27.02	56.593		
3,800.00	3,788.98	4,003.77	3,989.55	13.66	14.65	-86.79	-1,445.25	-507.44	1,514.95	1,487.17	27.78	54.531		
3,900.00	3,888.01	4,101.01	4,085.84	14.06	15.04	-87.50	-1,433.85	-500.15	1,501.16	1,472.61	28.55	52.583		
4,000.00	3,987.03	4,201.76	4,182.13	14.46	15.45	-88.22	-1,422.45	-492.85	1,487.60	1,458.27	29.33	50.718		
4,100.00	4,086.06	4,304.52	4,278.42	14.87	15.87	-88.96	-1,411.05	-485.56	1,474.29	1,444.16	30.12	48.941		
4,200.00	4,185.09	4,392.71	4,374.70	15.27	16.22	-89.70	-1,399.65	-478.27	1,461.22	1,430.36	30.86	47.343		
4,300.00	4,284.11	4,489.95	4,470.99	15.67	16.62	-90.46	-1,388.25	-470.98	1,448.42	1,416.78	31.64	45.775		
4,400.00	4,383.14	4,587.18	4,567.28	16.08	17.01	-91.24	-1,376.85	-463.69	1,435.89	1,403.47	32.42	44.288		
4,500.00	4,482.17	4,684.41	4,663.57	16.49	17.41	-92.02	-1,365.45	-456.40	1,423.62	1,390.42	33.20	42.875		
4,600.00	4,581.19	4,781.65	4,759.86	16.89	17.80	-92.82	-1,354.04	-449.11	1,411.64	1,377.65	33.99	41.533		
4,700.00	4,680.22	4,878.88	4,856.15	17.30	18.20	-93.64	-1,342.64	-441.82	1,399.95	1,365.17	34.77	40.257		
4,800.00	4,779.25	4,976.12	4,952.43	17.71	18.59	-94.46	-1,331.24	-434.53	1,388.54	1,352.98	35.56	39.044		

CC - Min centre to center distance or convergent point. SF - min separation factor. ES - min ellipse separation



Anticollision Report



Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,878.27	5,073.35	5,048.72	18.12	18.99	-95.30	-1,319.84	-427.24	1,377.44	1,341.09	36.35	37.890	
4,943.57	4,921.42	5,115.72	5,090.68	18.30	19.16	-95.67	-1,314.88	-424.06	1,372.70	1,336.00	36.70	37.404	
5,000.00	4,977.36	5,170.67	5,145.09	18.53	19.39	-96.04	-1,308.43	-419.94	1,366.61	1,329.46	37.14	36.791	
5,100.00	5,076.73	5,262.10	5,235.64	18.92	19.76	-96.59	-1,297.76	-413.11	1,355.86	1,317.95	37.91	35.762	
5,200.00	5,176.36	5,337.69	5,310.64	19.30	20.06	-96.93	-1,289.87	-408.06	1,346.24	1,307.61	38.63	34.850	
5,300.00	5,276.18	5,413.96	5,386.50	19.67	20.36	-97.18	-1,283.17	-403.78	1,338.11	1,298.79	39.32	34.031	
5,400.00	5,376.12	5,490.76	5,463.02	20.03	20.65	-97.34	-1,277.72	-400.29	1,331.40	1,291.42	39.98	33.300	
5,476.91	5,453.03	5,550.08	5,522.21	20.29	20.87	-179.88	-1,274.39	-398.17	1,327.19	1,286.72	40.47	32.796	
5,500.00	5,476.12	5,567.92	5,540.02	20.36	20.94	-179.86	-1,273.54	-397.62	1,326.09	1,285.48	40.61	32.653	
5,600.00	5,576.12	5,645.27	5,617.30	20.70	21.21	-179.78	-1,270.68	-395.79	1,322.39	1,281.17	41.22	32.081	
5,700.00	5,676.12	5,722.73	5,694.73	21.03	21.48	-179.73	-1,269.13	-394.80	1,320.40	1,278.58	41.82	31.577	
5,800.00	5,776.12	5,807.65	5,779.65	21.37	21.77	-179.73	-1,268.83	-394.61	1,320.02	1,277.58	42.43	31.110	
5,900.00	5,876.12	5,907.65	5,879.65	21.70	22.10	-179.73	-1,268.83	-394.61	1,320.02	1,276.90	43.11	30.618	
6,000.00	5,976.12	6,007.65	5,979.65	22.04	22.44	-179.73	-1,268.83	-394.61	1,320.02	1,276.22	43.79	30.141	
6,100.00	6,076.12	6,107.65	6,079.65	22.37	22.78	-179.73	-1,268.83	-394.61	1,320.02	1,275.54	44.48	29.678	
6,200.00	6,176.12	6,207.65	6,179.65	22.71	23.11	-179.73	-1,268.83	-394.61	1,320.02	1,274.85	45.16	29.228	
6,300.00	6,276.12	6,307.65	6,279.65	23.05	23.45	-179.73	-1,268.83	-394.61	1,320.02	1,274.17	45.85	28.791	
6,400.00	6,376.12	6,407.65	6,379.65	23.39	23.79	-179.73	-1,268.83	-394.61	1,320.02	1,273.48	46.53	28.366	
6,500.00	6,476.12	6,507.65	6,479.65	23.73	24.12	-179.73	-1,268.83	-394.61	1,320.02	1,272.79	47.22	27.953	
6,600.00	6,576.12	6,607.65	6,579.65	24.07	24.46	-179.73	-1,268.83	-394.61	1,320.02	1,272.10	47.91	27.552	
6,700.00	6,676.12	6,707.65	6,679.65	24.41	24.80	-179.73	-1,268.83	-394.61	1,320.02	1,271.42	48.60	27.161	
6,800.00	6,776.12	6,807.65	6,779.65	24.75	25.14	-179.73	-1,268.83	-394.61	1,320.02	1,270.73	49.29	26.781	
6,900.00	6,876.12	6,907.65	6,879.65	25.09	25.48	-179.73	-1,268.83	-394.61	1,320.02	1,270.03	49.98	26.411	
7,000.00	6,976.12	7,007.65	6,979.65	25.43	25.82	-179.73	-1,268.83	-394.61	1,320.02	1,269.34	50.67	26.050	
7,100.00	7,076.12	7,107.65	7,079.65	25.78	26.16	-179.73	-1,268.83	-394.61	1,320.02	1,268.65	51.36	25.699	
7,200.00	7,176.12	7,207.65	7,179.65	26.12	26.51	-179.73	-1,268.83	-394.61	1,320.02	1,267.96	52.06	25.357	
7,300.00	7,276.12	7,307.65	7,279.65	26.46	26.85	-179.73	-1,268.83	-394.61	1,320.02	1,267.27	52.75	25.024	
7,400.00	7,376.12	7,407.65	7,379.65	26.81	27.19	-179.73	-1,268.83	-394.61	1,320.02	1,266.57	53.44	24.699	
7,500.00	7,476.12	7,507.65	7,479.65	27.15	27.53	-179.73	-1,268.83	-394.61	1,320.02	1,265.88	54.14	24.382	
7,600.00	7,576.12	7,607.65	7,579.65	27.49	27.88	-179.73	-1,268.83	-394.61	1,320.02	1,265.18	54.83	24.073	
7,700.00	7,676.12	7,707.65	7,679.65	27.84	28.22	-179.73	-1,268.83	-394.61	1,320.02	1,264.49	55.53	23.771	
7,713.93	7,690.05	7,721.58	7,693.58	27.89	28.27	-179.73	-1,268.83	-394.61	1,320.02	1,264.39	55.63	23.730	
7,790.92	7,767.04	7,798.53	7,770.53	28.15	28.53	-179.73	-1,268.83	-394.60	1,320.02	1,263.85	56.16	23.504	
7,800.00	7,776.12	7,807.50	7,779.50	28.18	28.57	-89.70	-1,268.83	-394.47	1,320.02	1,263.79	56.22	23.478	
7,850.00	7,826.01	7,856.88	7,828.77	28.34	28.74	-89.69	-1,268.83	-391.28	1,320.02	1,263.46	56.55	23.341	
7,900.00	7,875.46	7,906.25	7,877.56	28.48	28.92	-89.68	-1,268.83	-383.85	1,320.02	1,263.14	56.88	23.207	
7,950.00	7,924.08	7,955.61	7,925.52	28.61	29.11	-89.67	-1,268.84	-372.26	1,320.02	1,262.81	57.21	23.075	
8,000.00	7,971.51	8,004.95	7,972.29	28.74	29.30	-89.67	-1,268.85	-356.59	1,320.02	1,262.49	57.53	22.944	
8,050.00	8,017.38	8,054.28	8,017.53	28.85	29.50	-89.66	-1,268.85	-336.95	1,320.02	1,262.16	57.86	22.814	
8,100.00	8,061.35	8,103.62	8,060.92	28.96	29.71	-89.67	-1,268.87	-313.50	1,320.02	1,261.83	58.19	22.684	
8,150.00	8,103.07	8,152.96	8,102.13	29.07	29.93	-89.67	-1,268.88	-286.41	1,320.02	1,261.49	58.53	22.552	
8,200.00	8,142.24	8,202.30	8,140.87	29.18	30.16	-89.67	-1,268.89	-255.86	1,320.02	1,261.13	58.89	22.414	
8,250.00	8,178.55	8,251.68	8,176.84	29.30	30.41	-89.68	-1,268.90	-222.08	1,320.02	1,260.74	59.28	22.269	
8,300.00	8,211.73	8,301.04	8,209.79	29.42	30.68	-89.69	-1,268.92	-185.32	1,320.02	1,260.32	59.69	22.114	
8,350.00	8,241.53	8,350.44	8,239.46	29.57	30.97	-89.71	-1,268.94	-145.85	1,320.01	1,259.86	60.15	21.945	
8,400.00	8,267.71	8,399.87	8,265.64	29.74	31.30	-89.72	-1,268.96	-103.94	1,320.01	1,259.35	60.66	21.761	
8,450.00	8,290.09	8,449.33	8,288.12	29.93	31.65	-89.74	-1,268.97	-59.90	1,320.01	1,258.78	61.23	21.559	
8,500.00	8,308.48	8,498.82	8,306.73	30.16	32.04	-89.76	-1,268.99	-14.06	1,320.01	1,258.15	61.86	21.340	
8,550.00	8,322.76	8,548.35	8,321.33	30.41	32.46	-89.78	-1,269.01	33.26	1,320.01	1,257.46	62.55	21.104	
8,600.00	8,332.80	8,597.93	8,331.79	30.70	32.92	-89.80	-1,269.04	81.70	1,320.01	1,256.70	63.30	20.852	
8,650.00	8,338.54	8,647.55	8,338.03	31.02	33.41	-89.82	-1,269.06	130.92	1,320.00	1,255.89	64.12	20.587	
8,690.92	8,340.00	8,688.20	8,339.96	31.30	33.82	-89.85	-1,269.07	171.51	1,320.00	1,255.18	64.82	20.363	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.00	8,340.00	8,897.24	8,340.00	31.37	33.92	89.85	-1,269.08	180.55	1,320.00	1,255.02	64.98	20.313	
8,800.00	8,340.00	8,802.76	8,340.00	32.18	35.10	89.85	-1,269.12	280.55	1,320.00	1,253.01	67.00	19.703	
8,900.00	8,340.00	8,902.76	8,340.00	33.15	36.36	89.85	-1,269.16	380.55	1,320.00	1,250.77	69.23	19.066	
9,000.00	8,340.00	9,002.76	8,340.00	34.26	37.73	89.85	-1,269.21	480.55	1,320.00	1,248.27	71.73	18.403	
9,100.00	8,340.00	9,102.76	8,340.00	35.50	39.20	89.85	-1,269.25	580.55	1,320.00	1,245.54	74.46	17.728	
9,200.00	8,340.00	9,202.76	8,340.00	36.86	40.77	89.85	-1,269.29	680.55	1,320.00	1,242.61	77.39	17.055	
9,300.00	8,340.00	9,302.76	8,340.00	38.33	42.41	89.85	-1,269.34	780.55	1,320.00	1,239.48	80.52	16.394	
9,400.00	8,340.00	9,402.76	8,340.00	39.89	44.13	89.85	-1,269.38	880.55	1,320.00	1,236.20	83.80	15.751	
9,500.00	8,340.00	9,502.76	8,340.00	41.53	45.91	89.85	-1,269.42	980.55	1,320.00	1,232.76	87.24	15.131	
9,600.00	8,340.00	9,602.76	8,340.00	43.25	47.75	89.85	-1,269.47	1,080.55	1,320.00	1,229.20	90.80	14.537	
9,700.00	8,340.00	9,702.76	8,340.00	45.03	49.64	89.85	-1,269.51	1,180.55	1,320.00	1,225.52	94.48	13.971	
9,800.00	8,340.00	9,802.76	8,340.00	46.87	51.57	89.85	-1,269.55	1,280.55	1,320.00	1,221.74	98.26	13.434	
9,900.00	8,340.00	9,902.76	8,340.00	48.76	53.55	89.85	-1,269.60	1,380.55	1,320.00	1,217.87	102.13	12.924	
10,000.00	8,340.00	10,002.76	8,340.00	50.70	55.55	89.85	-1,269.64	1,480.55	1,320.00	1,213.92	106.08	12.443	
10,100.00	8,340.00	10,102.76	8,340.00	52.67	57.60	89.85	-1,269.68	1,580.55	1,320.00	1,209.89	110.11	11.988	
10,200.00	8,340.00	10,202.76	8,340.00	54.68	59.67	89.85	-1,269.73	1,680.55	1,320.00	1,205.81	114.20	11.559	
10,300.00	8,340.00	10,302.76	8,340.00	56.73	61.76	89.85	-1,269.77	1,780.55	1,320.00	1,201.66	118.34	11.154	
10,400.00	8,340.00	10,402.76	8,340.00	58.80	63.88	89.85	-1,269.81	1,880.55	1,320.00	1,197.46	122.54	10.772	
10,500.00	8,340.00	10,502.76	8,340.00	60.90	66.02	89.85	-1,269.85	1,980.55	1,320.00	1,193.22	126.78	10.411	
10,600.00	8,340.00	10,602.76	8,340.00	63.02	68.18	89.85	-1,269.90	2,080.55	1,320.00	1,188.93	131.07	10.071	
10,700.00	8,340.00	10,702.76	8,340.00	65.17	70.36	89.85	-1,269.94	2,180.55	1,320.00	1,184.61	135.39	9.749	
10,800.00	8,340.00	10,802.76	8,340.00	67.33	72.55	89.85	-1,269.98	2,280.55	1,320.00	1,180.25	139.75	9.445	
10,900.00	8,340.00	10,902.76	8,340.00	69.51	74.76	89.85	-1,270.03	2,380.55	1,320.00	1,175.86	144.14	9.158	
11,000.00	8,340.00	11,002.76	8,340.00	71.71	76.97	89.85	-1,270.07	2,480.55	1,320.00	1,171.44	148.56	8.885	
11,100.00	8,340.00	11,102.76	8,340.00	73.92	79.21	89.85	-1,270.11	2,580.55	1,320.00	1,166.99	153.01	8.627	
11,200.00	8,340.00	11,202.76	8,340.00	76.14	81.45	89.85	-1,270.16	2,680.55	1,320.00	1,162.53	157.48	8.382	
11,300.00	8,340.00	11,302.76	8,340.00	78.37	83.70	89.85	-1,270.20	2,780.55	1,320.00	1,158.03	161.97	8.150	
11,400.00	8,340.00	11,402.76	8,340.00	80.62	85.96	89.85	-1,270.24	2,880.55	1,320.00	1,153.52	166.48	7.929	
11,500.00	8,340.00	11,502.76	8,340.00	82.87	88.23	89.85	-1,270.29	2,980.55	1,320.00	1,148.99	171.01	7.719	
11,600.00	8,340.00	11,602.76	8,340.00	85.14	90.51	89.85	-1,270.33	3,080.55	1,320.00	1,144.45	175.55	7.519	
11,700.00	8,340.00	11,702.76	8,340.00	87.41	92.80	89.85	-1,270.37	3,180.55	1,320.00	1,139.89	180.12	7.329	
11,800.00	8,340.00	11,802.76	8,340.00	89.70	95.09	89.85	-1,270.42	3,280.55	1,320.00	1,135.31	184.69	7.147	
11,900.00	8,340.00	11,902.76	8,340.00	91.98	97.39	89.85	-1,270.46	3,380.55	1,320.00	1,130.72	189.28	6.974	
12,000.00	8,340.00	12,002.76	8,340.00	94.28	99.70	89.85	-1,270.50	3,480.55	1,320.00	1,126.12	193.88	6.808	
12,100.00	8,340.00	12,102.76	8,340.00	96.58	102.01	89.85	-1,270.54	3,580.55	1,320.00	1,121.50	198.50	6.650	
12,200.00	8,340.00	12,202.76	8,340.00	98.89	104.32	89.85	-1,270.59	3,680.55	1,320.00	1,116.88	203.12	6.498	
12,300.00	8,340.00	12,302.76	8,340.00	101.20	106.64	89.85	-1,270.63	3,780.55	1,320.00	1,112.24	207.76	6.353	
12,400.00	8,340.00	12,402.76	8,340.00	103.52	108.97	89.85	-1,270.67	3,880.55	1,320.00	1,107.60	212.41	6.215	
12,500.00	8,340.00	12,502.76	8,340.00	105.84	111.30	89.85	-1,270.72	3,980.55	1,320.00	1,102.94	217.06	6.081	
12,600.00	8,340.00	12,602.76	8,340.00	108.17	113.63	89.85	-1,270.76	4,080.55	1,320.00	1,098.28	221.72	5.953	
12,700.00	8,340.00	12,702.76	8,340.00	110.50	115.97	89.85	-1,270.80	4,180.55	1,320.00	1,093.61	226.39	5.831	
12,800.00	8,340.00	12,802.76	8,340.00	112.84	118.31	89.85	-1,270.85	4,280.55	1,320.00	1,088.93	231.07	5.713	
12,900.00	8,340.00	12,902.76	8,340.00	115.18	120.65	89.85	-1,270.89	4,380.55	1,320.00	1,084.25	235.75	5.599	
13,000.00	8,340.00	13,002.76	8,340.00	117.52	123.00	89.85	-1,270.93	4,480.55	1,320.00	1,079.56	240.44	5.490	
13,100.00	8,340.00	13,102.76	8,340.00	119.87	125.35	89.85	-1,270.98	4,580.55	1,320.00	1,074.86	245.14	5.385	
13,200.00	8,340.00	13,197.24	8,340.00	122.21	127.57	89.85	-1,271.02	4,680.55	1,320.00	1,070.29	249.71	5.286	
13,216.38	8,340.00	13,213.61	8,340.00	122.60	127.96	89.85	-1,271.03	4,696.92	1,320.00	1,069.52	250.48	5.270 CC, ES, SF	



Anticollision Report



Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.15	-0.15	0.00	0.00	-90.00	0.00	-30.02	30.02				
100.00	100.00	100.15	99.85	0.13	0.13	-90.00	0.00	-30.02	30.02	29.76	0.26	117.701	
200.00	200.00	200.15	199.85	0.49	0.49	-90.00	0.00	-30.02	30.02	29.05	0.97	30.885	
300.00	300.00	300.15	299.85	0.84	0.84	-90.00	0.00	-30.02	30.02	28.33	1.69	17.774	
400.00	400.00	400.15	399.85	1.20	1.20	-90.00	0.00	-30.02	30.02	27.61	2.41	12.478	
500.00	500.00	500.15	499.85	1.56	1.56	-90.00	0.00	-30.02	30.02	26.90	3.12	9.613	
600.00	600.00	600.15	599.85	1.92	1.92	-90.00	0.00	-30.02	30.02	26.18	3.84	7.818	
700.00	700.00	700.15	699.85	2.28	2.28	-90.00	0.00	-30.02	30.02	25.46	4.56	6.588	
800.00	800.00	800.15	799.85	2.64	2.64	-90.00	0.00	-30.02	30.02	24.75	5.27	5.692	
900.00	900.00	900.15	899.85	3.00	3.00	-90.00	0.00	-30.02	30.02	24.03	5.99	5.011	
1,000.00	1,000.00	1,000.15	999.85	3.35	3.35	-90.00	0.00	-30.02	30.02	23.31	6.71	4.476	
1,100.00	1,100.00	1,100.15	1,099.85	3.71	3.71	-90.00	0.00	-30.02	30.02	22.60	7.42	4.043	
1,105.88	1,105.88	1,105.73	1,105.73	3.73	3.73	-90.00	0.00	-30.02	30.02	22.55	7.47	4.021 CC	
1,200.00	1,200.00	1,199.59	1,199.58	4.07	4.07	-89.59	0.22	-30.23	30.23	22.09	8.14	3.715 ES	
1,300.00	1,300.00	1,298.97	1,298.93	4.43	4.42	-86.35	2.04	-32.00	32.07	23.23	8.85	3.626 SF	
1,400.00	1,400.00	1,398.16	1,397.99	4.79	4.77	-80.88	5.71	-35.55	36.06	26.51	9.55	3.776	
1,500.00	1,500.00	1,497.01	1,496.54	5.15	5.13	-74.68	11.20	-40.88	42.51	32.27	10.25	4.149	
1,600.00	1,599.99	1,595.51	1,594.51	5.50	5.49	14.14	18.50	-47.95	50.40	39.48	10.92	4.614	
1,700.00	1,699.91	1,706.18	1,692.00	5.84	5.90	20.18	27.57	-56.75	58.67	47.04	11.63	5.044	
1,766.67	1,766.45	1,760.15	1,757.69	6.07	6.10	24.03	34.20	-63.17	63.83	51.78	12.05	5.297	
1,800.00	1,799.70	1,806.67	1,790.55	6.19	6.28	25.85	37.52	-66.39	66.25	53.92	12.33	5.372	
1,900.00	1,899.46	1,907.12	1,889.12	6.54	6.66	30.58	47.47	-76.03	73.85	60.81	13.04	5.664	
2,000.00	1,999.22	1,992.42	1,987.70	6.90	6.99	34.41	57.41	-85.67	81.85	68.16	13.70	5.977	
2,100.00	2,098.97	2,108.03	2,086.28	7.26	7.44	37.55	67.36	-95.31	90.16	75.69	14.47	6.232	
2,200.00	2,198.73	2,191.51	2,184.85	7.61	7.77	40.15	77.31	-104.96	98.68	83.56	15.13	6.524	
2,300.00	2,298.48	2,308.94	2,283.43	7.97	8.23	42.34	87.26	-114.60	107.38	91.47	15.91	6.749	
2,400.00	2,398.24	2,409.40	2,382.00	8.33	8.63	44.20	97.20	-124.24	116.21	99.57	16.64	6.984	
2,500.00	2,498.00	2,490.14	2,480.58	8.70	8.96	45.79	107.15	-133.88	125.14	107.85	17.30	7.236	
2,600.00	2,597.75	2,589.69	2,579.15	9.06	9.36	47.17	117.10	-143.53	134.16	116.14	18.02	7.443	
2,700.00	2,697.51	2,689.23	2,677.73	9.43	9.76	48.38	127.05	-153.17	143.24	124.49	18.75	7.638	
2,800.00	2,797.27	2,788.78	2,776.30	9.79	10.16	49.44	136.99	-162.81	152.38	132.90	19.49	7.820	
2,850.00	2,847.14	2,838.55	2,825.59	9.97	10.36	49.92	141.97	-167.63	156.97	137.12	19.85	7.907	
2,900.00	2,897.00	2,888.33	2,874.89	10.16	10.56	50.42	146.94	-172.45	161.36	141.14	20.22	7.980	
3,000.00	2,996.54	2,987.94	2,973.53	10.53	10.97	51.86	156.90	-182.10	168.97	148.00	20.97	8.059	
3,100.00	3,095.79	3,087.55	3,072.17	10.91	11.37	53.87	166.85	-191.75	175.14	153.41	21.72	8.062	
3,116.66	3,112.29	3,104.15	3,088.61	10.97	11.44	54.25	168.51	-193.36	176.04	154.19	21.85	8.056	
3,200.00	3,194.82	3,187.13	3,170.78	11.30	11.78	56.24	176.80	-201.40	180.57	158.07	22.49	8.027	
3,300.00	3,293.85	3,286.71	3,269.39	11.69	12.19	58.49	186.75	-211.04	186.27	163.00	23.27	8.004	
3,400.00	3,392.87	3,386.28	3,368.00	12.08	12.59	60.60	196.70	-220.69	192.25	168.19	24.05	7.992	
3,500.00	3,491.90	3,485.86	3,466.60	12.47	13.00	62.59	206.66	-230.33	198.47	173.63	24.84	7.989	
3,600.00	3,590.93	3,585.44	3,565.21	12.87	13.41	64.45	216.61	-239.98	204.92	179.28	25.63	7.994	
3,700.00	3,689.95	3,685.01	3,663.82	13.26	13.82	66.20	226.56	-249.62	211.56	185.13	26.43	8.004	
3,800.00	3,788.98	3,784.59	3,762.42	13.66	14.23	67.84	236.51	-259.27	218.40	191.17	27.23	8.020	
3,900.00	3,888.01	3,884.17	3,861.03	14.06	14.64	69.38	246.46	-268.91	225.40	197.37	28.03	8.040	
4,000.00	3,987.03	3,983.74	3,959.64	14.46	15.05	70.83	256.41	-278.56	232.56	203.71	28.84	8.063	
4,100.00	4,086.06	4,083.32	4,058.25	14.87	15.46	72.19	266.36	-288.21	239.85	210.20	29.65	8.089	
4,200.00	4,185.09	4,182.89	4,156.85	15.27	15.87	73.46	276.31	-297.85	247.27	216.81	30.46	8.118	
4,300.00	4,284.11	4,282.47	4,255.46	15.67	16.29	74.67	286.26	-307.50	254.81	223.53	31.27	8.148	
4,400.00	4,383.14	4,382.05	4,354.07	16.08	16.70	75.80	296.21	-317.14	262.45	230.36	32.09	8.179	
4,500.00	4,482.17	4,481.62	4,452.68	16.49	17.11	76.87	306.16	-326.79	270.19	237.28	32.90	8.212	
4,600.00	4,581.19	4,581.20	4,551.28	16.89	17.52	77.88	316.12	-336.43	278.01	244.29	33.72	8.245	
4,700.00	4,680.22	4,680.78	4,649.89	17.30	17.93	78.84	326.07	-346.08	285.92	251.39	34.54	8.279	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.00	4,779.25	4,780.35	4,748.50	17.71	18.35	79.74	336.02	-355.72	293.91	258.55	35.36	8.313	
4,900.00	4,878.27	4,879.93	4,847.11	18.12	18.76	80.60	345.97	-365.37	301.96	265.78	36.18	8.347	
4,943.57	4,921.42	4,923.32	4,890.07	18.30	18.94	80.96	350.30	-369.57	305.49	268.95	36.53	8.362	
5,000.00	4,977.36	4,980.42	4,946.62	18.53	19.18	81.41	355.99	-375.08	310.12	273.11	37.00	8.381	
5,100.00	5,076.73	5,086.44	5,051.86	18.92	19.60	82.04	365.23	-384.04	317.39	279.53	37.85	8.385	
5,200.00	5,176.36	5,192.69	5,157.63	19.30	20.01	82.51	372.39	-390.98	323.03	284.37	38.66	8.355	
5,300.00	5,276.18	5,299.10	5,263.81	19.67	20.41	82.81	377.44	-395.88	327.02	287.59	39.43	8.294	
5,400.00	5,376.12	5,405.62	5,370.25	20.03	20.78	82.96	380.37	-398.71	329.35	289.20	40.15	8.202	
5,476.91	5,453.03	5,487.58	5,452.20	20.29	21.05	0.25	381.17	-399.49	330.00	289.33	40.68	8.113	
5,500.00	5,476.12	5,511.35	5,475.97	20.36	21.13	0.25	381.18	-399.50	330.01	289.18	40.83	8.082	
5,600.00	5,576.12	5,611.35	5,575.97	20.70	21.46	0.25	381.18	-399.50	330.01	288.51	41.50	7.952	
5,700.00	5,676.12	5,711.35	5,675.97	21.03	21.78	0.25	381.18	-399.50	330.01	287.84	42.17	7.825	
5,800.00	5,776.12	5,811.35	5,775.97	21.37	22.11	0.25	381.18	-399.50	330.01	287.17	42.85	7.702	
5,900.00	5,876.12	5,911.35	5,875.97	21.70	22.44	0.25	381.18	-399.50	330.01	286.49	43.52	7.583	
6,000.00	5,976.12	6,011.35	5,975.97	22.04	22.77	0.25	381.18	-399.50	330.01	285.82	44.20	7.467	
6,100.00	6,076.12	6,111.35	6,075.97	22.37	23.10	0.25	381.18	-399.50	330.01	285.14	44.87	7.354	
6,200.00	6,176.12	6,211.35	6,175.97	22.71	23.43	0.25	381.18	-399.50	330.01	284.46	45.55	7.245	
6,300.00	6,276.12	6,311.35	6,275.97	23.05	23.77	0.25	381.18	-399.50	330.01	283.78	46.23	7.139	
6,400.00	6,376.12	6,411.35	6,375.97	23.39	24.10	0.25	381.18	-399.50	330.01	283.10	46.91	7.035	
6,500.00	6,476.12	6,511.35	6,475.97	23.73	24.43	0.25	381.18	-399.50	330.01	282.42	47.59	6.934	
6,600.00	6,576.12	6,611.35	6,575.97	24.07	24.77	0.25	381.18	-399.50	330.01	281.74	48.27	6.836	
6,700.00	6,676.12	6,711.35	6,675.97	24.41	25.10	0.25	381.18	-399.50	330.01	281.06	48.96	6.741	
6,800.00	6,776.12	6,811.35	6,775.97	24.75	25.44	0.25	381.18	-399.50	330.01	280.37	49.64	6.648	
6,900.00	6,876.12	6,911.35	6,875.97	25.09	25.78	0.25	381.18	-399.50	330.01	279.69	50.33	6.557	
7,000.00	6,976.12	7,011.35	6,975.97	25.43	26.11	0.25	381.18	-399.50	330.01	279.00	51.01	6.469	
7,100.00	7,076.12	7,111.35	7,075.97	25.78	26.45	0.25	381.18	-399.50	330.01	278.31	51.70	6.383	
7,200.00	7,176.12	7,211.35	7,175.97	26.12	26.79	0.25	381.18	-399.50	330.01	277.62	52.39	6.299	
7,300.00	7,276.12	7,311.35	7,275.97	26.46	27.13	0.25	381.18	-399.50	330.01	276.94	53.08	6.218	
7,400.00	7,376.12	7,411.35	7,375.97	26.81	27.47	0.25	381.18	-399.50	330.01	276.25	53.77	6.138	
7,500.00	7,476.12	7,511.35	7,475.97	27.15	27.81	0.25	381.18	-399.50	330.01	275.56	54.46	6.060	
7,600.00	7,576.12	7,611.35	7,575.97	27.49	28.15	0.25	381.18	-399.50	330.01	274.87	55.15	5.984	
7,700.00	7,676.12	7,711.35	7,675.97	27.84	28.49	0.25	381.18	-399.50	330.01	274.17	55.84	5.910	
7,790.92	7,767.04	7,802.28	7,766.89	28.15	28.80	0.25	381.18	-399.50	330.01	273.55	56.47	5.844	
7,800.00	7,776.12	7,811.35	7,775.97	28.18	28.83	-89.79	381.18	-399.50	330.01	273.48	56.53	5.838	
7,829.20	7,805.29	7,840.52	7,805.14	28.27	28.93	-90.00	381.18	-399.50	330.01	273.29	56.72	5.819	
7,850.00	7,826.01	7,861.25	7,825.86	28.34	29.00	-90.30	381.18	-399.50	330.02	273.17	56.85	5.805	
7,900.00	7,875.46	7,910.70	7,875.31	28.48	29.17	-91.55	381.18	-399.50	330.14	273.00	57.14	5.778	
7,950.00	7,924.08	7,959.32	7,923.93	28.61	29.33	-93.45	381.18	-399.50	330.66	273.26	57.39	5.761	
8,000.00	7,971.51	8,006.75	7,971.36	28.74	29.50	-95.89	381.18	-399.50	332.02	274.40	57.62	5.762	
8,050.00	8,017.38	8,052.62	8,017.23	28.85	29.65	-98.73	381.18	-399.50	334.78	276.96	57.82	5.790	
8,100.00	8,061.35	8,103.42	8,061.20	28.96	29.83	-101.76	381.18	-399.50	339.59	281.57	58.02	5.853	
8,150.00	8,103.07	8,138.31	8,102.92	29.07	29.95	-104.79	381.18	-399.50	347.11	288.97	58.14	5.970	
8,200.00	8,142.24	8,177.47	8,142.09	29.18	30.08	-107.62	381.18	-399.50	357.96	299.68	58.28	6.142	
8,250.00	8,178.55	8,213.79	8,178.40	29.30	30.21	-110.04	381.18	-399.50	372.61	314.20	58.41	6.379	
8,300.00	8,211.73	8,246.97	8,211.58	29.42	30.32	-111.90	381.18	-399.50	391.37	332.83	58.54	6.686	
8,350.00	8,241.53	8,276.76	8,241.38	29.57	30.42	-113.05	381.18	-399.50	414.33	355.67	58.66	7.063	
8,400.00	8,267.71	8,302.95	8,267.56	29.74	30.51	-113.36	381.18	-399.50	441.38	382.59	58.79	7.508	
8,450.00	8,290.09	8,325.32	8,289.94	29.93	30.59	-112.68	381.18	-399.50	472.24	413.34	58.90	8.017	
8,500.00	8,308.48	8,343.72	8,308.33	30.16	30.65	-110.85	381.18	-399.50	506.53	447.51	59.01	8.583	
8,550.00	8,322.76	8,357.99	8,322.61	30.41	30.70	-107.69	381.18	-399.50	543.77	484.66	59.11	9.199	
8,600.00	8,332.80	8,368.04	8,332.65	30.70	30.74	-102.97	381.18	-399.50	583.44	524.25	59.19	9.858	
8,650.00	8,338.54	8,373.77	8,338.39	31.02	30.76	-96.55	381.18	-399.50	625.02	565.77	59.25	10.549	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,690.92	8,340.00	8,375.24	8,339.85	31.30	30.76	-90.00	381.18	-399.50	660.09	600.81	59.28	11.135		
8,700.00	8,340.00	8,375.24	8,339.85	31.37	30.76	-90.00	381.18	-399.50	667.97	608.68	59.29	11.267		
8,800.00	8,340.00	8,375.24	8,339.85	32.18	30.76	-90.00	381.18	-399.50	756.53	697.17	59.36	12.745		
8,900.00	8,340.00	8,375.24	8,339.85	33.15	30.76	-90.00	381.18	-399.50	847.64	788.21	59.43	14.262		
9,000.00	8,340.00	8,375.24	8,339.85	34.26	30.76	-90.00	381.18	-399.50	940.55	881.05	59.50	15.808		
9,100.00	8,340.00	8,375.24	8,339.85	35.50	30.76	-90.00	381.18	-399.50	1,034.79	975.23	59.56	17.374		
9,200.00	8,340.00	8,375.24	8,339.85	36.86	30.76	-90.00	381.18	-399.50	1,130.02	1,070.40	59.62	18.954		
9,300.00	8,340.00	8,375.24	8,339.85	38.33	30.76	-90.00	381.18	-399.50	1,226.01	1,166.34	59.67	20.546		
9,400.00	8,340.00	8,375.24	8,339.85	39.89	30.76	-90.00	381.18	-399.50	1,322.59	1,262.87	59.72	22.147		
9,500.00	8,340.00	8,375.24	8,339.85	41.53	30.76	-90.00	381.18	-399.50	1,419.65	1,359.88	59.76	23.755		
9,600.00	8,340.00	11,009.76	9,745.00	43.25	47.06	-166.78	380.54	1,081.26	1,443.38	1,407.82	35.56	40.589		
9,700.00	8,340.00	11,109.76	9,745.00	45.03	48.71	-166.78	380.49	1,181.26	1,443.38	1,406.46	36.92	39.090		
9,800.00	8,340.00	11,209.76	9,745.00	46.87	50.42	-166.78	380.45	1,281.26	1,443.38	1,405.05	38.33	37.656		
9,900.00	8,340.00	11,309.76	9,745.00	48.76	52.19	-166.78	380.41	1,381.26	1,443.38	1,403.61	39.78	36.287		
10,000.00	8,340.00	11,409.76	9,745.00	50.70	54.01	-166.78	380.36	1,481.26	1,443.38	1,402.12	41.26	34.985		
10,100.00	8,340.00	11,509.76	9,745.00	52.67	55.87	-166.78	380.32	1,581.26	1,443.38	1,400.61	42.77	33.748		
10,200.00	8,340.00	11,609.76	9,745.00	54.68	57.78	-166.78	380.28	1,681.26	1,443.38	1,399.07	44.31	32.575		
10,300.00	8,340.00	11,709.76	9,745.00	56.73	59.72	-166.78	380.23	1,781.26	1,443.38	1,397.51	45.88	31.463		
10,400.00	8,340.00	11,809.76	9,745.00	58.80	61.70	-166.78	380.19	1,881.26	1,443.38	1,395.92	47.46	30.410		
10,500.00	8,340.00	11,909.76	9,745.00	60.90	63.71	-166.78	380.15	1,981.26	1,443.38	1,394.31	49.07	29.413		
10,600.00	8,340.00	12,009.76	9,745.00	63.02	65.74	-166.78	380.10	2,081.26	1,443.38	1,392.68	50.70	28.469		
10,700.00	8,340.00	12,109.76	9,745.00	65.17	67.81	-166.78	380.06	2,181.26	1,443.38	1,391.04	52.35	27.574		
10,800.00	8,340.00	12,209.76	9,745.00	67.33	69.89	-166.78	380.02	2,281.26	1,443.38	1,389.38	54.01	26.727		
10,900.00	8,340.00	12,309.76	9,745.00	69.51	72.00	-166.78	379.97	2,381.26	1,443.38	1,387.70	55.68	25.923		
11,000.00	8,340.00	12,409.76	9,745.00	71.71	74.12	-166.78	379.93	2,481.26	1,443.38	1,386.02	57.37	25.161		
11,100.00	8,340.00	12,509.76	9,745.00	73.92	76.27	-166.78	379.89	2,581.26	1,443.38	1,384.32	59.07	24.437		
11,200.00	8,340.00	12,609.76	9,745.00	76.14	78.43	-166.78	379.84	2,681.26	1,443.38	1,382.61	60.77	23.750		
11,300.00	8,340.00	12,709.76	9,745.00	78.37	80.60	-166.78	379.80	2,781.26	1,443.38	1,380.89	62.49	23.096		
11,400.00	8,340.00	12,809.76	9,745.00	80.62	82.79	-166.78	379.76	2,881.26	1,443.38	1,379.16	64.22	22.475		
11,500.00	8,340.00	12,909.76	9,745.00	82.87	84.99	-166.78	379.71	2,981.26	1,443.38	1,377.42	65.96	21.883		
11,600.00	8,340.00	13,009.76	9,745.00	85.14	87.20	-166.78	379.67	3,081.26	1,443.38	1,375.68	67.70	21.319		
11,700.00	8,340.00	13,109.76	9,745.00	87.41	89.43	-166.78	379.63	3,181.26	1,443.38	1,373.92	69.46	20.781		
11,800.00	8,340.00	13,209.76	9,745.00	89.70	91.66	-166.78	379.58	3,281.26	1,443.38	1,372.17	71.21	20.268		
11,900.00	8,340.00	13,309.76	9,745.00	91.98	93.91	-166.78	379.54	3,381.26	1,443.38	1,370.40	72.98	19.778		
12,000.00	8,340.00	13,409.76	9,745.00	94.28	96.16	-166.78	379.50	3,481.26	1,443.38	1,368.63	74.75	19.310		
12,100.00	8,340.00	13,509.76	9,745.00	96.58	98.42	-166.78	379.45	3,581.26	1,443.38	1,366.86	76.53	18.862		
12,200.00	8,340.00	13,609.76	9,745.00	98.89	100.69	-166.78	379.41	3,681.26	1,443.38	1,365.07	78.31	18.433		
12,300.00	8,340.00	13,709.76	9,745.00	101.20	102.96	-166.78	379.37	3,781.26	1,443.38	1,363.29	80.09	18.022		
12,400.00	8,340.00	13,809.76	9,745.00	103.52	105.24	-166.78	379.32	3,881.26	1,443.38	1,361.50	81.88	17.628		
12,500.00	8,340.00	13,909.76	9,745.00	105.84	107.53	-166.78	379.28	3,981.26	1,443.38	1,359.71	83.67	17.250		
12,600.00	8,340.00	14,009.76	9,745.00	108.17	109.83	-166.78	379.24	4,081.26	1,443.38	1,357.91	85.47	16.887		
12,700.00	8,340.00	14,109.76	9,745.00	110.50	112.13	-166.78	379.19	4,181.26	1,443.38	1,356.11	87.27	16.539		
12,800.00	8,340.00	14,209.76	9,745.00	112.84	114.43	-166.78	379.15	4,281.26	1,443.38	1,354.30	89.08	16.204		
12,900.00	8,340.00	14,309.76	9,745.00	115.18	116.74	-166.78	379.11	4,381.26	1,443.38	1,352.50	90.88	15.881		
13,000.00	8,340.00	14,409.76	9,745.00	117.52	119.05	-166.78	379.06	4,481.26	1,443.38	1,350.68	92.70	15.571		
13,100.00	8,340.00	14,509.76	9,745.00	119.87	121.37	-166.78	379.02	4,581.26	1,443.38	1,348.87	94.51	15.272		
13,200.00	8,340.00	14,609.76	9,745.00	122.21	123.69	-166.78	378.98	4,681.26	1,443.38	1,347.06	96.32	14.985		
13,214.98	8,340.00	14,624.75	9,745.00	122.57	124.04	-166.78	378.97	4,696.24	1,443.38	1,346.78	96.60	14.942		
13,216.38	8,340.00	14,623.75	9,745.00	122.60	124.02	-166.78	378.97	4,695.24	1,443.38	1,346.79	96.59	14.943		



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	2.65	2.65	0.00	0.00	-157.95	-1,613.65	-653.51	1,740.96					
100.00	100.00	102.65	102.65	0.13	0.14	-157.95	-1,613.65	-653.51	1,740.96	1,740.70	0.26	6,594.180		
200.00	200.00	202.65	202.65	0.49	0.50	-157.95	-1,613.65	-653.51	1,740.96	1,739.98	0.98	1,774.755		
300.00	300.00	302.65	302.65	0.84	0.85	-157.95	-1,613.65	-653.51	1,740.96	1,739.26	1.70	1,025.360		
400.00	400.00	402.65	402.65	1.20	1.21	-157.95	-1,613.65	-653.51	1,740.96	1,738.55	2.41	720.941		
500.00	500.00	502.65	502.65	1.56	1.57	-157.95	-1,613.65	-653.51	1,740.96	1,737.83	3.13	555.900		
600.00	600.00	602.65	602.65	1.92	1.93	-157.95	-1,613.65	-653.51	1,740.96	1,737.11	3.85	452.347		
700.00	700.00	702.65	702.65	2.28	2.29	-157.95	-1,613.65	-653.51	1,740.96	1,736.39	4.57	381.315		
800.00	800.00	802.65	802.65	2.64	2.65	-157.95	-1,613.65	-653.51	1,740.96	1,735.68	5.28	329.564		
900.00	900.00	902.65	902.65	3.00	3.00	-157.95	-1,613.65	-653.51	1,740.96	1,734.96	6.00	290.181		
1,000.00	1,000.00	1,004.87	1,004.87	3.35	3.37	-157.95	-1,613.65	-653.51	1,740.96	1,734.23	6.72	258.900		
1,100.00	1,100.00	1,188.43	1,188.36	3.71	4.03	-157.95	-1,609.31	-651.85	1,738.43	1,730.69	7.74	224.728		
1,200.00	1,200.00	1,371.13	1,370.55	4.07	4.69	-157.94	-1,596.82	-647.09	1,731.11	1,722.38	8.73	198.273		
1,300.00	1,300.00	1,543.68	1,541.85	4.43	5.32	-157.93	-1,577.57	-639.75	1,719.08	1,709.40	9.68	177.670		
1,400.00	1,400.00	1,642.71	1,639.91	4.79	5.69	-157.92	-1,564.69	-634.84	1,705.16	1,694.78	10.39	164.188		
1,500.00	1,500.00	1,741.73	1,737.97	5.15	6.07	-157.91	-1,551.82	-629.93	1,691.25	1,680.15	11.10	152.407		
1,600.00	1,599.99	1,840.71	1,835.98	5.50	6.45	-75.42	-1,538.95	-625.02	1,677.01	1,665.20	11.80	142.090		
1,700.00	1,699.91	1,939.53	1,933.84	5.84	6.84	-75.76	-1,526.10	-620.12	1,662.11	1,649.61	12.50	132.935		
1,766.67	1,766.45	2,005.29	1,998.96	6.07	7.10	-76.05	-1,517.54	-616.86	1,651.84	1,638.87	12.97	127.337		
1,800.00	1,799.70	2,038.14	2,031.49	6.19	7.23	-76.12	-1,513.27	-615.23	1,646.63	1,633.43	13.21	124.677		
1,900.00	1,899.46	2,136.70	2,129.09	6.54	7.62	-76.36	-1,500.46	-610.35	1,631.04	1,617.13	13.91	117.225		
2,000.00	1,999.22	2,235.25	2,226.69	6.90	8.01	-76.59	-1,487.64	-605.46	1,615.48	1,600.85	14.62	110.471		
2,100.00	2,098.97	2,333.81	2,324.29	7.26	8.40	-76.83	-1,474.82	-600.57	1,599.94	1,584.60	15.34	104.327		
2,200.00	2,198.73	2,432.37	2,421.89	7.61	8.80	-77.08	-1,462.01	-595.69	1,584.43	1,568.38	16.05	98.715		
2,300.00	2,298.48	2,530.92	2,519.49	7.97	9.20	-77.33	-1,449.19	-590.80	1,568.94	1,552.18	16.77	93.572		
2,400.00	2,398.24	2,629.48	2,617.08	8.33	9.59	-77.59	-1,436.37	-585.91	1,553.49	1,536.01	17.49	88.843		
2,500.00	2,498.00	2,728.04	2,714.68	8.70	9.99	-77.85	-1,423.56	-581.02	1,538.07	1,519.87	18.21	84.481		
2,600.00	2,597.75	2,826.60	2,812.28	9.06	10.39	-78.11	-1,410.74	-576.14	1,522.69	1,503.76	18.93	80.447		
2,700.00	2,697.51	2,941.60	2,926.13	9.43	10.86	-78.43	-1,395.58	-570.35	1,507.19	1,487.50	19.69	76.544		
2,800.00	2,797.27	3,102.82	3,084.97	9.79	11.54	-78.90	-1,369.85	-560.54	1,488.72	1,468.18	20.54	72.470		
2,850.00	2,847.14	3,182.39	3,162.90	9.97	11.89	-79.14	-1,354.85	-554.82	1,477.96	1,457.01	20.95	70.535		
2,900.00	2,897.00	3,256.83	3,235.49	10.16	12.23	-79.57	-1,339.45	-548.95	1,466.16	1,444.81	21.35	68.675		
3,000.00	2,996.54	3,353.20	3,329.30	10.53	12.68	-80.36	-1,318.81	-541.08	1,441.52	1,419.45	22.08	65.296		
3,100.00	3,095.79	3,449.15	3,422.70	10.91	13.12	-81.27	-1,298.26	-533.25	1,416.56	1,393.75	22.81	62.099		
3,116.66	3,112.29	3,465.10	3,438.22	10.97	13.19	-81.44	-1,294.85	-531.94	1,412.37	1,389.44	22.93	61.582		
3,200.00	3,194.82	3,544.80	3,515.80	11.30	13.57	-81.96	-1,277.78	-525.44	1,391.48	1,367.92	23.55	59.079		
3,300.00	3,293.85	3,640.44	3,608.89	11.69	14.01	-82.60	-1,257.29	-517.63	1,366.55	1,342.26	24.30	56.241		
3,400.00	3,392.87	3,736.08	3,701.99	12.08	14.46	-83.27	-1,236.81	-509.82	1,341.80	1,316.76	25.05	53.569		
3,500.00	3,491.90	3,831.72	3,795.08	12.47	14.92	-83.96	-1,216.33	-502.01	1,317.24	1,291.43	25.80	51.051		
3,600.00	3,590.93	3,927.36	3,888.18	12.87	15.37	-84.68	-1,195.85	-494.20	1,292.86	1,266.30	26.56	48.676		
3,700.00	3,689.95	4,023.00	3,981.27	13.26	15.83	-85.43	-1,175.37	-486.38	1,268.69	1,241.37	27.32	46.433		
3,800.00	3,788.98	4,118.64	4,074.37	13.66	16.28	-86.20	-1,154.88	-478.57	1,244.74	1,216.65	28.09	44.314		
3,900.00	3,888.01	4,214.28	4,167.46	14.06	16.74	-87.00	-1,134.40	-470.76	1,221.01	1,192.15	28.86	42.308		
4,000.00	3,987.03	4,309.92	4,260.55	14.46	17.20	-87.83	-1,113.92	-462.95	1,197.53	1,167.89	29.64	40.409		
4,100.00	4,086.06	4,405.57	4,353.65	14.87	17.66	-88.70	-1,093.44	-455.14	1,174.30	1,143.88	30.41	38.609		
4,200.00	4,185.09	4,501.21	4,446.74	15.27	18.13	-89.60	-1,072.95	-447.33	1,151.34	1,120.15	31.20	36.903		
4,300.00	4,284.11	4,603.15	4,539.84	15.67	18.62	-90.53	-1,052.47	-439.52	1,128.68	1,096.67	32.01	35.257		
4,400.00	4,383.14	4,690.58	4,631.08	16.08	19.04	-91.48	-1,032.40	-431.87	1,106.33	1,073.54	32.78	33.746		
4,500.00	4,482.17	4,765.59	4,704.28	16.49	19.40	-92.25	-1,017.13	-426.05	1,085.37	1,051.78	33.59	32.314		
4,600.00	4,581.19	4,841.33	4,778.52	16.89	19.75	-93.04	-1,003.08	-420.69	1,066.58	1,032.19	34.39	31.017		
4,700.00	4,680.22	4,917.76	4,853.71	17.30	20.09	-93.83	-990.29	-415.81	1,049.98	1,014.80	35.18	29.848		
4,800.00	4,779.25	4,994.83	4,929.79	17.71	20.43	-94.63	-978.82	-411.44	1,035.58	999.62	35.96	28.800		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,878.27	5,072.47	5,006.67	18.12	20.75	-95.42	-968.72	-407.59	1,023.38	986.66	36.73	27.865	
4,943.57	4,921.42	5,106.47	5,040.41	18.30	20.89	-95.76	-964.76	-406.08	1,018.76	981.70	37.06	27.491	
5,000.00	4,977.36	5,150.69	5,084.34	18.53	21.06	-96.10	-960.03	-404.27	1,013.35	975.87	37.48	27.038	
5,100.00	5,076.73	5,229.63	5,162.90	18.92	21.37	-96.62	-952.76	-401.50	1,005.23	967.03	38.20	26.314	
5,200.00	5,176.36	5,309.20	5,242.22	19.30	21.66	-97.04	-946.97	-399.29	998.90	960.01	38.89	25.685	
5,300.00	5,276.18	5,389.23	5,322.12	19.67	21.94	-97.33	-942.70	-397.67	994.30	954.75	39.54	25.144	
5,400.00	5,376.12	5,469.58	5,402.41	20.03	22.21	-97.50	-940.00	-396.63	991.36	951.20	40.16	24.685	
5,476.91	5,453.03	5,531.48	5,464.31	20.29	22.41	179.73	-938.99	-396.25	990.20	949.60	40.61	24.385	
5,500.00	5,476.12	5,550.08	5,482.90	20.36	22.46	179.73	-938.87	-396.20	990.06	949.32	40.74	24.304	
5,542.32	5,518.44	5,588.26	5,521.09	20.50	22.58	179.73	-938.83	-396.19	990.01	949.01	41.00	24.149	
5,600.00	5,576.12	5,645.95	5,578.77	20.70	22.76	179.73	-938.83	-396.19	990.01	948.63	41.38	23.923	
5,700.00	5,676.12	5,745.95	5,678.77	21.03	23.07	179.73	-938.83	-396.19	990.01	947.96	42.06	23.540	
5,800.00	5,776.12	5,845.95	5,778.77	21.37	23.38	179.73	-938.83	-396.19	990.01	947.28	42.73	23.169	
5,900.00	5,876.12	5,945.95	5,878.77	21.70	23.69	179.73	-938.83	-396.19	990.01	946.61	43.41	22.808	
6,000.00	5,976.12	6,045.95	5,978.77	22.04	24.00	179.73	-938.83	-396.19	990.01	945.93	44.08	22.458	
6,100.00	6,076.12	6,145.95	6,078.77	22.37	24.31	179.73	-938.83	-396.19	990.01	945.25	44.76	22.118	
6,200.00	6,176.12	6,245.95	6,178.77	22.71	24.63	179.73	-938.83	-396.19	990.01	944.57	45.44	21.787	
6,300.00	6,276.12	6,345.95	6,278.77	23.05	24.94	179.73	-938.83	-396.19	990.01	943.89	46.12	21.466	
6,400.00	6,376.12	6,445.95	6,378.77	23.39	25.26	179.73	-938.83	-396.19	990.01	943.21	46.80	21.153	
6,500.00	6,476.12	6,545.95	6,478.77	23.73	25.58	179.73	-938.83	-396.19	990.01	942.53	47.48	20.849	
6,600.00	6,576.12	6,645.95	6,578.77	24.07	25.90	179.73	-938.83	-396.19	990.01	941.84	48.17	20.554	
6,700.00	6,676.12	6,745.95	6,678.77	24.41	26.22	179.73	-938.83	-396.19	990.01	941.16	48.85	20.266	
6,800.00	6,776.12	6,845.95	6,778.77	24.75	26.54	179.73	-938.83	-396.19	990.01	940.47	49.54	19.985	
6,900.00	6,876.12	6,945.95	6,878.77	25.09	26.86	179.73	-938.83	-396.19	990.01	939.79	50.22	19.712	
7,000.00	6,976.12	7,045.95	6,978.77	25.43	27.19	179.73	-938.83	-396.19	990.01	939.10	50.91	19.446	
7,100.00	7,076.12	7,145.95	7,078.77	25.78	27.51	179.73	-938.83	-396.19	990.01	938.41	51.60	19.187	
7,200.00	7,176.12	7,245.95	7,178.77	26.12	27.84	179.73	-938.83	-396.19	990.01	937.72	52.29	18.934	
7,300.00	7,276.12	7,345.95	7,278.77	26.46	28.16	179.73	-938.83	-396.19	990.01	937.04	52.98	18.688	
7,400.00	7,376.12	7,445.95	7,378.77	26.81	28.49	179.73	-938.83	-396.19	990.01	936.34	53.67	18.448	
7,500.00	7,476.12	7,545.95	7,478.77	27.15	28.81	179.73	-938.83	-396.19	990.01	935.65	54.36	18.213	
7,600.00	7,576.12	7,645.95	7,578.77	27.49	29.14	179.73	-938.83	-396.19	990.01	934.96	55.05	17.984	
7,700.00	7,676.12	7,745.95	7,678.77	27.84	29.47	179.73	-938.83	-396.19	990.01	934.27	55.74	17.761	
7,790.92	7,767.04	7,836.87	7,769.69	28.15	29.77	179.73	-938.83	-396.19	990.01	933.64	56.37	17.563	
7,800.00	7,776.12	7,845.95	7,778.77	28.18	29.80	89.71	-938.83	-396.19	990.01	933.58	56.43	17.543	
7,850.00	7,826.01	7,904.16	7,828.66	28.34	29.99	89.88	-938.83	-396.19	990.00	933.21	56.79	17.434	
7,867.86	7,843.74	7,913.57	7,846.39	28.39	30.02	90.00	-938.83	-396.19	990.00	933.13	56.87	17.409 CC	
7,900.00	7,875.46	7,945.29	7,878.11	28.48	30.13	90.30	-938.83	-396.19	990.01	932.95	57.06	17.349	
7,950.00	7,924.08	8,006.09	7,926.73	28.61	30.33	90.93	-938.83	-396.19	990.14	932.74	57.40	17.251 ES	
8,000.00	7,971.51	8,041.34	7,974.16	28.74	30.45	91.76	-938.83	-396.19	990.53	932.91	57.62	17.190	
8,050.00	8,017.38	8,087.21	8,020.03	28.85	30.60	92.73	-938.83	-396.19	991.39	933.51	57.88	17.129	
8,100.00	8,061.35	8,131.17	8,064.00	28.96	30.74	93.78	-938.83	-396.19	992.93	934.81	58.12	17.085	
8,150.00	8,103.07	8,172.90	8,105.72	29.07	30.88	94.85	-938.83	-396.19	995.42	937.08	58.34	17.062	
8,200.00	8,142.24	8,212.07	8,144.89	29.18	31.01	95.87	-938.83	-396.19	999.13	940.57	58.56	17.063	
8,250.00	8,178.55	8,248.38	8,181.20	29.30	31.13	96.78	-938.83	-396.19	1,004.34	945.58	58.76	17.091	
8,300.00	8,211.73	8,281.56	8,214.38	29.42	31.24	97.49	-938.83	-396.19	1,011.31	952.33	58.97	17.149	
8,350.00	8,241.53	8,311.36	8,244.18	29.57	31.34	97.95	-938.83	-396.19	1,020.26	961.08	59.18	17.239	
8,400.00	8,267.71	8,337.54	8,270.36	29.74	31.43	98.08	-938.83	-396.19	1,031.38	971.98	59.40	17.364	
8,450.00	8,290.09	8,359.92	8,292.74	29.93	31.50	97.84	-938.83	-396.19	1,044.79	985.18	59.62	17.526	
8,500.00	8,308.48	8,378.31	8,311.13	30.16	31.56	97.16	-938.83	-396.19	1,060.56	1,000.72	59.84	17.723	
8,550.00	8,322.76	8,407.42	8,325.41	30.41	31.66	96.01	-938.83	-396.19	1,078.67	1,018.55	60.12	17.942	
8,600.00	8,332.80	8,402.63	8,335.45	30.70	31.65	94.36	-938.83	-396.19	1,099.03	1,038.74	60.29	18.228	
8,650.00	8,338.54	8,408.37	8,341.19	31.02	31.66	92.18	-938.83	-396.19	1,121.49	1,060.97	60.51	18.533	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well#121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,690.92	8,340.00	8,409.83	8,342.65	31.30	31.67	90.00	-938.83	-396.19	1,141.27	1,080.58	60.68	18.807	
8,700.00	8,340.00	8,409.83	8,342.65	31.37	31.67	90.00	-938.83	-396.19	1,145.81	1,085.09	60.72	18.870	
8,800.00	8,340.00	8,409.83	8,342.65	32.18	31.67	90.00	-938.83	-396.19	1,199.27	1,138.12	61.16	19.609	
8,900.00	8,340.00	8,409.83	8,342.65	33.15	31.67	90.00	-938.83	-396.19	1,258.43	1,196.80	61.62	20.421	
9,000.00	8,340.00	8,409.83	8,342.65	34.26	31.67	90.00	-938.83	-396.19	1,322.50	1,260.41	62.09	21.300	
9,100.00	8,340.00	8,409.83	8,342.65	35.50	31.67	90.00	-938.83	-396.19	1,390.82	1,328.28	62.54	22.239	
9,200.00	8,340.00	8,409.83	8,342.65	36.86	31.67	90.00	-938.83	-396.19	1,462.79	1,399.82	62.97	23.231	
9,300.00	8,340.00	8,409.83	8,342.65	38.33	31.67	90.00	-938.83	-396.19	1,537.90	1,474.53	63.37	24.269	
9,400.00	8,340.00	8,409.83	8,342.65	39.89	31.67	90.00	-938.83	-396.19	1,615.71	1,551.97	63.74	25.348	
9,500.00	8,340.00	8,409.83	8,342.65	41.53	31.67	90.00	-938.83	-396.19	1,695.84	1,631.76	64.08	26.464	
9,600.00	8,340.00	11,037.67	9,745.00	43.25	51.35	144.78	-939.47	1,080.69	1,716.59	1,654.30	62.29	27.558	
9,700.00	8,340.00	11,137.67	9,745.00	45.03	53.10	144.78	-939.51	1,180.69	1,716.59	1,652.05	64.54	26.596	
9,800.00	8,340.00	11,237.67	9,745.00	46.87	54.91	144.78	-939.55	1,280.69	1,716.59	1,649.73	66.86	25.673	
9,900.00	8,340.00	11,337.67	9,745.00	48.76	56.76	144.78	-939.60	1,380.69	1,716.59	1,647.35	69.24	24.790	
10,000.00	8,340.00	11,437.67	9,745.00	50.70	58.65	144.78	-939.64	1,480.69	1,716.59	1,644.91	71.68	23.949	
10,100.00	8,340.00	11,537.67	9,745.00	52.67	60.58	144.78	-939.68	1,580.69	1,716.59	1,642.43	74.16	23.147	
10,200.00	8,340.00	11,637.67	9,745.00	54.68	62.54	144.78	-939.73	1,680.69	1,716.59	1,639.90	76.69	22.385	
10,300.00	8,340.00	11,737.67	9,745.00	56.73	64.54	144.78	-939.77	1,780.69	1,716.59	1,637.34	79.25	21.660	
10,400.00	8,340.00	11,837.67	9,745.00	58.80	66.56	144.78	-939.81	1,880.69	1,716.59	1,634.74	81.85	20.972	
10,500.00	8,340.00	11,937.67	9,745.00	60.90	68.62	144.78	-939.86	1,980.69	1,716.59	1,632.10	84.49	20.318	
10,600.00	8,340.00	12,037.67	9,745.00	63.02	70.69	144.78	-939.90	2,080.69	1,716.59	1,629.44	87.15	19.697	
10,700.00	8,340.00	12,137.67	9,745.00	65.17	72.79	144.78	-939.94	2,180.69	1,716.59	1,626.75	89.84	19.107	
10,800.00	8,340.00	12,237.67	9,745.00	67.33	74.90	144.78	-939.98	2,280.69	1,716.59	1,624.04	92.55	18.547	
10,900.00	8,340.00	12,337.67	9,745.00	69.51	77.04	144.78	-940.03	2,380.69	1,716.59	1,621.30	95.29	18.014	
11,000.00	8,340.00	12,437.67	9,745.00	71.71	79.19	144.78	-940.07	2,480.69	1,716.59	1,618.54	98.05	17.508	
11,100.00	8,340.00	12,537.67	9,745.00	73.92	81.36	144.78	-940.11	2,580.69	1,716.59	1,615.77	100.82	17.026	
11,200.00	8,340.00	12,637.67	9,745.00	76.14	83.54	144.78	-940.16	2,680.69	1,716.59	1,612.97	103.62	16.567	
11,300.00	8,340.00	12,737.67	9,745.00	78.37	85.73	144.78	-940.20	2,780.69	1,716.59	1,610.16	106.43	16.129	
11,400.00	8,340.00	12,837.67	9,745.00	80.62	87.94	144.78	-940.24	2,880.69	1,716.59	1,607.34	109.25	15.713	
11,500.00	8,340.00	12,937.67	9,745.00	82.87	90.15	144.78	-940.29	2,980.69	1,716.59	1,604.50	112.09	15.315	
11,600.00	8,340.00	13,037.67	9,745.00	85.14	92.38	144.78	-940.33	3,080.69	1,716.59	1,601.65	114.94	14.935	
11,700.00	8,340.00	13,137.67	9,745.00	87.41	94.62	144.78	-940.37	3,180.69	1,716.59	1,598.79	117.80	14.572	
11,800.00	8,340.00	13,237.67	9,745.00	89.70	96.87	144.78	-940.42	3,280.69	1,716.59	1,595.92	120.67	14.225	
11,900.00	8,340.00	13,337.67	9,745.00	91.98	99.12	144.78	-940.46	3,380.69	1,716.59	1,593.04	123.55	13.894	
12,000.00	8,340.00	13,437.67	9,745.00	94.28	101.38	144.78	-940.50	3,480.69	1,716.59	1,590.14	126.45	13.576	
12,100.00	8,340.00	13,537.67	9,745.00	96.58	103.65	144.78	-940.55	3,580.69	1,716.59	1,587.24	129.35	13.271	
12,200.00	8,340.00	13,637.67	9,745.00	98.89	105.93	144.78	-940.59	3,680.69	1,716.59	1,584.33	132.26	12.979	
12,300.00	8,340.00	13,737.67	9,745.00	101.20	108.21	144.78	-940.63	3,780.69	1,716.59	1,581.42	135.17	12.699	
12,400.00	8,340.00	13,837.67	9,745.00	103.52	110.50	144.78	-940.67	3,880.69	1,716.59	1,578.49	138.10	12.430	
12,500.00	8,340.00	13,937.67	9,745.00	105.84	112.80	144.78	-940.72	3,980.69	1,716.59	1,575.56	141.03	12.172	
12,600.00	8,340.00	14,037.67	9,745.00	108.17	115.10	144.78	-940.76	4,080.69	1,716.59	1,572.63	143.96	11.924	
12,700.00	8,340.00	14,137.67	9,745.00	110.50	117.40	144.78	-940.80	4,180.69	1,716.59	1,569.68	146.91	11.685	
12,800.00	8,340.00	14,237.67	9,745.00	112.84	119.71	144.78	-940.85	4,280.69	1,716.59	1,566.74	149.85	11.455	
12,900.00	8,340.00	14,337.67	9,745.00	115.18	122.03	144.78	-940.89	4,380.69	1,716.59	1,563.78	152.81	11.234	
13,000.00	8,340.00	14,437.67	9,745.00	117.52	124.34	144.78	-940.93	4,480.69	1,716.59	1,560.82	155.77	11.020	
13,100.00	8,340.00	14,537.67	9,745.00	119.87	126.67	144.78	-940.98	4,580.69	1,716.59	1,557.86	158.73	10.815	
13,200.00	8,340.00	14,637.67	9,745.00	122.21	128.99	144.78	-941.02	4,680.69	1,716.59	1,554.89	161.70	10.616	
13,216.38	8,340.00	14,654.05	9,745.00	122.60	129.37	144.78	-941.03	4,697.06	1,716.59	1,554.41	162.18	10.584 SF	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MVVD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance			Minimum Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)			
0.00	0.00	0.25	-0.25	0.00	0.00	-135.05	-30.04	-29.99	42.45					
100.00	100.00	100.25	99.75	0.13	0.13	-135.05	-30.04	-29.99	42.45	42.19	0.26	166.193		
200.00	200.00	200.25	199.75	0.49	0.49	-135.05	-30.04	-29.99	42.45	41.48	0.97	43.654		
300.00	300.00	300.25	299.75	0.84	0.85	-135.05	-30.04	-29.99	42.45	40.76	1.69	25.127		
400.00	400.00	400.25	399.75	1.20	1.20	-135.05	-30.04	-29.99	42.45	40.04	2.41	17.641		
500.00	500.00	500.25	499.75	1.56	1.56	-135.05	-30.04	-29.99	42.45	39.32	3.12	13.591		
600.00	600.00	600.25	599.75	1.92	1.92	-135.05	-30.04	-29.99	42.45	38.61	3.84	11.054		
700.00	700.00	700.25	699.75	2.28	2.28	-135.05	-30.04	-29.99	42.45	37.89	4.56	9.315		
800.00	800.00	800.25	799.75	2.64	2.64	-135.05	-30.04	-29.99	42.45	37.17	5.27	8.048		
900.00	900.00	900.25	899.75	3.00	3.00	-135.05	-30.04	-29.99	42.45	36.46	5.99	7.085		
1,000.00	1,000.00	999.75	999.75	3.35	3.35	-135.05	-30.04	-29.99	42.45	35.74	6.71	6.330 CC, ES		
1,100.00	1,100.00	1,098.65	1,098.64	3.71	3.69	-134.73	-30.75	-31.05	43.71	36.31	7.40	5.903		
1,200.00	1,200.00	1,197.42	1,197.33	4.07	4.03	-133.86	-32.89	-34.22	47.52	39.44	8.09	5.875		
1,300.00	1,300.00	1,303.67	1,296.04	4.43	4.39	-132.71	-36.39	-39.42	53.78	44.98	8.80	6.111		
1,400.00	1,400.00	1,403.91	1,395.56	4.79	4.74	-131.71	-40.28	-45.19	60.69	51.18	9.50	6.387		
1,500.00	1,500.00	1,504.16	1,495.07	5.15	5.09	-130.91	-44.17	-50.97	67.60	57.40	10.20	6.626		
1,600.00	1,599.99	1,604.34	1,594.64	5.50	5.44	-48.22	-48.06	-56.74	73.66	62.76	10.90	6.758		
1,700.00	1,699.91	1,704.46	1,694.28	5.84	5.80	-49.70	-51.95	-62.52	78.00	66.40	11.59	6.728		
1,766.67	1,766.45	1,762.13	1,760.71	6.07	6.01	-51.41	-54.55	-66.37	80.00	67.98	12.03	6.652		
1,800.00	1,799.70	1,804.57	1,793.92	6.19	6.16	-52.40	-55.84	-68.30	80.86	68.56	12.29	6.578		
1,900.00	1,899.46	1,904.70	1,893.56	6.54	6.52	-55.26	-59.74	-74.08	83.55	70.56	13.00	6.429		
2,000.00	1,999.22	2,004.82	1,993.19	6.90	6.89	-57.94	-63.63	-79.86	86.44	72.74	13.70	6.308		
2,100.00	2,098.97	2,104.94	2,092.83	7.26	7.25	-60.43	-67.52	-85.63	89.51	75.10	14.42	6.209		
2,200.00	2,198.73	2,205.06	2,192.47	7.61	7.62	-62.76	-71.41	-91.41	92.74	77.61	15.13	6.129		
2,300.00	2,298.48	2,305.18	2,292.10	7.97	7.99	-64.93	-75.31	-97.19	96.11	80.26	15.85	6.064		
2,400.00	2,398.24	2,394.70	2,391.74	8.33	8.31	-66.95	-79.20	-102.97	99.61	83.07	16.53	6.024		
2,500.00	2,498.00	2,505.42	2,491.37	8.70	8.72	-68.83	-83.09	-108.75	103.22	85.92	17.30	5.968		
2,600.00	2,597.75	2,605.54	2,591.01	9.06	9.09	-70.58	-86.98	-114.53	106.94	88.91	18.02	5.934		
2,700.00	2,697.51	2,705.66	2,690.65	9.43	9.46	-72.21	-90.87	-120.31	110.75	92.00	18.75	5.907		
2,800.00	2,797.27	2,794.22	2,790.28	9.79	9.79	-73.74	-94.77	-126.09	114.64	95.20	19.44	5.898		
2,850.00	2,847.14	2,844.16	2,840.10	9.97	9.98	-74.46	-96.71	-128.97	116.61	96.81	19.80	5.889		
2,900.00	2,897.00	2,893.16	2,888.97	10.16	10.16	-75.22	-98.72	-131.95	118.67	98.51	20.16	5.886		
3,000.00	2,996.54	2,990.42	2,985.81	10.53	10.53	-77.00	-103.71	-139.36	123.92	103.04	20.87	5.937		
3,100.00	3,095.79	3,087.48	3,082.21	10.91	10.90	-79.04	-110.07	-148.80	130.79	109.20	21.59	6.057		
3,116.66	3,112.29	3,103.64	3,098.22	10.97	10.96	-79.40	-111.26	-150.57	132.09	110.38	21.71	6.084		
3,200.00	3,194.82	3,186.03	3,179.82	11.30	11.29	-81.13	-117.63	-160.03	139.12	116.77	22.35	6.226		
3,300.00	3,293.85	3,285.55	3,278.37	11.69	11.69	-82.99	-125.37	-171.52	147.74	124.62	23.12	6.389		
3,400.00	3,392.87	3,385.07	3,376.92	12.08	12.08	-84.64	-133.11	-183.01	156.50	132.60	23.90	6.547		
3,500.00	3,491.90	3,484.59	3,475.47	12.47	12.48	-86.11	-140.85	-194.50	165.38	140.69	24.69	6.699		
3,600.00	3,590.93	3,584.11	3,574.02	12.87	12.88	-87.44	-148.58	-205.98	174.35	148.88	25.48	6.844		
3,700.00	3,689.95	3,683.63	3,672.58	13.26	13.29	-88.63	-156.32	-217.47	183.41	157.14	26.27	6.983		
3,800.00	3,788.98	3,783.15	3,771.13	13.66	13.69	-89.71	-164.06	-228.96	192.54	165.48	27.06	7.115		
3,900.00	3,888.01	3,882.67	3,869.68	14.06	14.09	-90.69	-171.80	-240.45	201.73	173.88	27.85	7.242		
4,000.00	3,987.03	3,982.19	3,968.23	14.46	14.50	-91.59	-179.54	-251.93	210.98	182.32	28.65	7.363		
4,100.00	4,086.06	4,081.71	4,066.78	14.87	14.91	-92.41	-187.27	-263.42	220.27	190.82	29.45	7.479		
4,200.00	4,185.09	4,181.23	4,165.33	15.27	15.31	-93.17	-195.01	-274.91	229.60	199.35	30.25	7.589		
4,300.00	4,284.11	4,280.75	4,263.88	15.67	15.72	-93.87	-202.75	-286.40	238.97	207.92	31.06	7.695		
4,400.00	4,383.14	4,380.27	4,362.43	16.08	16.13	-94.51	-210.49	-297.88	248.38	216.51	31.86	7.796		
4,500.00	4,482.17	4,479.79	4,460.98	16.49	16.54	-95.11	-218.22	-309.37	257.81	225.14	32.67	7.892		
4,600.00	4,581.19	4,579.31	4,559.54	16.89	16.95	-95.66	-225.96	-320.86	267.26	233.79	33.47	7.984		
4,700.00	4,680.22	4,678.83	4,658.09	17.30	17.36	-96.18	-233.70	-332.35	276.74	242.46	34.28	8.072		
4,800.00	4,779.25	4,778.35	4,756.64	17.71	17.77	-96.66	-241.44	-343.83	286.25	251.15	35.09	8.157		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,878.27	4,877.87	4,855.19	18.12	18.18	-97.11	-249.17	-355.32	295.77	259.86	35.90	8.238		
4,943.57	4,921.42	4,921.23	4,898.13	18.30	18.36	-97.30	-252.55	-360.33	299.92	263.66	36.26	8.272		
5,000.00	4,977.36	4,977.40	4,953.75	18.53	18.59	-97.54	-256.91	-366.81	305.25	268.54	36.71	8.315		
5,100.00	5,076.73	5,080.99	5,056.47	18.92	19.02	-97.71	-264.40	-377.92	313.88	276.35	37.54	8.362		
5,200.00	5,176.36	5,185.52	5,160.45	19.30	19.43	-97.80	-270.38	-386.81	320.69	282.35	38.34	8.364		
5,300.00	5,276.18	5,290.27	5,264.90	19.67	19.82	-97.79	-274.78	-393.34	325.64	286.53	39.11	8.326		
5,400.00	5,376.12	5,395.18	5,369.68	20.03	20.21	-97.71	-277.59	-397.51	328.73	288.88	39.85	8.249		
5,476.91	5,453.03	5,475.92	5,450.40	20.29	20.49	179.68	-278.65	-399.08	329.83	289.45	40.39	8.167		
5,500.00	5,476.12	5,500.18	5,474.66	20.36	20.57	179.72	-278.78	-399.28	329.96	289.41	40.55	8.138		
5,600.00	5,576.12	5,601.39	5,575.87	20.70	20.89	179.73	-278.83	-399.35	330.00	288.80	41.21	8.008		
5,700.00	5,676.12	5,701.39	5,675.87	21.03	21.21	179.73	-278.83	-399.35	330.00	288.14	41.87	7.882		
5,800.00	5,776.12	5,801.39	5,775.87	21.37	21.53	179.73	-278.83	-399.35	330.00	287.48	42.53	7.760		
5,900.00	5,876.12	5,901.39	5,875.87	21.70	21.85	179.73	-278.83	-399.35	330.00	286.81	43.19	7.641		
6,000.00	5,976.12	6,001.39	5,975.87	22.04	22.17	179.73	-278.83	-399.35	330.00	286.15	43.85	7.525		
6,100.00	6,076.12	6,101.39	6,075.87	22.37	22.50	179.73	-278.83	-399.35	330.00	285.49	44.52	7.413		
6,200.00	6,176.12	6,201.39	6,175.87	22.71	22.82	179.73	-278.83	-399.35	330.00	284.82	45.19	7.303		
6,300.00	6,276.12	6,301.39	6,275.87	23.05	23.14	179.73	-278.83	-399.35	330.00	284.15	45.85	7.197		
6,400.00	6,376.12	6,401.39	6,375.87	23.39	23.47	179.73	-278.83	-399.35	330.00	283.48	46.52	7.093		
6,500.00	6,476.12	6,501.39	6,475.87	23.73	23.80	179.73	-278.83	-399.35	330.00	282.81	47.20	6.992		
6,600.00	6,576.12	6,601.39	6,575.87	24.07	24.12	179.73	-278.83	-399.35	330.00	282.14	47.87	6.894		
6,700.00	6,676.12	6,701.39	6,675.87	24.41	24.45	179.73	-278.83	-399.35	330.00	281.46	48.54	6.798		
6,800.00	6,776.12	6,801.39	6,775.87	24.75	24.78	179.73	-278.83	-399.35	330.00	280.79	49.22	6.705		
6,900.00	6,876.12	6,901.39	6,875.87	25.09	25.11	179.73	-278.83	-399.35	330.00	280.11	49.89	6.614		
7,000.00	6,976.12	7,001.39	6,975.87	25.43	25.44	179.73	-278.83	-399.35	330.00	279.43	50.57	6.525		
7,100.00	7,076.12	7,101.39	7,075.87	25.78	25.78	179.73	-278.83	-399.35	330.00	278.75	51.25	6.439		
7,200.00	7,176.12	7,201.39	7,175.87	26.12	26.11	179.73	-278.83	-399.35	330.00	278.07	51.93	6.355		
7,300.00	7,276.12	7,301.39	7,275.87	26.46	26.44	179.73	-278.83	-399.35	330.00	277.39	52.61	6.273		
7,400.00	7,376.12	7,401.39	7,375.87	26.81	26.78	179.73	-278.83	-399.35	330.00	276.71	53.29	6.192		
7,500.00	7,476.12	7,501.39	7,475.87	27.15	27.11	179.73	-278.83	-399.35	330.00	276.03	53.97	6.114		
7,600.00	7,576.12	7,601.39	7,575.87	27.49	27.45	179.73	-278.83	-399.35	330.00	275.35	54.66	6.038		
7,700.00	7,676.12	7,701.39	7,675.87	27.84	27.78	179.73	-278.83	-399.35	330.00	274.66	55.34	5.963		
7,790.92	7,767.04	7,807.69	7,766.79	28.15	28.14	179.73	-278.83	-399.35	330.00	273.99	56.02	5.891		
7,800.00	7,776.12	7,801.39	7,775.87	28.18	28.12	89.72	-278.83	-399.35	330.00	273.98	56.03	5.890		
7,835.23	7,811.31	7,836.58	7,811.06	28.29	28.24	90.00	-278.83	-399.35	330.00	273.75	56.25	5.867		
7,850.00	7,826.01	7,851.29	7,825.76	28.34	28.28	90.23	-278.83	-399.35	330.00	273.66	56.34	5.857		
7,900.00	7,875.46	7,900.73	7,875.21	28.48	28.45	91.47	-278.83	-399.35	330.11	273.47	56.64	5.828		
7,950.00	7,924.08	7,949.35	7,923.83	28.61	28.62	93.37	-278.83	-399.35	330.62	273.71	56.91	5.809		
8,000.00	7,971.51	8,003.22	7,971.26	28.74	28.80	95.82	-278.83	-399.35	331.96	274.78	57.18	5.806 SF		
8,050.00	8,017.38	8,042.65	8,017.13	28.85	28.93	98.66	-278.83	-399.35	334.70	277.32	57.37	5.834		
8,100.00	8,061.35	8,086.62	8,061.10	28.96	29.08	101.70	-278.83	-399.35	339.48	281.91	57.56	5.897		
8,150.00	8,103.07	8,128.34	8,102.82	29.07	29.22	104.74	-278.83	-399.35	346.97	289.24	57.73	6.010		
8,200.00	8,142.24	8,167.51	8,141.99	29.18	29.35	107.57	-278.83	-399.35	357.78	299.91	57.87	6.182		
8,250.00	8,178.55	8,203.82	8,178.30	29.30	29.48	110.00	-278.83	-399.35	372.40	314.40	58.00	6.421		
8,300.00	8,211.73	8,237.00	8,211.48	29.42	29.59	111.86	-278.83	-399.35	391.13	333.01	58.11	6.730		
8,350.00	8,241.53	8,266.80	8,241.28	29.57	29.69	113.02	-278.83	-399.35	414.06	355.84	58.22	7.112		
8,400.00	8,267.71	8,307.01	8,267.46	29.74	29.82	113.33	-278.83	-399.35	441.08	382.71	58.37	7.557		
8,450.00	8,290.09	8,315.36	8,289.84	29.93	29.85	112.65	-278.83	-399.35	471.92	413.51	58.41	8.080		
8,500.00	8,308.48	8,333.75	8,308.23	30.16	29.92	110.83	-278.83	-399.35	506.19	447.70	58.49	8.654		
8,550.00	8,322.76	8,348.03	8,322.51	30.41	29.96	107.67	-278.83	-399.35	543.41	484.86	58.56	9.280		
8,600.00	8,332.80	8,358.07	8,332.55	30.70	30.00	102.96	-278.83	-399.35	583.07	524.47	58.61	9.949		
8,650.00	8,338.54	8,363.81	8,338.29	31.02	30.02	96.54	-278.83	-399.35	624.64	566.00	58.64	10.652		
8,690.92	8,340.00	8,365.27	8,339.75	31.30	30.02	90.00	-278.83	-399.35	659.71	601.06	58.66	11.247		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWVD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,700.00	8,340.00	8,365.27	8,339.75	31.37	30.02	90.00	-278.83	-399.35	667.59	608.93	58.66	11.381	
8,800.00	8,340.00	8,365.27	8,339.75	32.18	30.02	90.00	-278.83	-399.35	756.13	697.44	58.69	12.883	
8,900.00	8,340.00	8,365.27	8,339.75	33.15	30.02	90.00	-278.83	-399.35	847.23	788.50	58.73	14.425	
9,000.00	8,340.00	8,365.27	8,339.75	34.26	30.02	90.00	-278.83	-399.35	940.14	881.37	58.77	15.996	
9,100.00	8,340.00	8,365.27	8,339.75	35.50	30.02	90.00	-278.83	-399.35	1,034.37	975.56	58.82	17.587	
9,200.00	8,340.00	8,365.27	8,339.75	36.86	30.02	90.00	-278.83	-399.35	1,129.60	1,070.74	58.86	19.193	
9,300.00	8,340.00	8,365.27	8,339.75	38.33	30.02	90.00	-278.83	-399.35	1,225.59	1,166.69	58.89	20.810	
9,400.00	8,340.00	8,365.27	8,339.75	39.89	30.02	90.00	-278.83	-399.35	1,322.17	1,263.24	58.93	22.437	
9,500.00	8,340.00	8,365.27	8,339.75	41.53	30.02	90.00	-278.83	-399.35	1,419.22	1,360.26	58.96	24.070	
9,600.00	8,340.00	11,000.54	9,745.00	43.25	46.55	166.78	-279.47	1,080.97	1,443.48	1,407.30	36.18	39.902	
9,700.00	8,340.00	11,100.54	9,745.00	45.03	48.22	166.78	-279.51	1,180.97	1,443.48	1,405.93	37.54	38.449	
9,800.00	8,340.00	11,200.54	9,745.00	46.87	49.94	166.78	-279.55	1,280.97	1,443.48	1,404.52	38.95	37.056	
9,900.00	8,340.00	11,300.54	9,745.00	48.76	51.72	166.78	-279.60	1,380.97	1,443.48	1,403.07	40.40	35.726	
10,000.00	8,340.00	11,400.54	9,745.00	50.70	53.56	166.78	-279.64	1,480.97	1,443.48	1,401.59	41.89	34.460	
10,100.00	8,340.00	11,500.54	9,745.00	52.67	55.43	166.78	-279.68	1,580.97	1,443.48	1,400.07	43.41	33.256	
10,200.00	8,340.00	11,600.54	9,745.00	54.68	57.35	166.78	-279.73	1,680.97	1,443.48	1,398.53	44.95	32.113	
10,300.00	8,340.00	11,700.54	9,745.00	56.73	59.31	166.78	-279.77	1,780.97	1,443.48	1,396.96	46.52	31.029	
10,400.00	8,340.00	11,800.54	9,745.00	58.80	61.30	166.78	-279.81	1,880.97	1,443.48	1,395.36	48.11	30.001	
10,500.00	8,340.00	11,900.54	9,745.00	60.90	63.32	166.78	-279.86	1,980.97	1,443.48	1,393.75	49.73	29.027	
10,600.00	8,340.00	12,000.54	9,745.00	63.02	65.37	166.78	-279.90	2,080.97	1,443.48	1,392.12	51.36	28.104	
10,700.00	8,340.00	12,100.54	9,745.00	65.17	67.44	166.78	-279.94	2,180.97	1,443.48	1,390.47	53.01	27.229	
10,800.00	8,340.00	12,200.54	9,745.00	67.33	69.53	166.78	-279.99	2,280.97	1,443.48	1,388.80	54.68	26.399	
10,900.00	8,340.00	12,300.54	9,745.00	69.51	71.65	166.78	-280.03	2,380.97	1,443.48	1,387.12	56.36	25.612	
11,000.00	8,340.00	12,399.46	9,745.00	71.71	73.76	166.78	-280.07	2,480.97	1,443.48	1,385.43	58.04	24.869	
11,100.00	8,340.00	12,500.54	9,745.00	73.92	75.93	166.78	-280.12	2,580.97	1,443.48	1,383.72	59.76	24.155	
11,200.00	8,340.00	12,600.54	9,745.00	76.14	78.10	166.78	-280.16	2,680.97	1,443.48	1,382.00	61.47	23.481	
11,300.00	8,340.00	12,700.54	9,745.00	78.37	80.29	166.78	-280.20	2,780.97	1,443.48	1,380.28	63.20	22.840	
11,400.00	8,340.00	12,800.54	9,745.00	80.62	82.48	166.78	-280.25	2,880.97	1,443.48	1,378.54	64.94	22.229	
11,500.00	8,340.00	12,900.54	9,745.00	82.87	84.69	166.78	-280.29	2,980.97	1,443.48	1,376.80	66.68	21.648	
11,600.00	8,340.00	13,000.54	9,745.00	85.14	86.91	166.78	-280.33	3,080.97	1,443.48	1,375.05	68.43	21.093	
11,700.00	8,340.00	13,100.54	9,745.00	87.41	89.14	166.78	-280.37	3,180.97	1,443.48	1,373.29	70.19	20.565	
11,800.00	8,340.00	13,200.54	9,745.00	89.70	91.38	166.78	-280.42	3,280.97	1,443.48	1,371.52	71.96	20.060	
11,900.00	8,340.00	13,300.54	9,745.00	91.98	93.63	166.78	-280.46	3,380.97	1,443.48	1,369.75	73.73	19.578	
12,000.00	8,340.00	13,400.54	9,745.00	94.28	95.89	166.78	-280.50	3,480.97	1,443.48	1,367.97	75.51	19.117	
12,100.00	8,340.00	13,500.54	9,745.00	96.58	98.15	166.78	-280.55	3,580.97	1,443.48	1,366.19	77.29	18.676	
12,200.00	8,340.00	13,600.54	9,745.00	98.89	100.43	166.78	-280.59	3,680.97	1,443.48	1,364.40	79.08	18.253	
12,300.00	8,340.00	13,700.54	9,745.00	101.20	102.71	166.78	-280.63	3,780.97	1,443.48	1,362.60	80.87	17.848	
12,400.00	8,340.00	13,800.54	9,745.00	103.52	104.99	166.78	-280.68	3,880.97	1,443.48	1,360.81	82.67	17.460	
12,500.00	8,340.00	13,900.54	9,745.00	105.84	107.29	166.78	-280.72	3,980.97	1,443.48	1,359.00	84.47	17.088	
12,600.00	8,340.00	14,000.54	9,745.00	108.17	109.59	166.78	-280.76	4,080.97	1,443.48	1,357.20	86.28	16.730	
12,700.00	8,340.00	14,100.54	9,745.00	110.50	111.89	166.78	-280.81	4,180.97	1,443.48	1,355.39	88.09	16.386	
12,800.00	8,340.00	14,200.54	9,745.00	112.84	114.20	166.78	-280.85	4,280.97	1,443.48	1,353.57	89.90	16.056	
12,900.00	8,340.00	14,300.54	9,745.00	115.18	116.51	166.78	-280.89	4,380.97	1,443.48	1,351.76	91.72	15.738	
13,000.00	8,340.00	14,400.54	9,745.00	117.52	118.83	166.78	-280.94	4,480.97	1,443.48	1,349.94	93.54	15.432	
13,100.00	8,340.00	14,500.54	9,745.00	119.87	121.15	166.78	-280.98	4,580.97	1,443.48	1,348.12	95.36	15.137	
13,200.00	8,340.00	14,600.54	9,745.00	122.21	123.48	166.78	-281.02	4,680.97	1,443.48	1,346.29	97.19	14.853	
13,216.38	8,340.00	14,615.84	9,745.00	122.60	123.83	166.78	-281.03	4,697.35	1,443.48	1,346.00	97.47	14.809	



Anticollision Report

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 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well#121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWVD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	1.22	1.22	0.00	0.00	-159.34	-1,733.54	-653.53	1,852.64				
100.00	100.00	101.22	101.22	0.13	0.13	-159.34	-1,733.54	-653.53	1,852.64	1,852.38	0.26	7,156.118	
200.00	200.00	201.22	201.22	0.49	0.49	-159.34	-1,733.54	-653.53	1,852.64	1,851.66	0.98	1,898.521	
300.00	300.00	301.22	301.22	0.84	0.85	-159.34	-1,733.54	-653.53	1,852.64	1,850.94	1.69	1,094.438	
400.00	400.00	401.22	401.22	1.20	1.21	-159.34	-1,733.54	-653.53	1,852.64	1,850.23	2.41	768.819	
500.00	500.00	501.22	501.22	1.56	1.57	-159.34	-1,733.54	-653.53	1,852.64	1,849.51	3.13	592.529	
600.00	600.00	601.22	601.22	1.92	1.92	-159.34	-1,733.54	-653.53	1,852.64	1,848.79	3.84	482.005	
700.00	700.00	701.22	701.22	2.28	2.28	-159.34	-1,733.54	-653.53	1,852.64	1,848.08	4.56	406.231	
800.00	800.00	801.22	801.22	2.64	2.64	-159.34	-1,733.54	-653.53	1,852.64	1,847.36	5.28	351.045	
900.00	900.00	901.22	901.22	3.00	3.00	-159.34	-1,733.54	-653.53	1,852.64	1,846.64	5.99	309.060	
1,000.00	1,000.00	1,001.91	1,001.91	3.35	3.36	-159.34	-1,733.54	-653.53	1,852.64	1,845.92	6.71	275.946	
1,100.00	1,100.00	1,158.18	1,158.13	3.71	3.91	-159.41	-1,732.04	-650.62	1,851.08	1,843.46	7.62	242.848	
1,200.00	1,200.00	1,303.01	1,296.70	4.07	4.42	-159.58	-1,728.29	-643.39	1,846.64	1,838.15	8.49	217.580	
1,300.00	1,300.00	1,403.26	1,396.21	4.43	4.78	-159.73	-1,725.10	-637.21	1,841.47	1,832.27	9.20	200.108	
1,400.00	1,400.00	1,503.50	1,495.72	4.79	5.14	-159.87	-1,721.90	-631.02	1,836.32	1,826.40	9.92	185.137	
1,500.00	1,500.00	1,603.74	1,595.24	5.15	5.51	-160.02	-1,718.70	-624.84	1,831.18	1,820.54	10.64	172.160	
1,600.00	1,599.99	1,704.07	1,694.66	5.50	5.87	-77.56	-1,715.51	-618.67	1,825.77	1,814.42	11.35	160.881	
1,700.00	1,699.91	1,795.38	1,793.87	5.84	6.20	-77.92	-1,712.32	-612.51	1,819.82	1,807.80	12.02	151.355	
1,766.67	1,766.45	1,861.52	1,859.86	6.07	6.45	-78.20	-1,710.21	-608.41	1,815.58	1,803.09	12.50	145.304	
1,800.00	1,799.70	1,905.44	1,892.82	6.19	6.61	-78.33	-1,709.15	-606.36	1,813.42	1,800.64	12.77	141.998	
1,900.00	1,899.46	2,006.33	1,991.69	6.54	6.98	-78.69	-1,705.97	-600.22	1,806.96	1,793.47	13.49	133.966	
2,000.00	1,999.22	2,107.21	2,090.56	6.90	7.35	-79.06	-1,702.79	-594.08	1,800.58	1,786.37	14.21	126.723	
2,100.00	2,098.97	2,191.90	2,189.43	7.26	7.66	-79.43	-1,699.62	-587.94	1,794.28	1,779.40	14.87	120.639	
2,200.00	2,198.73	2,308.99	2,288.30	7.61	8.09	-79.81	-1,696.44	-581.80	1,788.05	1,772.39	15.66	114.196	
2,300.00	2,298.48	2,409.87	2,387.17	7.97	8.46	-80.18	-1,693.27	-575.65	1,781.90	1,765.52	16.39	108.748	
2,400.00	2,398.24	2,489.24	2,486.04	8.33	8.75	-80.56	-1,690.09	-569.51	1,775.83	1,758.79	17.04	104.236	
2,500.00	2,498.00	2,588.35	2,584.92	8.70	9.12	-80.94	-1,686.92	-563.37	1,769.84	1,752.08	17.76	99.645	
2,600.00	2,597.75	2,687.47	2,683.79	9.06	9.49	-81.33	-1,683.74	-557.23	1,763.92	1,745.44	18.49	95.411	
2,700.00	2,697.51	2,786.58	2,782.66	9.43	9.85	-81.71	-1,680.56	-551.09	1,758.09	1,738.88	19.22	91.494	
2,800.00	2,797.27	2,901.85	2,897.62	9.79	10.28	-82.17	-1,676.71	-543.64	1,752.18	1,732.18	20.00	87.620	
2,850.00	2,847.14	2,973.50	2,968.97	9.97	10.55	-82.50	-1,673.66	-537.74	1,748.56	1,728.13	20.44	85.566	
2,900.00	2,897.00	3,044.65	3,039.67	10.16	10.83	-82.93	-1,670.02	-530.71	1,744.32	1,723.44	20.87	83.572	
3,000.00	2,996.54	3,164.26	3,158.21	10.53	11.29	-83.85	-1,662.69	-516.52	1,734.18	1,712.50	21.68	79.979	
3,100.00	3,095.79	3,261.15	3,254.16	10.91	11.68	-84.73	-1,656.49	-504.54	1,723.72	1,701.28	22.44	76.821	
3,116.66	3,112.29	3,277.24	3,270.09	10.97	11.74	-84.89	-1,655.46	-502.56	1,721.98	1,699.41	22.56	76.313	
3,200.00	3,194.82	3,357.63	3,349.70	11.30	12.06	-85.54	-1,650.33	-492.62	1,713.41	1,690.20	23.20	73.852	
3,300.00	3,293.85	3,454.10	3,445.23	11.69	12.44	-86.34	-1,644.16	-480.69	1,703.44	1,679.47	23.97	71.073	
3,400.00	3,392.87	3,550.57	3,540.76	12.08	12.83	-87.14	-1,637.99	-468.77	1,693.82	1,669.08	24.74	68.468	
3,500.00	3,491.90	3,647.04	3,636.29	12.47	13.21	-87.96	-1,631.82	-456.84	1,684.56	1,659.04	25.51	66.023	
3,600.00	3,590.93	3,743.51	3,731.82	12.87	13.60	-88.78	-1,625.66	-444.91	1,675.66	1,649.36	26.29	63.728	
3,700.00	3,689.95	3,839.97	3,827.35	13.26	13.99	-89.61	-1,619.49	-432.99	1,667.13	1,640.05	27.08	61.570	
3,800.00	3,788.98	3,928.37	3,914.90	13.66	14.34	-90.37	-1,613.90	-422.18	1,659.07	1,631.23	27.84	59.599	
3,900.00	3,888.01	4,006.12	3,992.08	14.06	14.65	-91.01	-1,609.59	-413.85	1,652.31	1,623.74	28.56	57.850	
4,000.00	3,987.03	4,084.61	4,070.17	14.46	14.96	-91.62	-1,605.97	-406.85	1,646.98	1,617.70	29.28	56.248	
4,100.00	4,086.06	4,163.77	4,149.08	14.87	15.25	-92.19	-1,603.07	-401.24	1,643.04	1,613.05	29.99	54.782	
4,200.00	4,185.09	4,243.55	4,228.72	15.27	15.55	-92.71	-1,600.91	-397.05	1,640.44	1,609.74	30.70	53.439	
4,300.00	4,284.11	4,323.89	4,309.00	15.67	15.84	-93.19	-1,599.50	-394.33	1,639.13	1,607.73	31.40	52.209	
4,354.61	4,338.19	4,367.97	4,353.06	15.90	15.99	-93.43	-1,599.06	-393.48	1,638.95	1,607.17	31.77	51.583 CC	
4,400.00	4,383.14	4,404.71	4,389.81	16.08	16.12	-93.62	-1,598.87	-393.11	1,639.07	1,606.99	32.09	51.084	
4,500.00	4,482.17	4,501.71	4,483.39	16.49	16.45	-94.08	-1,598.83	-393.04	1,639.96	1,607.14	32.83	49.960	
4,600.00	4,581.19	4,602.68	4,582.41	16.89	16.79	-94.56	-1,598.83	-393.04	1,641.02	1,607.44	33.58	48.867	
4,700.00	4,680.22	4,703.66	4,681.44	17.30	17.14	-95.04	-1,598.83	-393.04	1,642.20	1,607.86	34.34	47.825	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MV/D													Offset Well Error:	0.00 usft
Reference	Offset		Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,779.25	4,804.63	4,780.47	17.71	17.48	-95.52	-1,598.83	-393.04	1,643.49	1,608.39	35.10	46.829		
4,900.00	4,878.27	4,905.60	4,879.49	18.12	17.83	-96.00	-1,598.83	-393.04	1,644.90	1,609.04	35.85	45.878		
4,943.57	4,921.42	4,937.55	4,922.64	18.30	17.93	-96.20	-1,598.83	-393.04	1,645.55	1,609.41	36.14	45.529		
5,000.00	4,977.36	5,006.52	4,978.58	18.53	18.17	-96.47	-1,598.83	-393.04	1,646.38	1,609.77	36.61	44.970		
5,100.00	5,076.73	5,107.15	5,077.95	18.92	18.52	-96.87	-1,598.83	-393.04	1,647.68	1,610.33	37.35	44.109		
5,200.00	5,176.36	5,207.51	5,177.58	19.30	18.86	-97.18	-1,598.83	-393.04	1,648.73	1,610.65	38.08	43.292		
5,300.00	5,276.18	5,307.69	5,277.40	19.67	19.21	-97.40	-1,598.83	-393.04	1,649.49	1,610.69	38.80	42.514		
5,400.00	5,376.12	5,407.75	5,377.34	20.03	19.55	-97.52	-1,598.83	-393.04	1,649.92	1,610.42	39.50	41.770		
5,476.91	5,453.03	5,469.15	5,454.25	20.29	19.76	179.73	-1,598.83	-393.04	1,650.02	1,610.04	39.97	41.277		
5,500.00	5,476.12	5,507.76	5,477.34	20.36	19.90	179.73	-1,598.83	-393.04	1,650.02	1,609.83	40.19	41.060		
5,600.00	5,576.12	5,607.76	5,577.34	20.70	20.24	179.73	-1,598.83	-393.04	1,650.02	1,609.15	40.87	40.377		
5,700.00	5,676.12	5,707.76	5,677.34	21.03	20.59	179.73	-1,598.83	-393.04	1,650.02	1,608.47	41.55	39.715		
5,800.00	5,776.12	5,807.76	5,777.34	21.37	20.93	179.73	-1,598.83	-393.04	1,650.02	1,607.79	42.23	39.073		
5,900.00	5,876.12	5,907.76	5,877.34	21.70	21.28	179.73	-1,598.83	-393.04	1,650.02	1,607.11	42.91	38.450		
6,000.00	5,976.12	6,007.76	5,977.34	22.04	21.63	179.73	-1,598.83	-393.04	1,650.02	1,606.42	43.60	37.847		
6,100.00	6,076.12	6,107.76	6,077.34	22.37	21.98	179.73	-1,598.83	-393.04	1,650.02	1,605.74	44.28	37.261		
6,200.00	6,176.12	6,207.76	6,177.34	22.71	22.32	179.73	-1,598.83	-393.04	1,650.02	1,605.05	44.97	36.692		
6,300.00	6,276.12	6,307.76	6,277.34	23.05	22.67	179.73	-1,598.83	-393.04	1,650.02	1,604.36	45.66	36.139		
6,400.00	6,376.12	6,407.76	6,377.34	23.39	23.02	179.73	-1,598.83	-393.04	1,650.02	1,603.67	46.35	35.602		
6,500.00	6,476.12	6,507.76	6,477.34	23.73	23.37	179.73	-1,598.83	-393.04	1,650.02	1,602.98	47.04	35.080		
6,600.00	6,576.12	6,607.76	6,577.34	24.07	23.72	179.73	-1,598.83	-393.04	1,650.02	1,602.29	47.73	34.573		
6,700.00	6,676.12	6,707.76	6,677.34	24.41	24.07	179.73	-1,598.83	-393.04	1,650.02	1,601.60	48.42	34.080		
6,800.00	6,776.12	6,807.76	6,777.34	24.75	24.42	179.73	-1,598.83	-393.04	1,650.02	1,600.91	49.11	33.600		
6,900.00	6,876.12	6,907.76	6,877.34	25.09	24.77	179.73	-1,598.83	-393.04	1,650.02	1,600.22	49.80	33.132		
7,000.00	6,976.12	7,007.76	6,977.34	25.43	25.12	179.73	-1,598.83	-393.04	1,650.02	1,599.53	50.49	32.678		
7,100.00	7,076.12	7,107.76	7,077.34	25.78	25.47	179.73	-1,598.83	-393.04	1,650.02	1,598.83	51.19	32.235		
7,200.00	7,176.12	7,207.76	7,177.34	26.12	25.82	179.73	-1,598.83	-393.04	1,650.02	1,598.14	51.88	31.803		
7,300.00	7,276.12	7,307.76	7,277.34	26.46	26.17	179.73	-1,598.83	-393.04	1,650.02	1,597.44	52.58	31.383		
7,400.00	7,376.12	7,407.76	7,377.34	26.81	26.52	179.73	-1,598.83	-393.04	1,650.02	1,596.75	53.27	30.973		
7,500.00	7,476.12	7,507.76	7,477.34	27.15	26.87	179.73	-1,598.83	-393.04	1,650.02	1,596.05	53.97	30.574		
7,600.00	7,576.12	7,607.76	7,577.34	27.49	27.22	179.73	-1,598.83	-393.04	1,650.02	1,595.35	54.66	30.184		
7,700.00	7,676.12	7,707.76	7,677.34	27.84	27.58	179.73	-1,598.83	-393.04	1,650.02	1,594.66	55.36	29.804		
7,790.92	7,767.04	7,783.17	7,768.26	28.15	27.84	179.73	-1,598.83	-393.04	1,650.02	1,594.08	55.94	29.495		
7,800.00	7,776.12	7,807.76	7,777.34	28.18	27.93	89.70	-1,598.83	-393.04	1,650.02	1,593.96	56.06	29.434		
7,850.00	7,826.01	7,842.14	7,827.23	28.34	28.05	99.81	-1,598.83	-393.04	1,650.01	1,593.67	56.33	29.290		
7,890.27	7,865.90	7,882.02	7,867.12	28.45	28.19	90.00	-1,598.83	-393.04	1,650.00	1,593.41	56.59	29.157		
7,900.00	7,875.46	7,908.41	7,876.68	28.48	28.28	90.06	-1,598.83	-393.04	1,650.00	1,593.29	56.71	29.095		
7,950.00	7,924.08	7,940.21	7,925.30	28.61	28.39	90.45	-1,598.83	-393.04	1,650.05	1,593.09	56.96	28.971		
8,000.00	7,971.51	7,987.63	7,972.73	28.74	28.56	90.94	-1,598.83	-393.04	1,650.25	1,593.01	57.24	28.828 ES		
8,050.00	8,017.38	8,033.50	8,018.60	28.85	28.72	91.53	-1,598.83	-393.04	1,650.72	1,593.20	57.52	28.698		
8,100.00	8,061.35	8,077.47	8,062.57	28.96	28.88	92.17	-1,598.83	-393.04	1,651.60	1,593.82	57.78	28.583		
8,150.00	8,103.07	8,119.20	8,104.29	29.07	29.02	92.82	-1,598.83	-393.04	1,653.04	1,595.01	58.03	28.484		
8,200.00	8,142.24	8,158.36	8,143.46	29.18	29.16	93.44	-1,598.83	-393.04	1,655.22	1,596.94	58.28	28.403		
8,250.00	8,178.55	8,205.32	8,179.77	29.30	29.33	94.00	-1,598.83	-393.04	1,658.30	1,599.74	58.55	28.323		
8,300.00	8,211.73	8,227.86	8,212.95	29.42	29.41	94.44	-1,598.83	-393.04	1,662.45	1,603.70	58.75	28.298		
8,350.00	8,241.53	8,257.65	8,242.75	29.57	29.51	94.72	-1,598.83	-393.04	1,667.82	1,608.84	58.98	28.276		
8,400.00	8,267.71	8,283.84	8,268.93	29.74	29.61	94.81	-1,598.83	-393.04	1,674.56	1,615.34	59.23	28.274		
8,450.00	8,290.09	8,306.21	8,291.31	29.93	29.68	94.67	-1,598.83	-393.04	1,682.77	1,623.29	59.47	28.294		
8,500.00	8,308.48	8,324.61	8,309.70	30.16	29.75	94.27	-1,598.83	-393.04	1,692.51	1,632.78	59.73	28.336		
8,550.00	8,322.76	8,338.88	8,323.98	30.41	29.80	93.59	-1,598.83	-393.04	1,703.82	1,643.82	59.99	28.400		
8,600.00	8,332.80	8,348.93	8,334.02	30.70	29.83	92.60	-1,598.83	-393.04	1,716.68	1,656.42	60.26	28.486		
8,650.00	8,338.54	8,354.66	8,339.76	31.02	29.86	91.30	-1,598.83	-393.04	1,731.05	1,670.51	60.53	28.596		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,690.92	8,340.00	8,356.12	8,341.22	31.30	29.86	90.00	-1,598.83	-393.04	1,743.85	1,683.09	60.75	28.703	
8,700.00	8,340.00	8,356.12	8,341.22	31.37	29.86	90.00	-1,598.83	-393.04	1,746.80	1,686.00	60.80	28.729	
8,800.00	8,340.00	8,356.12	8,341.22	32.18	29.86	90.00	-1,598.83	-393.04	1,782.14	1,720.75	61.39	29.029	
8,900.00	8,340.00	8,356.12	8,341.22	33.15	29.86	90.00	-1,598.83	-393.04	1,822.28	1,760.23	62.05	29.367	
9,000.00	8,340.00	8,356.12	8,341.22	34.26	29.86	90.00	-1,598.83	-393.04	1,866.92	1,804.16	62.76	29.747	
9,100.00	8,340.00	8,356.12	8,341.22	35.50	29.86	90.00	-1,598.83	-393.04	1,915.75	1,852.25	63.49	30.173	
9,200.00	8,340.00	8,356.12	8,341.22	36.86	29.86	90.00	-1,598.83	-393.04	1,968.44	1,904.21	64.23	30.646	
9,300.00	8,340.00	8,356.12	8,341.22	38.33	29.86	90.00	-1,598.83	-393.04	2,024.71	1,959.75	64.96	31.166	
9,400.00	8,340.00	8,356.12	8,341.22	39.89	29.86	90.00	-1,598.83	-393.04	2,084.26	2,018.58	65.68	31.734	
9,500.00	8,340.00	8,356.12	8,341.22	41.53	29.86	90.00	-1,598.83	-393.04	2,146.82	2,080.45	66.37	32.346	
9,600.00	8,340.00	10,981.97	9,745.00	43.25	50.71	130.39	-1,599.47	1,080.40	2,166.35	2,091.47	74.88	28.931	
9,700.00	8,340.00	11,081.97	9,745.00	45.03	52.49	130.39	-1,599.51	1,180.40	2,166.35	2,088.66	77.69	27.883	
9,800.00	8,340.00	11,181.97	9,745.00	46.87	54.32	130.39	-1,599.55	1,280.40	2,166.35	2,085.76	80.59	26.880	
9,900.00	8,340.00	11,281.97	9,745.00	48.76	56.20	130.39	-1,599.59	1,380.40	2,166.35	2,082.79	83.57	25.924	
10,000.00	8,340.00	11,381.97	9,745.00	50.70	58.11	130.39	-1,599.64	1,480.40	2,166.35	2,079.74	86.61	25.013	
10,100.00	8,340.00	11,481.97	9,745.00	52.67	60.07	130.39	-1,599.68	1,580.40	2,166.35	2,076.64	89.71	24.148	
10,200.00	8,340.00	11,581.97	9,745.00	54.68	62.05	130.39	-1,599.72	1,680.40	2,166.35	2,073.48	92.87	23.327	
10,300.00	8,340.00	11,681.97	9,745.00	56.73	64.07	130.39	-1,599.77	1,780.40	2,166.35	2,070.28	96.08	22.548	
10,400.00	8,340.00	11,781.97	9,745.00	58.80	66.11	130.39	-1,599.81	1,880.40	2,166.35	2,067.02	99.33	21.810	
10,500.00	8,340.00	11,881.97	9,745.00	60.90	68.18	130.39	-1,599.85	1,980.40	2,166.35	2,063.73	102.62	21.110	
10,600.00	8,340.00	11,981.97	9,745.00	63.02	70.27	130.39	-1,599.90	2,080.40	2,166.35	2,060.40	105.95	20.447	
10,700.00	8,340.00	12,081.97	9,745.00	65.17	72.38	130.39	-1,599.94	2,180.40	2,166.35	2,057.04	109.31	19.818	
10,800.00	8,340.00	12,181.97	9,745.00	67.33	74.52	130.39	-1,599.98	2,280.40	2,166.35	2,053.65	112.71	19.221	
10,900.00	8,340.00	12,281.97	9,745.00	69.51	76.66	130.39	-1,600.03	2,380.40	2,166.35	2,050.23	116.13	18.655	
11,000.00	8,340.00	12,381.97	9,745.00	71.71	78.83	130.39	-1,600.07	2,480.40	2,166.35	2,046.78	119.57	18.118	
11,100.00	8,340.00	12,481.97	9,745.00	73.92	81.01	130.39	-1,600.11	2,580.40	2,166.35	2,043.31	123.04	17.607	
11,200.00	8,340.00	12,581.97	9,745.00	76.14	83.20	130.39	-1,600.16	2,680.40	2,166.35	2,039.82	126.53	17.121	
11,300.00	8,340.00	12,681.97	9,745.00	78.37	85.41	130.39	-1,600.20	2,780.40	2,166.35	2,036.31	130.04	16.659	
11,400.00	8,340.00	12,781.97	9,745.00	80.62	87.62	130.39	-1,600.24	2,880.40	2,166.35	2,032.79	133.57	16.219	
11,500.00	8,340.00	12,881.97	9,745.00	82.87	89.85	130.39	-1,600.28	2,980.40	2,166.35	2,029.24	137.11	15.800	
11,600.00	8,340.00	12,981.97	9,745.00	85.14	92.09	130.39	-1,600.33	3,080.40	2,166.35	2,025.69	140.67	15.400	
11,700.00	8,340.00	13,081.97	9,745.00	87.41	94.33	130.39	-1,600.37	3,180.40	2,166.35	2,022.11	144.24	15.019	
11,800.00	8,340.00	13,181.97	9,745.00	89.70	96.59	130.39	-1,600.41	3,280.40	2,166.35	2,018.53	147.83	14.655	
11,900.00	8,340.00	13,281.97	9,745.00	91.98	98.85	130.39	-1,600.46	3,380.40	2,166.35	2,014.93	151.43	14.306	
12,000.00	8,340.00	13,381.97	9,745.00	94.28	101.12	130.39	-1,600.50	3,480.40	2,166.35	2,011.32	155.04	13.973	
12,100.00	8,340.00	13,481.97	9,745.00	96.58	103.40	130.39	-1,600.54	3,580.40	2,166.35	2,007.70	158.66	13.654	
12,200.00	8,340.00	13,581.97	9,745.00	98.89	105.69	130.39	-1,600.59	3,680.40	2,166.35	2,004.07	162.29	13.349	
12,300.00	8,340.00	13,681.97	9,745.00	101.20	107.98	130.39	-1,600.63	3,780.40	2,166.35	2,000.43	165.92	13.056	
12,400.00	8,340.00	13,781.97	9,745.00	103.52	110.27	130.39	-1,600.67	3,880.40	2,166.35	1,996.78	169.57	12.775	
12,500.00	8,340.00	13,881.97	9,745.00	105.84	112.57	130.39	-1,600.72	3,980.40	2,166.35	1,993.12	173.23	12.506	
12,600.00	8,340.00	13,981.97	9,745.00	108.17	114.88	130.39	-1,600.76	4,080.40	2,166.35	1,989.46	176.89	12.247	
12,700.00	8,340.00	14,081.97	9,745.00	110.50	117.19	130.39	-1,600.80	4,180.40	2,166.35	1,985.79	180.56	11.998	
12,800.00	8,340.00	14,181.97	9,745.00	112.84	119.51	130.39	-1,600.85	4,280.40	2,166.35	1,982.11	184.24	11.758	
12,900.00	8,340.00	14,281.97	9,745.00	115.18	121.83	130.39	-1,600.89	4,380.40	2,166.35	1,978.43	187.93	11.528	
13,000.00	8,340.00	14,381.97	9,745.00	117.52	124.15	130.39	-1,600.93	4,480.40	2,166.35	1,974.74	191.62	11.306	
13,100.00	8,340.00	14,481.97	9,745.00	119.87	126.48	130.39	-1,600.97	4,580.40	2,166.35	1,971.04	195.31	11.092	
13,200.00	8,340.00	14,581.97	9,745.00	122.21	128.81	130.39	-1,601.02	4,680.40	2,166.35	1,967.34	199.01	10.886	
13,216.38	8,340.00	14,598.34	9,745.00	122.60	129.19	130.39	-1,601.02	4,696.78	2,166.35	1,966.73	199.62	10.852 SF	



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	0.08	0.08	0.00	0.00	-89.95	0.05	-60.04	60.04				
100.00	100.00	100.08	100.08	0.13	0.13	-89.95	0.05	-60.04	60.04	59.79	0.25	235.634	
200.00	200.00	200.08	200.08	0.49	0.49	-89.95	0.05	-60.04	60.04	59.07	0.97	61.786	
300.00	300.00	300.08	300.08	0.84	0.84	-89.95	0.05	-60.04	60.04	58.35	1.69	35.554	
400.00	400.00	400.08	400.08	1.20	1.20	-89.95	0.05	-60.04	60.04	57.63	2.41	24.958	
500.00	500.00	500.08	500.08	1.56	1.56	-89.95	0.05	-60.04	60.04	56.92	3.12	19.228	
600.00	600.00	600.08	600.08	1.92	1.92	-89.95	0.05	-60.04	60.04	56.20	3.84	15.637	
700.00	700.00	700.08	700.08	2.28	2.28	-89.95	0.05	-60.04	60.04	55.48	4.56	13.177	
800.00	800.00	800.08	800.08	2.64	2.64	-89.95	0.05	-60.04	60.04	54.77	5.27	11.385	
900.00	900.00	900.08	900.08	3.00	3.00	-89.95	0.05	-60.04	60.04	54.05	5.99	10.023	
1,000.00	1,000.00	1,000.08	1,000.08	3.35	3.35	-89.95	0.05	-60.04	60.04	53.33	6.71	8.951 CC, ES	
1,100.00	1,100.00	1,098.77	1,098.76	3.71	3.70	-89.28	0.77	-61.10	61.12	53.70	7.41	8.242	
1,200.00	1,200.00	1,197.33	1,197.24	4.07	4.05	-87.41	2.90	-64.26	64.39	56.27	8.12	7.933	
1,300.00	1,300.00	1,303.91	1,295.81	4.43	4.43	-84.72	6.41	-69.45	69.87	61.03	8.85	7.899	
1,400.00	1,400.00	1,404.15	1,395.32	4.79	4.79	-82.19	10.31	-75.21	76.06	66.51	9.56	7.958	
1,500.00	1,500.00	1,495.61	1,494.83	5.15	5.12	-80.05	14.21	-80.98	82.38	72.14	10.24	8.046	
1,600.00	1,599.99	1,604.57	1,594.42	5.50	5.52	4.58	18.11	-86.74	87.49	76.52	10.98	7.971	
1,700.00	1,699.91	1,704.65	1,694.09	5.84	5.88	6.45	22.02	-92.52	90.09	78.42	11.68	7.716	
1,766.67	1,766.45	1,761.99	1,760.56	6.07	6.09	7.77	24.62	-96.37	90.43	78.32	12.11	7.467	
1,800.00	1,799.70	1,804.70	1,793.80	6.19	6.25	8.45	25.92	-98.29	90.33	77.96	12.38	7.298	
1,900.00	1,899.46	1,904.75	1,893.50	6.54	6.61	10.49	29.83	-104.07	90.11	77.03	13.08	6.888	
2,000.00	1,999.22	2,004.80	1,993.21	6.90	6.98	12.55	33.73	-109.84	90.01	76.22	13.79	6.527	
2,039.85	2,038.97	2,035.03	2,032.94	7.04	7.09	13.37	35.29	-112.14	90.00	75.96	14.04	6.411	
2,100.00	2,098.97	2,104.85	2,092.91	7.26	7.35	14.60	37.64	-115.62	90.02	75.52	14.50	6.209	
2,200.00	2,198.73	2,195.09	2,192.62	7.61	7.68	16.66	41.55	-121.39	90.15	74.97	15.18	5.940	
2,300.00	2,298.48	2,304.96	2,292.32	7.97	8.09	18.70	45.45	-127.17	90.39	74.47	15.92	5.677	
2,400.00	2,398.24	2,405.01	2,392.02	8.33	8.46	20.73	49.36	-132.94	90.75	74.11	16.64	5.454	
2,500.00	2,498.00	2,494.94	2,491.73	8.70	8.79	22.75	53.26	-138.72	91.22	73.90	17.32	5.267	
2,600.00	2,597.75	2,605.11	2,591.43	9.06	9.20	24.74	57.17	-144.49	91.80	73.73	18.07	5.079	
2,700.00	2,697.51	2,705.17	2,691.14	9.43	9.57	26.70	61.08	-150.27	92.50	73.70	18.79	4.922	
2,800.00	2,797.27	2,794.78	2,790.84	9.79	9.90	28.63	64.98	-156.04	93.30	73.82	19.48	4.790	
2,850.00	2,847.14	2,844.75	2,840.69	9.97	10.09	29.58	66.93	-158.93	93.73	73.89	19.84	4.724	
2,900.00	2,897.00	2,893.65	2,889.45	10.16	10.27	30.59	68.98	-161.96	94.17	73.98	20.19	4.664	
3,000.00	2,996.54	2,991.15	2,986.52	10.53	10.64	33.08	74.11	-169.54	95.38	74.50	20.88	4.568	
3,100.00	3,095.79	3,088.56	3,083.23	10.91	11.01	36.13	80.62	-179.16	97.18	75.60	21.57	4.504	
3,116.66	3,112.29	3,104.78	3,099.31	10.97	11.08	36.69	81.84	-180.97	97.54	75.85	21.69	4.497	
3,200.00	3,194.82	3,187.65	3,181.37	11.30	11.40	39.51	88.29	-190.50	99.78	77.47	22.31	4.473	
3,300.00	3,293.85	3,287.44	3,280.19	11.69	11.80	42.73	96.07	-202.01	102.80	79.73	23.07	4.456	
3,400.00	3,392.87	3,387.23	3,379.01	12.08	12.20	45.76	103.85	-213.51	106.12	82.28	23.84	4.451	
3,500.00	3,491.90	3,487.02	3,477.83	12.47	12.59	48.59	111.63	-225.02	109.73	85.11	24.62	4.457	
3,600.00	3,590.93	3,586.82	3,576.65	12.87	12.99	51.25	119.41	-236.52	113.58	88.18	25.40	4.471	
3,700.00	3,689.95	3,686.61	3,675.47	13.26	13.40	53.72	127.19	-248.02	117.66	91.47	26.19	4.492	
3,800.00	3,788.98	3,786.40	3,774.29	13.66	13.80	56.02	134.97	-259.53	121.95	94.96	26.99	4.519	
3,900.00	3,888.01	3,886.19	3,873.11	14.06	14.20	58.17	142.75	-271.03	126.42	98.63	27.79	4.550	
4,000.00	3,987.03	3,985.98	3,971.93	14.46	14.60	60.16	150.53	-282.54	131.05	102.46	28.59	4.584	
4,100.00	4,086.06	4,085.78	4,070.76	14.87	15.01	62.02	158.31	-294.04	135.83	106.44	29.40	4.621	
4,200.00	4,185.09	4,185.57	4,169.58	15.27	15.41	63.75	166.09	-305.55	140.75	110.54	30.21	4.660	
4,300.00	4,284.11	4,285.36	4,268.40	15.67	15.82	65.36	173.87	-317.05	145.78	114.77	31.02	4.700	
4,400.00	4,383.14	4,385.15	4,367.22	16.08	16.23	66.86	181.65	-328.55	150.92	119.09	31.83	4.741	
4,500.00	4,482.17	4,484.94	4,466.04	16.49	16.63	68.26	189.44	-340.06	156.16	123.52	32.65	4.783	
4,600.00	4,581.19	4,584.73	4,564.86	16.89	17.04	69.58	197.22	-351.56	161.49	128.02	33.47	4.826	
4,700.00	4,680.22	4,684.53	4,663.68	17.30	17.45	70.80	205.00	-363.07	166.89	132.61	34.28	4.868	

CC - Min centre to center distance or convergent point, SF - min separation factor ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,779.25	4,785.33	4,763.52	17.71	17.86	72.00	212.78	-374.58	172.28	137.16	35.12	4.905		
4,900.00	4,878.27	4,888.39	4,865.86	18.12	18.27	73.64	219.56	-384.60	176.33	140.34	35.98	4.900		
4,943.57	4,921.42	4,933.26	4,910.52	18.30	18.45	74.54	222.03	-388.25	177.57	141.21	36.36	4.884		
5,000.00	4,977.36	4,991.35	4,968.40	18.53	18.67	75.76	224.79	-392.33	178.84	142.01	36.83	4.855		
5,100.00	5,076.73	5,094.27	5,071.10	18.92	19.05	77.75	228.47	-397.77	180.39	142.74	37.65	4.791		
5,200.00	5,176.36	5,197.12	5,173.88	19.30	19.42	79.55	230.59	-400.91	180.98	142.56	38.43	4.710		
5,300.00	5,276.18	5,300.49	5,276.26	19.67	19.77	81.17	231.18	-401.78	180.60	141.43	39.17	4.611		
5,400.00	5,376.12	5,400.55	5,376.20	20.03	20.10	82.21	231.18	-401.78	180.12	140.24	39.88	4.517		
5,476.91	5,453.03	5,476.35	5,453.11	20.29	20.36	-0.27	231.18	-401.78	180.01	139.61	40.40	4.456		
5,500.00	5,476.12	5,500.55	5,476.20	20.36	20.44	-0.27	231.18	-401.78	180.01	139.45	40.56	4.438		
5,600.00	5,576.12	5,600.55	5,576.20	20.70	20.77	-0.27	231.18	-401.78	180.01	138.78	41.23	4.366		
5,700.00	5,676.12	5,700.55	5,676.20	21.03	21.11	-0.27	231.18	-401.78	180.01	138.10	41.91	4.295		
5,800.00	5,776.12	5,800.55	5,776.20	21.37	21.45	-0.27	231.18	-401.78	180.01	137.43	42.58	4.227		
5,900.00	5,876.12	5,900.55	5,876.20	21.70	21.79	-0.27	231.18	-401.78	180.01	136.75	43.26	4.161		
6,000.00	5,976.12	6,000.55	5,976.20	22.04	22.12	-0.27	231.18	-401.78	180.01	136.07	43.94	4.097		
6,100.00	6,076.12	6,100.55	6,076.20	22.37	22.46	-0.27	231.18	-401.78	180.01	135.39	44.62	4.034		
6,200.00	6,176.12	6,200.55	6,176.20	22.71	22.80	-0.27	231.18	-401.78	180.01	134.71	45.30	3.974		
6,300.00	6,276.12	6,300.55	6,276.20	23.05	23.14	-0.27	231.18	-401.78	180.01	134.03	45.98	3.915		
6,400.00	6,376.12	6,400.55	6,376.20	23.39	23.49	-0.27	231.18	-401.78	180.01	133.35	46.66	3.858		
6,500.00	6,476.12	6,500.55	6,476.20	23.73	23.83	-0.27	231.18	-401.78	180.01	132.66	47.35	3.802		
6,600.00	6,576.12	6,600.55	6,576.20	24.07	24.17	-0.27	231.18	-401.78	180.01	131.98	48.03	3.748		
6,700.00	6,676.12	6,700.55	6,676.20	24.41	24.51	-0.27	231.18	-401.78	180.01	131.29	48.72	3.695		
6,800.00	6,776.12	6,800.55	6,776.20	24.75	24.85	-0.27	231.18	-401.78	180.01	130.61	49.41	3.644		
6,900.00	6,876.12	6,900.55	6,876.20	25.09	25.20	-0.27	231.18	-401.78	180.01	129.92	50.09	3.594		
7,000.00	6,976.12	7,000.55	6,976.20	25.43	25.54	-0.27	231.18	-401.78	180.01	129.23	50.78	3.545		
7,100.00	7,076.12	7,100.55	7,076.20	25.78	25.89	-0.27	231.18	-401.78	180.01	128.54	51.47	3.497		
7,200.00	7,176.12	7,200.55	7,176.20	26.12	26.23	-0.27	231.18	-401.78	180.01	127.85	52.16	3.451		
7,300.00	7,276.12	7,300.55	7,276.20	26.46	26.58	-0.27	231.18	-401.78	180.01	127.16	52.85	3.406		
7,400.00	7,376.12	7,400.55	7,376.20	26.81	26.92	-0.27	231.18	-401.78	180.01	126.47	53.54	3.362		
7,500.00	7,476.12	7,500.55	7,476.20	27.15	27.27	-0.27	231.18	-401.78	180.01	125.78	54.23	3.319		
7,600.00	7,576.12	7,600.55	7,576.20	27.49	27.61	-0.27	231.18	-401.78	180.01	125.08	54.93	3.277		
7,700.00	7,676.12	7,700.55	7,676.20	27.84	27.96	-0.27	231.18	-401.78	180.01	124.39	55.62	3.236		
7,790.92	7,767.04	7,809.63	7,767.12	28.15	28.34	-0.27	231.18	-401.78	180.01	123.70	56.31	3.197		
7,800.00	7,776.12	7,800.55	7,776.20	28.18	28.31	-90.32	231.18	-401.78	180.01	123.70	56.31	3.197		
7,850.00	7,826.01	7,849.34	7,826.09	28.34	28.48	-91.26	231.18	-401.78	180.05	123.43	56.63	3.180		
7,900.00	7,875.46	7,901.21	7,875.54	28.48	28.66	-93.52	231.18	-401.78	180.36	123.44	56.92	3.169 SF		
7,950.00	7,924.08	7,947.41	7,924.16	28.61	28.82	-96.97	231.18	-401.78	181.46	124.30	57.16	3.175		
8,000.00	7,971.51	8,005.16	7,971.59	28.74	29.02	-101.35	231.18	-401.78	184.11	126.72	57.40	3.208		
8,050.00	8,017.38	8,040.71	8,017.46	28.85	29.14	-106.30	231.18	-401.78	189.28	131.75	57.53	3.290		
8,100.00	8,061.35	8,084.67	8,061.43	28.96	29.29	-111.42	231.18	-401.78	197.93	140.27	57.66	3.433		
8,150.00	8,103.07	8,126.40	8,103.15	29.07	29.44	-116.30	231.18	-401.78	210.87	153.09	57.78	3.650		
8,200.00	8,142.24	8,165.57	8,142.32	29.18	29.57	-120.60	231.18	-401.78	228.58	170.69	57.89	3.949		
8,250.00	8,178.55	8,201.88	8,178.63	29.30	29.70	-124.11	231.18	-401.78	251.21	193.21	58.00	4.331		
8,300.00	8,211.73	8,235.06	8,211.81	29.42	29.82	-126.68	231.18	-401.78	278.58	220.45	58.12	4.793		
8,350.00	8,241.53	8,264.86	8,241.61	29.57	29.92	-128.20	231.18	-401.78	310.29	252.05	58.24	5.328		
8,400.00	8,267.71	8,308.96	8,267.79	29.74	30.07	-128.58	231.18	-401.78	345.85	287.43	58.42	5.920		
8,450.00	8,290.09	8,313.42	8,290.17	29.93	30.09	-127.63	231.18	-401.78	384.72	326.26	58.46	6.581		
8,500.00	8,308.48	8,331.81	8,308.56	30.16	30.15	-125.08	231.18	-401.78	426.35	367.80	58.55	7.282		
8,550.00	8,322.76	8,346.08	8,322.84	30.41	30.20	-120.44	231.18	-401.78	470.21	411.59	58.62	8.021		
8,600.00	8,332.80	8,356.13	8,332.88	30.70	30.24	-112.99	231.18	-401.78	515.79	457.11	58.67	8.791		
8,650.00	8,338.54	8,361.87	8,338.62	31.02	30.26	-101.93	231.18	-401.78	562.58	503.88	58.70	9.583		
8,690.92	8,340.00	8,363.33	8,340.08	31.30	30.26	-90.00	231.18	-401.78	601.46	542.75	58.72	10.243		

CC - Min centre to center distance or convergent point, SF - min separation factor ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,700.00	8,340.00	8,363.33	8,340.08	31.37	30.26	-90.00	231.18	-401.78	610.13	551.41	58.72	10.390		
8,800.00	8,340.00	8,363.33	8,340.08	32.18	30.26	-90.00	231.18	-401.78	706.30	647.55	58.74	12.024		
8,900.00	8,340.00	8,363.33	8,340.08	33.15	30.26	-90.00	231.18	-401.78	803.40	744.63	58.77	13.671		
9,000.00	8,340.00	8,363.33	8,340.08	34.26	30.26	-90.00	231.18	-401.78	901.13	842.35	58.79	15.329		
9,100.00	8,340.00	8,363.33	8,340.08	35.50	30.26	-90.00	231.18	-401.78	999.32	940.51	58.81	16.992		
9,200.00	8,340.00	8,363.33	8,340.08	36.86	30.26	-90.00	231.18	-401.78	1,097.83	1,039.00	58.83	18.661		
9,300.00	8,340.00	8,363.33	8,340.08	38.33	30.26	-90.00	231.18	-401.78	1,196.59	1,137.74	58.85	20.332		
9,400.00	8,340.00	8,363.33	8,340.08	39.89	30.26	-90.00	231.18	-401.78	1,295.54	1,236.67	58.87	22.006		
9,500.00	8,340.00	8,363.33	8,340.08	41.53	30.26	-90.00	231.18	-401.78	1,394.64	1,335.74	58.89	23.681		
9,600.00	8,340.00	8,363.33	8,340.08	43.25	30.26	-90.00	231.18	-401.78	1,493.86	1,434.94	58.91	25.356		
9,700.00	8,340.00	8,363.33	8,340.08	45.03	30.26	-90.00	231.18	-401.78	1,593.17	1,534.24	58.94	27.033		
9,800.00	8,340.00	8,363.33	8,340.08	46.87	30.26	-90.00	231.18	-401.78	1,692.57	1,633.62	58.96	28.709		
9,900.00	8,340.00	8,363.33	8,340.08	48.76	30.26	-90.00	231.18	-401.78	1,792.04	1,733.06	58.98	30.385		
10,000.00	8,340.00	8,363.33	8,340.08	50.70	30.26	-90.00	231.18	-401.78	1,891.56	1,832.56	59.00	32.061		
10,100.00	8,340.00	8,363.33	8,340.08	52.67	30.26	-90.00	231.18	-401.78	1,991.13	1,932.11	59.02	33.736		
10,200.00	8,340.00	8,363.33	8,340.08	54.68	30.26	-90.00	231.18	-401.78	2,090.74	2,031.69	59.04	35.410		
10,300.00	8,340.00	8,363.33	8,340.08	56.73	30.26	-90.00	231.18	-401.78	2,190.38	2,131.31	59.07	37.083		
10,400.00	8,340.00	12,617.68	10,550.00	58.80	63.33	-171.51	380.03	1,881.24	2,234.40	2,189.38	45.02	49.633		
10,500.00	8,340.00	12,717.68	10,550.00	60.90	65.28	-171.51	379.99	1,981.24	2,234.40	2,187.96	46.44	48.117		
10,600.00	8,340.00	12,817.68	10,550.00	63.02	67.27	-171.51	379.95	2,081.24	2,234.40	2,186.53	47.87	46.673		
10,700.00	8,340.00	12,917.68	10,550.00	65.17	69.28	-171.51	379.91	2,181.24	2,234.40	2,185.08	49.33	45.298		
10,800.00	8,340.00	13,017.68	10,550.00	67.33	71.32	-171.51	379.88	2,281.24	2,234.40	2,183.61	50.80	43.988		
10,900.00	8,340.00	13,117.68	10,550.00	69.51	73.38	-171.51	379.84	2,381.24	2,234.40	2,182.13	52.28	42.740		
11,000.00	8,340.00	13,217.68	10,550.00	71.71	75.46	-171.51	379.80	2,481.24	2,234.40	2,180.63	53.77	41.551		
11,100.00	8,340.00	13,317.68	10,550.00	73.92	77.57	-171.51	379.76	2,581.24	2,234.41	2,179.12	55.28	40.418		
11,200.00	8,340.00	13,417.68	10,550.00	76.14	79.69	-171.51	379.73	2,681.24	2,234.41	2,177.61	56.80	39.338		
11,300.00	8,340.00	13,517.68	10,550.00	78.37	81.83	-171.51	379.69	2,781.24	2,234.41	2,176.08	58.33	38.307		
11,400.00	8,340.00	13,617.68	10,550.00	80.62	83.98	-171.51	379.65	2,881.24	2,234.41	2,174.54	59.87	37.322		
11,500.00	8,340.00	13,717.68	10,550.00	82.87	86.15	-171.51	379.61	2,981.24	2,234.41	2,172.99	61.41	36.382		
11,600.00	8,340.00	13,817.68	10,550.00	85.14	88.33	-171.51	379.58	3,081.24	2,234.41	2,171.44	62.97	35.484		
11,700.00	8,340.00	13,917.68	10,550.00	87.41	90.52	-171.51	379.54	3,181.24	2,234.41	2,169.88	64.53	34.625		
11,800.00	8,340.00	14,017.68	10,550.00	89.70	92.73	-171.51	379.50	3,281.24	2,234.41	2,168.31	66.10	33.803		
11,900.00	8,340.00	14,117.68	10,550.00	91.98	94.94	-171.51	379.46	3,381.24	2,234.41	2,166.73	67.68	33.015		
12,000.00	8,340.00	14,217.68	10,550.00	94.28	97.17	-171.51	379.43	3,481.24	2,234.41	2,165.15	69.26	32.261		
12,100.00	8,340.00	14,317.68	10,550.00	96.58	99.41	-171.51	379.39	3,581.24	2,234.41	2,163.57	70.85	31.538		
12,200.00	8,340.00	14,417.68	10,550.00	98.89	101.65	-171.51	379.35	3,681.24	2,234.41	2,161.97	72.44	30.845		
12,300.00	8,340.00	14,517.68	10,550.00	101.20	103.90	-171.51	379.31	3,781.24	2,234.42	2,160.38	74.04	30.179		
12,400.00	8,340.00	14,617.68	10,550.00	103.52	106.16	-171.51	379.28	3,881.24	2,234.42	2,158.78	75.64	29.540		
12,500.00	8,340.00	14,717.68	10,550.00	105.84	108.43	-171.51	379.24	3,981.24	2,234.42	2,157.17	77.25	28.925		
12,600.00	8,340.00	14,817.68	10,550.00	108.17	110.70	-171.51	379.20	4,081.24	2,234.42	2,155.56	78.86	28.334		
12,700.00	8,340.00	14,917.68	10,550.00	110.50	112.98	-171.51	379.16	4,181.24	2,234.42	2,153.94	80.47	27.766		
12,800.00	8,340.00	15,017.68	10,550.00	112.84	115.26	-171.51	379.13	4,281.24	2,234.42	2,152.33	82.09	27.218		
12,900.00	8,340.00	15,117.68	10,550.00	115.18	117.56	-171.51	379.09	4,381.24	2,234.42	2,150.71	83.72	26.691		
13,000.00	8,340.00	15,217.68	10,550.00	117.52	119.85	-171.51	379.05	4,481.24	2,234.42	2,149.08	85.34	26.182		
13,100.00	8,340.00	15,317.68	10,550.00	119.87	122.15	-171.51	379.01	4,581.24	2,234.42	2,147.45	86.97	25.692		
13,200.00	8,340.00	15,417.68	10,550.00	122.21	124.46	-171.51	378.98	4,681.24	2,234.42	2,145.82	88.60	25.219		
13,216.38	8,340.00	15,434.05	10,550.00	122.60	124.84	-171.51	378.97	4,697.61	2,234.42	2,145.56	88.87	25.143		



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	2.97	2.97	0.00	0.00	-158.32	-1,643.59	-653.45	1,768.72					
100.00	100.00	102.97	102.97	0.13	0.14	-158.32	-1,643.59	-653.45	1,768.72	1,768.46	0.27	6,670.359		
200.00	200.00	202.97	202.97	0.49	0.50	-158.32	-1,643.59	-653.45	1,768.72	1,767.74	0.98	1,800.953		
300.00	300.00	302.97	302.97	0.84	0.85	-158.32	-1,643.59	-653.45	1,768.72	1,767.03	1.70	1,041.009		
400.00	400.00	402.97	402.97	1.20	1.21	-158.32	-1,643.59	-653.45	1,768.72	1,766.31	2.42	732.091		
500.00	500.00	502.97	502.97	1.56	1.57	-158.32	-1,643.59	-653.45	1,768.72	1,765.59	3.13	564.558		
600.00	600.00	602.97	602.97	1.92	1.93	-158.32	-1,643.59	-653.45	1,768.72	1,764.87	3.85	459.424		
700.00	700.00	702.97	702.97	2.28	2.29	-158.32	-1,643.59	-653.45	1,768.72	1,764.16	4.57	387.299		
800.00	800.00	802.97	802.97	2.64	2.65	-158.32	-1,643.59	-653.45	1,768.72	1,763.44	5.28	334.747		
900.00	900.00	902.97	902.97	3.00	3.01	-158.32	-1,643.59	-653.45	1,768.72	1,762.72	6.00	294.753		
1,000.00	1,000.00	1,005.52	1,005.52	3.35	3.37	-158.32	-1,643.59	-653.45	1,768.72	1,762.00	6.73	262.938		
1,100.00	1,100.00	1,191.34	1,191.26	3.71	4.04	-158.33	-1,639.25	-651.43	1,766.15	1,758.40	7.75	228.026		
1,200.00	1,200.00	1,376.26	1,375.65	4.07	4.70	-158.35	-1,626.80	-645.64	1,758.74	1,749.99	8.75	201.051		
1,300.00	1,300.00	1,547.51	1,545.64	4.43	5.33	-158.39	-1,608.09	-636.94	1,746.58	1,736.89	9.69	180.274		
1,400.00	1,400.00	1,646.54	1,643.71	4.79	5.71	-158.42	-1,595.60	-631.13	1,732.69	1,722.29	10.40	166.631		
1,500.00	1,500.00	1,745.57	1,741.77	5.15	6.09	-158.45	-1,583.10	-625.32	1,718.80	1,707.69	11.11	154.707		
1,600.00	1,599.99	1,844.53	1,839.77	5.50	6.47	-76.00	-1,570.61	-619.51	1,704.59	1,692.77	11.82	144.266		
1,700.00	1,699.91	1,943.31	1,937.59	5.84	6.85	-76.38	-1,558.15	-613.72	1,689.76	1,677.24	12.52	135.003		
1,766.67	1,766.45	2,009.03	2,002.67	6.07	7.11	-76.68	-1,549.85	-609.86	1,679.54	1,666.56	12.99	129.340		
1,800.00	1,799.70	2,041.86	2,035.18	6.19	7.24	-76.77	-1,545.71	-607.93	1,674.37	1,661.15	13.22	126.649		
1,900.00	1,899.46	2,140.35	2,132.71	6.54	7.63	-77.04	-1,533.28	-602.15	1,658.89	1,644.96	13.93	119.109		
2,000.00	1,999.22	2,238.84	2,230.25	6.90	8.02	-77.31	-1,520.85	-596.37	1,643.44	1,628.80	14.64	112.277		
2,100.00	2,098.97	2,337.33	2,327.78	7.26	8.42	-77.59	-1,508.42	-590.59	1,628.03	1,612.68	15.35	106.059		
2,200.00	2,198.73	2,435.83	2,425.31	7.61	8.81	-77.87	-1,495.99	-584.81	1,612.66	1,596.60	16.07	100.380		
2,300.00	2,298.48	2,534.32	2,522.84	7.97	9.21	-78.16	-1,483.56	-579.03	1,597.33	1,580.55	16.78	95.176		
2,400.00	2,398.24	2,632.81	2,620.38	8.33	9.61	-78.46	-1,471.13	-573.25	1,582.04	1,564.54	17.50	90.391		
2,500.00	2,498.00	2,731.30	2,717.91	8.70	10.01	-78.76	-1,458.71	-567.47	1,566.79	1,548.57	18.22	85.977		
2,600.00	2,597.75	2,829.79	2,815.44	9.06	10.41	-79.07	-1,446.28	-561.69	1,551.58	1,532.64	18.95	81.895		
2,700.00	2,697.51	2,968.23	2,952.28	9.43	10.98	-79.51	-1,427.26	-552.85	1,535.23	1,515.46	19.77	77.674		
2,800.00	2,797.27	3,066.27	3,048.97	9.79	11.39	-79.84	-1,412.58	-546.02	1,517.56	1,497.07	20.49	74.063		
2,850.00	2,847.14	3,115.29	3,097.32	9.97	11.60	-80.01	-1,405.25	-542.61	1,508.74	1,487.89	20.85	72.351		
2,900.00	2,897.00	3,164.27	3,145.63	10.16	11.80	-80.33	-1,397.92	-539.20	1,499.88	1,478.67	21.22	70.691		
3,000.00	2,996.54	3,261.96	3,241.98	10.53	12.22	-81.05	-1,383.30	-532.41	1,481.90	1,459.95	21.95	67.511		
3,100.00	3,095.79	3,359.24	3,337.93	10.91	12.63	-81.88	-1,368.74	-525.64	1,463.64	1,440.95	22.69	64.503		
3,116.66	3,112.29	3,375.41	3,353.87	10.97	12.70	-82.03	-1,366.32	-524.51	1,460.57	1,437.76	22.82	64.018		
3,200.00	3,194.82	3,456.22	3,433.58	11.30	13.04	-82.56	-1,354.22	-518.89	1,445.29	1,421.85	23.44	61.665		
3,300.00	3,293.85	3,553.19	3,529.22	11.69	13.45	-83.21	-1,339.71	-512.14	1,427.12	1,402.93	24.19	59.000		
3,400.00	3,392.87	3,650.16	3,624.86	12.08	13.87	-83.88	-1,325.20	-505.39	1,409.14	1,384.19	24.94	56.495		
3,500.00	3,491.90	3,747.14	3,720.50	12.47	14.28	-84.57	-1,310.69	-498.64	1,391.35	1,365.65	25.70	54.136		
3,600.00	3,590.93	3,844.11	3,816.14	12.87	14.70	-85.27	-1,296.17	-491.89	1,373.77	1,347.31	26.46	51.914		
3,700.00	3,689.95	3,941.08	3,911.78	13.26	15.11	-85.99	-1,281.66	-485.14	1,356.40	1,329.17	27.23	49.818		
3,800.00	3,788.98	4,038.05	4,007.43	13.66	15.53	-86.73	-1,267.15	-478.39	1,339.25	1,311.25	28.00	47.838		
3,900.00	3,888.01	4,135.02	4,103.07	14.06	15.95	-87.49	-1,252.64	-471.65	1,322.33	1,293.56	28.77	45.967		
4,000.00	3,987.03	4,231.99	4,198.71	14.46	16.36	-88.26	-1,238.12	-464.90	1,305.64	1,276.10	29.54	44.197		
4,100.00	4,086.06	4,328.97	4,294.35	14.87	16.78	-89.06	-1,223.61	-458.15	1,289.21	1,258.89	30.32	42.521		
4,200.00	4,185.09	4,425.94	4,389.99	15.27	17.20	-89.87	-1,209.10	-451.40	1,273.02	1,241.92	31.10	40.933		
4,300.00	4,284.11	4,522.91	4,485.63	15.67	17.62	-90.71	-1,194.59	-444.65	1,257.11	1,225.23	31.88	39.427		
4,400.00	4,383.14	4,619.88	4,581.28	16.08	18.04	-91.56	-1,180.07	-437.90	1,241.47	1,208.80	32.67	37.998		
4,500.00	4,482.17	4,716.85	4,676.92	16.49	18.46	-92.44	-1,165.56	-431.15	1,226.12	1,192.66	33.46	36.641		
4,600.00	4,581.19	4,813.82	4,772.56	16.89	18.88	-93.34	-1,151.05	-424.40	1,211.07	1,176.81	34.26	35.353		
4,700.00	4,680.22	4,910.80	4,868.20	17.30	19.29	-94.26	-1,136.54	-417.66	1,196.33	1,161.27	35.05	34.128		
4,800.00	4,779.25	4,986.38	4,942.86	17.71	19.62	-94.97	-1,125.87	-412.70	1,182.77	1,146.94	35.82	33.016		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1													Offset Site Error:	0 00 usft
Survey Program: 0-MWD													Offset Well Error:	0 00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
4,900.00	4,878.27	5,062.22	5,018.00	18.12	19.93	-95.68	-1,116.52	-408.35	1,171.31	1,134.73	36.58	32.018		
4,943.57	4,921.42	5,095.43	5,050.96	18.30	20.06	-95.98	-1,112.85	-406.64	1,166.98	1,130.07	36.91	31.617		
5,000.00	4,977.36	5,138.63	5,093.89	18.53	20.23	-96.28	-1,108.46	-404.60	1,161.91	1,124.58	37.33	31.128		
5,100.00	5,076.73	5,215.78	5,170.68	18.92	20.53	-96.74	-1,101.73	-401.47	1,154.29	1,116.25	38.04	30.341		
5,200.00	5,176.36	5,293.54	5,248.22	19.30	20.82	-97.10	-1,096.36	-398.97	1,148.36	1,109.63	38.73	29.651		
5,300.00	5,276.18	5,371.78	5,326.33	19.67	21.10	-97.36	-1,092.41	-397.14	1,144.04	1,104.66	39.38	29.050		
5,400.00	5,376.12	5,450.34	5,404.83	20.03	21.37	-97.51	-1,089.91	-395.97	1,141.28	1,101.28	40.00	28.532		
5,476.91	5,453.03	5,510.86	5,465.35	20.29	21.57	179.73	-1,088.97	-395.54	1,140.19	1,099.74	40.45	28.187		
5,500.00	5,476.12	5,529.05	5,483.54	20.36	21.63	179.73	-1,088.86	-395.48	1,140.05	1,099.47	40.58	28.092		
5,542.15	5,518.27	5,566.75	5,521.24	20.50	21.75	179.73	-1,088.83	-395.47	1,140.01	1,099.17	40.84	27.911		
5,600.00	5,576.12	5,624.60	5,579.09	20.70	21.93	179.73	-1,088.83	-395.47	1,140.01	1,098.78	41.23	27.647		
5,700.00	5,676.12	5,724.60	5,679.09	21.03	22.25	179.73	-1,088.83	-395.47	1,140.01	1,098.10	41.91	27.201		
5,800.00	5,776.12	5,824.60	5,779.09	21.37	22.57	179.73	-1,088.83	-395.47	1,140.01	1,097.43	42.59	26.768		
5,900.00	5,876.12	5,924.60	5,879.09	21.70	22.90	179.73	-1,088.83	-395.47	1,140.01	1,096.75	43.27	26.349		
6,000.00	5,976.12	6,024.60	5,979.09	22.04	23.22	179.73	-1,088.83	-395.47	1,140.01	1,096.07	43.95	25.941		
6,100.00	6,076.12	6,124.60	6,079.09	22.37	23.54	179.73	-1,088.83	-395.47	1,140.01	1,095.39	44.63	25.545		
6,200.00	6,176.12	6,224.60	6,179.09	22.71	23.87	179.73	-1,088.83	-395.47	1,140.01	1,094.70	45.31	25.161		
6,300.00	6,276.12	6,324.60	6,279.09	23.05	24.20	179.73	-1,088.83	-395.47	1,140.01	1,094.02	45.99	24.787		
6,400.00	6,376.12	6,424.60	6,379.09	23.39	24.52	179.73	-1,088.83	-395.47	1,140.01	1,093.34	46.68	24.424		
6,500.00	6,476.12	6,524.60	6,479.09	23.73	24.85	179.73	-1,088.83	-395.47	1,140.01	1,092.65	47.36	24.070		
6,600.00	6,576.12	6,624.60	6,579.09	24.07	25.18	179.73	-1,088.83	-395.47	1,140.01	1,091.97	48.05	23.727		
6,700.00	6,676.12	6,724.60	6,679.09	24.41	25.51	179.73	-1,088.83	-395.47	1,140.01	1,091.28	48.73	23.392		
6,800.00	6,776.12	6,824.60	6,779.09	24.75	25.84	179.73	-1,088.83	-395.47	1,140.01	1,090.59	49.42	23.067		
6,900.00	6,876.12	6,924.60	6,879.09	25.09	26.17	179.73	-1,088.83	-395.47	1,140.01	1,089.90	50.11	22.750		
7,000.00	6,976.12	7,024.60	6,979.09	25.43	26.50	179.73	-1,088.83	-395.47	1,140.01	1,089.21	50.80	22.441		
7,100.00	7,076.12	7,124.60	7,079.09	25.78	26.84	179.73	-1,088.83	-395.47	1,140.01	1,088.52	51.49	22.140		
7,200.00	7,176.12	7,224.60	7,179.09	26.12	27.17	179.73	-1,088.83	-395.47	1,140.01	1,087.83	52.18	21.847		
7,300.00	7,276.12	7,324.60	7,279.09	26.46	27.50	179.73	-1,088.83	-395.47	1,140.01	1,087.14	52.87	21.561		
7,400.00	7,376.12	7,424.60	7,379.09	26.81	27.84	179.73	-1,088.83	-395.47	1,140.01	1,086.45	53.57	21.283		
7,500.00	7,476.12	7,524.60	7,479.09	27.15	28.17	179.73	-1,088.83	-395.47	1,140.01	1,085.75	54.26	21.011		
7,600.00	7,576.12	7,624.60	7,579.09	27.49	28.51	179.73	-1,088.83	-395.47	1,140.01	1,085.06	54.95	20.746		
7,700.00	7,676.12	7,724.60	7,679.09	27.84	28.84	179.73	-1,088.83	-395.47	1,140.01	1,084.37	55.65	20.487		
7,790.92	7,767.04	7,815.52	7,770.01	28.15	29.15	179.73	-1,088.83	-395.47	1,140.01	1,083.74	56.28	20.257		
7,800.00	7,776.12	7,824.60	7,779.09	28.18	29.18	89.71	-1,088.83	-395.47	1,140.01	1,083.67	56.34	20.235		
7,850.00	7,826.01	7,874.50	7,828.98	28.34	29.35	89.86	-1,088.83	-395.47	1,140.00	1,083.34	56.67	20.118		
7,873.51	7,849.34	7,902.18	7,852.31	28.40	29.44	90.00	-1,088.83	-395.47	1,140.00	1,083.17	56.83	20.060 CC		
7,900.00	7,875.46	7,923.94	7,878.43	28.48	29.52	90.22	-1,088.83	-395.47	1,140.01	1,083.03	56.98	20.008		
7,950.00	7,924.08	7,972.56	7,927.05	28.61	29.68	90.77	-1,088.83	-395.47	1,140.11	1,082.84	57.27	19.907 ES		
8,000.00	7,971.51	8,019.99	7,974.48	28.74	29.84	91.49	-1,088.83	-395.47	1,140.44	1,082.89	57.55	19.817		
8,050.00	8,017.38	8,065.86	8,020.35	28.85	30.00	92.33	-1,088.83	-395.47	1,141.17	1,083.36	57.81	19.741		
8,100.00	8,061.35	8,109.83	8,064.32	28.96	30.14	93.25	-1,088.83	-395.47	1,142.49	1,084.44	58.05	19.680		
8,150.00	8,103.07	8,151.55	8,106.04	29.07	30.29	94.18	-1,088.83	-395.47	1,144.64	1,086.35	58.29	19.638		
8,200.00	8,142.24	8,209.28	8,145.21	29.18	30.48	95.08	-1,088.83	-395.47	1,147.85	1,089.27	58.57	19.597		
8,250.00	8,178.55	8,227.03	8,181.52	29.30	30.54	95.87	-1,088.83	-395.47	1,152.36	1,093.64	58.72	19.623		
8,300.00	8,211.73	8,260.21	8,214.70	29.42	30.65	96.49	-1,088.83	-395.47	1,158.41	1,099.47	58.94	19.655		
8,350.00	8,241.53	8,309.99	8,244.50	29.57	30.82	96.89	-1,088.83	-395.47	1,166.21	1,106.99	59.22	19.692		
8,400.00	8,267.71	8,316.20	8,270.68	29.74	30.84	97.01	-1,088.83	-395.47	1,175.92	1,116.55	59.37	19.807		
8,450.00	8,290.09	8,338.57	8,293.06	29.93	30.92	96.80	-1,088.83	-395.47	1,187.67	1,128.08	59.59	19.930		
8,500.00	8,308.48	8,356.96	8,311.45	30.16	30.98	96.22	-1,088.83	-395.47	1,201.54	1,141.72	59.82	20.086		
8,550.00	8,322.76	8,371.24	8,325.73	30.41	31.03	95.22	-1,088.83	-395.47	1,217.52	1,157.47	60.05	20.275		
8,600.00	8,332.80	8,381.28	8,335.77	30.70	31.07	93.78	-1,088.83	-395.47	1,235.57	1,175.28	60.28	20.497		
8,650.00	8,338.54	8,387.02	8,341.51	31.02	31.08	91.89	-1,088.83	-395.47	1,255.55	1,195.04	60.51	20.750		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWVD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,690.92	8,340.00	8,388.48	8,342.97	31.30	31.09	90.00	-1,088.83	-395.47	1,273.22	1,212.54	60.69	20.980	
8,700.00	8,340.00	8,388.48	8,342.97	31.37	31.09	90.00	-1,088.83	-395.47	1,277.29	1,216.57	60.73	21.033	
8,800.00	8,340.00	8,388.48	8,342.97	32.18	31.09	90.00	-1,088.83	-395.47	1,325.40	1,264.21	61.19	21.659	
8,900.00	8,340.00	8,388.48	8,342.97	33.15	31.09	90.00	-1,088.83	-395.47	1,379.10	1,317.40	61.70	22.352	
9,000.00	8,340.00	8,388.48	8,342.97	34.26	31.09	90.00	-1,088.83	-395.47	1,437.75	1,375.54	62.22	23.109	
9,100.00	8,340.00	8,388.48	8,342.97	35.50	31.09	90.00	-1,088.83	-395.47	1,500.78	1,438.05	62.73	23.924	
9,200.00	8,340.00	8,388.48	8,342.97	36.86	31.09	90.00	-1,088.83	-395.47	1,567.66	1,504.44	63.23	24.794	
9,300.00	8,340.00	8,388.48	8,342.97	38.33	31.09	90.00	-1,088.83	-395.47	1,637.92	1,574.22	63.70	25.713	
9,400.00	8,340.00	8,388.48	8,342.97	39.89	31.09	90.00	-1,088.83	-395.47	1,711.14	1,647.00	64.15	26.676	
9,500.00	8,340.00	8,388.48	8,342.97	41.53	31.09	90.00	-1,088.83	-395.47	1,786.96	1,722.40	64.56	27.679	
9,600.00	8,340.00	8,388.48	8,342.97	43.25	31.09	90.00	-1,088.83	-395.47	1,865.06	1,800.12	64.94	28.718	
9,700.00	8,340.00	8,388.48	8,342.97	45.03	31.09	90.00	-1,088.83	-395.47	1,945.16	1,879.86	65.30	29.789	
9,800.00	8,340.00	8,388.48	8,342.97	46.87	31.09	90.00	-1,088.83	-395.47	2,027.04	1,961.41	65.63	30.887	
9,900.00	8,340.00	8,388.48	8,342.97	48.76	31.09	90.00	-1,088.83	-395.47	2,110.47	2,044.54	65.93	32.011	
10,000.00	8,340.00	8,388.48	8,342.97	50.70	31.09	90.00	-1,088.83	-395.47	2,195.29	2,129.09	66.21	33.158	
10,100.00	8,340.00	8,388.48	8,342.97	52.67	31.09	90.00	-1,088.83	-395.47	2,281.35	2,214.88	66.47	34.324	
10,200.00	8,340.00	8,388.48	8,342.97	54.68	31.09	90.00	-1,088.83	-395.47	2,368.49	2,301.79	66.70	35.508	
10,300.00	8,340.00	12,533.14	10,550.00	56.73	66.14	155.84	-939.94	1,780.75	2,418.97	2,354.33	64.64	37.424	
10,400.00	8,340.00	12,633.14	10,550.00	58.80	68.10	155.84	-939.98	1,880.75	2,418.97	2,352.30	66.67	36.284	
10,500.00	8,340.00	12,733.14	10,550.00	60.90	70.09	155.84	-940.02	1,980.75	2,418.97	2,350.24	68.73	35.197	
10,600.00	8,340.00	12,833.14	10,550.00	63.02	72.11	155.84	-940.05	2,080.75	2,418.96	2,348.15	70.81	34.161	
10,700.00	8,340.00	12,933.14	10,550.00	65.17	74.16	155.84	-940.09	2,180.75	2,418.96	2,346.05	72.92	33.175	
10,800.00	8,340.00	13,033.14	10,550.00	67.33	76.22	155.84	-940.13	2,280.75	2,418.96	2,343.92	75.04	32.234	
10,900.00	8,340.00	13,133.14	10,550.00	69.51	78.31	155.84	-940.16	2,380.75	2,418.96	2,341.77	77.19	31.338	
11,000.00	8,340.00	13,233.14	10,550.00	71.71	80.42	155.84	-940.20	2,480.75	2,418.95	2,339.60	79.35	30.483	
11,100.00	8,340.00	13,333.14	10,550.00	73.92	82.54	155.84	-940.24	2,580.75	2,418.95	2,337.42	81.53	29.668	
11,200.00	8,340.00	13,433.14	10,550.00	76.14	84.68	155.84	-940.28	2,680.75	2,418.95	2,335.22	83.73	28.891	
11,300.00	8,340.00	13,533.14	10,550.00	78.37	86.83	155.84	-940.31	2,780.75	2,418.95	2,333.01	85.94	28.148	
11,400.00	8,340.00	13,633.14	10,550.00	80.62	89.00	155.84	-940.35	2,880.75	2,418.94	2,330.79	88.16	27.439	
11,500.00	8,340.00	13,733.14	10,550.00	82.87	91.18	155.84	-940.39	2,980.75	2,418.94	2,328.55	90.39	26.761	
11,600.00	8,340.00	13,833.14	10,550.00	85.14	93.38	155.84	-940.43	3,080.75	2,418.94	2,326.30	92.64	26.112	
11,700.00	8,340.00	13,933.14	10,550.00	87.41	95.58	155.84	-940.46	3,180.75	2,418.94	2,324.05	94.89	25.492	
11,800.00	8,340.00	14,033.14	10,550.00	89.70	97.80	155.84	-940.50	3,280.75	2,418.93	2,321.78	97.15	24.898	
11,900.00	8,340.00	14,133.14	10,550.00	91.98	100.02	155.84	-940.54	3,380.75	2,418.93	2,319.50	99.43	24.329	
12,000.00	8,340.00	14,233.14	10,550.00	94.28	102.26	155.84	-940.57	3,480.75	2,418.93	2,317.22	101.71	23.783	
12,100.00	8,340.00	14,333.14	10,550.00	96.58	104.50	155.84	-940.61	3,580.75	2,418.93	2,314.93	104.00	23.259	
12,200.00	8,340.00	14,433.14	10,550.00	98.89	106.75	155.84	-940.65	3,680.75	2,418.92	2,312.63	106.29	22.757	
12,300.00	8,340.00	14,533.14	10,550.00	101.20	109.01	155.84	-940.69	3,780.75	2,418.92	2,310.33	108.60	22.274	
12,400.00	8,340.00	14,633.14	10,550.00	103.52	111.27	155.84	-940.72	3,880.75	2,418.92	2,308.01	110.91	21.811	
12,500.00	8,340.00	14,733.14	10,550.00	105.84	113.54	155.84	-940.76	3,980.75	2,418.92	2,305.70	113.22	21.365	
12,600.00	8,340.00	14,833.14	10,550.00	108.17	115.82	155.84	-940.80	4,080.75	2,418.91	2,303.37	115.54	20.935	
12,700.00	8,340.00	14,933.14	10,550.00	110.50	118.10	155.84	-940.84	4,180.75	2,418.91	2,301.04	117.87	20.522	
12,800.00	8,340.00	15,033.14	10,550.00	112.84	120.39	155.84	-940.87	4,280.75	2,418.91	2,298.71	120.20	20.124	
12,900.00	8,340.00	15,133.14	10,550.00	115.18	122.69	155.84	-940.91	4,380.75	2,418.91	2,296.37	122.54	19.740	
13,000.00	8,340.00	15,233.14	10,550.00	117.52	124.99	155.84	-940.95	4,480.75	2,418.91	2,294.03	124.88	19.370	
13,100.00	8,340.00	15,333.14	10,550.00	119.87	127.29	155.84	-940.98	4,580.75	2,418.90	2,291.68	127.22	19.013	
13,200.00	8,340.00	15,433.14	10,550.00	122.21	129.60	155.84	-941.02	4,680.75	2,418.90	2,289.33	129.57	18.669	
13,216.38	8,340.00	15,449.51	10,550.00	122.60	129.98	155.84	-941.03	4,697.12	2,418.90	2,288.95	129.95	18.614 SF	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #225H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	0.10	0.00	0.00	-116.58	-30.03	-60.03	67.12					
100.00	100.00	100.10	100.10	0.13	0.13	-116.58	-30.03	-60.03	67.12	66.87	0.25	263.355		
200.00	200.00	200.10	200.10	0.49	0.49	-116.58	-30.03	-60.03	67.12	66.15	0.97	69.069		
300.00	300.00	300.10	300.10	0.84	0.84	-116.58	-30.03	-60.03	67.12	65.43	1.69	39.747		
400.00	400.00	400.10	400.10	1.20	1.20	-116.58	-30.03	-60.03	67.12	64.72	2.41	27.901		
500.00	500.00	500.10	500.10	1.56	1.56	-116.58	-30.03	-60.03	67.12	64.00	3.12	21.495		
600.00	600.00	600.10	600.10	1.92	1.92	-116.58	-30.03	-60.03	67.12	63.28	3.84	17.482		
700.00	700.00	700.10	700.10	2.28	2.28	-116.58	-30.03	-60.03	67.12	62.57	4.56	14.731		
800.00	800.00	800.10	800.10	2.64	2.64	-116.58	-30.03	-60.03	67.12	61.85	5.27	12.728		
900.00	900.00	900.10	900.10	3.00	3.00	-116.58	-30.03	-60.03	67.12	61.13	5.99	11.205		
1,000.00	1,000.00	1,000.10	1,000.10	3.35	3.35	-116.58	-30.03	-60.03	67.12	60.41	6.71	10.007 CC, ES		
1,100.00	1,100.00	1,098.38	1,098.37	3.71	3.70	-116.39	-30.38	-61.25	68.39	60.98	7.41	9.234		
1,200.00	1,200.00	1,196.53	1,196.44	4.07	4.03	-115.85	-31.44	-64.88	72.19	64.10	8.09	8.920		
1,300.00	1,300.00	1,305.02	1,294.69	4.43	4.40	-115.09	-33.18	-70.86	78.43	69.61	8.82	8.896		
1,400.00	1,400.00	1,405.26	1,394.21	4.79	4.76	-114.37	-35.12	-77.54	85.33	75.81	9.52	8.964		
1,500.00	1,500.00	1,505.51	1,493.72	5.15	5.11	-113.75	-37.06	-84.23	92.24	82.02	10.22	9.022		
1,600.00	1,599.99	1,605.68	1,593.31	5.50	5.47	-30.84	-39.00	-90.91	98.04	87.11	10.92	8.975		
1,700.00	1,699.91	1,705.75	1,692.99	5.84	5.83	-31.44	-40.95	-97.61	101.59	89.98	11.62	8.745		
1,766.67	1,766.45	1,760.89	1,759.47	6.07	6.03	-32.26	-42.25	-102.07	102.74	90.70	12.04	8.532		
1,800.00	1,799.70	1,805.79	1,792.71	6.19	6.19	-32.75	-42.89	-104.30	103.07	90.76	12.32	8.369		
1,900.00	1,899.46	1,905.83	1,892.42	6.54	6.55	-34.20	-44.84	-111.00	104.13	91.11	13.02	7.999		
2,000.00	1,999.22	2,005.87	1,992.14	6.90	6.92	-35.63	-46.79	-117.69	105.25	91.52	13.72	7.669		
2,100.00	2,098.97	2,094.09	2,091.86	7.26	7.24	-37.03	-48.73	-124.39	106.43	92.04	14.39	7.396		
2,200.00	2,198.73	2,205.95	2,191.57	7.61	7.65	-38.39	-50.68	-131.09	107.67	92.53	15.14	7.111		
2,300.00	2,298.48	2,305.99	2,291.29	7.97	8.02	-39.73	-52.62	-137.78	108.98	93.12	15.86	6.873		
2,400.00	2,398.24	2,406.03	2,391.00	8.33	8.39	-41.03	-54.57	-144.48	110.34	93.77	16.57	6.658		
2,500.00	2,498.00	2,506.07	2,490.72	8.70	8.76	-42.29	-56.51	-151.17	111.76	94.47	17.29	6.464		
2,600.00	2,597.75	2,606.11	2,590.44	9.06	9.13	-43.53	-58.46	-157.87	113.23	95.22	18.01	6.288		
2,700.00	2,697.51	2,706.15	2,690.15	9.43	9.50	-44.73	-60.40	-164.57	114.75	96.02	18.73	6.127		
2,800.00	2,797.27	2,793.81	2,789.87	9.79	9.82	-45.91	-62.35	-171.26	116.32	96.91	19.41	5.994		
2,850.00	2,847.14	2,843.78	2,839.73	9.97	10.01	-46.48	-63.32	-174.61	117.12	97.36	19.77	5.925		
2,900.00	2,897.00	2,892.56	2,888.37	10.16	10.19	-47.09	-64.34	-178.10	117.94	97.82	20.12	5.862		
3,000.00	2,996.54	2,989.73	2,985.11	10.53	10.56	-48.59	-66.87	-186.83	120.03	99.21	20.82	5.766		
3,100.00	3,095.79	3,086.84	3,081.53	10.91	10.93	-50.41	-70.09	-197.91	122.80	101.28	21.52	5.707		
3,116.66	3,112.29	3,103.02	3,097.56	10.97	11.00	-50.74	-70.70	-199.99	123.33	101.70	21.63	5.701		
3,200.00	3,194.82	3,185.83	3,179.57	11.30	11.33	-52.40	-73.91	-211.03	126.34	104.08	22.26	5.676		
3,300.00	3,293.85	3,285.67	3,278.44	11.69	11.72	-54.28	-77.78	-224.37	130.11	107.09	23.02	5.651		
3,400.00	3,392.87	3,385.51	3,377.30	12.08	12.12	-56.06	-81.66	-237.72	134.01	110.22	23.79	5.633		
3,500.00	3,491.90	3,485.35	3,476.17	12.47	12.52	-57.74	-85.54	-251.06	138.04	113.47	24.57	5.619		
3,600.00	3,590.93	3,585.19	3,575.04	12.87	12.93	-59.32	-89.41	-264.40	142.18	116.83	25.35	5.609		
3,700.00	3,689.95	3,685.03	3,673.91	13.26	13.33	-60.81	-93.29	-277.75	146.41	120.28	26.13	5.603		
3,800.00	3,788.98	3,784.87	3,772.78	13.66	13.73	-62.22	-97.17	-291.09	150.75	123.83	26.92	5.600		
3,900.00	3,888.01	3,884.71	3,871.65	14.06	14.14	-63.54	-101.04	-304.43	155.16	127.45	27.71	5.599		
4,000.00	3,987.03	3,984.55	3,970.51	14.46	14.55	-64.79	-104.92	-317.78	159.66	131.15	28.51	5.601		
4,100.00	4,086.06	4,084.39	4,069.38	14.87	14.95	-65.98	-108.80	-331.12	164.23	134.92	29.31	5.604		
4,200.00	4,185.09	4,184.23	4,168.25	15.27	15.36	-67.10	-112.68	-344.46	168.86	138.75	30.11	5.609		
4,300.00	4,284.11	4,284.07	4,267.12	15.67	15.77	-68.15	-116.55	-357.81	173.56	142.64	30.91	5.614		
4,400.00	4,383.14	4,385.61	4,367.72	16.08	16.19	-69.26	-120.40	-371.03	178.07	146.32	31.74	5.610		
4,500.00	4,482.17	4,488.76	4,470.22	16.49	16.59	-70.89	-123.62	-382.14	181.03	148.43	32.59	5.554		
4,600.00	4,581.19	4,591.75	4,572.83	16.89	16.99	-73.12	-126.07	-390.58	182.37	148.93	33.44	5.454		
4,700.00	4,680.22	4,694.43	4,675.33	17.30	17.37	-75.99	-127.75	-396.34	182.33	148.05	34.28	5.319		
4,800.00	4,779.25	4,796.65	4,777.50	17.71	17.73	-79.55	-128.65	-399.45	181.21	146.10	35.11	5.161		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #225H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
4,900.00	4,878.27	4,902.47	4,878.37	18.12	18.08	-83.79	-128.83	-400.06	179.52	143.57	35.95	4.993		
4,943.57	4,921.42	4,940.68	4,921.52	18.30	18.21	-85.71	-128.83	-400.06	178.96	142.67	36.29	4.932		
5,000.00	4,977.36	5,003.38	4,977.46	18.53	18.41	-88.06	-128.83	-400.06	178.55	141.79	36.76	4.857		
5,051.70	5,028.70	5,047.96	5,028.80	18.73	18.56	-90.00	-128.83	-400.06	178.44	141.31	37.14	4.805		
5,100.00	5,076.73	5,104.01	5,076.83	18.92	18.74	-91.62	-128.83	-400.06	178.51	140.98	37.53	4.756		
5,200.00	5,176.36	5,204.38	5,176.46	19.30	19.07	-94.35	-128.83	-400.06	178.96	140.69	38.27	4.676		
5,300.00	5,276.18	5,304.56	5,276.28	19.67	19.40	-96.24	-128.83	-400.06	179.51	140.52	38.99	4.604		
5,400.00	5,376.12	5,404.62	5,376.22	20.03	19.74	-97.30	-128.83	-400.06	179.90	140.22	39.68	4.534		
5,476.91	5,453.03	5,472.28	5,453.13	20.29	19.96	179.73	-128.83	-400.06	180.00	139.83	40.17	4.481		
5,500.00	5,476.12	5,504.62	5,476.22	20.36	20.07	179.73	-128.83	-400.06	180.00	139.65	40.36	4.460		
5,600.00	5,576.12	5,604.62	5,576.22	20.70	20.40	179.73	-128.83	-400.06	180.00	138.98	41.02	4.388		
5,700.00	5,676.12	5,704.62	5,676.22	21.03	20.74	179.73	-128.83	-400.06	180.00	138.31	41.69	4.317		
5,800.00	5,776.12	5,804.62	5,776.22	21.37	21.07	179.73	-128.83	-400.06	180.00	137.64	42.36	4.249		
5,900.00	5,876.12	5,904.62	5,876.22	21.70	21.41	179.73	-128.83	-400.06	180.00	136.97	43.04	4.183		
6,000.00	5,976.12	6,004.62	5,976.22	22.04	21.74	179.73	-128.83	-400.06	180.00	136.29	43.71	4.118		
6,100.00	6,076.12	6,104.62	6,076.22	22.37	22.08	179.73	-128.83	-400.06	180.00	135.62	44.38	4.056		
6,200.00	6,176.12	6,204.62	6,176.22	22.71	22.42	179.73	-128.83	-400.06	180.00	134.94	45.06	3.995		
6,300.00	6,276.12	6,304.62	6,276.22	23.05	22.75	179.73	-128.83	-400.06	180.00	134.26	45.74	3.935		
6,400.00	6,376.12	6,404.62	6,376.22	23.39	23.09	179.73	-128.83	-400.06	180.00	133.58	46.42	3.878		
6,500.00	6,476.12	6,504.62	6,476.22	23.73	23.43	179.73	-128.83	-400.06	180.00	132.90	47.10	3.822		
6,600.00	6,576.12	6,604.62	6,576.22	24.07	23.77	179.73	-128.83	-400.06	180.00	132.22	47.78	3.767		
6,700.00	6,676.12	6,704.62	6,676.22	24.41	24.11	179.73	-128.83	-400.06	180.00	131.54	48.46	3.714		
6,800.00	6,776.12	6,804.62	6,776.22	24.75	24.45	179.73	-128.83	-400.06	180.00	130.86	49.14	3.663		
6,900.00	6,876.12	6,904.62	6,876.22	25.09	24.80	179.73	-128.83	-400.06	180.00	130.17	49.83	3.613		
7,000.00	6,976.12	7,004.62	6,976.22	25.43	25.14	179.73	-128.83	-400.06	180.00	129.49	50.51	3.564		
7,100.00	7,076.12	7,104.62	7,076.22	25.78	25.48	179.73	-128.83	-400.06	180.00	128.80	51.20	3.516		
7,200.00	7,176.12	7,204.62	7,176.22	26.12	25.82	179.73	-128.83	-400.06	180.00	128.12	51.88	3.469		
7,300.00	7,276.12	7,304.62	7,276.22	26.46	26.17	179.73	-128.83	-400.06	180.00	127.43	52.57	3.424		
7,400.00	7,376.12	7,404.62	7,376.22	26.81	26.51	179.73	-128.83	-400.06	180.00	126.74	53.26	3.380		
7,500.00	7,476.12	7,504.62	7,476.22	27.15	26.85	179.73	-128.83	-400.06	180.00	126.05	53.95	3.336		
7,600.00	7,576.12	7,604.62	7,576.22	27.49	27.20	179.73	-128.83	-400.06	180.00	125.36	54.64	3.294		
7,700.00	7,676.12	7,704.62	7,676.22	27.84	27.54	179.73	-128.83	-400.06	180.00	124.67	55.33	3.253		
7,790.92	7,767.04	7,786.30	7,767.14	28.15	27.83	179.73	-128.83	-400.06	180.00	124.08	55.93	3.219		
7,800.00	7,776.12	7,804.62	7,776.22	28.18	27.89	89.72	-128.83	-400.06	180.00	123.98	56.02	3.213		
7,823.71	7,799.81	7,819.07	7,799.91	28.26	27.94	90.00	-128.83	-400.06	180.00	123.86	56.14	3.206		
7,850.00	7,826.01	7,845.27	7,826.11	28.34	28.03	90.67	-128.83	-400.06	180.01	123.70	56.31	3.197		
7,900.00	7,875.46	7,905.28	7,875.56	28.48	28.24	92.94	-128.83	-400.06	180.25	123.59	56.65	3.182 SF		
7,950.00	7,924.08	7,943.34	7,924.18	28.61	28.37	96.40	-128.83	-400.06	181.22	124.33	56.89	3.185		
8,000.00	7,971.51	8,009.23	7,971.61	28.74	28.60	100.81	-128.83	-400.06	183.72	126.53	57.19	3.212		
8,050.00	8,017.38	8,036.64	8,017.48	28.85	28.69	105.81	-128.83	-400.06	188.70	131.37	57.33	3.292		
8,100.00	8,061.35	8,080.60	8,061.45	28.96	28.84	110.97	-128.83	-400.06	197.15	139.67	57.48	3.430		
8,150.00	8,103.07	8,122.33	8,103.17	29.07	28.99	115.91	-128.83	-400.06	209.89	152.28	57.61	3.643		
8,200.00	8,142.24	8,161.50	8,142.34	29.18	29.12	120.27	-128.83	-400.06	227.42	169.71	57.71	3.941		
8,250.00	8,178.55	8,202.19	8,178.65	29.30	29.26	123.83	-128.83	-400.06	249.90	192.08	57.82	4.322		
8,300.00	8,211.73	8,230.99	8,211.83	29.42	29.36	126.44	-128.83	-400.06	277.14	219.24	57.90	4.787		
8,350.00	8,241.53	8,260.79	8,241.63	29.57	29.47	128.00	-128.83	-400.06	308.76	250.77	57.99	5.325		
8,400.00	8,267.71	8,286.97	8,267.81	29.74	29.56	128.40	-128.83	-400.06	344.25	286.17	58.07	5.928		
8,450.00	8,290.09	8,309.35	8,290.19	29.93	29.64	127.48	-128.83	-400.06	383.06	324.91	58.15	6.588		
8,500.00	8,308.48	8,327.74	8,308.58	30.16	29.70	124.95	-128.83	-400.06	424.65	366.44	58.21	7.295		
8,550.00	8,322.76	8,342.01	8,322.86	30.41	29.75	120.33	-128.83	-400.06	468.47	410.22	58.26	8.041		
8,600.00	8,332.80	8,352.06	8,332.90	30.70	29.78	112.91	-128.83	-400.06	514.02	455.73	58.29	8.818		
8,650.00	8,338.54	8,357.80	8,338.64	31.02	29.80	101.89	-128.83	-400.06	560.80	502.50	58.31	9.618		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #225H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,690.92	8,340.00	8,359.26	8,340.10	31.30	29.81	90.00	-128.83	-400.06	599.67	541.36	58.31	10.284		
8,700.00	8,340.00	8,359.26	8,340.10	31.37	29.81	90.00	-128.83	-400.06	608.34	550.03	58.31	10.433		
8,800.00	8,340.00	8,359.26	8,340.10	32.18	29.81	90.00	-128.83	-400.06	704.48	646.17	58.31	12.082		
8,900.00	8,340.00	8,359.26	8,340.10	33.15	29.81	90.00	-128.83	-400.06	801.57	743.25	58.32	13.745		
9,000.00	8,340.00	8,359.26	8,340.10	34.26	29.81	90.00	-128.83	-400.06	899.30	840.97	58.33	15.419		
9,100.00	8,340.00	8,359.26	8,340.10	35.50	29.81	90.00	-128.83	-400.06	997.47	939.14	58.34	17.099		
9,200.00	8,340.00	8,359.26	8,340.10	36.86	29.81	90.00	-128.83	-400.06	1,095.98	1,037.63	58.35	18.783		
9,300.00	8,340.00	8,359.26	8,340.10	38.33	29.81	90.00	-128.83	-400.06	1,194.73	1,136.37	58.36	20.471		
9,400.00	8,340.00	8,359.26	8,340.10	39.89	29.81	90.00	-128.83	-400.06	1,293.68	1,235.30	58.38	22.160		
9,500.00	8,340.00	8,359.26	8,340.10	41.53	29.81	90.00	-128.83	-400.06	1,392.78	1,334.38	58.39	23.852		
9,600.00	8,340.00	8,359.26	8,340.10	43.25	29.81	90.00	-128.83	-400.06	1,491.99	1,433.59	58.41	25.544		
9,700.00	8,340.00	8,359.26	8,340.10	45.03	29.81	90.00	-128.83	-400.06	1,591.31	1,532.88	58.43	27.236		
9,800.00	8,340.00	8,359.26	8,340.10	46.87	29.81	90.00	-128.83	-400.06	1,690.71	1,632.26	58.44	28.929		
9,900.00	8,340.00	8,359.26	8,340.10	48.76	29.81	90.00	-128.83	-400.06	1,790.17	1,731.71	58.46	30.621		
10,000.00	8,340.00	8,359.26	8,340.10	50.70	29.81	90.00	-128.83	-400.06	1,889.69	1,831.21	58.48	32.313		
10,100.00	8,340.00	8,359.26	8,340.10	52.67	29.81	90.00	-128.83	-400.06	1,989.26	1,930.76	58.50	34.004		
10,200.00	8,340.00	8,359.26	8,340.10	54.68	29.81	90.00	-128.83	-400.06	2,088.87	2,030.35	58.52	35.694		
10,300.00	8,340.00	8,359.26	8,340.10	56.73	29.81	90.00	-128.83	-400.06	2,188.51	2,129.97	58.54	37.383		
10,400.00	8,340.00	12,611.91	10,550.00	58.80	63.37	171.50	-280.24	1,881.02	2,234.46	2,188.92	45.54	49.064		
10,500.00	8,340.00	12,711.91	10,550.00	60.90	65.34	171.50	-280.27	1,981.02	2,234.46	2,187.50	46.97	47.577		
10,600.00	8,340.00	12,811.91	10,550.00	63.02	67.34	171.50	-280.30	2,081.02	2,234.46	2,186.05	48.41	46.160		
10,700.00	8,340.00	12,911.91	10,550.00	65.17	69.36	171.50	-280.32	2,181.02	2,234.46	2,184.59	49.86	44.811		
10,800.00	8,340.00	13,011.91	10,550.00	67.33	71.41	171.50	-280.35	2,281.02	2,234.45	2,183.12	51.34	43.524		
10,900.00	8,340.00	13,111.91	10,550.00	69.51	73.49	171.50	-280.38	2,381.02	2,234.45	2,181.63	52.83	42.299		
11,000.00	8,340.00	13,211.91	10,550.00	71.71	75.58	171.50	-280.41	2,481.02	2,234.45	2,180.12	54.33	41.130		
11,100.00	8,340.00	13,311.91	10,550.00	73.92	77.69	171.50	-280.44	2,581.02	2,234.45	2,178.61	55.84	40.016		
11,200.00	8,340.00	13,411.91	10,550.00	76.14	79.83	171.50	-280.46	2,681.02	2,234.45	2,177.08	57.36	38.953		
11,300.00	8,340.00	13,511.91	10,550.00	78.37	81.97	171.50	-280.49	2,781.02	2,234.44	2,175.55	58.90	37.938		
11,400.00	8,340.00	13,611.91	10,550.00	80.62	84.13	171.50	-280.52	2,881.02	2,234.44	2,174.00	60.44	36.969		
11,500.00	8,340.00	13,711.91	10,550.00	82.87	86.31	171.50	-280.55	2,981.02	2,234.44	2,172.45	61.99	36.044		
11,600.00	8,340.00	13,811.91	10,550.00	85.14	88.50	171.50	-280.58	3,081.02	2,234.44	2,170.88	63.55	35.159		
11,700.00	8,340.00	13,911.91	10,550.00	87.41	90.70	171.50	-280.60	3,181.02	2,234.44	2,169.32	65.12	34.312		
11,800.00	8,340.00	14,011.91	10,550.00	89.70	92.91	171.50	-280.63	3,281.02	2,234.43	2,167.74	66.70	33.502		
11,900.00	8,340.00	14,111.91	10,550.00	91.98	95.14	171.50	-280.66	3,381.02	2,234.43	2,166.15	68.28	32.726		
12,000.00	8,340.00	14,211.91	10,550.00	94.28	97.37	171.50	-280.69	3,481.02	2,234.43	2,164.56	69.86	31.982		
12,100.00	8,340.00	14,311.91	10,550.00	96.58	99.61	171.50	-280.72	3,581.02	2,234.43	2,162.97	71.46	31.269		
12,200.00	8,340.00	14,411.91	10,550.00	98.89	101.86	171.50	-280.74	3,681.02	2,234.42	2,161.37	73.06	30.585		
12,300.00	8,340.00	14,511.91	10,550.00	101.20	104.11	171.50	-280.77	3,781.02	2,234.42	2,159.76	74.66	29.928		
12,400.00	8,340.00	14,611.91	10,550.00	103.52	106.38	171.50	-280.80	3,881.02	2,234.42	2,158.15	76.27	29.297		
12,500.00	8,340.00	14,711.91	10,550.00	105.84	108.65	171.50	-280.83	3,981.02	2,234.42	2,156.54	77.88	28.690		
12,600.00	8,340.00	14,811.91	10,550.00	108.17	110.93	171.50	-280.86	4,081.02	2,234.42	2,154.92	79.50	28.107		
12,700.00	8,340.00	14,911.91	10,550.00	110.50	113.21	171.50	-280.88	4,181.02	2,234.41	2,153.30	81.12	27.545		
12,800.00	8,340.00	15,011.91	10,550.00	112.84	115.50	171.51	-280.91	4,281.02	2,234.41	2,151.67	82.74	27.005		
12,900.00	8,340.00	15,111.91	10,550.00	115.18	117.80	171.51	-280.94	4,381.02	2,234.41	2,150.04	84.37	26.483		
13,000.00	8,340.00	15,211.91	10,550.00	117.52	120.10	171.51	-280.97	4,481.02	2,234.41	2,148.41	86.00	25.981		
13,100.00	8,340.00	15,311.91	10,550.00	119.87	122.40	171.51	-281.00	4,581.02	2,234.41	2,146.77	87.64	25.497		
13,200.00	8,340.00	15,411.91	10,550.00	122.21	124.62	171.51	-281.02	4,681.02	2,234.40	2,145.18	89.23	25.042		
13,216.38	8,340.00	15,428.28	10,550.00	122.60	124.88	171.51	-281.03	4,697.40	2,234.40	2,144.97	89.43	24.984		



Anticollision Report



Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well#121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWVD												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	+N/-S (usft)	+E/-W (usft)	Distance	Minimum Separation (usft)	Warning
0.00	0.00	1.24	1.24	0.00	0.00	-159.01	-159.01	-1,703.52	-653.46	1,824.55			
100.00	100.00	101.24	101.24	0.13	0.13	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,824.29	0.26	7,045.686
200.00	200.00	201.24	201.24	0.49	0.49	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,823.58	0.98	1,869.603
300.00	300.00	301.24	301.24	0.84	0.85	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,822.86	1.69	1,077.801
400.00	400.00	401.24	401.24	1.20	1.21	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,822.14	2.41	757.142
500.00	500.00	501.24	501.24	1.56	1.57	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,821.43	3.13	583.533
600.00	600.00	601.24	601.24	1.92	1.92	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,820.71	3.84	474.689
700.00	700.00	701.24	701.24	2.28	2.28	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,819.99	4.56	400.067
800.00	800.00	801.24	801.24	2.64	2.64	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,819.27	5.28	345.719
900.00	900.00	901.24	901.24	3.00	3.00	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,818.56	5.99	304.371
1,000.00	1,000.00	1,001.24	1,001.24	3.35	3.36	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,817.84	6.71	271.857
1,100.00	1,100.00	1,101.24	1,101.24	3.71	3.72	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,817.12	7.43	245.619
1,200.00	1,200.00	1,201.24	1,201.24	4.07	4.07	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,816.41	8.15	224.000
1,300.00	1,300.00	1,301.24	1,301.24	4.43	4.43	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,815.69	8.86	205.878
1,400.00	1,400.00	1,401.24	1,401.24	4.79	4.79	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,814.97	9.58	190.470
1,500.00	1,500.00	1,501.24	1,501.24	5.15	5.15	-159.01	-159.01	-1,703.52	-653.46	1,824.55	1,814.26	10.30	177.207
1,600.00	1,599.99	1,601.23	1,601.23	5.50	5.51	-76.33	-76.33	-1,703.52	-653.46	1,824.24	1,813.24	11.01	165.756
1,700.00	1,699.91	1,701.15	1,701.15	5.84	5.87	-76.46	-76.46	-1,703.52	-653.46	1,823.32	1,811.61	11.71	155.716
1,766.67	1,766.45	1,767.69	1,767.69	6.07	6.11	-76.60	-76.60	-1,703.52	-653.46	1,822.37	1,810.19	12.18	149.620
1,800.00	1,799.70	1,801.03	1,801.03	6.19	6.22	-76.67	-76.67	-1,703.52	-653.46	1,821.83	1,809.41	12.42	146.732
1,900.00	1,899.46	1,910.32	1,910.30	6.54	6.61	-76.96	-76.96	-1,703.79	-651.89	1,819.96	1,806.82	13.15	138.419
2,000.00	1,999.22	2,018.99	2,018.87	6.90	6.97	-77.33	-77.33	-1,704.59	-647.28	1,817.63	1,803.76	13.87	131.037
2,100.00	2,098.97	2,122.03	2,121.67	7.26	7.33	-77.77	-77.77	-1,705.77	-640.49	1,814.96	1,800.38	14.58	124.466
2,200.00	2,198.73	2,221.05	2,220.46	7.61	7.67	-78.20	-78.20	-1,706.95	-633.68	1,812.35	1,797.06	15.28	118.579
2,300.00	2,298.48	2,320.08	2,319.25	7.97	8.02	-78.63	-78.63	-1,708.13	-626.88	1,809.84	1,793.85	15.99	113.186
2,400.00	2,398.24	2,419.11	2,418.03	8.33	8.37	-79.06	-79.06	-1,709.31	-620.07	1,807.43	1,790.73	16.70	108.232
2,500.00	2,498.00	2,518.13	2,516.82	8.70	8.72	-79.49	-79.49	-1,710.49	-613.26	1,805.12	1,787.71	17.41	103.670
2,600.00	2,597.75	2,617.16	2,615.60	9.06	9.07	-79.92	-79.92	-1,711.68	-606.46	1,802.93	1,784.80	18.13	99.457
2,700.00	2,697.51	2,716.19	2,714.39	9.43	9.43	-80.35	-80.35	-1,712.86	-599.65	1,800.83	1,781.98	18.85	95.556
2,800.00	2,797.27	2,815.22	2,813.18	9.79	9.78	-80.79	-80.79	-1,714.04	-592.84	1,798.84	1,779.27	19.57	91.938
2,850.00	2,847.14	2,865.56	2,863.39	9.97	9.96	-81.01	-81.01	-1,714.64	-589.35	1,797.88	1,777.95	19.93	90.211
2,900.00	2,897.00	2,917.66	2,915.33	10.16	10.15	-81.28	-81.28	-1,715.36	-585.21	1,796.84	1,776.54	20.30	88.505
3,000.00	2,896.54	3,020.74	3,017.88	10.53	10.53	-81.96	-81.96	-1,717.14	-574.97	1,794.39	1,773.34	21.05	85.234
3,100.00	3,095.79	3,121.75	3,118.07	10.91	10.91	-82.79	-82.79	-1,719.34	-562.30	1,791.59	1,769.78	21.81	82.145
3,116.66	3,112.29	3,137.78	3,133.94	10.97	10.97	-82.94	-82.94	-1,719.72	-560.10	1,791.11	1,769.18	21.94	81.655
3,200.00	3,194.82	3,217.89	3,213.27	11.30	11.27	-83.64	-83.64	-1,721.62	-549.12	1,788.86	1,766.30	22.56	79.285
3,300.00	3,293.85	3,314.02	3,308.46	11.69	11.64	-84.49	-84.49	-1,723.91	-535.94	1,786.54	1,763.22	23.32	76.610
3,400.00	3,392.87	3,410.15	3,403.66	12.08	12.01	-85.34	-85.34	-1,726.20	-522.76	1,784.65	1,760.57	24.08	74.106
3,500.00	3,491.90	3,506.28	3,498.85	12.47	12.38	-86.19	-86.19	-1,728.48	-509.59	1,783.18	1,758.33	24.85	71.761
3,600.00	3,590.93	3,602.41	3,594.05	12.87	12.76	-87.04	-87.04	-1,730.77	-496.41	1,782.13	1,756.52	25.62	69.563
3,700.00	3,689.95	3,701.46	3,689.24	13.26	13.14	-87.89	-87.89	-1,733.06	-483.23	1,781.51	1,755.11	26.40	67.471
3,795.55	3,784.57	3,809.61	3,780.20	13.65	13.57	-88.70	-88.70	-1,735.24	-470.64	1,781.32	1,754.11	27.21	65.465 CC
3,800.00	3,788.98	3,805.33	3,784.44	13.66	13.55	-88.74	-88.74	-1,735.34	-470.05	1,781.32	1,754.11	27.21	65.463
3,900.00	3,888.01	3,909.20	3,879.63	14.06	13.96	-89.59	-89.59	-1,737.63	-456.88	1,781.55	1,753.53	28.02	63.579
4,000.00	3,987.03	3,986.93	3,974.82	14.46	14.27	-90.44	-90.44	-1,739.92	-443.70	1,782.21	1,753.48	28.73	62.035
4,100.00	4,086.06	4,083.06	4,070.02	14.87	14.65	-91.29	-91.29	-1,742.20	-430.52	1,783.29	1,753.78	29.51	60.426
4,200.00	4,185.09	4,182.67	4,168.79	15.27	15.04	-92.14	-92.14	-1,744.40	-417.86	1,784.72	1,754.41	30.31	58.889
4,300.00	4,284.11	4,284.06	4,269.64	15.67	15.43	-92.92	-92.92	-1,746.19	-407.56	1,786.29	1,755.19	31.10	57.438
4,400.00	4,383.14	4,386.72	4,372.00	16.08	15.82	-93.63	-93.63	-1,747.53	-399.82	1,787.90	1,756.01	31.89	56.070
4,500.00	4,482.17	4,490.53	4,475.68	16.49	16.20	-94.25	-94.25	-1,748.41	-394.75	1,789.44	1,756.77	32.67	54.776
4,600.00	4,581.19	4,595.35	4,580.47	16.89	16.56	-94.79	-94.79	-1,748.81	-392.46	1,790.82	1,757.38	33.44	53.550
4,700.00	4,680.22	4,703.66	4,681.46	17.30	16.93	-95.24	-95.24	-1,748.83	-392.32	1,792.07	1,757.85	34.22	52.373

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,800.00	4,779.25	4,804.63	4,780.49	17.71	17.28	-95.68	-1,748.83	-392.32	1,793.41	1,758.44	34.97	51.288	
4,900.00	4,878.27	4,905.60	4,879.51	18.12	17.62	-96.12	-1,748.83	-392.32	1,794.85	1,759.13	35.72	50.249	
4,943.57	4,921.42	4,937.54	4,922.66	18.30	17.73	-96.31	-1,748.83	-392.32	1,795.52	1,759.51	36.01	49.868	
5,000.00	4,977.36	5,006.52	4,978.60	18.53	17.97	-96.56	-1,748.83	-392.32	1,796.36	1,759.89	36.47	49.257	
5,100.00	5,076.73	5,107.15	5,077.97	18.92	18.31	-96.93	-1,748.83	-392.32	1,797.67	1,760.47	37.21	48.315	
5,200.00	5,176.36	5,207.52	5,177.60	19.30	18.66	-97.21	-1,748.83	-392.32	1,798.73	1,760.80	37.93	47.419	
5,300.00	5,276.18	5,307.70	5,277.42	19.67	19.00	-97.41	-1,748.83	-392.32	1,799.49	1,760.84	38.64	46.566	
5,400.00	5,376.12	5,407.75	5,377.36	20.03	19.34	-97.52	-1,748.83	-392.32	1,799.92	1,760.58	39.34	45.750	
5,476.91	5,453.03	5,469.15	5,454.27	20.29	19.56	179.73	-1,748.83	-392.32	1,800.02	1,760.20	39.82	45.209	
5,500.00	5,476.12	5,507.76	5,477.36	20.36	19.69	179.73	-1,748.83	-392.32	1,800.02	1,759.99	40.03	44.971	
5,600.00	5,576.12	5,607.76	5,577.36	20.70	20.03	179.73	-1,748.83	-392.32	1,800.02	1,759.32	40.70	44.222	
5,700.00	5,676.12	5,707.76	5,677.36	21.03	20.38	179.73	-1,748.83	-392.32	1,800.02	1,758.64	41.38	43.495	
5,800.00	5,776.12	5,807.76	5,777.36	21.37	20.73	179.73	-1,748.83	-392.32	1,800.02	1,757.95	42.07	42.791	
5,900.00	5,876.12	5,907.76	5,877.36	21.70	21.07	179.73	-1,748.83	-392.32	1,800.02	1,757.27	42.75	42.108	
6,000.00	5,976.12	6,007.76	5,977.36	22.04	21.42	179.73	-1,748.83	-392.32	1,800.02	1,756.59	43.43	41.445	
6,100.00	6,076.12	6,107.76	6,077.36	22.37	21.77	179.73	-1,748.83	-392.32	1,800.02	1,755.90	44.12	40.802	
6,200.00	6,176.12	6,207.76	6,177.36	22.71	22.11	179.73	-1,748.83	-392.32	1,800.02	1,755.22	44.80	40.178	
6,300.00	6,276.12	6,307.76	6,277.36	23.05	22.46	179.73	-1,748.83	-392.32	1,800.02	1,754.53	45.49	39.571	
6,400.00	6,376.12	6,407.76	6,377.36	23.39	22.81	179.73	-1,748.83	-392.32	1,800.02	1,753.85	46.18	38.982	
6,500.00	6,476.12	6,507.76	6,477.36	23.73	23.16	179.73	-1,748.83	-392.32	1,800.02	1,753.16	46.86	38.410	
6,600.00	6,576.12	6,607.76	6,577.36	24.07	23.51	179.73	-1,748.83	-392.32	1,800.02	1,752.47	47.55	37.853	
6,700.00	6,676.12	6,707.76	6,677.36	24.41	23.86	179.73	-1,748.83	-392.32	1,800.02	1,751.78	48.24	37.312	
6,800.00	6,776.12	6,807.76	6,777.36	24.75	24.21	179.73	-1,748.83	-392.32	1,800.02	1,751.09	48.93	36.785	
6,900.00	6,876.12	6,907.76	6,877.36	25.09	24.56	179.73	-1,748.83	-392.32	1,800.02	1,750.40	49.62	36.272	
7,000.00	6,976.12	7,007.76	6,977.36	25.43	24.91	179.73	-1,748.83	-392.32	1,800.02	1,749.70	50.32	35.774	
7,100.00	7,076.12	7,107.76	7,077.36	25.78	25.26	179.73	-1,748.83	-392.32	1,800.02	1,749.01	51.01	35.288	
7,200.00	7,176.12	7,207.76	7,177.36	26.12	25.61	179.73	-1,748.83	-392.32	1,800.02	1,748.32	51.70	34.814	
7,300.00	7,276.12	7,307.76	7,277.36	26.46	25.96	179.73	-1,748.83	-392.32	1,800.02	1,747.62	52.40	34.353	
7,400.00	7,376.12	7,407.76	7,377.36	26.81	26.31	179.73	-1,748.83	-392.32	1,800.02	1,746.93	53.09	33.904	
7,500.00	7,476.12	7,507.76	7,477.36	27.15	26.66	179.73	-1,748.83	-392.32	1,800.02	1,746.23	53.79	33.465	
7,600.00	7,576.12	7,607.76	7,577.36	27.49	27.01	179.73	-1,748.83	-392.32	1,800.02	1,745.54	54.48	33.038	
7,700.00	7,676.12	7,707.76	7,677.36	27.84	27.36	179.73	-1,748.83	-392.32	1,800.02	1,744.84	55.18	32.621	
7,790.92	7,767.04	7,783.16	7,768.28	28.15	27.63	179.73	-1,748.83	-392.32	1,800.02	1,744.26	55.76	32.282	
7,800.00	7,776.12	7,807.76	7,777.36	28.18	27.71	89.70	-1,748.83	-392.32	1,800.02	1,744.14	55.88	32.215	
7,850.00	7,826.01	7,842.14	7,827.25	28.34	27.83	89.80	-1,748.83	-392.32	1,800.01	1,743.86	56.15	32.056	
7,894.72	7,870.27	7,886.39	7,871.51	28.47	27.99	90.00	-1,748.83	-392.32	1,800.00	1,743.56	56.44	31.894	
7,900.00	7,875.46	7,908.42	7,876.70	28.48	28.07	90.03	-1,748.83	-392.32	1,800.00	1,743.47	56.53	31.842	
7,950.00	7,924.08	7,940.20	7,925.32	28.61	28.18	90.38	-1,748.83	-392.32	1,800.04	1,743.26	56.78	31.704	
8,000.00	7,971.51	7,987.63	7,972.75	28.74	28.35	90.84	-1,748.83	-392.32	1,800.22	1,743.15	57.07	31.545 ES	
8,050.00	8,017.38	8,033.50	8,018.62	28.85	28.51	91.38	-1,748.83	-392.32	1,800.64	1,743.29	57.35	31.398	
8,100.00	8,061.35	8,077.47	8,062.59	28.96	28.66	91.97	-1,748.83	-392.32	1,801.44	1,743.82	57.62	31.266	
8,150.00	8,103.07	8,119.19	8,104.31	29.07	28.81	92.56	-1,748.83	-392.32	1,802.74	1,744.87	57.87	31.150	
8,200.00	8,142.24	8,158.36	8,143.48	29.18	28.95	93.14	-1,748.83	-392.32	1,804.72	1,746.60	58.12	31.051	
8,250.00	8,178.55	8,205.33	8,179.79	29.30	29.11	93.65	-1,748.83	-392.32	1,807.53	1,749.13	58.40	30.949	
8,300.00	8,211.73	8,227.85	8,212.97	29.42	29.19	94.05	-1,748.83	-392.32	1,811.33	1,752.72	58.61	30.905	
8,350.00	8,241.53	8,257.65	8,242.77	29.57	29.30	94.32	-1,748.83	-392.32	1,816.25	1,757.39	58.85	30.860	
8,400.00	8,267.71	8,283.84	8,268.95	29.74	29.39	94.40	-1,748.83	-392.32	1,822.42	1,763.31	59.11	30.833	
8,450.00	8,290.09	8,306.21	8,291.33	29.93	29.47	94.28	-1,748.83	-392.32	1,829.94	1,770.58	59.37	30.825	
8,500.00	8,308.48	8,324.60	8,309.72	30.16	29.53	93.91	-1,748.83	-392.32	1,838.88	1,779.25	59.63	30.836	
8,550.00	8,322.76	8,338.88	8,324.00	30.41	29.58	93.28	-1,748.83	-392.32	1,849.28	1,789.37	59.91	30.867	
8,600.00	8,332.80	8,348.92	8,334.04	30.70	29.62	92.38	-1,748.83	-392.32	1,861.12	1,800.92	60.19	30.918	
8,650.00	8,338.54	8,354.66	8,339.78	31.02	29.64	91.19	-1,748.83	-392.32	1,874.35	1,813.87	60.48	30.990	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,690.92	8,340.00	8,356.12	8,341.24	31.30	29.64	90.00	-1,748.83	-392.32	1,886.16	1,825.45	60.72	31.066		
8,700.00	8,340.00	8,356.12	8,341.24	31.37	29.64	90.00	-1,748.83	-392.32	1,888.89	1,828.13	60.77	31.084		
8,800.00	8,340.00	8,356.12	8,341.24	32.18	29.64	90.00	-1,748.83	-392.32	1,921.58	1,860.18	61.40	31.298		
8,900.00	8,340.00	8,356.12	8,341.24	33.15	29.64	90.00	-1,748.83	-392.32	1,958.82	1,896.72	62.11	31.540		
9,000.00	8,340.00	8,356.12	8,341.24	34.26	29.64	90.00	-1,748.83	-392.32	2,000.38	1,937.51	62.87	31.818		
9,100.00	8,340.00	8,356.12	8,341.24	35.50	29.64	90.00	-1,748.83	-392.32	2,045.98	1,982.32	63.67	32.136		
9,200.00	8,340.00	8,356.12	8,341.24	36.86	29.64	90.00	-1,748.83	-392.32	2,095.37	2,030.89	64.48	32.498		
9,300.00	8,340.00	8,356.12	8,341.24	38.33	29.64	90.00	-1,748.83	-392.32	2,148.28	2,083.00	65.29	32.906		
9,400.00	8,340.00	8,356.12	8,341.24	39.89	29.64	90.00	-1,748.83	-392.32	2,204.46	2,138.38	66.08	33.359		
9,500.00	8,340.00	8,356.12	8,341.24	41.53	29.64	90.00	-1,748.83	-392.32	2,263.66	2,196.81	66.86	33.859		
9,600.00	8,340.00	8,356.12	8,341.24	43.25	29.64	90.00	-1,748.83	-392.32	2,325.66	2,258.06	67.60	34.402		
9,700.00	8,340.00	8,356.12	8,341.24	45.03	29.64	90.00	-1,748.83	-392.32	2,390.24	2,321.92	68.32	34.988		
9,800.00	8,340.00	8,356.12	8,341.24	46.87	29.64	90.00	-1,748.83	-392.32	2,457.19	2,388.19	69.00	35.614		
9,900.00	8,340.00	8,356.12	8,341.24	48.76	29.64	90.00	-1,748.83	-392.32	2,526.32	2,456.68	69.64	36.277		
10,000.00	8,340.00	8,356.12	8,341.24	50.70	29.64	90.00	-1,748.83	-392.32	2,597.47	2,527.22	70.25	36.975		
10,100.00	8,340.00	8,356.12	8,341.24	52.67	29.64	90.00	-1,748.83	-392.32	2,670.46	2,599.64	70.82	37.706		
10,200.00	8,340.00	8,356.12	8,341.24	54.68	29.64	90.00	-1,748.83	-392.32	2,745.16	2,673.80	71.36	38.468		
10,300.00	8,340.00	12,500.89	10,550.00	56.73	65.42	143.24	-1,599.94	1,780.50	2,757.11	2,676.70	80.42	34.285		
10,400.00	8,340.00	12,600.89	10,550.00	58.80	67.41	143.24	-1,599.98	1,880.50	2,757.11	2,674.05	83.06	33.192		
10,500.00	8,340.00	12,700.89	10,550.00	60.90	69.43	143.24	-1,600.01	1,980.50	2,757.11	2,671.36	85.75	32.154		
10,600.00	8,340.00	12,800.89	10,550.00	63.02	71.48	143.24	-1,600.05	2,080.50	2,757.10	2,668.64	88.46	31.167		
10,700.00	8,340.00	12,900.89	10,550.00	65.17	73.55	143.24	-1,600.09	2,180.50	2,757.10	2,665.90	91.20	30.230		
10,800.00	8,340.00	13,000.89	10,550.00	67.33	75.64	143.24	-1,600.13	2,280.50	2,757.10	2,663.12	93.98	29.339		
10,900.00	8,340.00	13,100.89	10,550.00	69.51	77.75	143.24	-1,600.16	2,380.50	2,757.09	2,660.32	96.77	28.491		
11,000.00	8,340.00	13,200.89	10,550.00	71.71	79.88	143.24	-1,600.20	2,480.50	2,757.09	2,657.50	99.59	27.685		
11,100.00	8,340.00	13,300.89	10,550.00	73.92	82.02	143.24	-1,600.24	2,580.50	2,757.09	2,654.66	102.42	26.919		
11,200.00	8,340.00	13,400.89	10,550.00	76.14	84.18	143.24	-1,600.28	2,680.50	2,757.08	2,651.80	105.28	26.188		
11,300.00	8,340.00	13,500.89	10,550.00	78.37	86.35	143.24	-1,600.31	2,780.50	2,757.08	2,648.93	108.15	25.493		
11,400.00	8,340.00	13,600.89	10,550.00	80.62	88.54	143.24	-1,600.35	2,880.50	2,757.08	2,646.03	111.04	24.829		
11,500.00	8,340.00	13,700.89	10,550.00	82.87	90.74	143.24	-1,600.39	2,980.50	2,757.07	2,643.13	113.95	24.196		
11,600.00	8,340.00	13,800.89	10,550.00	85.14	92.95	143.24	-1,600.42	3,080.50	2,757.07	2,640.20	116.86	23.592		
11,700.00	8,340.00	13,900.89	10,550.00	87.41	95.17	143.24	-1,600.46	3,180.50	2,757.06	2,637.27	119.79	23.015		
11,800.00	8,340.00	14,000.89	10,550.00	89.70	97.40	143.24	-1,600.50	3,280.50	2,757.06	2,634.33	122.74	22.463		
11,900.00	8,340.00	14,100.89	10,550.00	91.98	99.64	143.24	-1,600.54	3,380.50	2,757.06	2,631.37	125.69	21.936		
12,000.00	8,340.00	14,200.89	10,550.00	94.28	101.89	143.24	-1,600.57	3,480.50	2,757.05	2,628.40	128.65	21.430		
12,100.00	8,340.00	14,300.89	10,550.00	96.58	104.14	143.24	-1,600.61	3,580.50	2,757.05	2,625.43	131.62	20.946		
12,200.00	8,340.00	14,400.89	10,550.00	98.89	106.40	143.24	-1,600.65	3,680.50	2,757.05	2,622.44	134.61	20.482		
12,300.00	8,340.00	14,500.89	10,550.00	101.20	108.67	143.24	-1,600.68	3,780.50	2,757.04	2,619.45	137.60	20.037		
12,400.00	8,340.00	14,600.89	10,550.00	103.52	110.95	143.24	-1,600.72	3,880.50	2,757.04	2,616.45	140.59	19.610		
12,500.00	8,340.00	14,700.89	10,550.00	105.84	113.23	143.24	-1,600.76	3,980.50	2,757.04	2,613.44	143.60	19.200		
12,600.00	8,340.00	14,800.89	10,550.00	108.17	115.52	143.24	-1,600.80	4,080.50	2,757.03	2,610.42	146.61	18.805		
12,700.00	8,340.00	14,900.89	10,550.00	110.50	117.81	143.24	-1,600.83	4,180.50	2,757.03	2,607.40	149.63	18.426		
12,800.00	8,340.00	15,000.89	10,550.00	112.84	120.11	143.24	-1,600.87	4,280.50	2,757.03	2,604.37	152.65	18.061		
12,900.00	8,340.00	15,100.89	10,550.00	115.18	122.42	143.24	-1,600.91	4,380.50	2,757.02	2,601.34	155.68	17.709		
13,000.00	8,340.00	15,200.89	10,550.00	117.52	124.73	143.24	-1,600.95	4,480.50	2,757.02	2,598.30	158.72	17.370		
13,100.00	8,340.00	15,300.89	10,550.00	119.87	127.04	143.24	-1,600.98	4,580.50	2,757.01	2,595.25	161.76	17.044		
13,200.00	8,340.00	15,399.11	10,550.00	122.21	129.31	143.24	-1,601.02	4,680.50	2,757.01	2,592.23	164.78	16.732		
13,216.38	8,340.00	15,415.49	10,550.00	122.60	129.69	143.24	-1,601.03	4,696.88	2,757.01	2,591.73	165.28	16.681 SF		



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #121H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
TVD Reference: WELL @ 2981.85usft (Patterson 297)
MD Reference: WELL @ 2981.85usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 2981.85usft (Patterson 297) Coordinates are relative to: #121H

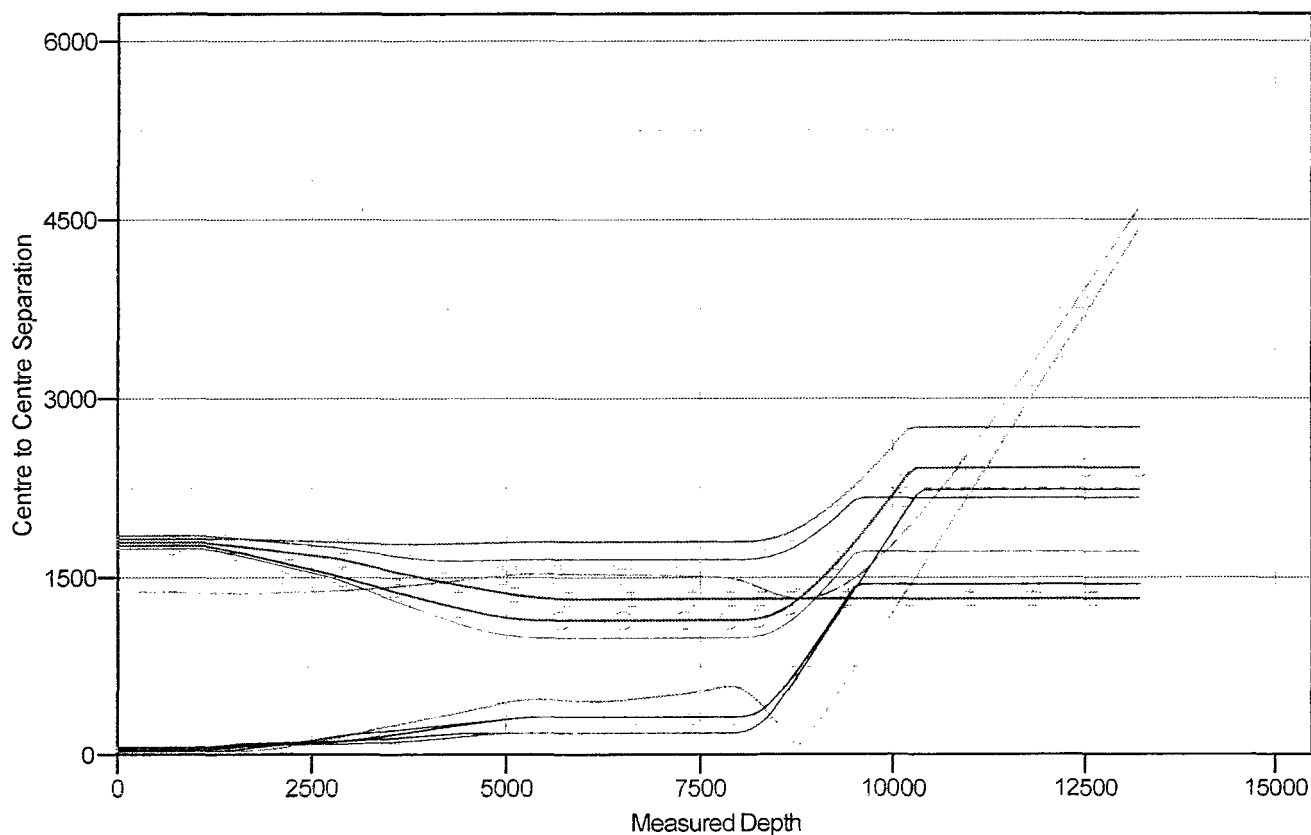
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Central Meridian is 104° 20' 0.000 W

Grid Convergence at Surface is: 0.16°

Ladder Plot



LEGEND

- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| ⊗ #1. 122H, Surveys V0 | ✕ #225H, Wellbore #1, Design #1 V0 | ⊕ #122H, Wellbore #1, Design #1 V0 |
| ⊗ #222H, Wellbore #1, Design #1 V0 | ✕ #201H, Wellbore #1, Design #1 V0 | ⊕ #206H, Wellbore #1, Design #1 V0 |
| ⊗ #1, Wellbore #1, Surveys V0 | ⊕ #202H, Wellbore #1, Design #1 V0 | ⊕ #226H, Wellbore #1, Design #1 V0 |
| ⊕ #221H, Wellbore #1, Design #1 V0 | ⊕ #205H, Wellbore #1, Design #1 V0 | |



Anticollision Report

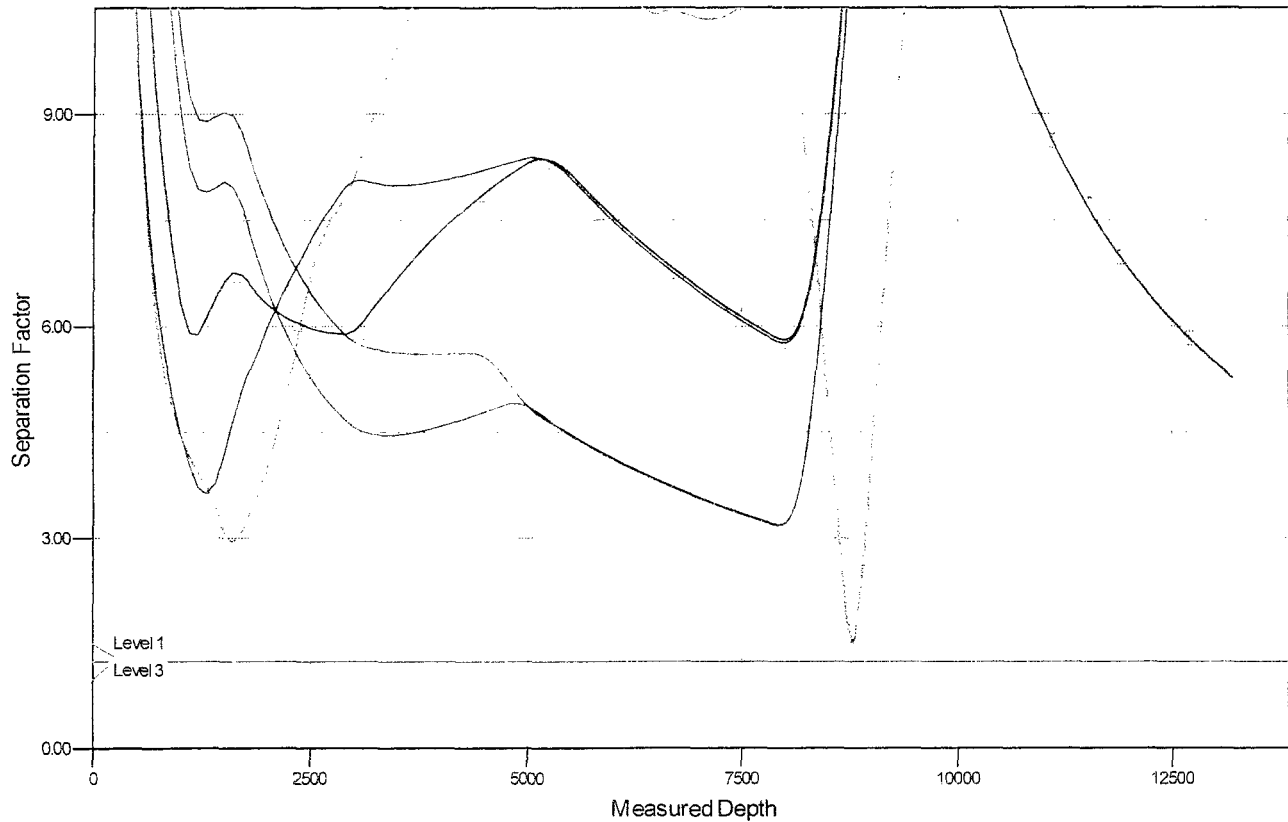


Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Reference Site: Zach McCormick Federal 18-24S-29E RB
 Site Error: 0.00 usft
 Reference Well: #121H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #121H
 TVD Reference: WELL @ 2981.85usft (Patterson 297)
 MD Reference: WELL @ 2981.85usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Conroe DB
 Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 2981.85usft (Patterson 297) Coordinates are relative to: #121H
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.16°

Separation Factor Plot



LEGEND

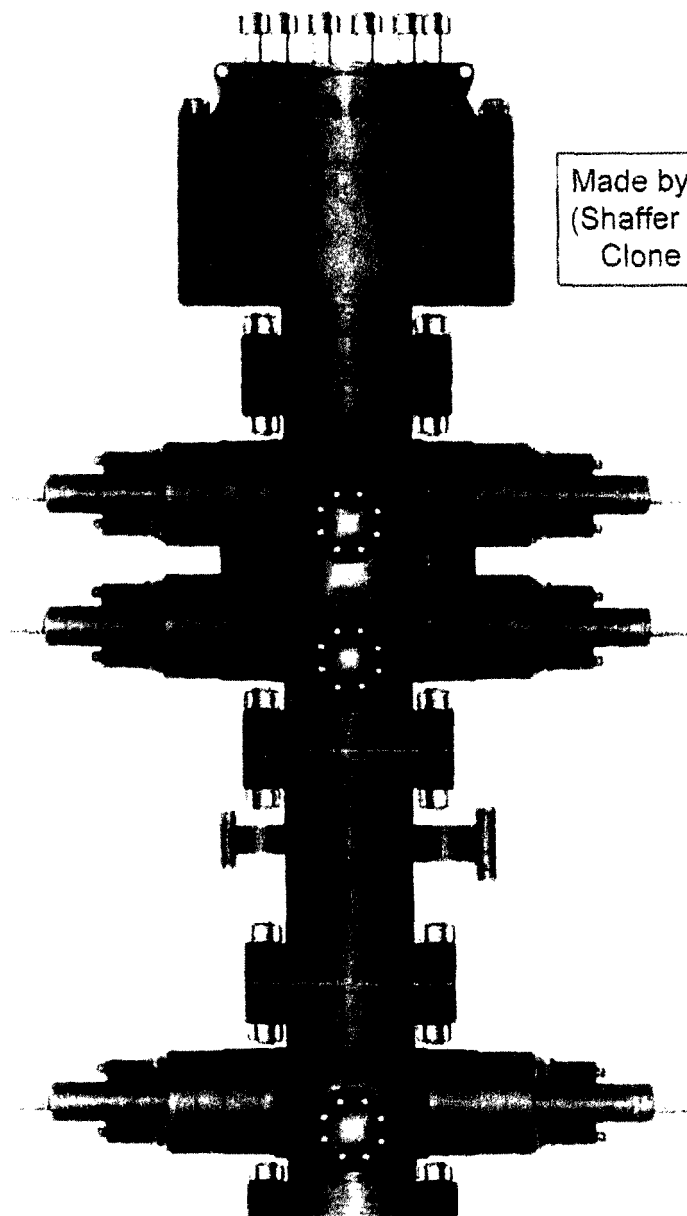
- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| ☐ #1, 122H, Surveys V0 | ✕ #225H, Wellbore #1, Design #1 V0 | ✕ #122H, Wellbore #1, Design #1 V0 |
| ⊙ #222H, Wellbore #1, Design #1 V0 | ✕ #201H, Wellbore #1, Design #1 V0 | ☐ #206H, Wellbore #1, Design #1 V0 |
| ⊙ #1, Wellbore #1, Surveys V0 | ⊙ #202H, Wellbore #1, Design #1 V0 | ⊙ #226H, Wellbore #1, Design #1 V0 |
| ⊙ #221H, Wellbore #1, Design #1 V0 | ⊙ #205H, Wellbore #1, Design #1 V0 | |



PATTERSON-UTI

Well Control

297



Made by Cameron
(Shaffer Spherical)
Clone Annular

PATTERSON-UTI # PS2-628

STYLE: New Shaffer Spherical

BORE 13 5/8" PRESSURE 5,000

HEIGHT: 48 1/2" WEIGHT: 13,800 lbs

PATTERSON-UTI # PC2-128

STYLE: New Cameron Type U

BORE 13 5/8" PRESSURE 10,000

RAMS: TOP 5" Pipe BTM Blinds

HEIGHT: 66 5/8" WEIGHT: 24,000 lbs

Length 40" Outlets 4" 10M

DSA 4" 10M x 2" 10M

PATTERSON-UTI # PC2-228

STYLE: New Cameron Type U

BORE 13 5/8" PRESSURE 10,000

RAMS: 5" Pipe

HEIGHT: 41 5/8" WEIGHT: 13,000 lbs

WING VALVES



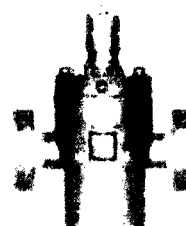
2" Check Valve



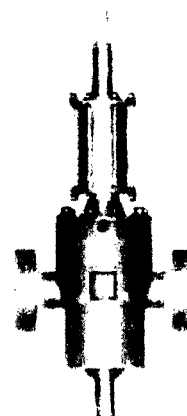
2" Manual Valve



2" Manual Valve



4" Manual Valve



4" Hydraulic Valve

3. PRESSURE CONTROL

A BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram and 1 annular preventer will be installed. The BOP will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator that meets the requirements of Onshore Order 2 for the pressure rating of the BOP stack will be present. A rotating head will be installed as needed.

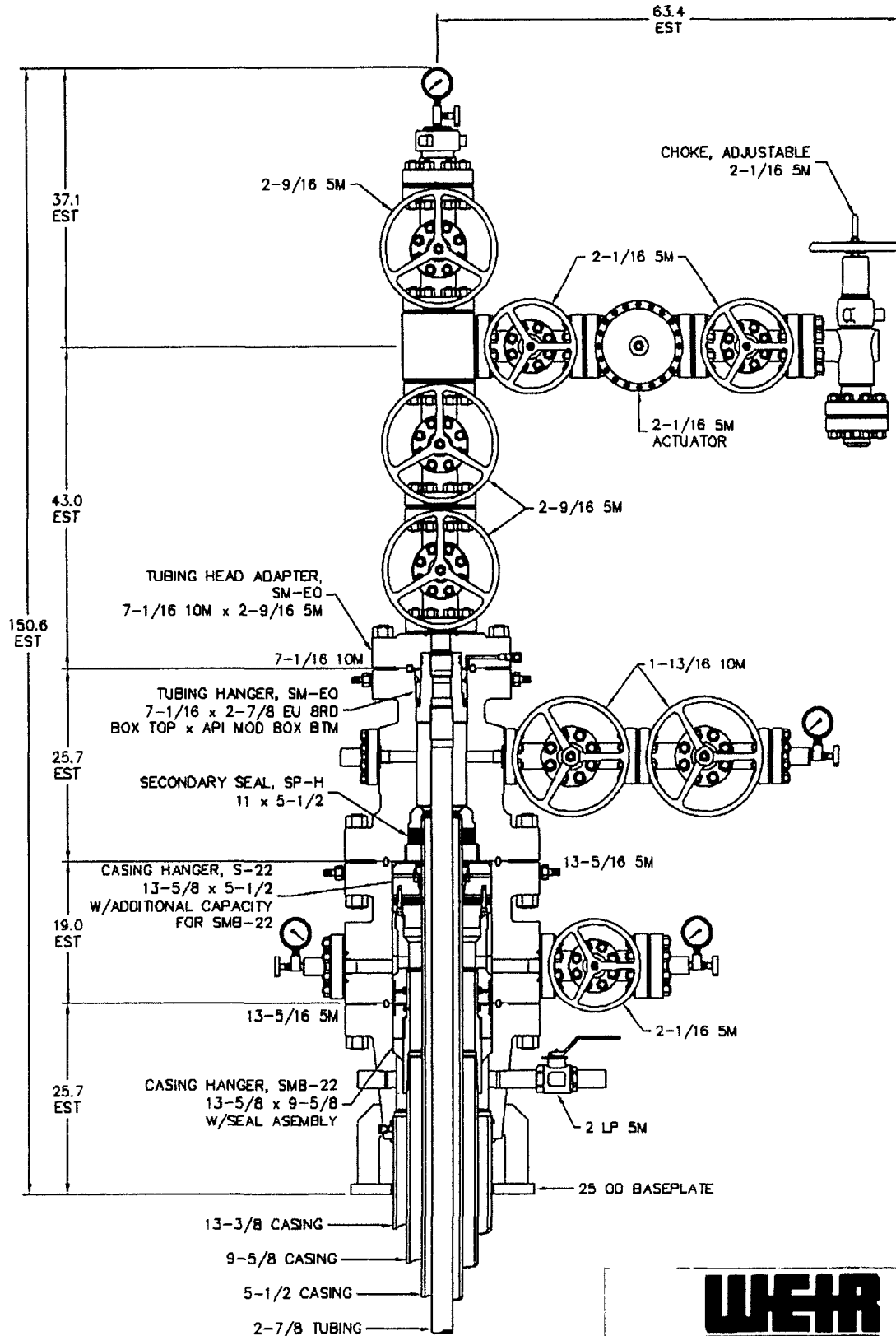
Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as recommended in Onshore Order 2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs. Test pressures will be as follows: After surface casing is set and the BOP is nipped up, BOP pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate, pressure tests will be made to 250 psi low and 3000 psi high. The annular preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 psi low and 2500 psi high on the intermediate casing. In the case of running a speed head with landing mandrel for 9-5/8" casing the initial, after surface casing is set, BOP test pressures will be 250 psi low and 3000 psi high with wellhead seals tested to 5000 psi once the 9-5/8" casing has been landed and cemented.

The BOP will then be lifted to install the 'C-section' of the wellhead. Matador will nipple the BOP back up and the pressure tests will be made to 250 psi low and 5000 psi high and the annular will be tested to 250 psi low and 2500 psi high.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

MATADOR PROD. CO.
TIGER 14-24S-28E RB #124H
HO-35272



NOTE:
DIMENSIONS SHOWN ON THIS DRAWING ARE
ESTIMATES ONLY AND CAN VARY SIGNIFICANTLY
DEPENDING ON RAW MATERIAL LENGTHS.
NO GUARANTEE OF STACKUP HEIGHT IS IMPLIED.
DIMENSIONS SHOWN SHOULD BE CONSIDERED
FOR REFERENCE PURPOSES ONLY.

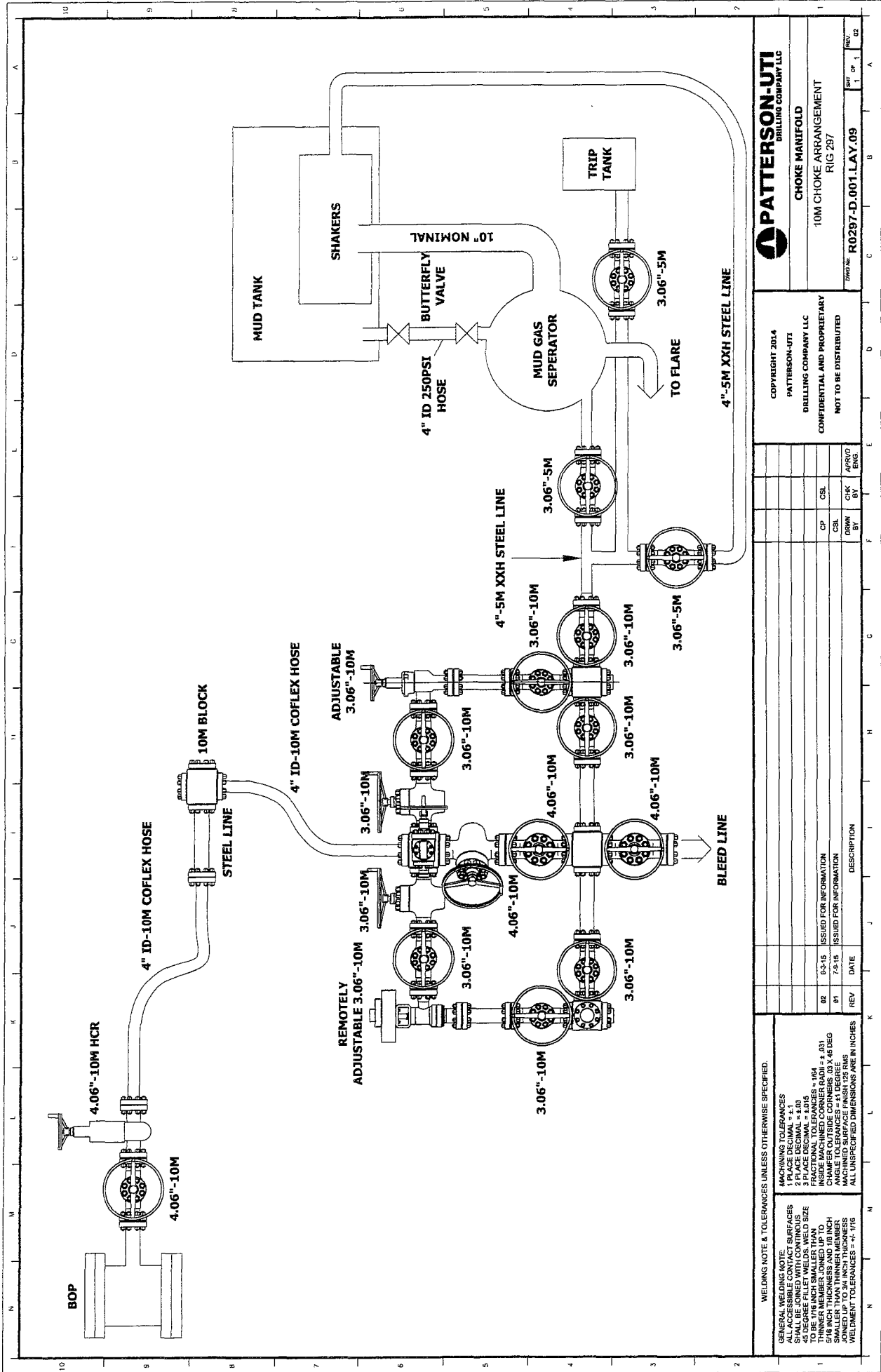
RESTRICTED CONFIDENTIAL DOCUMENT

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SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SEABOARD INTERNATIONAL, INC.

WEIR
OIL & GAS

5,000 PSI WELLHEAD ASSEMBLY
13-3/8 x 9-5/8 x 5-1/2 x 2-7/8

BY: RPL	SCALE: 1:13	DATE: 17APR15	REV:
CHECKED BY:	DRAWING NO. QD-000475		
APPROVED BY:			





Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 8, 2014

Customer: Patterson

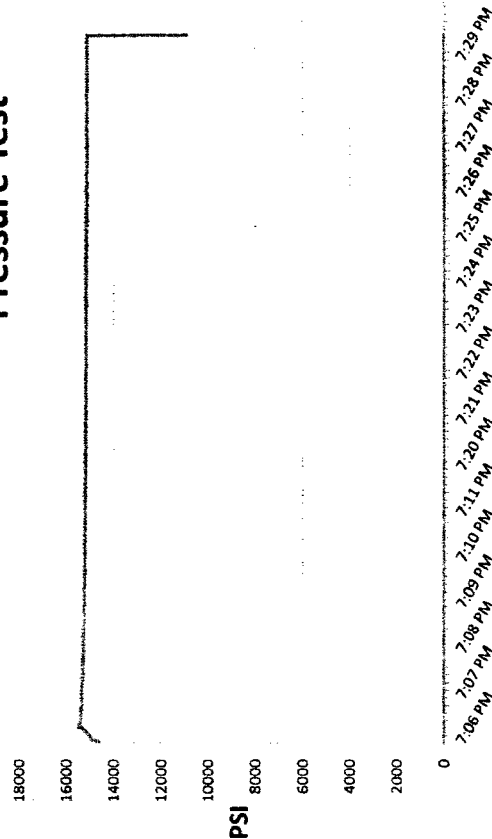
Pick Ticket #: 284918

Hose Specifications

Verification

Hose Type	Length	Type of Fitting	Coupling Method
CK	10'	4-1/16 10K	Swage
I.D.	O.D.	Die Size	Final O.D.
3"	4.79"	5.37"	5.37"
Working Pressure	Burst Pressure	Hose Serial #	Hose Assembly Serial #
10000 PSI	Standard Safety Multiplier Applies	10490	284918-2

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
15 2/4 Minutes

Actual Burst Pressure

Peak Pressure
15732 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams

[Signature: Tyler Hill]

[Signature: Ryan Adams]



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-2	Hose O.D. (Inches)	5.30"
Hose Assembly Length	10'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	91996	Stem (Heat #)	91996
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested	Tested By		Approved By
12/8/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-2**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By

Date

12/9/2014



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

Hose Type

Ck

I.D.

3"

Length

20'

O.D.

4.77"

Verification

Type of Fitting

4-1/16 10K

Swage

Final O.D.

5.40"

Coupling Method

Swage

Working Pressure

10000 PSI

Burst Pressure

Standard Safety Multiplier Applies

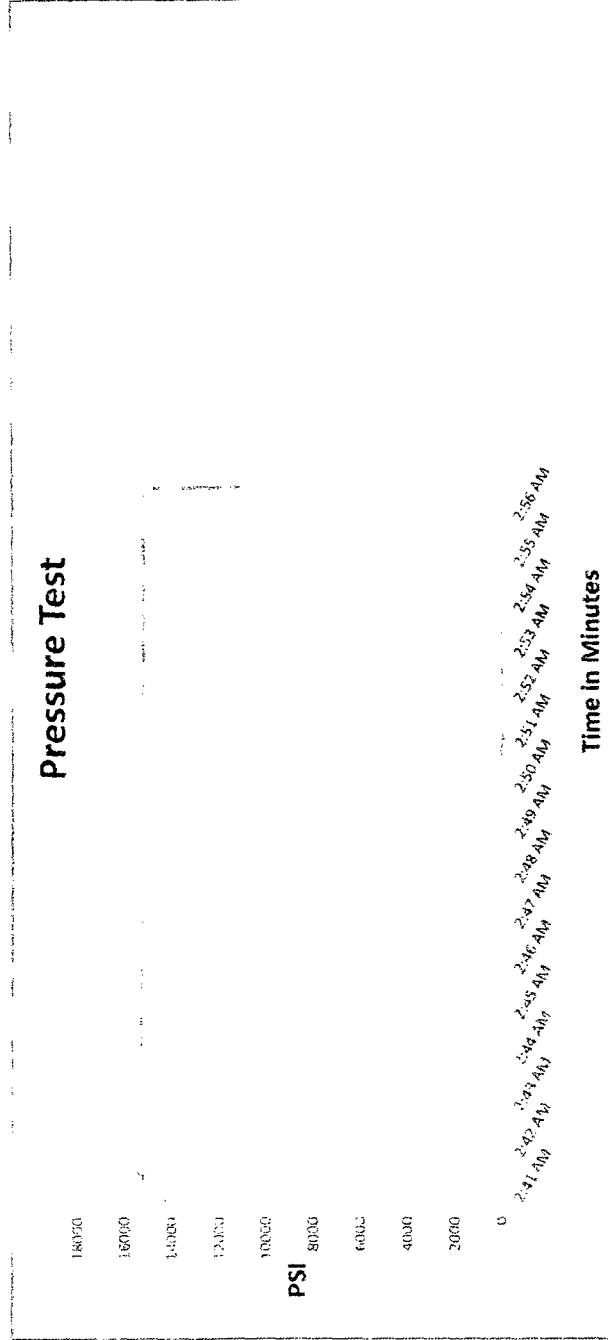
Hose Serial #

10490

Hose Assembly Serial #

284918-1

Pressure Test



Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-1	Hose O.D. (Inches)	5.30"
Hose Assembly Length	20'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)	V3579	Connection (Heat #)	V3579
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested	12/9/2014	Tested By	Approved By



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-1**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.
3312 S I-35 Service Rd
Oklahoma City, OK 73129

Comments:

Approved By

Date

12/9/2014



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

Hose Type
Mud
I.D.
3"
Length
70'
O.D.
4.79"

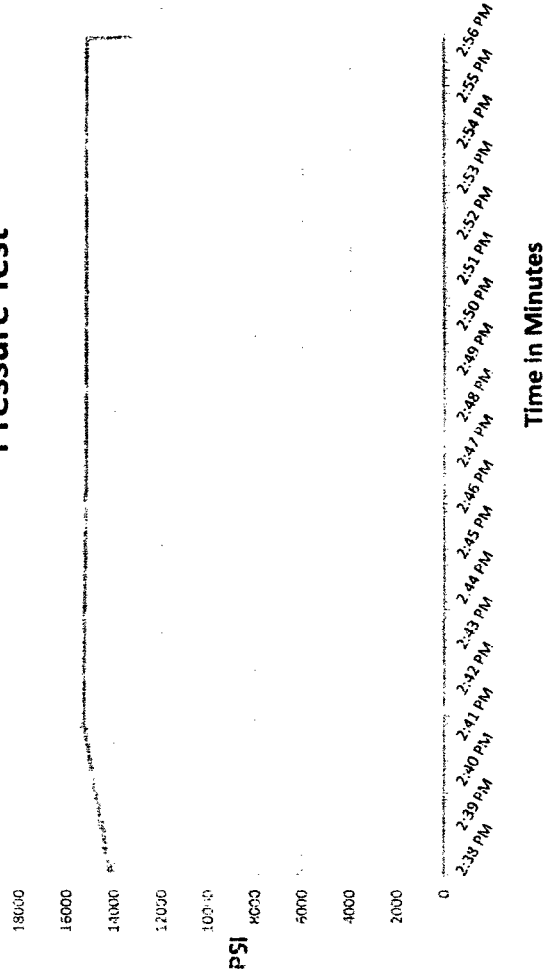
Verification

Type of Fitting
4.1/16 10K
Die Size
5.37"
Coupling Method
Swage
Final O.D.
5.37"
Hose Serial #
10490
Hose Assembly Serial #
284918-3

Working Pressure
10000 PSI

Standard Safety Multiplier Applies

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
16 3/4 Minutes

Actual Burst Pressure

Peak Pressure
15410 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-3	Hose O.D. (Inches)	5.23"
Hose Assembly Length	70'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	16 3/4		
Date Tested	Tested By		Approved By
12/9/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-3**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

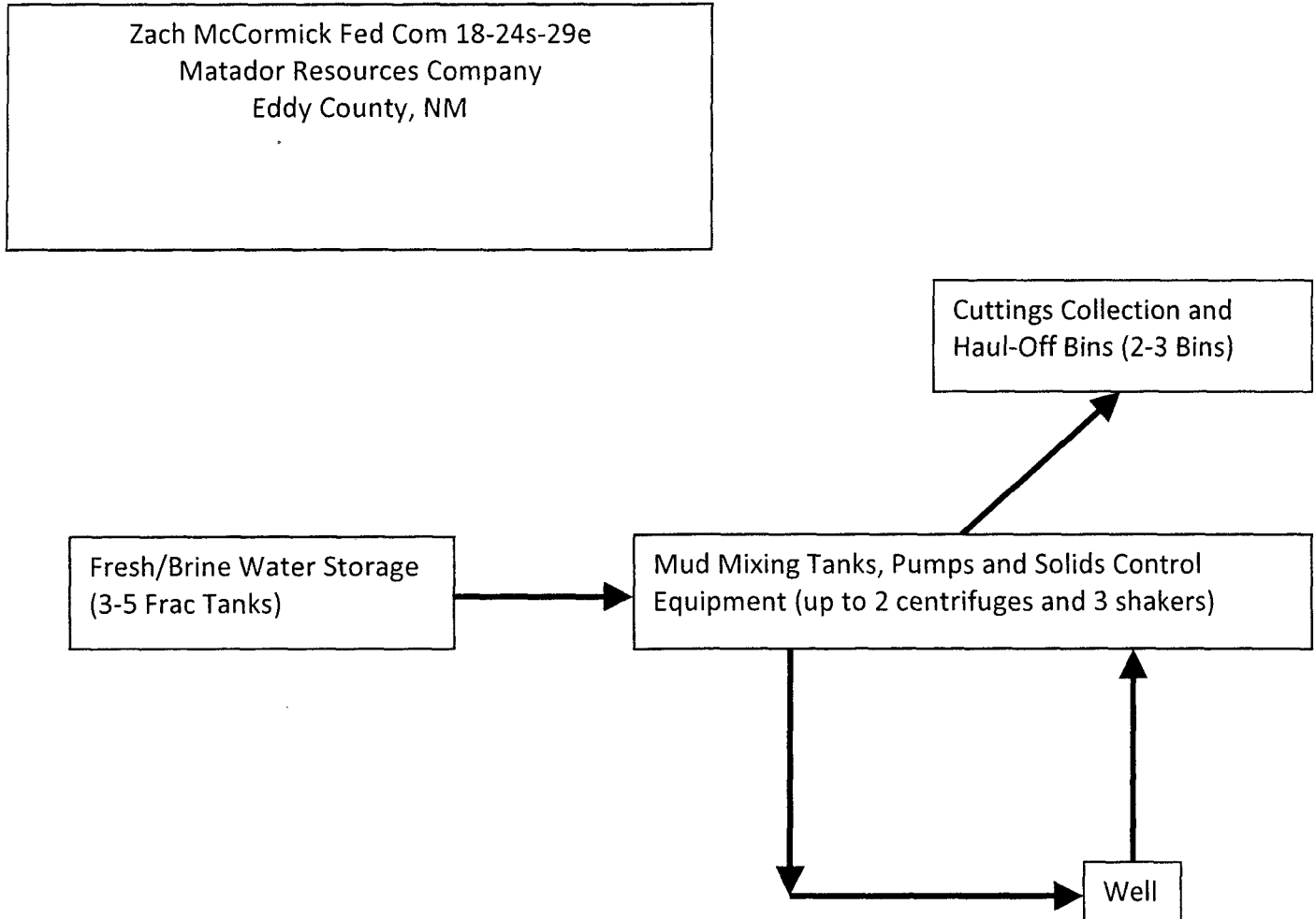
Comments:

Approved By

Date

12/9/2014

Closed-Loop System

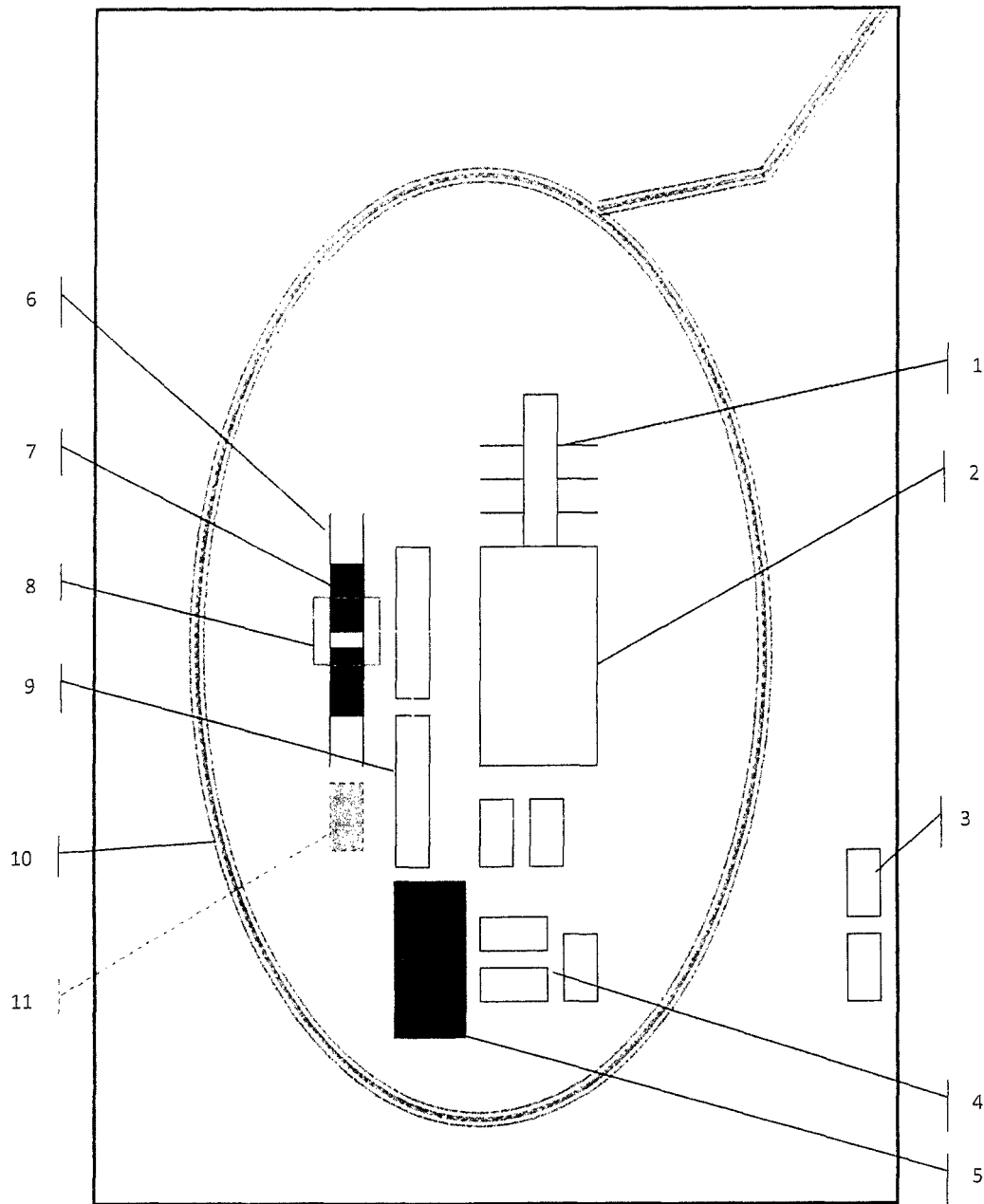


Operating and Maintenance Plan:

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluids and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

Closure Plan:

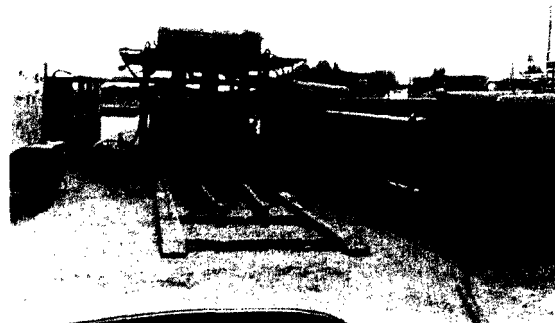
During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available



Above: Centrifugal Closed Loop System

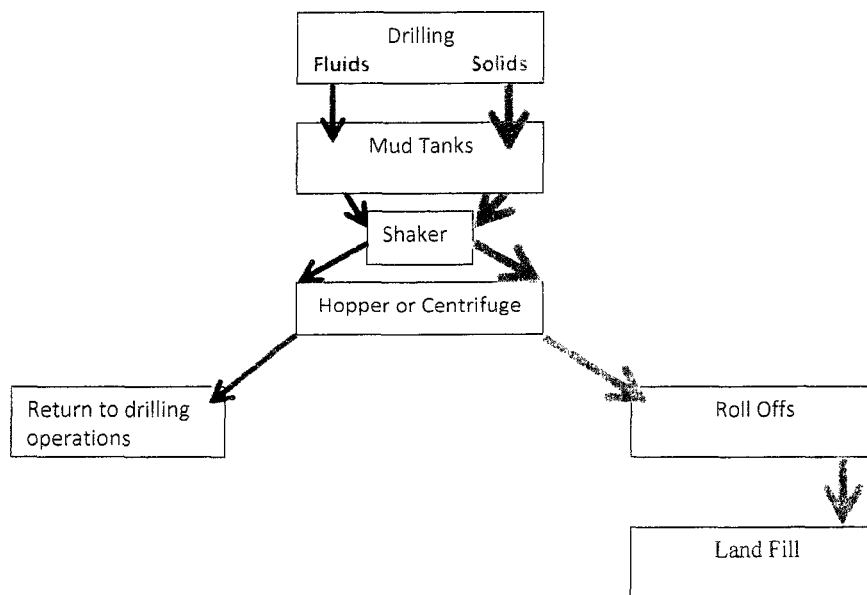
PERMITS WEST INC.
PROVIDING PERMITS for LAND USERS

*Veterano Loop Santa Fe New Mexico 87308 505-466-8120



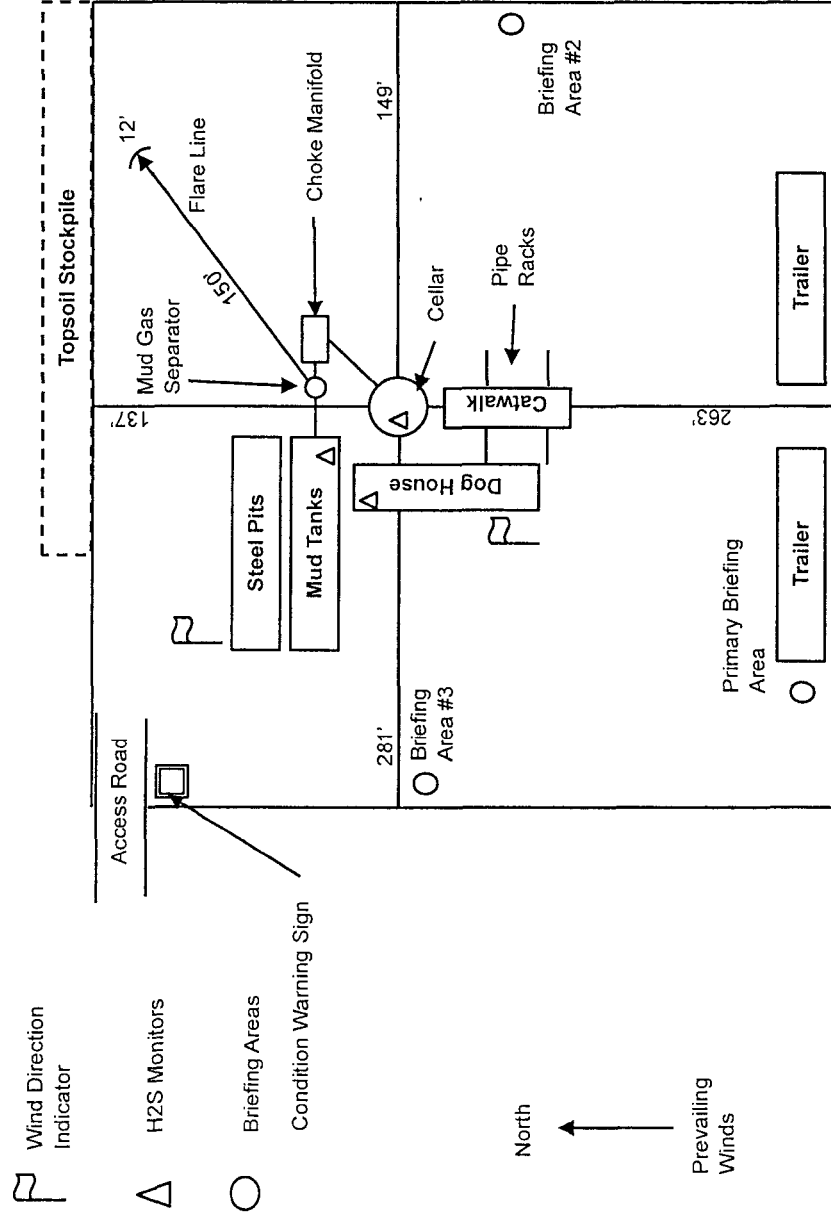
Closed Loop Drilling System: Mud tanks to right (1)
 Hopper in air to settle out solids (2)
 Water return pipe (3)
 Shaker between hopper and mud tanks (4)
 Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Rig Layout

Zach McCormick Fed Com #121H
18-24S-29E, Eddy County, NM
SHL 712' FNL & 351' FWL
BHL 661' FNL & 240' FEL





Hydrogen Sulfide Drilling Operations Plan

Matador Production Company

1 H2S safety instructions covering:

- Characteristics of H2S
- Physical effects & hazards
- Principal and operation of H2S detectors, warning system, and briefing areas
- Evacuation procedures, routes, and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, and on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary.
- An audio alarm system will be installed on the derrick floor and in the doghouse.

3 Windssocks and / Wind Streamers:

- Windssocks at mud pit area should be high enough to be visible.
- Windssocks on the rig floor and top of doghouse should be high enough to be visible.

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
 - Green Flag – Normal Safe Operation Condition
 - Yellow Flag – Potential Pressure and Danger
 - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See APD

6 Communications:

- While working under masks, chalkboards will be used for communications.
- Hand signals will be used where chalk board is inappropriate.
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at drilling foreman's trailer or living quarters.



7 Drill Stem Testing:

- No DST or cores are planned at this time.

8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubulars good and other mechanical equipment.

9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

11 Emergency Contacts

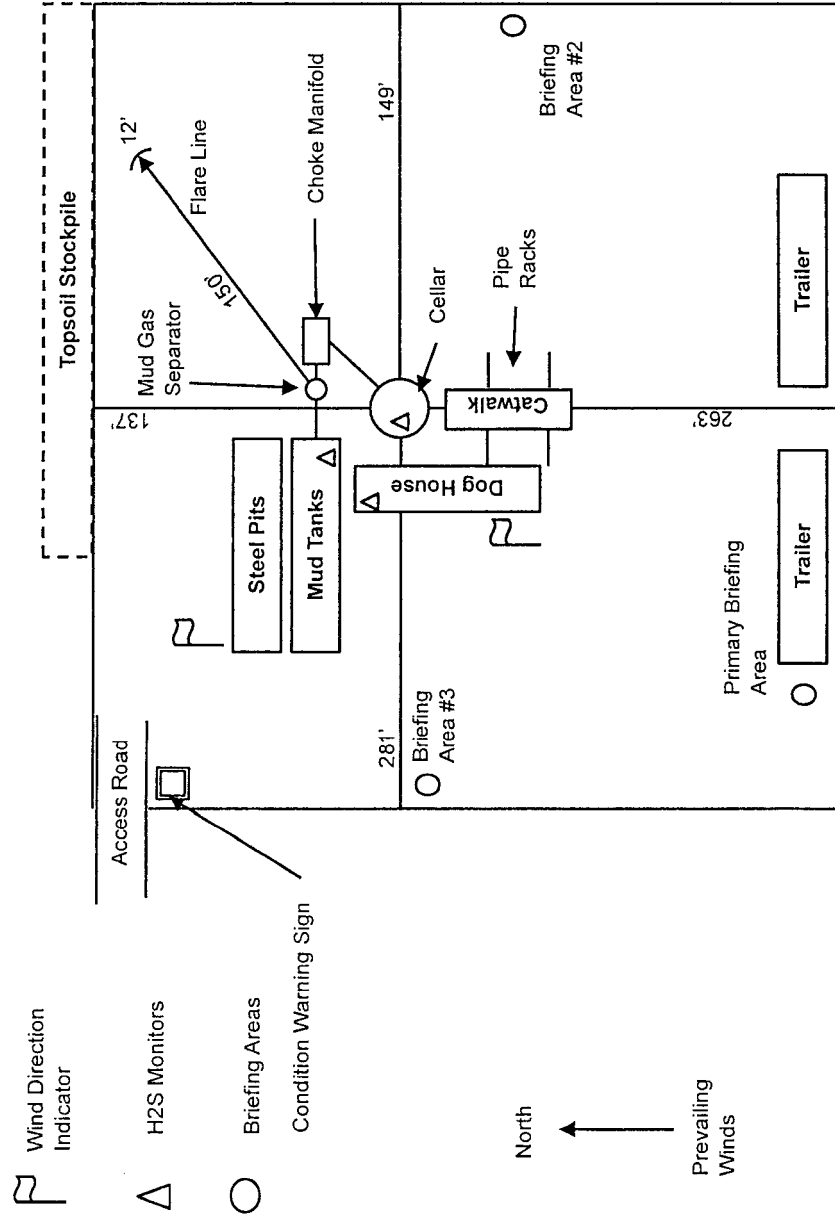
- See next page

H2S Contingency Plan Emergency Contacts
Matador Production Company
Zach McCormick Fed Com 18-24s-29e wells, Eddy County, NM

<u>Company Office</u>			
Matador Production Company	(972)-371-5200		
<u>Key Personnel</u>			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Aaron Byrd	Drilling Engineer	972-371-5267	214-507-2333
	Construction Superintendent		
	Construction Superintendent		
<u>Artesia</u>			
Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
<u>Carlsbad</u>			
Ambulance		911	
State Police		575-885-3137	
Loving City Police		575-745-3511	
Sheriff's Office		575-887-7551	
Malaga Fire Department		575-745-2317	
Local Emergency Planning Committee		575-885-3581	
<u>Santa Fe</u>			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
<u>National</u>			
Carlsbad BLM		575-234-5972	
National Emergency Response Center (Washington, D.C.)		800-424-8802	
<u>Medical</u>			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd S.E., D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
<u>Other</u>			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Halliburton		575-746-2757	
B.J. Services		575-746-3569	

H2S Rig Layout

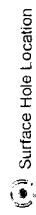
Zach McCormick Fed Com #121H
 18-24S-29E, Eddy County, NM
 SHL 712' FNL & 351' FWL
 BHL 661' FNL & 240' FEL



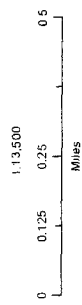
Matador Production Company

Zach McCormick Federal Com
18-24S-29E RB #121H
H&S Contingency Plan:
1 Mile Radius Map

Section 18, Township 24S, Range 29E
Eddy County, New Mexico



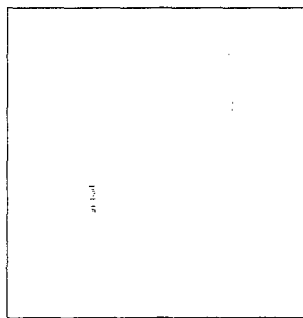
Surface Hole Location



NAD 1927 New Mexico State Plane East
FIPS 3001 Feet



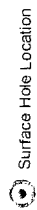
Prepared by Permits West, Inc., June 22, 2016
for Matador Production Company



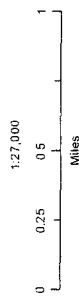
Matador Production Company

Zach McCormick Federal Com
18-24S-29E RB #121H
H&S Contingency Plan:
2 Mile Radius Map

Section 18, Township 24S, Range 29E
Eddy County, New Mexico



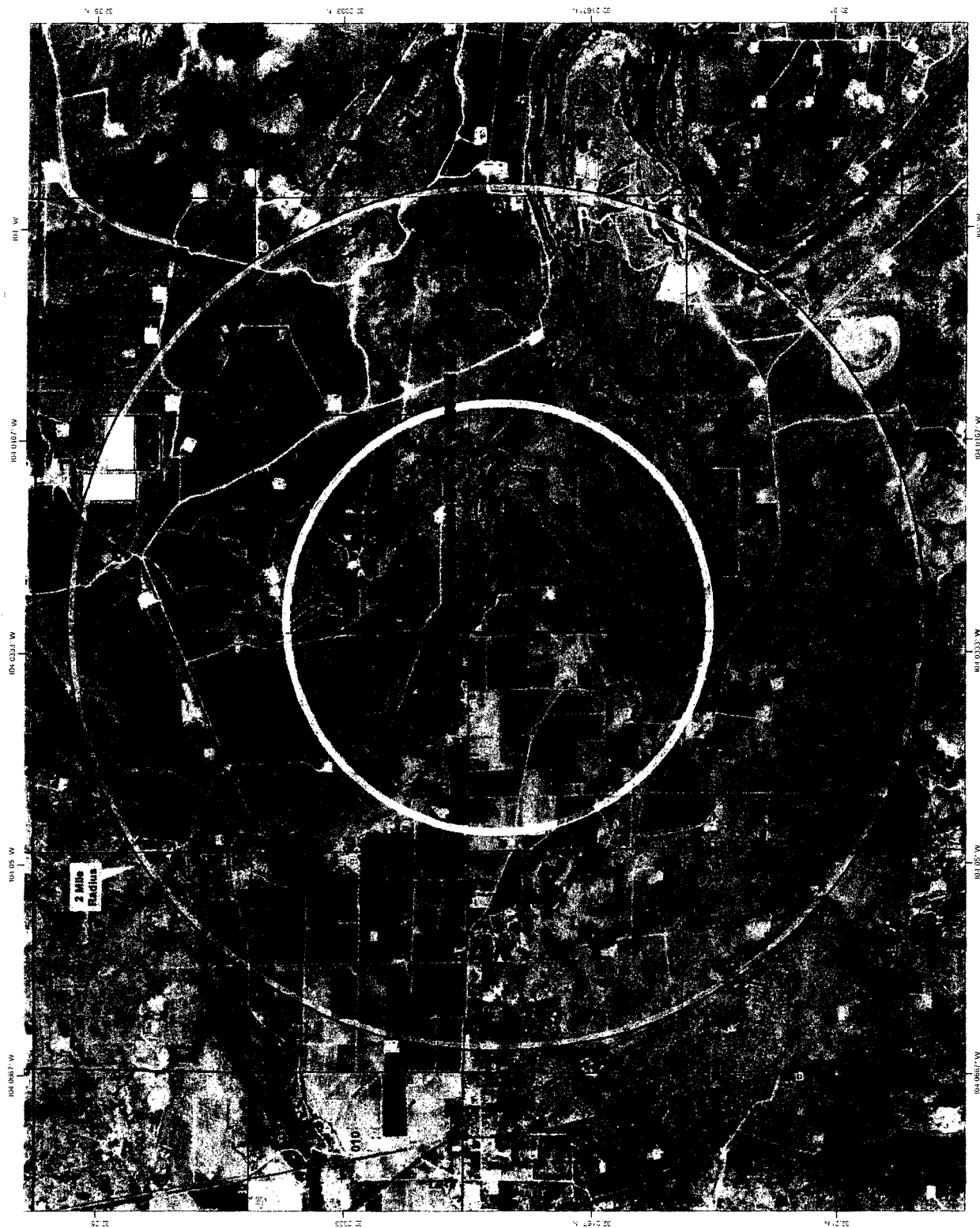
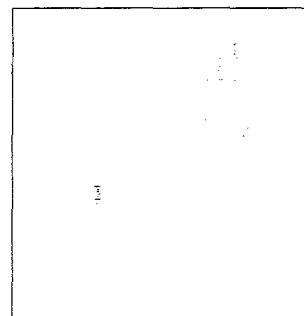
Surface Hole Location



NAD 1927 New Mexico State Plane East
FPS 3001 Feet

PERMITS ONLY

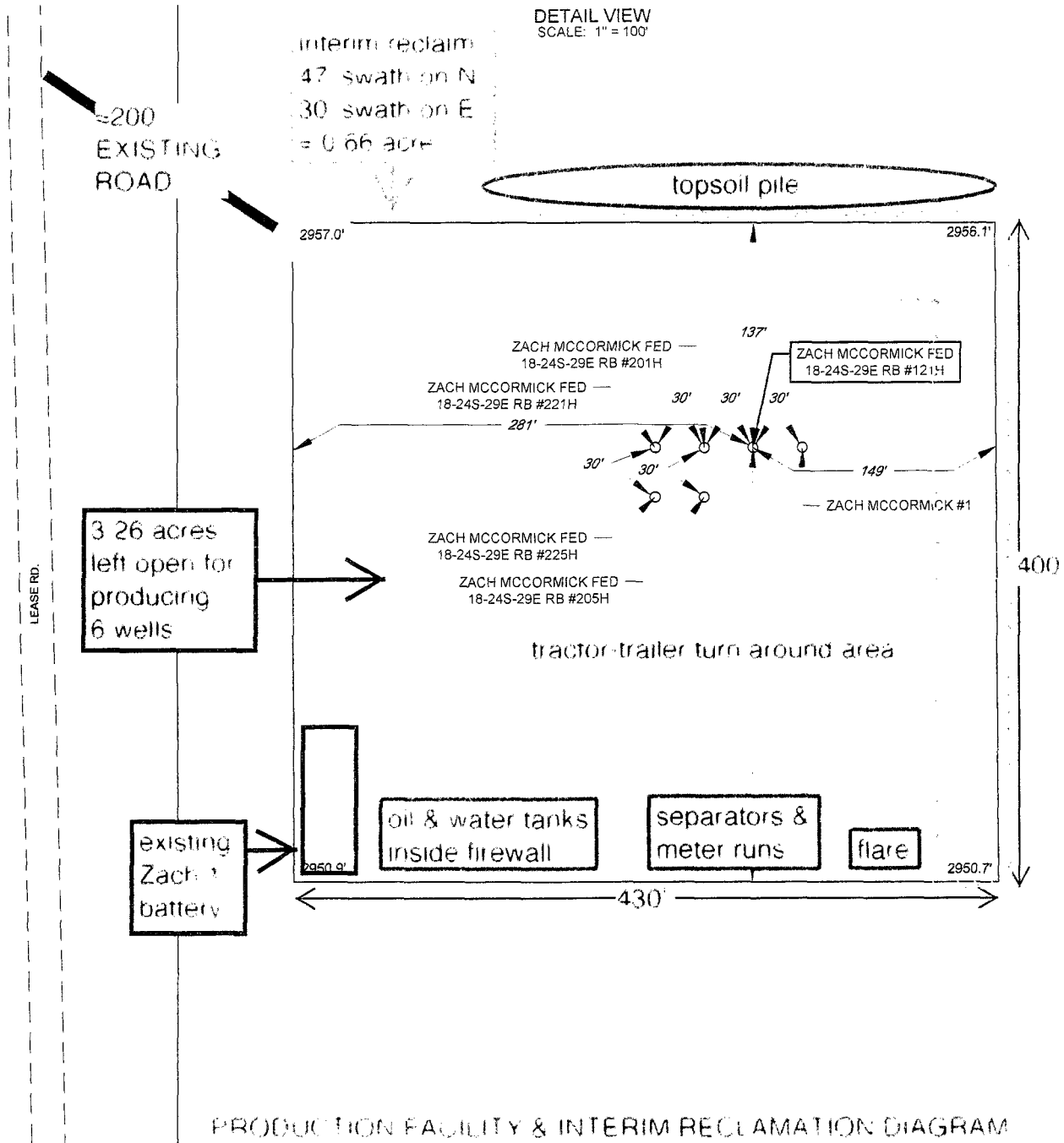
Prepared by Permits West, Inc., June 22, 2016
for Matador Production Company





SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



PRODUCTION FACILITY & INTERIM RECLAMATION DIAGRAM

LEGEND

== == == == EXISTING ROAD
--- SECTION LINE

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #121H
#121H LATITUDE N 32.2229376 #121H LONGITUDE W 104.0306372

SCALE: 1" = 100'
0' 50' 100'

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 PROPOSED PAD SITE 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.



WWW.TOPOGRAPHIC.COM

Matador Production Company
Zach McCormick Fed Com 121H
SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 1

Surface Use Plan

1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 – 4)

From Malaga, NM...

Go East 2.3 miles on paved County Roads 744 and 720

Then turn right onto a caliche road and go South 500'

Then turn left and go Southeast 200' on a caliche road to an existing pad

Non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW 6-24s-29e.

2. ROAD TO BE BUILT OR UPGRADED

No new road or upgrade is needed. All access is via existing roads.

3. EXISTING WELLS (See MAP 2)

Existing oil, gas, water, injection, and P & A wells are within a mile. No disposal well is within a mile radius.

4. PROPOSED PRODUCTION FACILITIES (See preceding page)

Oil tanks, water tanks, meter runs, separators, and a flare will be installed on the south side of the pad (see preceding diagram). A berm will surround the fill sides of the facility.

Matador Production Company
Zach McCormick Fed Com 121H
SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 2

Longwood Midstream's Black River Gathering System will serve the facility with $\approx 6"$ O. D. steel gas line and $\approx 6"$ O. D. HDPE buried saltwater disposal line laid in the same trench which is under construction to the existing Zach McCormick Federal Com 18-24s-29e #1. Xcel will build a 3-phase raptor safe overhead power line 1/10 mile south to the well pad.

5. WATER SUPPLY (See MAP 2)

Water will be trucked 0.6 mile via existing roads from existing water well C 00464 on private land in NENW 13-24s-28e.

6. CONSTRUCTION MATERIALS & METHODS (see MAPS 4 & 5)

NM One Call (811) will be notified before construction starts. Top $\approx 6"$ of soil and brush is stockpiled north of the pad. Pipe racks will be to the south. A closed loop drilling system will be used. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW 6-24s-29e. A berm will surround the fill sides of the pad.

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Eddy County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to CRI's state approved (NM-01-0006) disposal site. Human waste will be disposed of in chemical toilets and hauled to the Carlsbad wastewater treatment plant.

Matador Production Company
Zach McCormick Fed Com 121H
SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 3

8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, or mud logger.

9. WELL SITE LAYOUT

See Rig Layout diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. RECLAMATION

Interim reclamation will be completed within 6 months of completing the last well on the pad. (A variance is requested for the intervening wells.) Interim reclamation will consist of shrinking the pad $\approx 17\%$ by removing caliche and reclaiming the north (47') and east (30') sides. This will leave 3.26 acres for six pump jacks and tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas. Disturbed areas will be seeded in accordance with the surface owner's requirements. Enough stockpiled topsoil will be retained to cover the remainder of the pad when the wells are plugged. Once the last well is plugged, then the remainder of the pad will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

11. SURFACE OWNER

All construction occurred on private surface.

Matador Resources Company has a private surface owner agreement with Evelyn Kay Walker Faulk (P. O. Box 115, Malaga NM 88263) for the existing road in NENE Section 13, T. 24 S., R. 28 E. and with Roy Burkham (P. O. Box 84, Malaga

Matador Production Company
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SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 4

NM 88263) for the existing road and existing pad in Lot 1 Section 18, T. 24 S., R. 29 E., Eddy County, NM.

12. OTHER INFORMATION

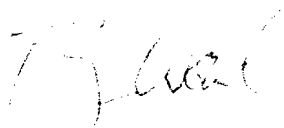
On site inspection was held with Vance Wolf and Bob Ballard (both of BLM) on June 2, 2016.

Matador Production Company
Zach McCormick Fed Com 121H
SHL 712' FNL & 351' FWL Sec. 18
BHL 661' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 5

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 12th day of August, 2016.



Brian Wood, Consultant

Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Cellular: (505) 699-2276

Field representative will be:

Sam Pryor, Senior Staff Landman

Matador Production Company

5400 LBJ Freeway, Suite 1500

Dallas TX 75240

Phone: (972) 371-5241

FAX: (214) 866-4841

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM117120
WELL NAME & NO.:	121H-Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	712'/N & 351'/W
BOTTOM HOLE FOOTAGE:	661'/N & 240'/E
LOCATION:	Section 18, T.24 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Avian Protection
 - Cave/Karst
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Avian Protection

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

COA Mid Karst

Cave and Karst

****** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.

- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS**Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

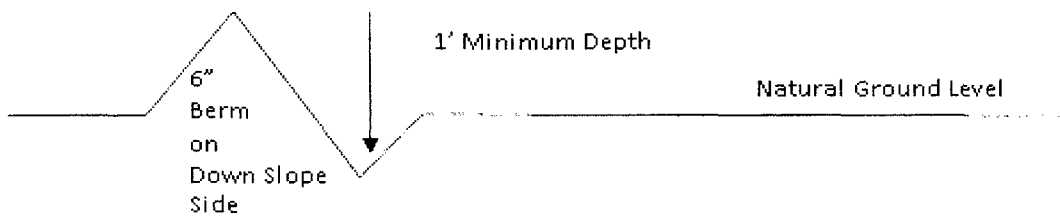
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

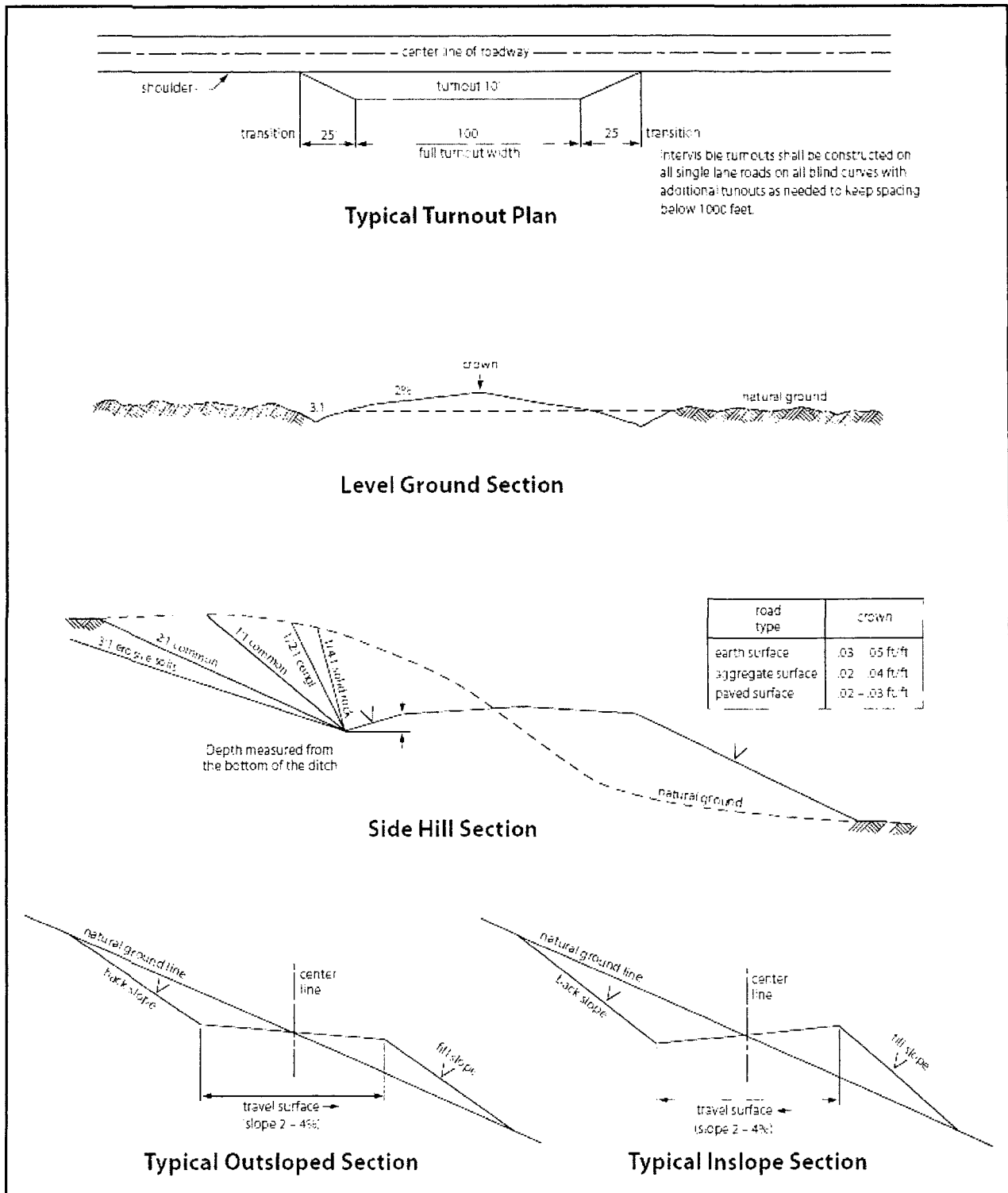


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of

the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

☐ seed mixture 1	☒ seed mixture 3
☐ seed mixture 2	☐ seed mixture 4
☐ seed mixture 2/LPC	☐ Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching

deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce

the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 3, for Shallow Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria macrostachya</i>)	1.0
Green Sprangletop (<i>Leptochloa dubia</i>)	2.0
Sideoats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed