

NM OIL CONSERVATION
ARTESIA DISTRICT
OCD Artesia
JUN 07 2017

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

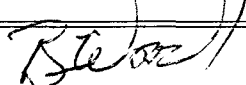
FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

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 202H
3b. Phone No. (include area code) 972 371 5241		9. API Well No. 30-015- 44254
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 2325' FNL & 311' FEL 13-24S-28E At proposed prod. zone 1651' FNL & 240' FEL 18-24S-29E		10. Field and Pool or Exploration PURPLE SAGE 98220 PIERCE CROSS.; WOLF CAMP, NW G
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: SENE 13-24S-28E NMPM BHL: SENE 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: 311' BHL: 240'	16. No. of acres in lease BLM lease = 520 acres comm. area = 319.28 acres	17. Spacing Unit dedicated to this well Lots 1 & 2, E2NW, & NE4 18-24S-29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 60' (Zach 122H) BHL: 330' (ditto)	19. Proposed Depth TVD: 9745' MD: 14661'	20. BLM/BIA Bond No. on file BLM NMB-001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2956' 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:

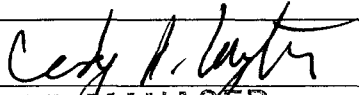
- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the 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 08/13/2016
---	--	--------------------

Title

CONSULTANT

(FAX: 505 466-9682)

Approved by (Signature) 	Name (Printed/Typed) Cody L. Layton	Date 06/02/17
Title Far 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)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

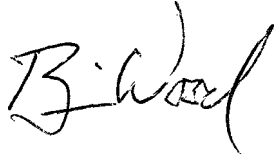
SEE ATTACHED FOR
CONDITIONS OF APPROVAL

RWP 6.7.17

August 13, 2016

To Who it May Concern:

Matador Resources Company has a private surface owner agreement with Evelyn Kay Walker Faulk (P. O. Box 115, Malaga NM 88263) for the Zach McCormick Fed Com 202H well site, pipelines, production facility, and road in E2NE4 Section 13, T. 24 S., R. 28 E.; Eddy County, NM.

A handwritten signature in black ink, appearing to read "B. Wood". The signature is stylized with a large, looped "B" and a cursive "Wood".

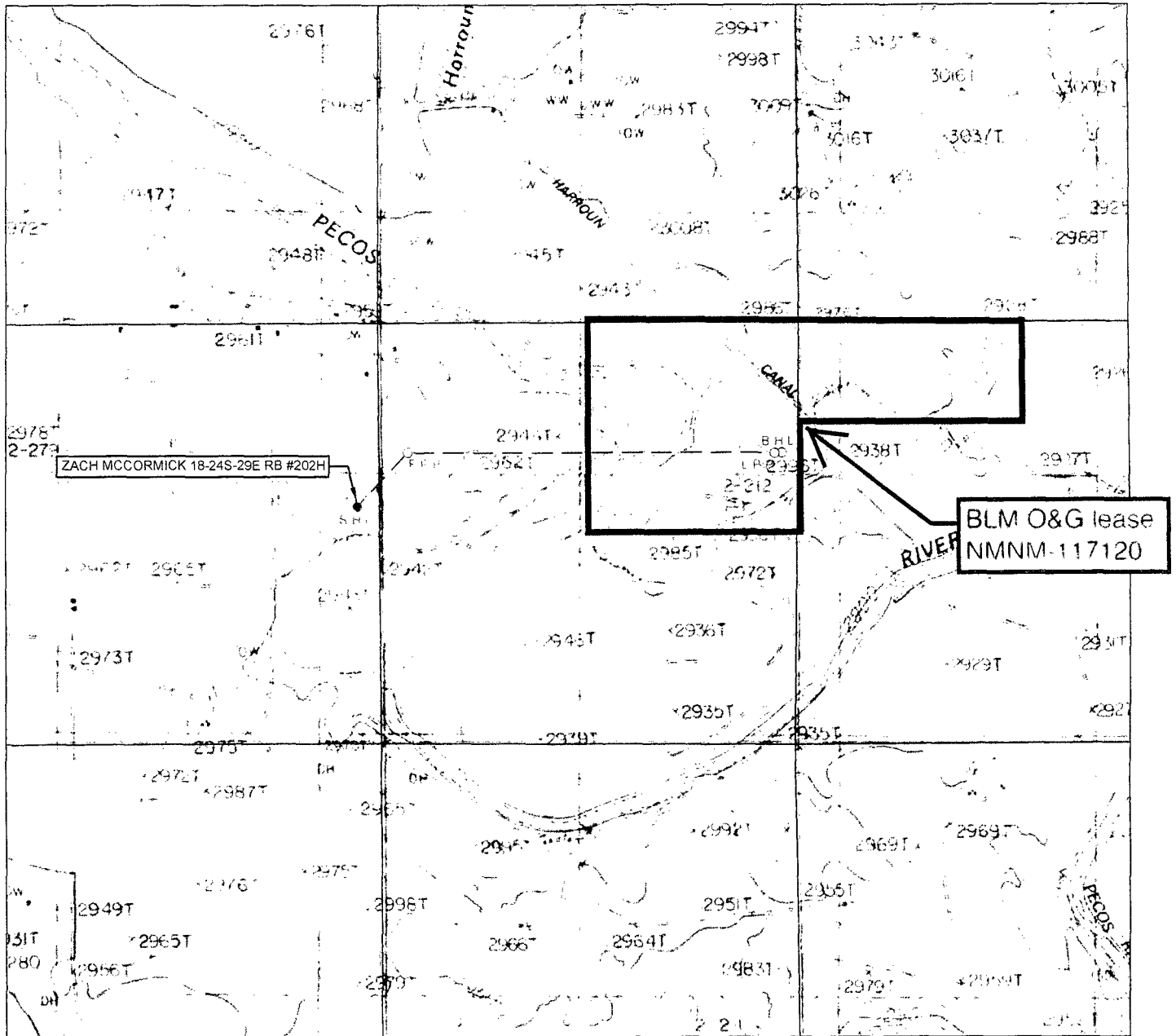
Brian Wood

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.

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 #202H

SECTION 13 TWP 24-S RGE 28-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 2956'
 DESCRIPTION 2325' FNL & 311' FEL

LATITUDE N 32.2185068 LONGITUDE W 104.0327650



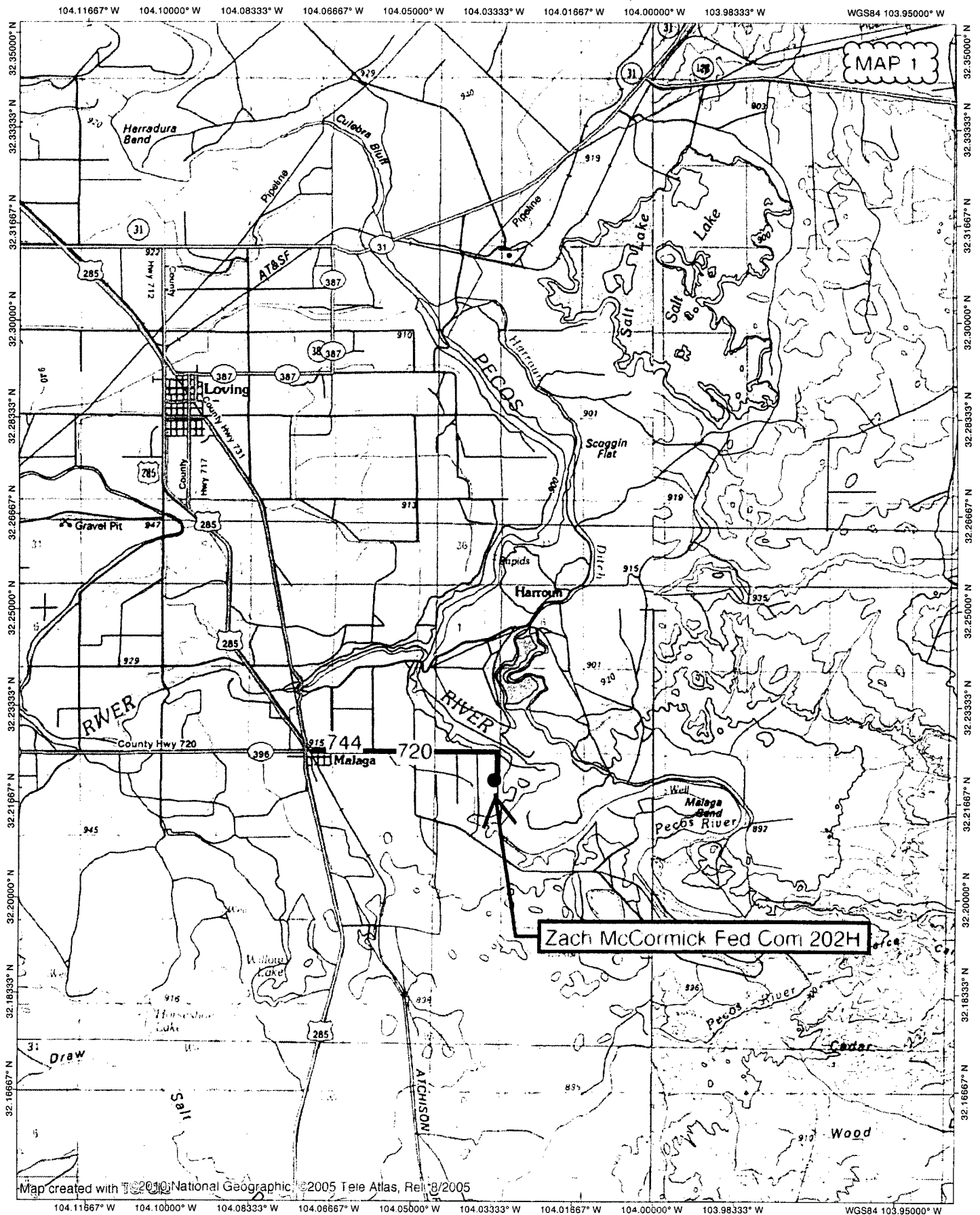
SCALE: 1" = 2000'
 0' 1000' 2000'

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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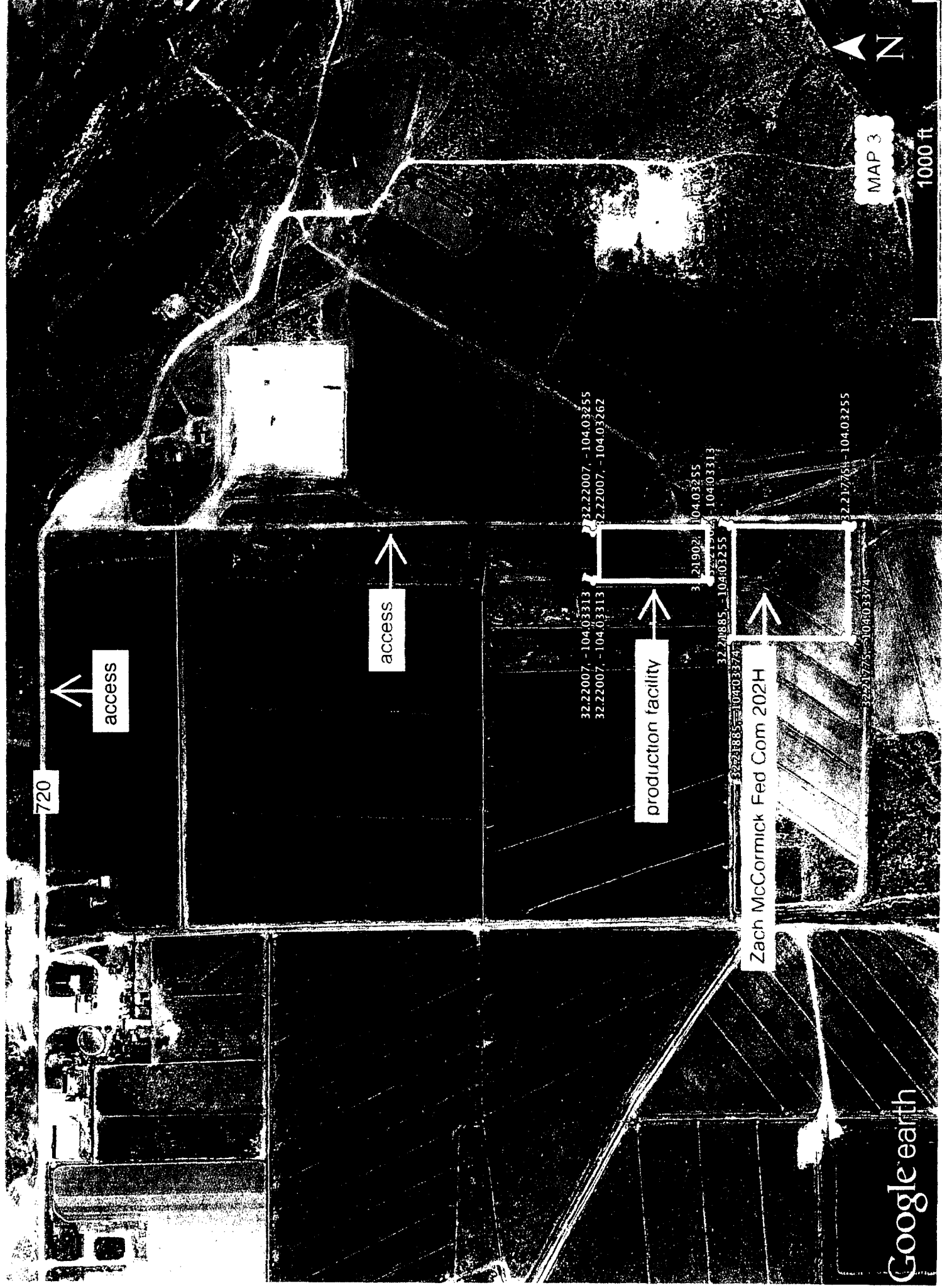
NATIONAL
GEOGRAPHIC

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



720

access

access

production facility

Zach McCormick Fed Com 202H

MAP 3

1000 ft

Google earth

32.22007, -104.03313
32.22007, -104.03255

32.21902, -104.03255
32.21902, -104.03313

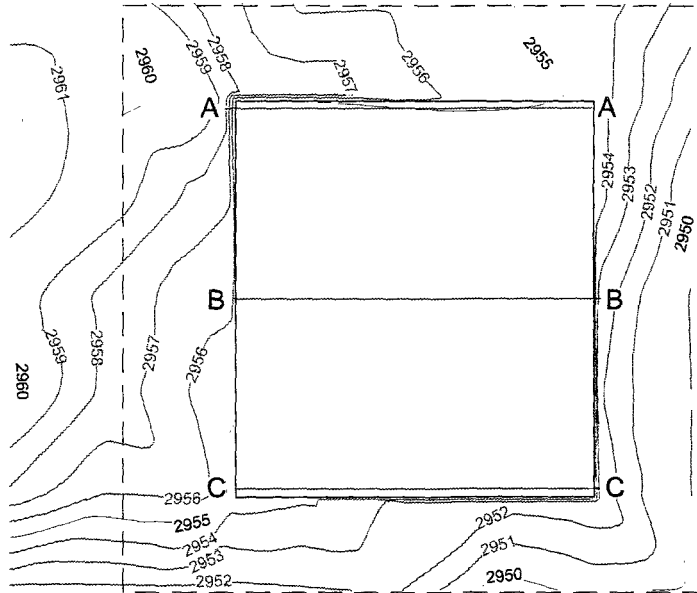
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32.21885, -104.03313

32.21775, -104.03255
32.21775, -104.03313

SCALE: 1" = 200'
0' 100' 200'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

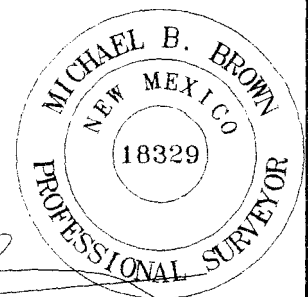
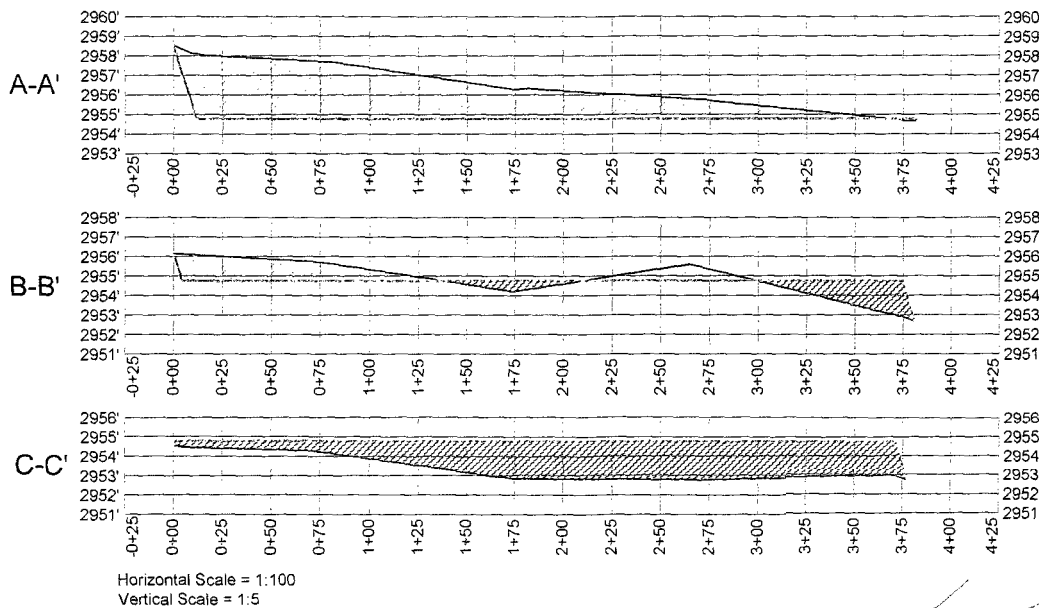
MAP 5



TOP OF PAD ELEVATION:
2954.8'

CUT SLOPE: 33.33% 3.00:1 18.43°
FILL SLOPE: 33.33% 3.00:1 18.43°
BALANCE TOLERANCE (C.Y.): 0.00
CUT SWELL FACTOR: 1.00
FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
CUT 91,390.2 C.F., 3,384.82 C.Y.
FILL 91,390.2 C.F., 3,384.82 C.Y.
BALANCE IMPORT: 0.0 C.F., 0.00 C.Y.
AREA: 157182.9 SQ.FT., 3.608 ACRES



TOPOGRAPHIC
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1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

Michael Blake Brown, P.S. No. 18329

MAY 10, 2016

Field note description of even date accompanies this plat.

ZACH MCCORMICK FED
18-24S-29E RB #202H
SURFACE PAD SITE PRO

REVISION:

INT DATE

DATE: 05/10/16

FILE: CD ZACH MCCORMICK FEDERAL 18-24S-29E RB #202H SURFACE PAD SITE PRO

DRAWN BY: MML

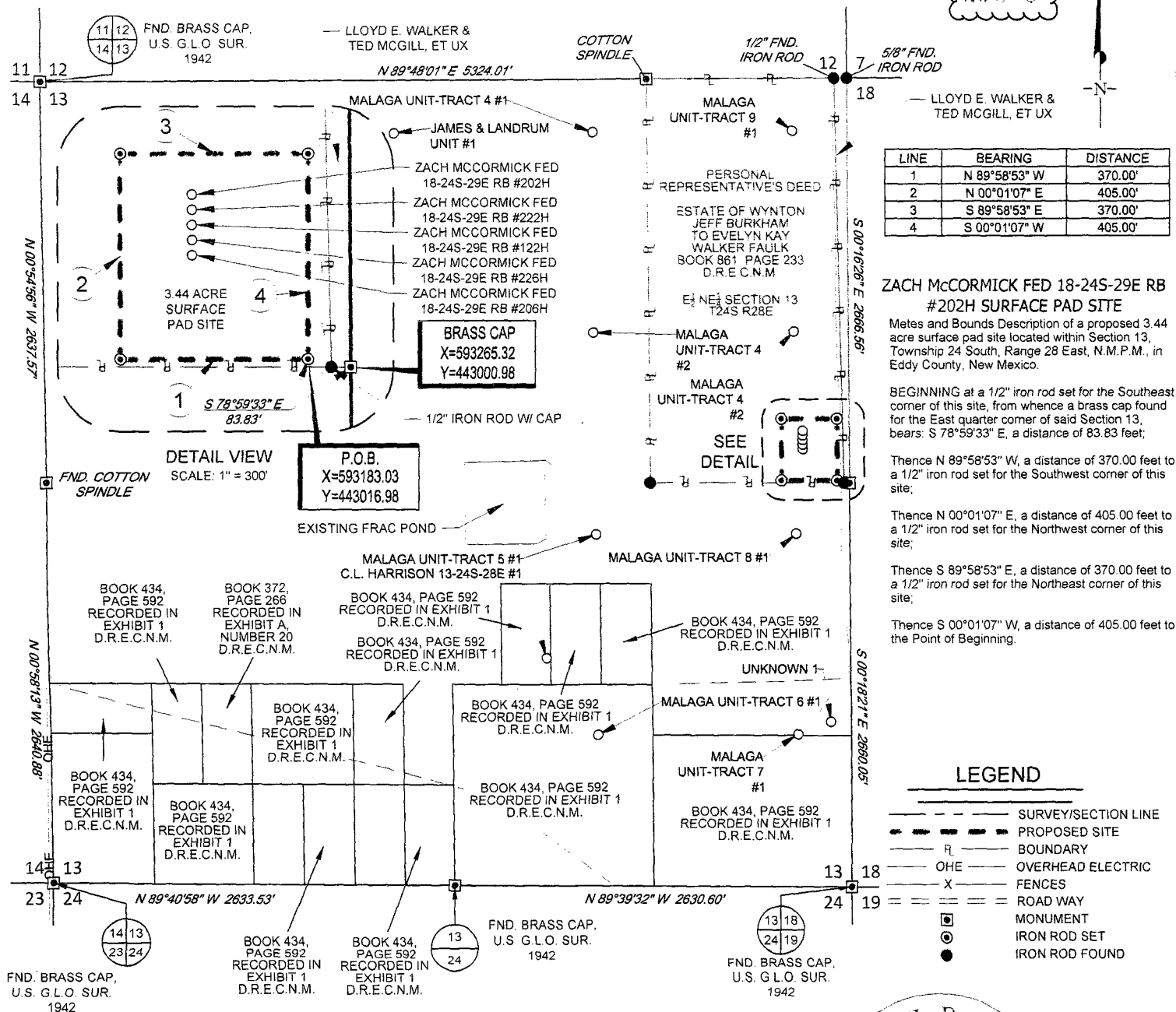
SHEET:

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 RESOURCE 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.

0' 500' 1000'

MAP 6



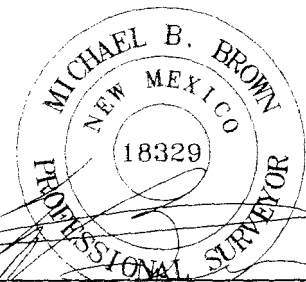
LEGEND

- | | |
|-----------|---------------------|
| — — — — — | SURVEY/SECTION LINE |
| — — — — — | PROPOSED SITE |
| — R — | BOUNDARY |
| — OHE — | OVERHEAD ELECTRIC |
| — X — | FENCES |
| — — — — — | ROAD WAY |
| ⊕ | MONUMENT |
| ⊙ | IRON ROD SET |
| ● | IRON ROD FOUND |



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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, P.S. No. 18329
May 9, 2016

ZACH McCORMICK FED 18-24S-29E RB #202H SURFACE PAD SITE		REVISION:		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 5. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO
		INT	DATE	
DATE: 05/09/16				
FILE: BO ZACH McCORMICK FED 18-24S-29E RB 202H SURFACE PAD SITE				
DRAWN BY: GJU				
SHEET :				

SCALE: 1" = 200'

0' 100' 200'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

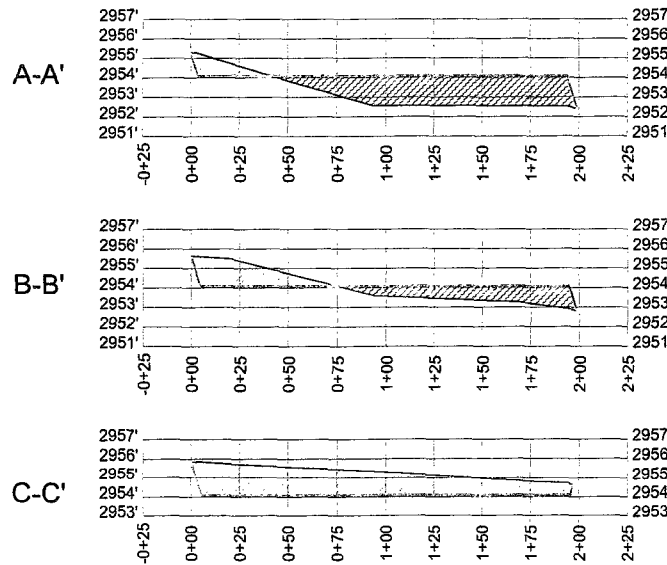
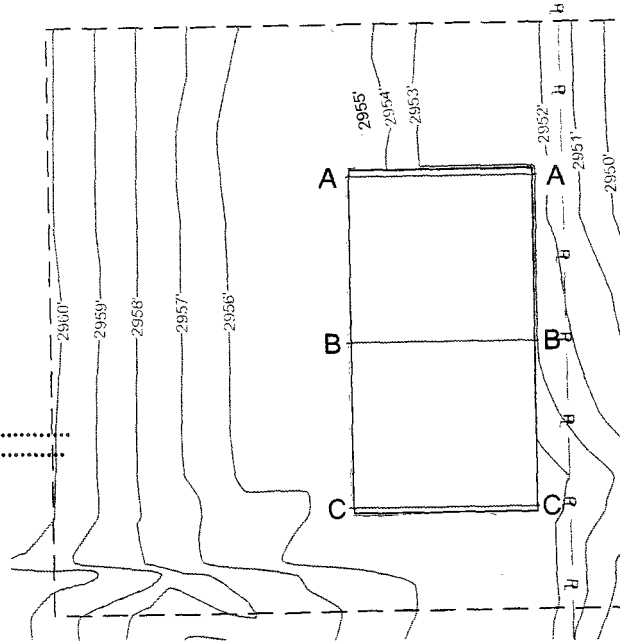
MAP 7



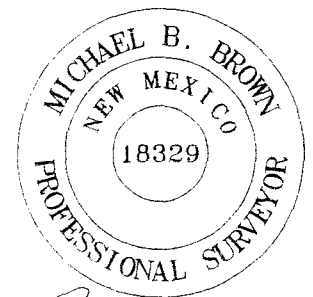
TOP OF PAD ELEVATION:
2954.1'

BALANCE TOLERANCE (C.Y.): 0.00
CUT SWELL FACTOR: 1.00
FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
CUT 32,455.5 C.F., 1,202.05 C.Y.
FILL 32,455.5 C.F., 1,202.05 C.Y.
BALANCE IMPORT: 0.0 C.F., 0.00 C.Y.
AREA: 70693.8 SQ.FT., 1.623 Acres



Horizontal Scale = 1:100
Vertical Scale = 1:5



Michael Blake Brown, P.S. No. 18329

MAY 10, 2016

Field note description of even date accompanies this plat.



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ZACK McCORMICK FED
PRODUCTION FACILITY
SITE PROFILE

DATE: 05/10/16

FILE: CD_ZACK_MCCORMICK_FEDERAL_PRODUCTION_FACILITY_SITE_PRO

DRAWN BY: A.C.C.

SHEET:

REVISION:

INT DATE

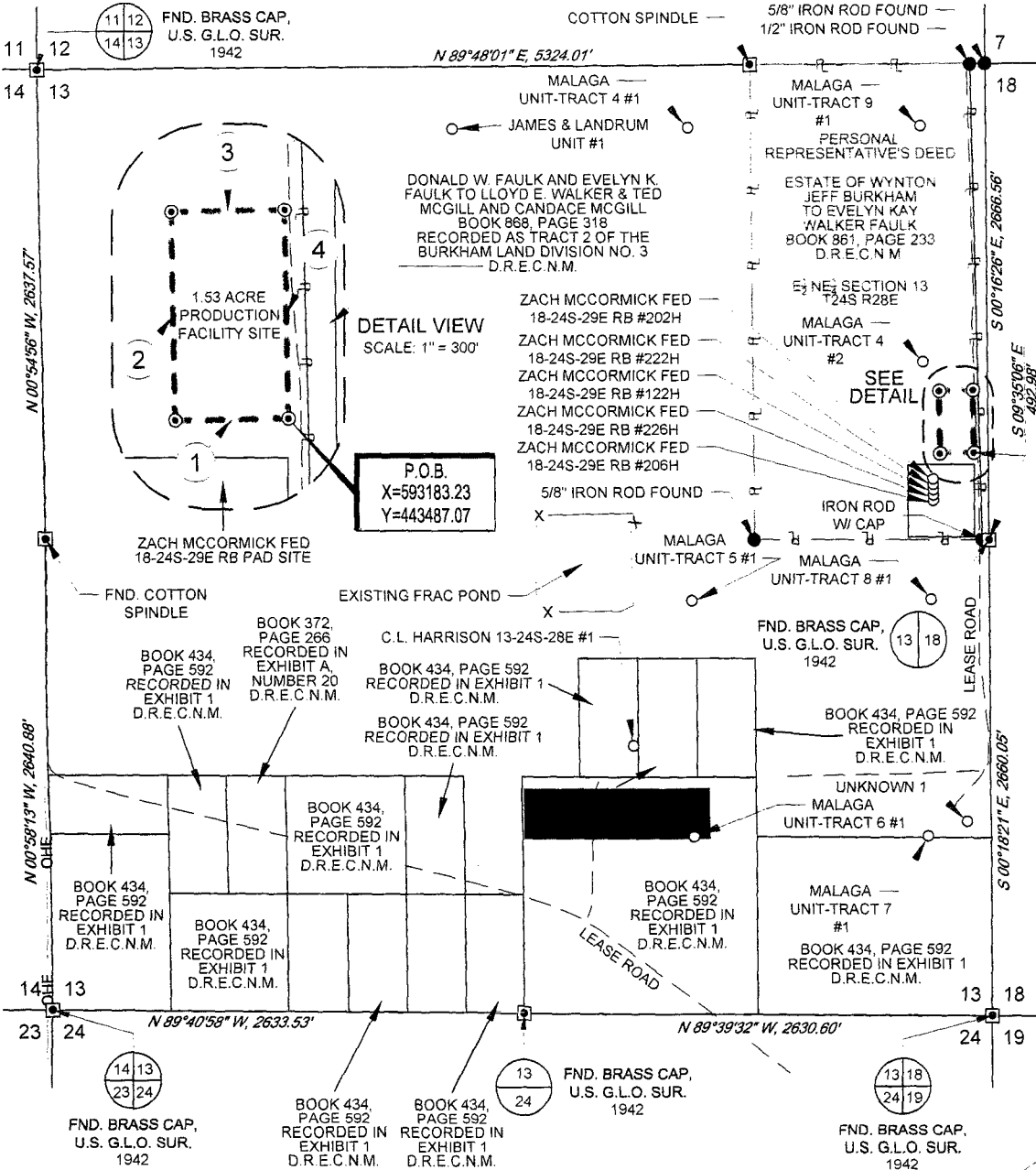
NOTES:

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SCALE: 1" = 1000'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO
PROPOSED 1.53 ACRE SITE

MAP 8



ZACK MCCORMICK FED
PRODUCTION FACILITY SITE

Mets and Bounds Description of a proposed 1.53 acre proposed facility site located within Section 13, Township 24 South, Range 28 East, N.M.P.M., in Eddy County, New Mexico.

BEGINNING at a 1/2" iron rod with cap set for the Southeast corner of this site, from whence a brass cap found for the East quarter corner of distance of 492.98 feet;

to a 1/2" iron rod with cap set for the Southwest corner of this site;

Thence to a 1/2" iron rod with cap set for the Northwest corner of this site;

Thence to a 1/2" iron rod with cap set for the Northeast corner of this site;

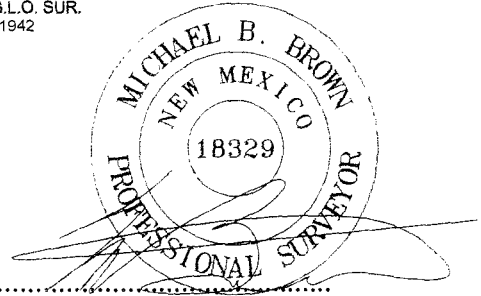
Thence to the Point of Beginning.

LEGEND

- PROPOSED SITE
- SURVEY/SECTION LINE
- TP ---
- == ROAD WAY
- EXISTING PIPELINE
- IRON ROD SET
- IRON ROD FOUND
- MONUMENT

ZACK MCCORMICK FED
PRODUCTION FACILITY SITE

LINE	BEARING	DISTANCE
1		190.00'
2		360.00'
3		190.00'
4		350.00'



Michael Blake Brown, P.S. No. 18329
MAY 9, 2016

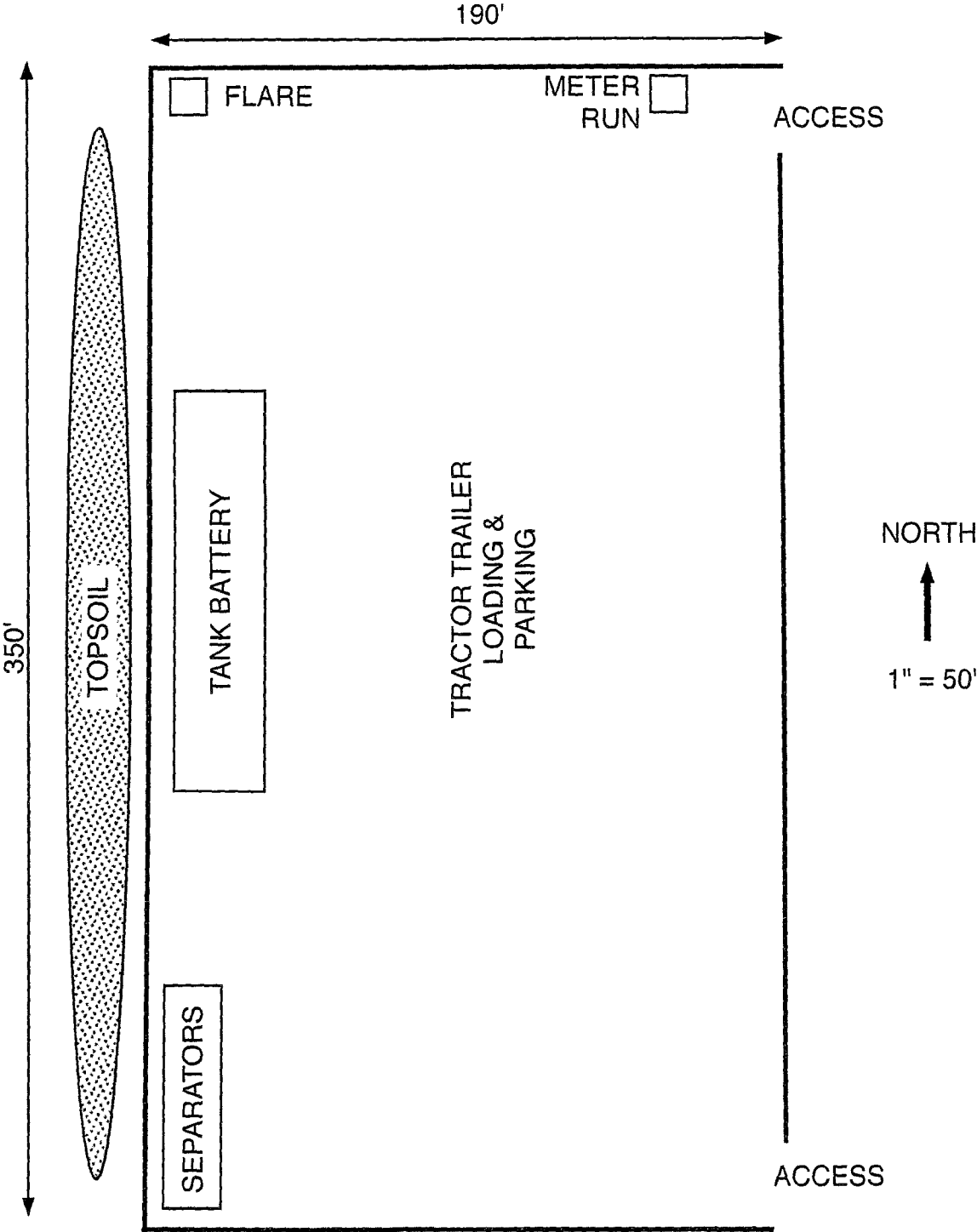
WWW.TOPOGRAPHIC.COM

ZACK MCCORMICK FED PRODUCTION FACILITY SITE	REVISION:	
	INT	DATE
DATE: 05/09/16		
FILE: 80_ZACK_MCCORMICK_FEDERAL_PRODUCTION_FACILITY_SITE		
DRAWN BY: A.C.C.		
SHEET:		

- 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.
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 4. P.O.B. = POINT OF BEGINNING

Matador's
Zach McCormick Fed Com
Production Facility
SENE 13-24s-28e
Eddy County NM

MAP 9



Matador Production Company

DRILL PLAN PAGE 1

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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
3 rd Bone Spring Carbonate	8558.5'	hydrocarbon
3rd Bone Spring Sand	9274.5'	hydrocarbon
Wolfcamp	9632.5'	hydrocarbon
Wolfcamp X	9664.5'	hydrocarbon
Wolfcamp Y	9729.5'	hydrocarbon (& goal)
TVD (Wolfcamp Y)	9745'	ditto
MD (Wolfcamp Y)	14661'	ditto

2. NOTABLE ZONES

Closest water well (C 00750) is 968' to the west. Depth of well is 110'. Depth to water has not been reported to the State.

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.

Matador Production Company

DRILL PLAN PAGE 2

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

An accumulator that meets the requirements of Onshore Order 2 for the pressure rating of the BOP stack will be present. 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. 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 to allow for pump installation. All perforations will be $\geq 330'$ from the dedication perimeter.

Matador Production Company

DRILL PLAN PAGE 3

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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"	10033'	7"	New	29	P-110	BTC	1.125	1.125	1.8
6.125"	14661'	4.5"	New	13.5	P-110	BTC/TXP	1.125	1.125	1.8

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
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 = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate	Lead	550	2.13	1171.5	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 = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Intermediate 2	Lead	530	2.36	1250.8	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	300	1.38	414	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)	
Production	Tail	550	1.17	643.5	15.8	Class H + Fluid Loss + Dispersant + Retarder + LCM
TOC = 8900'		10% Excess			2 on btm jt, 1 on 2nd jt, 1 every third jt to top of curve	

Matador Production Company

DRILL PLAN PAGE 4

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

5. MUD PROGRAM

An electronic Pason mud monitoring system satisfying the requirements of Onshore Order 1 will be used. All necessary mud products for weight addition and 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
Intermediate 2	8.75"	9.00	30-31	NC	FW/Cut Brine
Production	6.125"	12.5	50-60	<10	OBM

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud-logging program will be used from $\approx 10000'$ 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 ≈ 6700 psi. Expected bottom hole temperature is $\approx 160^\circ$ 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.

Matador Production Company

DRILL PLAN PAGE 5

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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.

8. OTHER INFORMATION

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



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: #202H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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	#202H				
Well Position	+N/-S	443,341.95 usft	Northing:	443,341.95 usft	Latitude: 32° 13' 6.624 N
	+E/-W	592,953.14 usft	Easting:	592,953.14 usft	Longitude: 104° 1' 57.954 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level: 2,955.50 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	6/22/2016	7.32	59.99	48,066

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,533.33	8.00	20.87	1,531.60	34.73	13.24	1.50	1.50	0.00	20.87	VP - Zach McCorm
2,899.91	8.00	20.87	2,884.88	212.44	81.01	0.00	0.00	0.00	0.00	
3,249.91	13.25	20.87	3,228.76	272.72	103.99	1.50	1.50	0.00	0.00	
4,683.84	13.25	20.87	4,624.52	579.81	221.09	0.00	0.00	0.00	0.00	
5,567.18	0.00	0.00	5,500.00	674.82	257.32	1.50	-1.50	0.00	180.00	VP - Zach McCorm
9,233.42	0.00	0.00	9,166.24	674.82	257.32	0.00	0.00	0.00	0.00	
10,033.42	80.00	90.02	9,730.49	674.62	730.78	10.00	10.00	0.00	90.02	PBHL - Zach McCo
10,200.08	90.00	90.02	9,745.00	674.54	896.61	6.00	6.00	0.00	0.00	
14,661.21	90.00	90.02	9,745.00	672.62	5,357.73	0.00	0.00	0.00	0.00	PBHL - Zach McCo



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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
KOP, 1.50°/100' Build									
1,100.00	1.50	20.87	1,099.99	1.22	0.47	0.47	1.50	1.50	0.00
1,200.00	3.00	20.87	1,199.91	4.89	1.87	1.86	1.50	1.50	0.00
1,300.00	4.50	20.87	1,299.69	11.00	4.20	4.19	1.50	1.50	0.00
1,400.00	6.00	20.87	1,399.27	19.55	7.46	7.45	1.50	1.50	0.00
1,500.00	7.50	20.87	1,498.57	30.53	11.64	11.63	1.50	1.50	0.00
1,533.33	8.00	20.87	1,531.60	34.73	13.24	13.23	1.50	1.50	0.00
Begin 8.00° Tangent									
1,600.00	8.00	20.87	1,597.62	43.40	16.55	16.54	0.00	0.00	0.00
1,700.00	8.00	20.87	1,696.65	56.41	21.51	21.49	0.00	0.00	0.00
1,800.00	8.00	20.87	1,795.67	69.41	26.47	26.44	0.00	0.00	0.00
1,900.00	8.00	20.87	1,894.70	82.41	31.43	31.40	0.00	0.00	0.00
2,000.00	8.00	20.87	1,993.73	95.42	36.38	36.35	0.00	0.00	0.00
2,100.00	8.00	20.87	2,092.75	108.42	41.34	41.31	0.00	0.00	0.00
2,200.00	8.00	20.87	2,191.78	121.43	46.30	46.26	0.00	0.00	0.00
2,300.00	8.00	20.87	2,290.81	134.43	51.26	51.21	0.00	0.00	0.00
2,400.00	8.00	20.87	2,389.83	147.43	56.22	56.17	0.00	0.00	0.00
2,500.00	8.00	20.87	2,488.86	160.44	61.18	61.12	0.00	0.00	0.00
2,600.00	8.00	20.87	2,587.89	173.44	66.14	66.08	0.00	0.00	0.00
2,700.00	8.00	20.87	2,686.91	186.45	71.10	71.03	0.00	0.00	0.00
2,800.00	8.00	20.87	2,785.94	199.45	76.05	75.98	0.00	0.00	0.00
2,899.91	8.00	20.87	2,884.88	212.44	81.01	80.93	0.00	0.00	0.00
Begin 1.50°/100' Build									
3,000.00	9.50	20.87	2,983.80	226.67	86.43	86.35	1.50	1.50	0.00
3,100.00	11.00	20.87	3,082.20	243.30	92.77	92.69	1.50	1.50	0.00
3,200.00	12.50	20.87	3,180.10	262.33	100.03	99.94	1.50	1.50	0.00
3,249.91	13.25	20.87	3,228.76	272.72	103.99	103.90	1.50	1.50	0.00
Begin 13.25° Tangent									
3,300.00	13.25	20.87	3,277.51	283.45	108.08	107.98	0.00	0.00	0.00
3,400.00	13.25	20.87	3,374.85	304.86	116.25	116.14	0.00	0.00	0.00
3,500.00	13.25	20.87	3,472.19	326.28	124.42	124.30	0.00	0.00	0.00
3,600.00	13.25	20.87	3,569.53	347.69	132.58	132.46	0.00	0.00	0.00
3,700.00	13.25	20.87	3,666.87	369.11	140.75	140.62	0.00	0.00	0.00
3,800.00	13.25	20.87	3,764.20	390.53	148.91	148.78	0.00	0.00	0.00
3,900.00	13.25	20.87	3,861.54	411.94	157.08	156.94	0.00	0.00	0.00
4,000.00	13.25	20.87	3,958.88	433.36	165.25	165.10	0.00	0.00	0.00
4,100.00	13.25	20.87	4,056.22	454.77	173.41	173.25	0.00	0.00	0.00
4,200.00	13.25	20.87	4,153.56	476.19	181.58	181.41	0.00	0.00	0.00
4,300.00	13.25	20.87	4,250.89	497.61	189.75	189.57	0.00	0.00	0.00
4,400.00	13.25	20.87	4,348.23	519.02	197.91	197.73	0.00	0.00	0.00
4,500.00	13.25	20.87	4,445.57	540.44	206.08	205.89	0.00	0.00	0.00
4,600.00	13.25	20.87	4,542.91	561.85	214.24	214.05	0.00	0.00	0.00
4,683.84	13.25	20.87	4,624.52	579.81	221.09	220.89	0.00	0.00	0.00



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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)
Begin 1.50°/100' Drop									
4,700.00	13.01	20.87	4,640.25	583.24	222.40	222.19	1.50	-1.50	0.00
4,800.00	11.51	20.87	4,737.97	603.08	229.96	229.75	1.50	-1.50	0.00
4,900.00	10.01	20.87	4,836.21	620.52	236.61	236.40	1.50	-1.50	0.00
5,000.00	8.51	20.87	4,934.91	635.55	242.34	242.12	1.50	-1.50	0.00
5,100.00	7.01	20.87	5,033.99	648.16	247.15	246.93	1.50	-1.50	0.00
5,200.00	5.51	20.87	5,133.39	658.34	251.04	250.81	1.50	-1.50	0.00
5,300.00	4.01	20.87	5,233.04	666.09	253.99	253.76	1.50	-1.50	0.00
5,400.00	2.51	20.87	5,332.88	671.40	256.02	255.78	1.50	-1.50	0.00
5,500.00	1.01	20.87	5,432.83	674.27	257.11	256.87	1.50	-1.50	0.00
5,567.18	0.00	0.00	5,500.00	674.82	257.32	257.08	1.50	-1.50	0.00
Begin Vertical Hold									
5,600.00	0.00	0.00	5,532.82	674.82	257.32	257.08	0.00	0.00	0.00
5,700.00	0.00	0.00	5,632.82	674.82	257.32	257.08	0.00	0.00	0.00
5,800.00	0.00	0.00	5,732.82	674.82	257.32	257.08	0.00	0.00	0.00
5,900.00	0.00	0.00	5,832.82	674.82	257.32	257.08	0.00	0.00	0.00
6,000.00	0.00	0.00	5,932.82	674.82	257.32	257.08	0.00	0.00	0.00
6,100.00	0.00	0.00	6,032.82	674.82	257.32	257.08	0.00	0.00	0.00
6,200.00	0.00	0.00	6,132.82	674.82	257.32	257.08	0.00	0.00	0.00
6,300.00	0.00	0.00	6,232.82	674.82	257.32	257.08	0.00	0.00	0.00
6,400.00	0.00	0.00	6,332.82	674.82	257.32	257.08	0.00	0.00	0.00
6,500.00	0.00	0.00	6,432.82	674.82	257.32	257.08	0.00	0.00	0.00
6,600.00	0.00	0.00	6,532.82	674.82	257.32	257.08	0.00	0.00	0.00
6,700.00	0.00	0.00	6,632.82	674.82	257.32	257.08	0.00	0.00	0.00
6,800.00	0.00	0.00	6,732.82	674.82	257.32	257.08	0.00	0.00	0.00
6,900.00	0.00	0.00	6,832.82	674.82	257.32	257.08	0.00	0.00	0.00
7,000.00	0.00	0.00	6,932.82	674.82	257.32	257.08	0.00	0.00	0.00
7,100.00	0.00	0.00	7,032.82	674.82	257.32	257.08	0.00	0.00	0.00
7,200.00	0.00	0.00	7,132.82	674.82	257.32	257.08	0.00	0.00	0.00
7,300.00	0.00	0.00	7,232.82	674.82	257.32	257.08	0.00	0.00	0.00
7,400.00	0.00	0.00	7,332.82	674.82	257.32	257.08	0.00	0.00	0.00
7,500.00	0.00	0.00	7,432.82	674.82	257.32	257.08	0.00	0.00	0.00
7,600.00	0.00	0.00	7,532.82	674.82	257.32	257.08	0.00	0.00	0.00
7,700.00	0.00	0.00	7,632.82	674.82	257.32	257.08	0.00	0.00	0.00
7,800.00	0.00	0.00	7,732.82	674.82	257.32	257.08	0.00	0.00	0.00
7,900.00	0.00	0.00	7,832.82	674.82	257.32	257.08	0.00	0.00	0.00
8,000.00	0.00	0.00	7,932.82	674.82	257.32	257.08	0.00	0.00	0.00
8,100.00	0.00	0.00	8,032.82	674.82	257.32	257.08	0.00	0.00	0.00
8,200.00	0.00	0.00	8,132.82	674.82	257.32	257.08	0.00	0.00	0.00
8,300.00	0.00	0.00	8,232.82	674.82	257.32	257.08	0.00	0.00	0.00
8,400.00	0.00	0.00	8,332.82	674.82	257.32	257.08	0.00	0.00	0.00
8,500.00	0.00	0.00	8,432.82	674.82	257.32	257.08	0.00	0.00	0.00
8,600.00	0.00	0.00	8,532.82	674.82	257.32	257.08	0.00	0.00	0.00
8,700.00	0.00	0.00	8,632.82	674.82	257.32	257.08	0.00	0.00	0.00
8,800.00	0.00	0.00	8,732.82	674.82	257.32	257.08	0.00	0.00	0.00
8,900.00	0.00	0.00	8,832.82	674.82	257.32	257.08	0.00	0.00	0.00
9,000.00	0.00	0.00	8,932.82	674.82	257.32	257.08	0.00	0.00	0.00
9,100.00	0.00	0.00	9,032.82	674.82	257.32	257.08	0.00	0.00	0.00
9,200.00	0.00	0.00	9,132.82	674.82	257.32	257.08	0.00	0.00	0.00
9,233.42	0.00	0.00	9,166.24	674.82	257.32	257.08	0.00	0.00	0.00
Begin 10.00°/100' Build									
9,250.00	1.66	90.02	9,182.82	674.82	257.56	257.32	10.00	10.00	0.00
9,300.00	6.66	90.02	9,232.67	674.82	261.18	260.95	10.00	10.00	0.00



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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,350.00	11.66	90.02	9,282.02	674.81	269.14	268.90	10.00	10.00	0.00
9,400.00	16.66	90.02	9,330.49	674.81	281.37	281.13	10.00	10.00	0.00
9,450.00	21.66	90.02	9,377.70	674.80	297.77	297.53	10.00	10.00	0.00
9,500.00	26.66	90.02	9,423.31	674.79	318.23	317.99	10.00	10.00	0.00
9,550.00	31.66	90.02	9,466.96	674.78	342.58	342.34	10.00	10.00	0.00
9,600.00	36.66	90.02	9,508.32	674.77	370.65	370.41	10.00	10.00	0.00
9,650.00	41.66	90.02	9,547.08	674.76	402.21	401.97	10.00	10.00	0.00
9,700.00	46.66	90.02	9,582.94	674.74	437.03	436.79	10.00	10.00	0.00
9,750.00	51.66	90.02	9,615.63	674.73	474.84	474.61	10.00	10.00	0.00
9,800.00	56.66	90.02	9,644.89	674.71	515.36	515.13	10.00	10.00	0.00
9,850.00	61.66	90.02	9,670.52	674.69	558.28	558.04	10.00	10.00	0.00
9,900.00	66.66	90.02	9,692.31	674.67	603.26	603.03	10.00	10.00	0.00
9,950.00	71.66	90.02	9,710.09	674.65	649.98	649.74	10.00	10.00	0.00
10,000.00	76.66	90.02	9,723.73	674.63	698.06	697.83	10.00	10.00	0.00
10,033.42	80.00	90.02	9,730.49	674.62	730.78	730.55	10.00	10.00	0.00
Begin 6.00°/100' Build									
10,050.00	81.00	90.02	9,733.23	674.61	747.14	746.91	6.00	6.00	0.00
10,100.00	84.00	90.02	9,739.76	674.59	796.71	796.47	6.00	6.00	0.00
10,150.00	87.00	90.02	9,743.69	674.57	846.55	846.31	6.00	6.00	0.00
10,200.08	90.00	90.02	9,745.00	674.54	896.61	896.37	6.00	6.00	0.00
Begin 90.00° Lateral									
10,300.00	90.00	90.02	9,745.00	674.50	996.52	996.29	0.00	0.00	0.00
10,400.00	90.00	90.02	9,745.00	674.46	1,096.52	1,096.29	0.00	0.00	0.00
10,500.00	90.00	90.02	9,745.00	674.41	1,196.52	1,196.29	0.00	0.00	0.00
10,600.00	90.00	90.02	9,745.00	674.37	1,296.52	1,296.29	0.00	0.00	0.00
10,700.00	90.00	90.02	9,745.00	674.33	1,396.52	1,396.29	0.00	0.00	0.00
10,800.00	90.00	90.02	9,745.00	674.29	1,496.52	1,496.29	0.00	0.00	0.00
10,900.00	90.00	90.02	9,745.00	674.24	1,596.52	1,596.29	0.00	0.00	0.00
11,000.00	90.00	90.02	9,745.00	674.20	1,696.52	1,696.29	0.00	0.00	0.00
11,100.00	90.00	90.02	9,745.00	674.16	1,796.52	1,796.29	0.00	0.00	0.00
11,200.00	90.00	90.02	9,745.00	674.11	1,896.52	1,896.29	0.00	0.00	0.00
11,300.00	90.00	90.02	9,745.00	674.07	1,996.52	1,996.29	0.00	0.00	0.00
11,400.00	90.00	90.02	9,745.00	674.03	2,096.52	2,096.29	0.00	0.00	0.00
11,500.00	90.00	90.02	9,745.00	673.98	2,196.52	2,196.29	0.00	0.00	0.00
11,600.00	90.00	90.02	9,745.00	673.94	2,296.52	2,296.29	0.00	0.00	0.00
11,700.00	90.00	90.02	9,745.00	673.90	2,396.52	2,396.29	0.00	0.00	0.00
11,800.00	90.00	90.02	9,745.00	673.85	2,496.52	2,496.29	0.00	0.00	0.00
11,900.00	90.00	90.02	9,745.00	673.81	2,596.52	2,596.29	0.00	0.00	0.00
12,000.00	90.00	90.02	9,745.00	673.77	2,696.52	2,696.29	0.00	0.00	0.00
12,100.00	90.00	90.02	9,745.00	673.72	2,796.52	2,796.29	0.00	0.00	0.00
12,200.00	90.00	90.02	9,745.00	673.68	2,896.52	2,896.29	0.00	0.00	0.00
12,300.00	90.00	90.02	9,745.00	673.64	2,996.52	2,996.29	0.00	0.00	0.00
12,400.00	90.00	90.02	9,745.00	673.60	3,096.52	3,096.29	0.00	0.00	0.00
12,500.00	90.00	90.02	9,745.00	673.55	3,196.52	3,196.29	0.00	0.00	0.00
12,600.00	90.00	90.02	9,745.00	673.51	3,296.52	3,296.29	0.00	0.00	0.00
12,700.00	90.00	90.02	9,745.00	673.47	3,396.52	3,396.29	0.00	0.00	0.00
12,800.00	90.00	90.02	9,745.00	673.42	3,496.52	3,496.29	0.00	0.00	0.00
12,900.00	90.00	90.02	9,745.00	673.38	3,596.52	3,596.29	0.00	0.00	0.00
13,000.00	90.00	90.02	9,745.00	673.34	3,696.52	3,696.29	0.00	0.00	0.00
13,100.00	90.00	90.02	9,745.00	673.29	3,796.52	3,796.29	0.00	0.00	0.00
13,200.00	90.00	90.02	9,745.00	673.25	3,896.52	3,896.29	0.00	0.00	0.00
13,300.00	90.00	90.02	9,745.00	673.21	3,996.52	3,996.29	0.00	0.00	0.00
13,400.00	90.00	90.02	9,745.00	673.16	4,096.52	4,096.29	0.00	0.00	0.00
13,500.00	90.00	90.02	9,745.00	673.12	4,196.52	4,196.29	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: #202H
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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)
13,600.00	90.00	90.02	9,745.00	673.08	4,296.52	4,296.29	0.00	0.00	0.00
13,700.00	90.00	90.02	9,745.00	673.03	4,396.52	4,396.29	0.00	0.00	0.00
13,800.00	90.00	90.02	9,745.00	672.99	4,496.52	4,496.29	0.00	0.00	0.00
13,900.00	90.00	90.02	9,745.00	672.95	4,596.52	4,596.29	0.00	0.00	0.00
14,000.00	90.00	90.02	9,745.00	672.91	4,696.52	4,696.29	0.00	0.00	0.00
14,100.00	90.00	90.02	9,745.00	672.86	4,796.52	4,796.29	0.00	0.00	0.00
14,200.00	90.00	90.02	9,745.00	672.82	4,896.52	4,896.29	0.00	0.00	0.00
14,300.00	90.00	90.02	9,745.00	672.78	4,996.52	4,996.29	0.00	0.00	0.00
14,400.00	90.00	90.02	9,745.00	672.73	5,096.52	5,096.29	0.00	0.00	0.00
14,500.00	90.00	90.02	9,745.00	672.69	5,196.52	5,196.29	0.00	0.00	0.00
14,600.00	90.00	90.02	9,745.00	672.65	5,296.52	5,296.29	0.00	0.00	0.00
14,661.21	90.00	90.02	9,745.00	672.62	5,357.73	5,357.50	0.00	0.00	0.00
PBHL									

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	5,500.00	674.82	257.32	444,016.77	593,210.46	32° 13' 13.295 N	104° 1' 54.937 W
PBHL - Zach McCormick - plan hits target center - Point	0.00	0.00	9,745.00	672.62	5,357.73	444,014.57	598,310.87	32° 13' 13.128 N	104° 0' 55.563 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	2,785.94	9 5/8"	9-5/8	12-1/4
10,033.42	9,730.49	7"	7	7-1/2



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: #202H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
811.50	811.50	Top of Salt		0.00	90.02
2,697.56	2,684.50	Lamar/Base of Salt		0.00	90.02
2,748.05	2,734.50	Bell Canyon		0.00	90.02
3,697.57	3,664.50	Cherry Canyon		0.00	90.02
4,954.05	4,889.50	Brushy Canyon		0.00	90.02
6,535.68	6,468.50	Bone Spring Lime		0.00	90.02
7,477.68	7,410.50	1st Bone Spring Sand		0.00	90.02
7,790.68	7,723.50	2nd Bone Spring Carbonate		0.00	90.02
8,389.68	8,322.50	2nd Bone Spring Sand		0.00	90.02
8,628.68	8,561.50	3rd Bone Spring Carbonate		0.00	90.02
9,345.39	9,277.50	3rd Bone Spring Sand		0.00	90.02
9,783.28	9,635.50	Wolfcamp		0.00	90.02
9,843.71	9,667.50	Wolfcamp X		0.00	90.02
10,045.40	9,732.50	Wolfcamp Y		0.00	90.02

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.00	1,000.00	0.00	0.00	KOP, 1.50°/100' Build
1,533.33	1,531.60	34.73	13.24	Begin 8.00° Tangent
2,899.91	2,884.88	212.44	81.01	Begin 1.50°/100' Build
3,249.91	3,228.76	272.72	103.99	Begin 13.25° Tangent
4,683.84	4,624.52	579.81	221.09	Begin 1.50°/100' Drop
5,567.18	5,500.00	674.82	257.32	Begin Vertical Hold
9,233.42	9,166.24	674.82	257.32	Begin 10.00°/100' Build
10,033.42	9,730.49	674.62	730.78	Begin 6.00°/100' Build
10,200.08	9,745.00	674.54	896.61	Begin 90.00° Lateral
14,661.21	9,745.00	672.62	5,357.73	PBHL

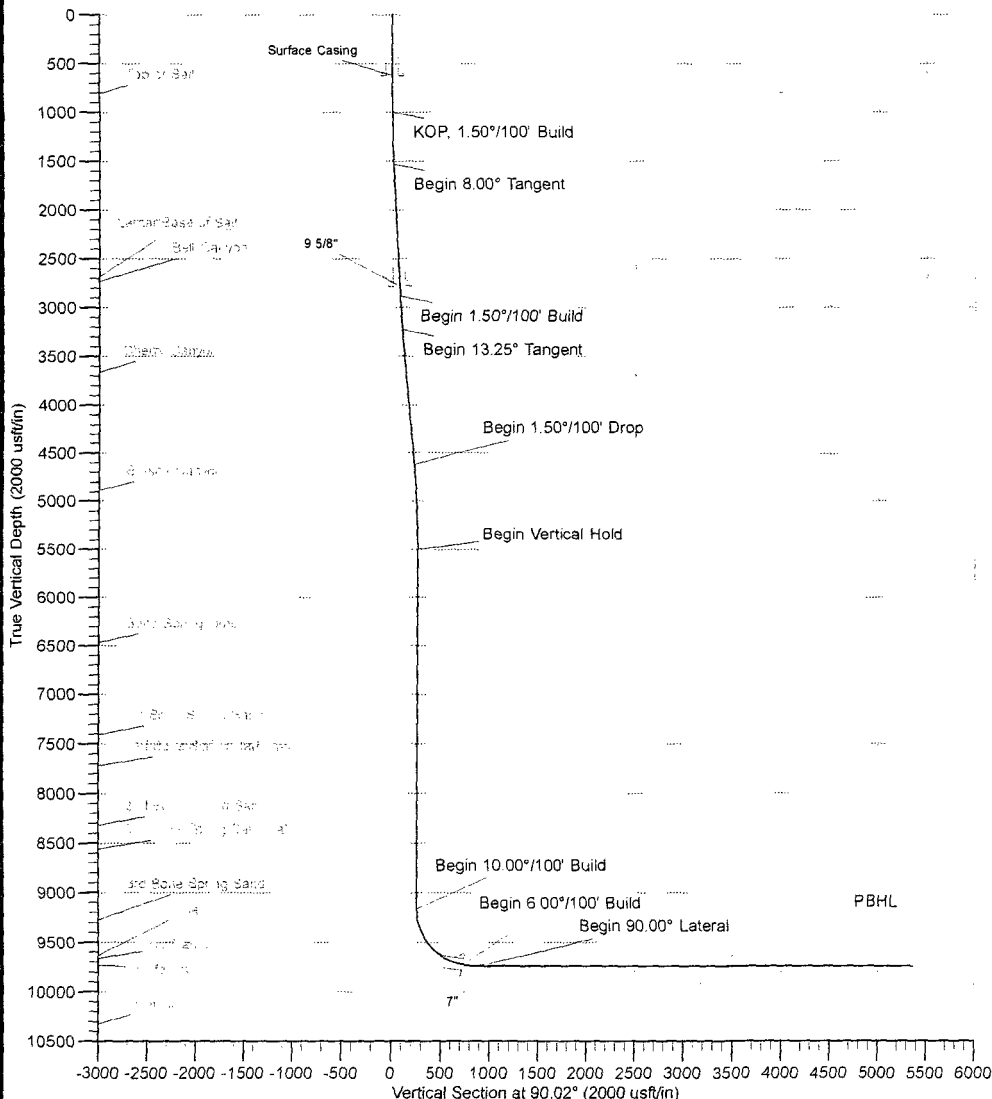
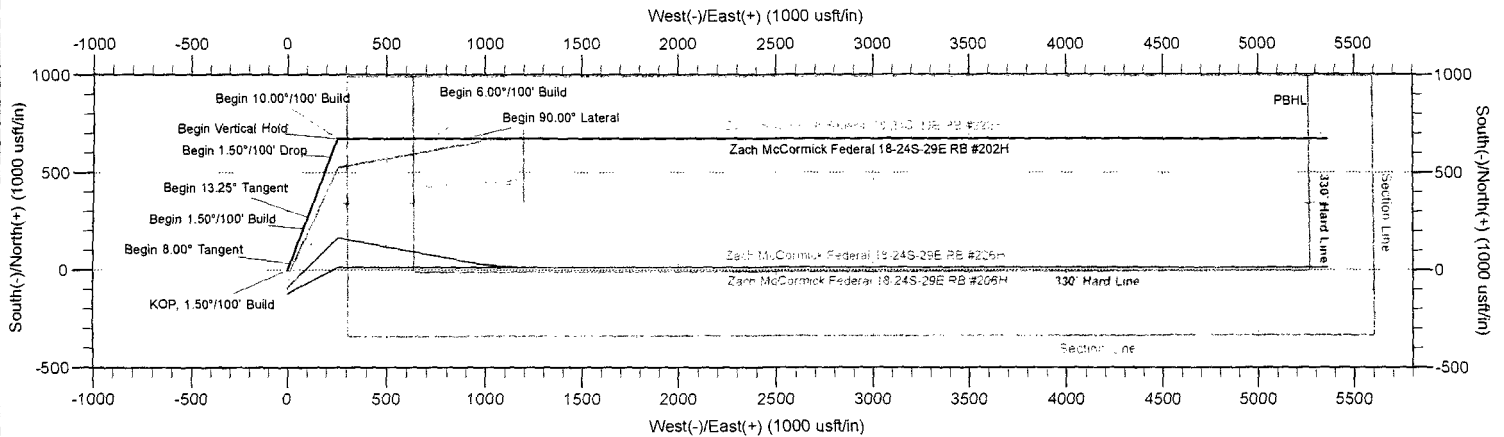


Company: Matador Resources
Site: Zach McCormick Federal 18-24S-29E RB
Well: #202H
Project: Eddy County, New Mexico (NAD 27)
Rig: Patterson 297

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ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1533.33	8.00	20.87	1531.60	34.73	13.24	13.23	37.17	Begin 8.00° Tangent
2899.91	8.00	20.87	2884.88	212.44	81.01	80.93	227.36	Begin 1.50°/100' Build
3249.91	13.25	20.87	3228.76	272.72	103.99	103.90	291.88	Begin 13.25° Tangent
4683.84	13.25	20.87	4624.52	579.81	221.09	220.89	620.53	Begin 1.50°/100' Drop
5567.18	0.00	0.00	5500.00	674.82	257.32	257.08	722.22	Begin Vertical Hold
9233.42	0.00	0.00	9168.24	674.82	257.32	257.08	722.22	Begin 10.00°/100' Build
10033.42	80.00	90.02	9730.49	674.62	730.78	730.55	1195.68	Begin 6.00°/100' Build
10200.08	90.00	90.02	9745.00	674.54	896.61	896.37	1361.50	Begin 90.00° Lateral
14661.21	90.00	90.02	9745.00	672.62	5357.73	5357.49	5822.63	PBHL



Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.16°
Magnetic Field
Strength: 48065.7snT
Dip Angle: 59.99°
Date: 6/22/2016
Model: BGGM2016

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

Created By: HLH
Date: 13:58, June 24 2016
Plan: Design #1



Company: Matador Resources
Site: Zach McCormick Federal 18-24S-29E RB
Well: #202H
Project: Eddy County, New Mexico (NAD 27)
Rig: Patterson 297

MS Energy Services
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Azimuths to Grid North

True North: -0.16°

Magnetic North: 7.16°

Magnetic Field

Strength: 48065.7snT

Dip Angle: 59.99°

Date: 6/22/2016

Model: BGGM2016

US State Plane 1927 (Exact solution)

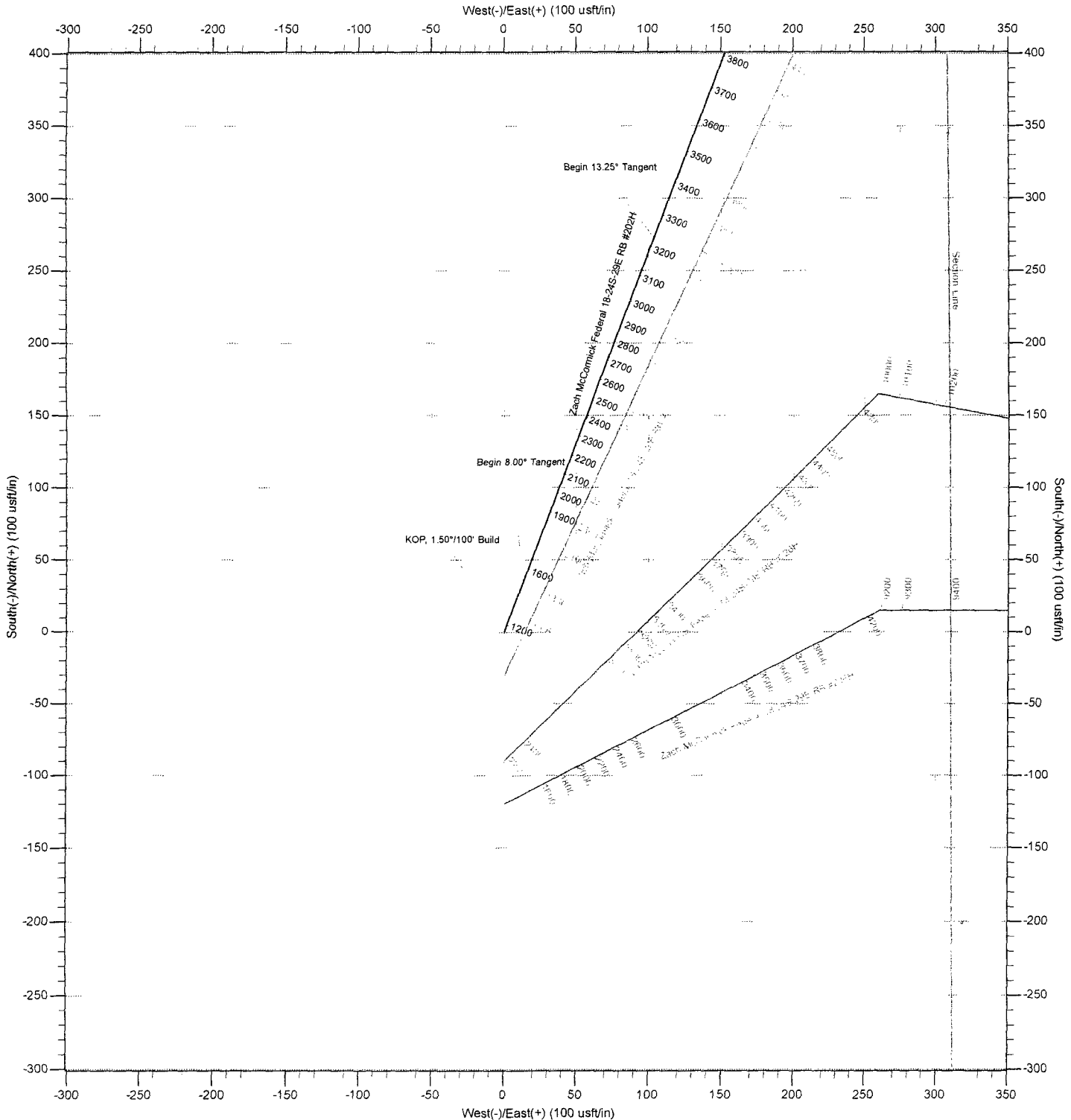
New Mexico East 3001

Created By: HLH

Date: 13:24, June 24 2016

Plan: Design #1

ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1533.33	8.00	20.87	1531.60	34.73	13.24	13.23	37.17	Begin 8.00° Tangent
2899.91	8.00	20.87	2884.88	212.44	81.01	80.93	227.36	Begin 1.50°/100' Build
3249.91	13.25	20.87	3228.76	272.72	103.99	103.90	291.88	Begin 13.25° Tangent
4683.84	13.25	20.87	4624.52	579.81	221.09	220.89	620.53	Begin 1.50°/100' Drop
5567.18	0.00	0.00	5500.00	674.82	257.32	257.08	722.22	Begin Vertical Hold
9233.42	0.00	0.00	9166.24	674.82	257.32	257.08	722.22	Begin 10.00°/100' Build
10033.42	80.00	90.02	9730.49	674.62	730.78	730.55	1195.68	Begin 6.00°/100' Build
10200.08	90.00	90.02	9745.00	674.54	896.61	896.37	1361.50	Begin 90.00° Lateral
14661.21	90.00	90.02	9745.00	672.62	5357.73	5357.49	5822.63	PBHL





Matador Resources

**Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#202H**

**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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 6/24/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,661.21	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 - 202H - Surveys	10,506.98	9,742.97	16.73	-59.97	0.218	Level 1, CC, ES, SF
Zach McCormick Federal 18-24S-29E RB						
#1 - Wellbore #1 - Surveys	10,276.45	9,748.49	871.99	798.41	11.851	CC
#1 - Wellbore #1 - Surveys	10,300.00	9,749.15	872.30	798.38	11.800	ES
#1 - Wellbore #1 - Surveys	10,400.00	9,752.05	880.69	805.22	11.670	SF
#121H - Wellbore #1 - Design #1	7,913.57	7,867.86	990.00	933.13	17.409	CC
#121H - Wellbore #1 - Design #1	8,000.00	7,951.22	990.16	932.77	17.254	ES
#121H - Wellbore #1 - Design #1	14,661.21	13,216.38	1,716.60	1,554.29	10.576	SF
#122H - Wellbore #1 - Design #1	1,009.31	1,010.32	59.97	53.19	8.849	CC
#122H - Wellbore #1 - Design #1	1,300.00	1,304.38	61.06	52.20	6.892	ES
#122H - Wellbore #1 - Design #1	8,000.00	7,956.76	330.98	273.52	5.760	SF
#201H - Wellbore #1 - Design #1	14,652.38	14,624.47	1,320.00	1,066.84	5.214	CC
#201H - Wellbore #1 - Design #1	14,661.21	14,623.75	1,320.03	1,066.63	5.209	ES, SF
#205H - Wellbore #1 - Design #1	14,657.75	14,619.54	660.00	406.83	2.607	CC
#205H - Wellbore #1 - Design #1	14,661.21	14,618.22	660.02	406.76	2.606	ES, SF
#206H - Wellbore #1 - Design #1	1,000.00	998.57	119.89	113.19	17.889	CC
#206H - Wellbore #1 - Design #1	1,100.00	1,100.00	120.52	113.10	16.246	ES
#206H - Wellbore #1 - Design #1	14,661.21	14,605.50	660.00	401.28	2.551	SF
#221H - Wellbore #1 - Design #1	9,233.42	9,186.92	1,170.02	1,103.93	17.703	CC
#221H - Wellbore #1 - Design #1	9,400.00	9,351.16	1,170.40	1,103.10	17.393	ES
#221H - Wellbore #1 - Design #1	14,661.21	15,431.68	1,547.47	1,328.12	7.055	SF
#222H - Wellbore #1 - Design #1	1,013.72	1,014.14	29.94	23.13	4.399	CC
#222H - Wellbore #1 - Design #1	1,400.00	1,403.17	30.39	20.83	3.179	ES
#222H - Wellbore #1 - Design #1	9,350.00	9,331.18	150.41	83.61	2.252	SF
#225H - Wellbore #1 - Design #1	9,233.42	9,182.85	810.01	744.27	12.322	CC
#225H - Wellbore #1 - Design #1	9,400.00	9,347.09	810.49	743.53	12.104	ES
#225H - Wellbore #1 - Design #1	14,661.21	15,430.62	1,042.96	870.97	6.064	SF
#226H - Wellbore #1 - Design #1	1,000.00	1,001.41	89.87	83.16	13.389	CC, ES
#226H - Wellbore #1 - Design #1	14,661.21	15,433.16	1,042.06	862.77	5.812	SF

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 - 202H - Surveys

Survey Program: 111-GYRO-NS

Offset Site Error: 0.00 usft

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)	
0.00	0.00	0.00	0.00	0.00	0.00	74.01	344.90	1,203.91	1,252.37			
100.00	100.00	86.79	86.79	0.13	0.13	73.99	345.49	1,203.91	1,252.51	1,252.25	0.26	4,849.922
200.00	200.00	184.89	184.87	0.49	0.44	73.91	347.22	1,203.91	1,253.00	1,252.08	0.92	1,359.560
300.00	300.00	284.10	284.06	0.84	0.80	73.82	349.22	1,203.91	1,253.56	1,251.92	1.64	764.107
400.00	400.00	383.49	383.43	1.20	1.16	73.73	351.43	1,203.91	1,254.18	1,251.82	2.36	531.911
500.00	500.00	482.94	482.85	1.56	1.52	73.62	353.79	1,203.91	1,254.85	1,251.77	3.07	408.124
600.00	600.00	582.39	582.26	1.92	1.88	73.51	356.29	1,203.91	1,255.56	1,251.77	3.79	331.159
700.00	700.00	682.26	682.10	2.28	2.22	73.40	358.90	1,203.91	1,256.30	1,251.81	4.50	279.393
800.00	800.00	780.06	779.86	2.64	2.57	73.28	361.72	1,203.91	1,257.13	1,251.93	5.20	241.706
900.00	900.00	877.50	877.24	3.00	2.92	73.13	365.18	1,203.91	1,258.16	1,252.25	5.91	213.044
1,000.00	1,000.00	974.89	974.54	3.35	3.26	72.95	369.32	1,203.91	1,259.40	1,252.79	6.61	190.524
1,100.00	1,099.99	1,077.46	1,077.02	3.71	3.62	51.92	373.83	1,203.91	1,259.89	1,252.56	7.33	171.956
1,200.00	1,199.91	1,178.83	1,178.31	4.07	3.98	51.92	377.58	1,203.91	1,258.56	1,250.52	8.04	156.556
1,300.00	1,299.69	1,276.59	1,276.00	4.43	4.32	52.02	381.27	1,203.91	1,255.65	1,246.90	8.74	143.652
1,400.00	1,399.27	1,374.69	1,374.01	4.79	4.67	52.21	385.56	1,203.91	1,251.30	1,241.85	9.45	132.452
1,500.00	1,498.57	1,474.52	1,473.74	5.16	5.02	52.50	390.23	1,203.91	1,245.45	1,235.29	10.16	122.539
1,533.33	1,531.60	1,508.53	1,507.71	5.28	5.14	52.63	391.74	1,203.91	1,243.13	1,232.72	10.41	119.458
1,600.00	1,597.62	1,576.48	1,575.60	5.53	5.38	52.85	394.51	1,203.91	1,238.26	1,227.36	10.89	113.685
1,700.00	1,696.65	1,677.06	1,676.11	5.91	5.73	53.21	398.23	1,203.91	1,230.88	1,219.26	11.62	105.971
1,800.00	1,795.67	1,776.58	1,775.57	6.30	6.08	53.57	401.71	1,203.91	1,223.49	1,211.15	12.34	99.160
1,900.00	1,894.70	1,877.76	1,876.70	6.69	6.43	53.96	405.06	1,203.91	1,216.10	1,203.03	13.07	93.045
2,000.00	1,993.73	1,979.82	1,978.73	7.08	6.78	54.39	407.63	1,203.91	1,208.57	1,194.76	13.81	87.534
2,100.00	2,092.75	2,076.92	2,075.80	7.47	7.12	54.80	410.09	1,203.91	1,201.10	1,186.57	14.53	82.669
2,200.00	2,191.78	2,173.82	2,172.64	7.87	7.46	55.19	413.15	1,203.91	1,193.85	1,178.59	15.25	78.261
2,300.00	2,290.81	2,270.20	2,268.94	8.27	7.80	55.53	417.18	1,203.91	1,186.90	1,170.92	15.98	74.264
2,400.00	2,389.83	2,367.75	2,366.37	8.67	8.14	55.84	422.15	1,203.91	1,180.21	1,163.49	16.72	70.598
2,500.00	2,488.86	2,466.11	2,464.56	9.07	8.49	56.13	427.76	1,203.91	1,173.69	1,156.23	17.46	67.230
2,600.00	2,587.89	2,565.20	2,563.47	9.47	8.84	56.41	433.75	1,203.91	1,167.28	1,149.08	18.20	64.131
2,700.00	2,686.91	2,665.72	2,663.81	9.88	9.20	56.69	439.79	1,203.91	1,160.89	1,141.94	18.95	61.247
2,800.00	2,785.94	2,766.91	2,764.84	10.28	9.57	57.01	445.29	1,203.91	1,154.41	1,134.69	19.71	58.556
2,899.91	2,884.88	2,867.90	2,865.72	10.69	9.93	57.37	450.14	1,203.91	1,147.83	1,127.36	20.48	56.059
3,000.00	2,983.80	2,968.92	2,966.66	11.10	10.29	57.91	454.33	1,203.91	1,140.46	1,119.23	21.23	53.712
3,100.00	3,082.20	3,068.75	3,066.42	11.53	10.64	58.61	457.85	1,203.91	1,131.68	1,109.69	22.00	51.447
3,200.00	3,180.10	3,167.59	3,165.21	11.97	10.98	59.46	461.12	1,203.91	1,121.65	1,098.88	22.77	49.255
3,249.91	3,228.76	3,216.72	3,214.32	12.20	11.15	59.94	462.67	1,203.91	1,116.21	1,093.05	23.16	48.187
3,300.00	3,277.51	3,265.94	3,263.51	12.43	11.33	60.37	464.19	1,203.91	1,110.65	1,087.09	23.56	47.142
3,400.00	3,374.85	3,363.57	3,361.10	12.89	11.57	61.24	467.27	1,203.91	1,099.73	1,075.38	24.35	45.162
3,500.00	3,472.19	3,461.31	3,458.78	13.36	12.01	62.11	470.51	1,203.91	1,089.10	1,063.95	25.15	43.309
3,600.00	3,569.53	3,559.41	3,556.82	13.82	12.35	62.99	473.88	1,203.91	1,078.74	1,052.79	25.95	41.571
3,700.00	3,666.87	3,657.74	3,655.10	14.29	12.69	63.91	477.01	1,203.91	1,068.63	1,041.87	26.76	39.938
3,800.00	3,764.20	3,755.96	3,753.28	14.77	13.04	64.86	479.82	1,203.91	1,058.77	1,031.20	27.57	38.405
3,900.00	3,861.54	3,853.91	3,851.20	15.24	13.38	65.84	482.40	1,203.91	1,049.20	1,020.82	28.38	36.966
4,000.00	3,958.88	3,951.78	3,949.03	15.72	13.72	66.83	484.97	1,203.91	1,039.95	1,010.75	29.20	35.614
4,100.00	4,056.22	4,049.64	4,046.86	16.20	14.06	67.84	487.53	1,203.91	1,031.02	1,001.00	30.02	34.342
4,200.00	4,153.56	4,147.51	4,144.69	16.67	14.40	68.87	490.09	1,203.91	1,022.43	991.58	30.85	33.142
4,300.00	4,250.89	4,245.37	4,242.52	17.16	14.75	69.91	492.65	1,203.91	1,014.18	982.50	31.68	32.012
4,400.00	4,348.23	4,343.24	4,340.36	17.64	15.09	70.97	495.21	1,203.91	1,006.28	973.77	32.51	30.948
4,500.00	4,445.57	4,441.10	4,438.19	18.12	15.43	72.05	497.77	1,203.91	998.74	965.39	33.35	29.946
4,600.00	4,542.91	4,538.97	4,536.02	18.61	15.77	73.14	500.34	1,203.91	991.58	957.39	34.19	29.001
4,683.84	4,624.52	4,620.97	4,617.99	19.01	16.06	74.07	502.45	1,203.91	985.86	950.96	34.90	28.251
4,700.00	4,640.25	4,636.77	4,633.79	19.09	16.12	74.23	502.85	1,203.91	984.80	949.77	35.03	28.112
4,800.00	4,737.97	4,734.88	4,731.87	19.56	16.46	75.18	505.30	1,203.91	978.85	942.98	35.86	27.295

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 - 202H - 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	
4,900.00	4,836.21	4,833.42	4,830.38	20.02	16.80	76.02	507.67	1,203.91	973.86	937.19	36.67	26.556	
5,000.00	4,934.91	4,932.34	4,929.27	20.45	17.15	76.73	509.97	1,203.91	969.74	932.27	37.46	25.885	
5,100.00	5,033.99	5,031.57	5,028.48	20.86	17.50	77.33	512.19	1,203.91	966.37	928.14	38.23	25.277	
5,200.00	5,133.39	5,131.04	5,127.93	21.26	17.84	77.79	514.33	1,203.91	963.70	924.72	38.98	24.724	
5,300.00	5,233.04	5,230.71	5,227.57	21.63	18.19	78.12	516.39	1,203.91	961.65	921.94	39.70	24.221	
5,400.00	5,332.88	5,330.50	5,327.34	21.98	18.54	78.32	518.37	1,203.91	960.17	919.77	40.40	23.764	
5,500.00	5,432.83	5,430.35	5,427.17	22.31	18.89	78.37	520.26	1,203.91	959.25	918.17	41.08	23.349	
5,567.18	5,500.00	5,497.43	5,494.24	22.52	19.12	99.20	521.48	1,203.91	958.93	917.41	41.53	23.092	
5,600.00	5,532.82	5,563.82	5,528.99	22.62	19.35	99.17	522.06	1,203.91	958.84	916.98	41.86	22.906	
5,700.00	5,632.82	5,630.17	5,626.96	22.93	19.58	99.06	523.80	1,203.91	958.56	916.17	42.40	22.609	
5,800.00	5,732.82	5,730.15	5,726.93	23.23	19.93	98.96	525.55	1,203.91	958.29	915.24	43.05	22.258	
5,900.00	5,832.82	5,830.13	5,826.90	23.54	20.28	98.86	527.29	1,203.91	958.02	914.31	43.71	21.917	
6,000.00	5,932.82	5,930.12	5,926.87	23.86	20.63	98.76	529.04	1,203.91	957.75	913.38	44.37	21.586	
6,100.00	6,032.82	6,049.90	6,026.84	24.17	21.04	98.65	530.78	1,203.91	957.49	912.39	45.10	21.231	
6,200.00	6,132.82	6,130.09	6,126.81	24.48	21.32	98.55	532.53	1,203.91	957.23	911.54	45.69	20.950	
6,300.00	6,232.82	6,251.93	6,226.78	24.80	21.74	98.45	534.27	1,203.91	956.97	910.54	46.43	20.612	
6,400.00	6,332.82	6,330.06	6,326.75	25.12	22.02	98.34	536.02	1,203.91	956.72	909.70	47.02	20.348	
6,500.00	6,432.82	6,430.04	6,426.72	25.43	22.36	98.24	537.76	1,203.91	956.46	908.78	47.68	20.059	
6,600.00	6,532.82	6,530.03	6,526.69	25.75	22.71	98.14	539.51	1,203.91	956.22	907.87	48.35	19.778	
6,700.00	6,632.82	6,630.01	6,626.66	26.07	23.06	98.03	541.25	1,203.91	955.97	906.95	49.02	19.503	
6,800.00	6,732.82	6,730.00	6,726.62	26.39	23.41	97.93	543.00	1,203.91	955.73	906.04	49.68	19.236	
6,900.00	6,832.82	6,830.52	6,827.13	26.72	23.76	97.81	544.92	1,203.91	955.47	905.11	50.36	18.974	
7,000.00	6,932.82	6,931.17	6,927.75	27.04	24.11	97.67	547.36	1,203.91	955.14	904.11	51.03	18.717	
7,100.00	7,032.82	7,031.80	7,028.33	27.36	24.47	97.49	550.33	1,203.91	954.75	903.04	51.71	18.465	
7,200.00	7,132.82	7,132.39	7,128.86	27.69	24.82	97.28	553.83	1,203.91	954.30	901.92	52.38	18.218	
7,300.00	7,232.82	7,232.94	7,229.33	28.01	25.17	97.04	557.87	1,203.91	953.80	900.74	53.06	17.977	
7,400.00	7,332.82	7,333.81	7,330.09	28.34	25.53	96.76	562.59	1,203.91	953.24	899.51	53.73	17.741	
7,500.00	7,432.82	7,433.41	7,429.56	28.66	25.87	96.45	567.75	1,203.91	952.64	898.24	54.40	17.512	
7,600.00	7,532.82	7,532.78	7,528.83	28.99	26.22	96.20	572.05	1,203.91	952.16	897.09	55.07	17.289	
7,700.00	7,632.82	7,634.12	7,630.04	29.32	26.57	95.89	577.23	1,203.91	951.62	895.87	55.75	17.070	
7,800.00	7,732.82	7,733.40	7,729.18	29.65	26.92	95.56	582.62	1,203.91	951.08	894.66	56.42	16.856	
7,900.00	7,832.82	7,832.97	7,828.62	29.98	27.27	95.26	587.69	1,203.91	950.60	893.50	57.10	16.649	
8,000.00	7,932.82	7,932.93	7,928.46	30.31	27.62	94.97	592.58	1,203.91	950.17	892.39	57.77	16.447	
8,100.00	8,032.82	8,032.70	8,028.09	30.64	27.97	94.66	597.66	1,203.91	949.74	891.29	58.45	16.249	
8,200.00	8,132.82	8,131.92	8,127.22	30.97	28.32	94.40	602.06	1,203.91	949.39	890.26	59.13	16.057	
8,300.00	8,232.82	8,231.51	8,226.74	31.30	28.67	94.18	605.66	1,203.91	949.12	889.31	59.80	15.871	
8,400.00	8,332.82	8,331.41	8,326.58	31.64	29.02	93.97	609.14	1,203.91	948.87	888.39	60.48	15.689	
8,500.00	8,432.82	8,431.14	8,426.26	31.97	29.37	93.77	612.40	1,203.91	948.65	887.49	61.16	15.511	
8,600.00	8,532.82	8,530.89	8,525.96	32.30	29.72	93.60	615.31	1,203.91	948.46	886.62	61.84	15.337	
8,700.00	8,632.82	8,630.73	8,625.77	32.64	30.08	93.44	617.93	1,203.91	948.30	885.78	62.52	15.167	
8,800.00	8,732.82	8,730.63	8,725.64	32.97	30.43	93.29	620.41	1,203.91	948.15	884.95	63.20	15.001	
8,900.00	8,832.82	8,830.54	8,825.52	33.31	30.78	93.15	622.77	1,203.91	948.02	884.13	63.89	14.839	
9,000.00	8,932.82	8,930.47	8,925.43	33.64	31.13	93.01	625.00	1,203.91	947.90	883.33	64.57	14.680	
9,100.00	9,032.82	9,030.69	9,025.62	33.98	31.48	92.86	627.48	1,203.91	947.77	882.52	65.26	14.524	
9,200.00	9,132.82	9,130.88	9,125.76	34.32	31.83	92.68	630.47	1,203.91	947.63	881.69	65.94	14.370	
9,233.42	9,166.24	9,164.35	9,159.22	34.43	31.95	92.61	631.59	1,203.91	947.58	881.41	66.17	14.320	
9,250.00	9,182.82	9,180.96	9,175.82	34.49	32.01	2.56	632.16	1,203.91	947.31	881.03	66.29	14.291	
9,300.00	9,232.67	9,230.89	9,225.71	34.65	32.18	2.47	633.98	1,203.91	943.61	876.99	66.62	14.163	
9,350.00	9,282.02	9,280.30	9,275.08	34.83	32.36	2.41	635.90	1,203.91	935.58	868.62	66.96	13.972	
9,400.00	9,330.49	9,328.82	9,323.56	35.01	32.53	2.37	637.90	1,203.91	923.28	855.99	67.29	13.720	
9,450.00	9,377.70	9,376.08	9,370.77	35.19	32.69	2.34	639.98	1,203.91	906.81	839.19	67.62	13.411	
9,500.00	9,423.31	9,421.69	9,416.34	35.38	32.85	2.34	642.05	1,203.91	886.29	818.36	67.93	13.047	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well#202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 - 202H - 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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,550.00	9,466.96	9,465.34	9,459.94	35.57	33.01	2.37	644.13	1,203.91	861.88	793.65	68.23	12.633	
9,600.00	9,508.32	9,506.70	9,501.25	35.76	33.15	2.42	646.16	1,203.91	833.76	765.25	68.51	12.170	
9,650.00	9,547.08	9,545.45	9,539.95	35.96	33.29	2.52	648.12	1,203.91	802.14	733.38	68.77	11.665	
9,700.00	9,582.94	9,581.30	9,575.75	36.17	33.41	2.66	650.00	1,203.91	767.28	698.28	69.00	11.119	
9,750.00	9,615.63	9,613.87	9,608.28	36.40	33.53	2.89	651.64	1,203.91	729.43	660.21	69.22	10.538	
9,800.00	9,644.89	9,643.07	9,637.45	36.64	33.63	3.23	653.08	1,203.91	688.89	619.48	69.41	9.925	
9,850.00	9,670.52	9,668.64	9,662.99	36.91	33.72	3.76	654.31	1,203.91	645.95	576.38	69.57	9.284	
9,900.00	9,692.31	9,690.38	9,684.70	37.20	33.80	4.60	655.33	1,203.91	600.96	531.24	69.71	8.620	
9,950.00	9,710.09	9,708.13	9,702.43	37.53	33.86	6.01	656.14	1,203.91	554.24	484.41	69.83	7.937	
10,000.00	9,723.73	9,721.75	9,716.04	37.88	33.91	8.66	656.76	1,203.91	506.16	436.24	69.92	7.239	
10,033.42	9,730.49	9,728.49	9,722.78	38.14	33.93	12.03	657.06	1,203.91	473.45	403.48	69.97	6.766	
10,050.00	9,733.23	9,731.23	9,725.51	38.27	33.94	13.69	657.18	1,203.91	457.10	387.11	69.99	6.531	
10,100.00	9,739.76	9,737.74	9,732.02	38.69	33.96	22.04	657.47	1,203.91	407.56	337.51	70.05	5.818	
10,150.00	9,743.69	9,741.66	9,735.93	39.14	33.98	42.98	657.64	1,203.91	357.76	287.66	70.10	5.104	
10,200.08	9,745.00	9,742.97	9,737.24	39.61	33.98	92.53	657.70	1,203.91	307.77	237.62	70.15	4.387	
10,300.00	9,745.00	9,742.97	9,737.24	40.65	33.98	92.53	657.70	1,203.91	208.07	137.77	70.30	2.960	
10,400.00	9,745.00	9,742.97	9,737.24	41.81	33.98	92.52	657.70	1,203.91	108.69	37.93	70.76	1.536	
10,500.00	9,745.00	9,742.97	9,737.23	43.07	33.98	92.51	657.70	1,203.91	18.29	-58.73	77.01	0.237	Level 1
10,506.98	9,745.00	9,742.97	9,737.23	43.17	33.98	92.51	657.70	1,203.91	16.73	-59.97	76.70	0.218	Level 1, CC, ES, SF
10,600.00	9,745.00	9,742.96	9,737.23	44.44	33.98	92.51	657.70	1,203.91	94.10	24.75	69.36	1.357	Level 3
10,700.00	9,745.00	9,742.96	9,737.23	45.89	33.98	92.50	657.70	1,203.91	193.33	123.73	69.60	2.778	
10,800.00	9,745.00	9,742.96	9,737.23	47.42	33.98	92.49	657.70	1,203.91	293.08	223.37	69.72	4.204	
10,900.00	9,745.00	9,742.96	9,737.23	49.03	33.98	92.49	657.70	1,203.91	392.96	323.18	69.79	5.631	
11,000.00	9,745.00	9,742.96	9,737.22	50.70	33.98	92.48	657.70	1,203.91	492.89	423.05	69.84	7.058	
11,100.00	9,745.00	9,742.96	9,737.22	52.43	33.98	92.47	657.70	1,203.91	592.84	522.96	69.88	8.484	
11,200.00	9,745.00	9,742.95	9,737.22	54.22	33.98	92.47	657.70	1,203.91	692.81	622.90	69.91	9.910	
11,300.00	9,745.00	9,742.95	9,737.22	56.05	33.98	92.46	657.70	1,203.91	792.78	722.84	69.94	11.334	
11,400.00	9,745.00	9,742.95	9,737.22	57.93	33.98	92.45	657.70	1,203.91	892.76	822.79	69.97	12.758	
11,500.00	9,745.00	9,742.95	9,737.22	59.84	33.98	92.45	657.70	1,203.91	992.75	922.74	70.00	14.181	
11,600.00	9,745.00	9,742.95	9,737.21	61.80	33.98	92.44	657.70	1,203.91	1,092.73	1,022.70	70.03	15.603	
11,700.00	9,745.00	9,742.94	9,737.21	63.78	33.98	92.43	657.70	1,203.91	1,192.72	1,122.66	70.06	17.024	
11,800.00	9,745.00	9,742.94	9,737.21	65.80	33.98	92.43	657.70	1,203.91	1,292.71	1,222.63	70.09	18.444	
11,900.00	9,745.00	9,742.94	9,737.21	67.84	33.98	92.42	657.70	1,203.91	1,392.71	1,322.59	70.12	19.863	
12,000.00	9,745.00	9,742.94	9,737.21	69.90	33.98	92.41	657.70	1,203.91	1,492.70	1,422.55	70.15	21.280	
12,100.00	9,745.00	9,742.94	9,737.20	71.99	33.98	92.41	657.70	1,203.91	1,592.69	1,522.52	70.18	22.696	
12,200.00	9,745.00	9,742.93	9,737.20	74.10	33.98	92.40	657.70	1,203.91	1,692.69	1,622.48	70.21	24.111	
12,300.00	9,745.00	9,742.93	9,737.20	76.23	33.98	92.40	657.70	1,203.91	1,792.68	1,722.45	70.24	25.524	
12,400.00	9,745.00	9,742.93	9,737.20	78.37	33.98	92.39	657.70	1,203.91	1,892.68	1,822.41	70.27	26.936	
12,500.00	9,745.00	9,742.93	9,737.20	80.54	33.98	92.38	657.70	1,203.91	1,992.68	1,922.38	70.30	28.346	
12,600.00	9,745.00	9,742.93	9,737.19	82.71	33.98	92.38	657.70	1,203.91	2,092.67	2,022.34	70.33	29.754	
12,700.00	9,745.00	9,742.92	9,737.19	84.90	33.98	92.37	657.70	1,203.91	2,192.67	2,122.30	70.37	31.161	
12,800.00	9,745.00	9,742.92	9,737.19	87.10	33.98	92.36	657.70	1,203.91	2,292.67	2,222.27	70.40	32.567	
12,900.00	9,745.00	9,742.92	9,737.19	89.32	33.98	92.36	657.70	1,203.91	2,392.66	2,322.23	70.43	33.970	
13,000.00	9,745.00	9,742.92	9,737.19	91.54	33.98	92.35	657.70	1,203.91	2,492.66	2,422.19	70.47	35.372	
13,100.00	9,745.00	9,742.92	9,737.18	93.77	33.98	92.34	657.70	1,203.91	2,592.66	2,522.15	70.51	36.772	
13,200.00	9,745.00	9,742.92	9,737.18	96.02	33.98	92.34	657.70	1,203.91	2,692.66	2,622.11	70.54	38.170	
13,300.00	9,745.00	9,742.91	9,737.18	98.27	33.98	92.33	657.70	1,203.91	2,792.66	2,722.07	70.58	39.566	
13,400.00	9,745.00	9,742.91	9,737.18	100.53	33.98	92.32	657.70	1,203.91	2,892.65	2,822.03	70.62	40.960	
13,500.00	9,745.00	9,742.91	9,737.18	102.80	33.98	92.32	657.70	1,203.91	2,992.65	2,921.99	70.66	42.352	
13,600.00	9,745.00	9,742.91	9,737.18	105.07	33.98	92.31	657.70	1,203.91	3,092.65	3,021.95	70.70	43.741	
13,700.00	9,745.00	9,742.91	9,737.17	107.35	33.98	92.30	657.70	1,203.91	3,192.65	3,121.91	70.74	45.129	
13,800.00	9,745.00	9,742.90	9,737.17	109.64	33.98	92.30	657.70	1,203.91	3,292.65	3,221.86	70.79	46.515	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 - 202H - 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 (°)	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor	
13,900.00	9,745.00	9,742.90	9,737.17	111.93	33.98	92.29	657.70	1,203.91	3,392.65	3,321.82	70.83	47.898	
14,000.00	9,745.00	9,742.90	9,737.17	114.23	33.98	92.28	657.70	1,203.91	3,492.65	3,421.77	70.87	49.279	
14,100.00	9,745.00	9,742.90	9,737.17	116.53	33.98	92.28	657.70	1,203.91	3,592.65	3,521.73	70.92	50.658	
14,200.00	9,745.00	9,742.90	9,737.16	118.84	33.98	92.27	657.70	1,203.91	3,692.64	3,621.68	70.97	52.034	
14,300.00	9,745.00	9,742.89	9,737.16	121.15	33.98	92.26	657.70	1,203.91	3,792.64	3,721.63	71.01	53.408	
14,400.00	9,745.00	9,742.89	9,737.16	123.47	33.98	92.26	657.70	1,203.91	3,892.64	3,821.58	71.06	54.779	
14,500.00	9,745.00	9,742.89	9,737.16	125.79	33.98	92.25	657.70	1,203.91	3,992.64	3,921.53	71.11	56.148	
14,600.00	9,745.00	9,742.89	9,737.16	128.12	33.98	92.25	657.70	1,203.91	4,092.64	4,021.48	71.16	57.515	
14,661.21	9,745.00	9,742.89	9,737.16	129.54	33.98	92.24	657.70	1,203.91	4,153.85	4,082.66	71.19	58.350	



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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 (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
0.00	0.00	0.00	0.00	0.00	0.00	22.98	1,610.05	682.86	1,748.88				
100.00	100.00	94.32	94.32	0.13	0.13	22.98	1,610.10	682.82	1,748.91	1,748.65	0.26	6,817.178	
200.00	200.00	190.04	190.04	0.49	0.40	22.98	1,610.25	682.87	1,749.07	1,748.19	0.88	1,976.581	
300.00	300.00	294.80	294.80	0.84	0.77	22.98	1,610.45	683.01	1,749.30	1,747.69	1.61	1,086.559	
400.00	400.00	397.83	397.83	1.20	1.13	22.97	1,610.61	682.72	1,749.33	1,747.01	2.33	751.524	
500.00	500.00	513.75	513.74	1.56	1.53	22.95	1,610.10	681.90	1,748.64	1,745.55	3.09	565.849	
600.00	600.00	614.96	614.95	1.92	1.88	22.95	1,609.13	681.23	1,747.50	1,743.70	3.80	459.670	
700.00	700.00	715.56	715.55	2.28	2.23	22.94	1,608.06	680.75	1,746.34	1,741.83	4.51	387.091	
800.00	800.00	807.48	807.45	2.64	2.56	22.95	1,607.21	680.52	1,745.39	1,740.19	5.19	336.231	
900.00	900.00	901.52	901.50	3.00	2.88	22.97	1,606.57	680.92	1,744.92	1,739.05	5.88	296.850	
1,000.00	1,000.00	1,000.65	1,000.61	3.35	3.23	23.00	1,605.88	681.74	1,744.60	1,738.02	6.58	265.022	
1,100.00	1,099.99	1,095.52	1,095.48	3.71	3.56	2.17	1,605.35	682.65	1,743.16	1,735.89	7.27	239.705	
1,200.00	1,199.91	1,193.36	1,193.32	4.07	3.90	2.21	1,604.99	683.74	1,739.34	1,731.37	7.97	218.185	
1,300.00	1,299.69	1,301.17	1,301.12	4.43	4.28	2.26	1,604.68	684.70	1,732.89	1,724.19	8.71	199.024	
1,400.00	1,399.27	1,413.40	1,413.34	4.79	4.67	2.27	1,603.89	684.17	1,722.91	1,713.45	9.46	182.161	
1,500.00	1,498.57	1,522.31	1,522.24	5.16	5.05	2.26	1,602.92	682.68	1,709.82	1,699.62	10.20	167.670	
1,533.33	1,531.60	1,555.51	1,555.44	5.28	5.17	2.26	1,602.51	682.24	1,704.78	1,694.34	10.43	163.377	
1,600.00	1,597.62	1,618.85	1,618.77	5.53	5.39	2.26	1,601.72	681.50	1,694.45	1,683.55	10.89	155.538	
1,700.00	1,696.65	1,718.21	1,718.11	5.91	5.74	2.27	1,600.45	680.60	1,679.03	1,667.44	11.60	144.763	
1,800.00	1,795.67	1,818.05	1,817.94	6.30	6.09	2.27	1,599.18	679.53	1,663.55	1,651.24	12.31	135.183	
1,900.00	1,894.70	1,917.29	1,917.17	6.69	6.43	2.27	1,597.88	678.46	1,648.03	1,635.02	13.01	126.652	
2,000.00	1,993.73	2,031.25	2,031.10	7.08	6.83	2.33	1,595.51	678.30	1,632.20	1,618.43	13.77	118.561	
2,100.00	2,092.75	2,143.84	2,143.57	7.47	7.23	2.48	1,590.85	680.35	1,615.24	1,600.72	14.52	111.274	
2,200.00	2,191.78	2,248.12	2,247.69	7.87	7.59	2.67	1,585.68	682.98	1,597.82	1,582.58	15.24	104.850	
2,300.00	2,290.81	2,368.92	2,368.09	8.27	8.02	3.00	1,577.65	688.38	1,579.72	1,563.71	16.01	98.664	
2,400.00	2,389.83	2,468.77	2,467.43	8.67	8.37	3.34	1,569.20	693.79	1,560.34	1,543.61	16.72	93.301	
2,500.00	2,488.86	2,551.31	2,549.72	9.07	8.66	3.56	1,563.49	697.00	1,541.78	1,524.40	17.39	88.672	
2,600.00	2,587.89	2,631.89	2,630.16	9.47	8.95	3.72	1,559.34	699.04	1,524.30	1,506.25	18.05	84.472	
2,700.00	2,686.91	2,723.40	2,721.58	9.88	9.27	3.87	1,555.78	700.70	1,507.65	1,488.92	18.73	80.480	
2,800.00	2,785.94	2,809.43	2,807.57	10.28	9.57	3.99	1,553.11	701.88	1,491.55	1,472.15	19.41	76.860	
2,899.91	2,884.88	2,904.22	2,902.32	10.69	9.90	4.11	1,550.88	703.17	1,476.13	1,456.03	20.10	73.425	
3,000.00	2,983.80	3,003.74	3,001.80	11.10	10.25	4.26	1,548.56	704.57	1,459.45	1,438.63	20.82	70.105	
3,100.00	3,082.20	3,101.91	3,099.94	11.53	10.59	4.41	1,546.35	705.62	1,440.15	1,418.62	21.53	66.892	
3,200.00	3,180.10	3,198.27	3,196.28	11.97	10.93	4.58	1,544.23	706.74	1,418.38	1,396.14	22.24	63.785	
3,249.91	3,228.76	3,245.04	3,243.03	12.20	11.09	4.66	1,543.27	707.24	1,406.61	1,384.02	22.59	62.274	
3,300.00	3,277.51	3,292.96	3,290.94	12.43	11.26	4.74	1,542.29	707.83	1,394.53	1,371.59	22.94	60.789	
3,400.00	3,374.85	3,394.54	3,392.49	12.89	11.61	4.91	1,540.13	709.05	1,370.32	1,346.66	23.66	57.917	
3,500.00	3,472.19	3,492.58	3,490.50	13.36	11.96	5.08	1,537.87	710.01	1,345.88	1,321.51	24.37	55.223	
3,600.00	3,569.53	3,586.56	3,584.45	13.82	12.29	5.22	1,535.94	710.57	1,321.51	1,296.43	25.07	52.704	
3,700.00	3,666.87	3,683.45	3,681.32	14.29	12.62	5.37	1,534.14	711.08	1,297.28	1,271.49	25.78	50.312	
3,800.00	3,764.20	3,781.62	3,779.47	14.77	12.97	5.52	1,532.29	711.48	1,272.99	1,246.49	26.50	48.039	
3,900.00	3,861.54	3,874.89	3,872.73	15.24	13.30	5.66	1,530.75	711.59	1,248.78	1,221.58	27.20	45.905	
4,000.00	3,958.88	3,969.54	3,967.37	15.72	13.63	5.79	1,529.51	711.67	1,224.87	1,196.96	27.91	43.883	
4,100.00	4,056.22	4,066.47	4,064.29	16.20	13.97	5.94	1,528.28	711.93	1,201.07	1,172.44	28.63	41.957	
4,200.00	4,153.56	4,164.11	4,161.93	16.67	14.31	6.08	1,527.04	711.98	1,177.19	1,147.85	29.34	40.119	
4,300.00	4,250.89	4,260.15	4,257.96	17.16	14.65	6.22	1,526.03	711.77	1,153.39	1,123.33	30.06	38.374	
4,400.00	4,348.23	4,357.05	4,354.86	17.64	14.98	6.36	1,525.06	711.66	1,129.68	1,098.90	30.77	36.710	
4,500.00	4,445.57	4,455.44	4,453.24	18.12	15.33	6.52	1,523.92	711.60	1,105.86	1,074.37	31.49	35.115	
4,600.00	4,542.91	4,553.74	4,551.53	18.61	15.67	6.69	1,522.67	711.65	1,082.01	1,049.80	32.21	33.590	
4,683.84	4,624.52	4,634.81	4,632.60	19.01	15.96	6.82	1,521.71	711.34	1,061.92	1,029.10	32.81	32.362	
4,700.00	4,640.25	4,649.85	4,647.64	19.09	16.01	6.84	1,521.53	711.29	1,058.09	1,025.16	32.93	32.133	
4,800.00	4,737.97	4,746.85	4,744.63	19.56	16.35	6.95	1,520.49	710.98	1,035.94	1,002.29	33.65	30.789	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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		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)					
4,900.00	4,836.21	4,844.57	4,842.34	20.02	16.69	7.06	1,519.42	710.86	1,016.39	982.03	34.36	29.578	
5,000.00	4,934.91	4,946.95	4,944.71	20.45	17.05	7.15	1,518.21	710.30	999.14	964.06	35.08	28.479	
5,100.00	5,033.99	5,047.58	5,045.33	20.86	17.40	7.22	1,516.84	709.57	984.22	948.42	35.80	27.493	
5,200.00	5,133.39	5,148.74	5,146.48	21.26	17.76	7.27	1,515.41	708.58	971.71	935.20	36.51	26.614	
5,300.00	5,233.04	5,247.66	5,245.38	21.63	18.10	7.28	1,514.13	707.26	961.72	924.50	37.22	25.840	
5,400.00	5,332.88	5,332.69	5,330.40	21.98	18.40	7.25	1,513.43	705.95	954.70	916.79	37.91	25.183	
5,478.48	5,411.31	5,387.17	5,384.86	22.24	18.59	7.18	1,514.79	705.11	953.14	914.72	38.42	24.808	
5,500.00	5,432.83	5,407.82	5,405.49	22.31	18.66	7.15	1,515.51	704.79	953.22	914.65	38.57	24.715	
5,567.18	5,500.00	5,474.55	5,472.17	22.52	18.89	27.91	1,517.86	703.81	954.26	915.23	39.03	24.449	
5,600.00	5,532.82	5,508.37	5,505.96	22.62	19.01	27.85	1,519.00	703.38	955.04	915.78	39.26	24.327	
5,700.00	5,632.82	5,608.03	5,605.57	22.93	19.35	27.69	1,522.27	702.10	957.35	917.41	39.94	23.967	
5,800.00	5,732.82	5,686.93	5,684.37	23.23	19.62	27.53	1,525.89	700.89	960.73	920.15	40.58	23.675	
5,900.00	5,832.82	5,788.45	5,785.88	23.54	19.97	27.26	1,532.15	699.15	965.43	924.16	41.27	23.392	
6,000.00	5,932.82	5,891.55	5,888.61	23.86	20.33	27.02	1,537.87	697.40	969.59	927.62	41.97	23.103	
6,100.00	6,032.82	6,100.00	5,984.41	24.17	21.05	26.82	1,543.10	696.25	973.91	930.87	43.04	22.631	
6,200.00	6,132.82	6,085.28	6,082.05	24.48	21.00	26.65	1,548.32	695.76	978.46	935.13	43.33	22.582	
6,300.00	6,232.82	6,178.56	6,175.19	24.80	21.32	26.56	1,553.31	696.46	983.57	939.57	44.00	22.355	
6,400.00	6,332.82	6,259.55	6,256.02	25.12	21.60	26.61	1,557.38	699.46	989.76	945.14	44.62	22.183	
6,500.00	6,432.82	6,365.57	6,361.75	25.43	21.97	26.74	1,563.14	704.85	996.91	951.57	45.33	21.990	
6,600.00	6,532.82	6,450.00	6,445.93	25.75	22.26	26.87	1,567.42	709.59	1,004.03	958.07	45.96	21.846	
6,700.00	6,632.82	6,575.76	6,571.08	26.07	22.69	27.31	1,572.39	720.73	1,011.76	965.00	46.76	21.637	
6,800.00	6,732.82	6,688.30	6,683.22	26.39	23.09	27.73	1,573.87	730.00	1,016.74	969.24	47.50	21.405	
6,900.00	6,832.82	6,802.20	6,796.91	26.72	23.48	28.04	1,575.15	736.74	1,020.50	972.27	48.24	21.156	
7,000.00	6,932.82	6,890.80	6,885.35	27.04	23.79	28.27	1,576.15	741.94	1,024.25	975.35	48.90	20.945	
7,100.00	7,032.82	6,975.01	6,969.37	27.36	24.09	28.47	1,578.14	747.18	1,029.28	979.73	49.55	20.773	
7,200.00	7,132.82	7,050.00	7,044.12	27.69	24.35	28.64	1,581.18	752.36	1,036.17	986.03	50.14	20.666	
7,300.00	7,232.82	7,138.22	7,131.88	28.01	24.66	28.87	1,586.18	759.82	1,045.17	994.39	50.78	20.583	
7,400.00	7,332.82	7,244.54	7,237.63	28.34	25.03	29.17	1,591.84	769.28	1,054.16	1,002.65	51.51	20.466	
7,500.00	7,432.82	7,367.96	7,360.32	28.66	25.47	29.70	1,595.15	782.18	1,061.66	1,009.34	52.32	20.293	
7,600.00	7,532.82	7,474.71	7,466.53	28.99	25.84	30.16	1,596.45	792.85	1,067.71	1,014.67	53.05	20.128	
7,700.00	7,632.82	7,570.99	7,562.10	29.32	26.18	30.70	1,596.17	804.44	1,073.60	1,019.86	53.74	19.979	
7,800.00	7,732.82	7,663.10	7,653.34	29.65	26.51	31.29	1,595.66	816.99	1,080.18	1,025.77	54.41	19.852	
7,900.00	7,832.82	7,769.18	7,758.39	29.98	26.89	31.98	1,594.91	831.76	1,086.94	1,031.79	55.15	19.710	
8,000.00	7,932.82	7,869.95	7,878.14	30.31	27.32	32.71	1,593.46	847.40	1,092.98	1,037.05	55.94	19.539	
8,100.00	8,032.82	8,016.06	8,003.34	30.64	27.77	33.48	1,588.58	861.67	1,095.82	1,039.10	56.72	19.318	
8,200.00	8,132.82	8,119.76	8,106.27	30.97	28.14	34.13	1,583.46	873.12	1,097.87	1,040.42	57.45	19.111	
8,300.00	8,232.82	8,196.43	8,182.21	31.30	28.41	34.65	1,580.02	883.05	1,101.39	1,043.29	58.10	18.957	
8,400.00	8,332.82	8,303.70	8,288.54	31.64	28.80	35.36	1,575.44	896.48	1,105.09	1,046.25	58.84	18.782	
8,500.00	8,432.82	8,388.00	8,372.16	31.97	29.10	35.88	1,572.66	906.82	1,109.56	1,050.06	59.50	18.648	
8,600.00	8,532.82	8,492.30	8,475.70	32.30	29.47	36.47	1,570.08	919.11	1,114.55	1,054.32	60.23	18.505	
8,700.00	8,632.82	8,604.70	8,587.52	32.64	29.87	37.01	1,567.38	930.08	1,118.45	1,057.47	60.98	18.341	
8,800.00	8,732.82	8,718.56	8,701.07	32.97	30.27	37.39	1,566.04	938.42	1,122.02	1,060.29	61.73	18.178	
8,900.00	8,832.82	8,803.30	8,785.65	33.31	30.57	37.63	1,565.02	943.50	1,124.77	1,062.39	62.39	18.029	
9,000.00	8,932.82	8,906.19	8,888.25	33.64	30.93	37.96	1,564.15	951.18	1,128.70	1,065.59	63.10	17.887	
9,100.00	9,032.82	9,021.93	9,003.70	33.98	31.34	38.33	1,562.41	958.99	1,131.71	1,067.86	63.85	17.724	
9,200.00	9,132.82	9,137.66	9,119.29	34.32	31.75	38.59	1,560.52	964.23	1,133.25	1,068.67	64.59	17.547	
9,233.42	9,166.24	9,176.22	9,157.84	34.43	31.88	38.66	1,559.91	965.32	1,133.43	1,068.60	64.83	17.484	
9,250.00	9,182.82	9,195.82	9,177.43	34.49	31.95	-51.36	1,559.58	965.80	1,133.32	1,068.37	64.95	17.450	
9,300.00	9,232.67	9,257.98	9,239.57	34.65	32.16	-51.65	1,558.30	966.96	1,130.84	1,065.54	65.30	17.318	
9,350.00	9,282.02	9,322.36	9,303.92	34.83	32.39	-52.45	1,556.57	967.37	1,125.04	1,059.40	65.64	17.141	
9,400.00	9,330.49	9,375.70	9,357.22	35.01	32.57	-53.64	1,554.67	967.51	1,116.21	1,050.25	65.96	16.923	
9,450.00	9,377.70	9,422.69	9,404.18	35.19	32.74	-55.18	1,552.78	967.81	1,104.88	1,038.60	66.27	16.671	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 (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	Warning
9,500.00	9,423.31	9,471.55	9,453.00	35.38	32.91	-57.18	1,550.77	968.07	1,091.24	1,024.66	66.58	16.391	
9,550.00	9,466.96	9,515.54	9,496.95	35.57	33.06	-59.55	1,548.90	968.23	1,075.50	1,008.63	66.87	16.084	
9,600.00	9,508.32	9,547.97	9,529.35	35.76	33.17	-62.01	1,547.60	968.43	1,058.22	991.06	67.16	15.757	
9,650.00	9,547.08	9,575.00	9,556.36	35.96	33.27	-64.62	1,546.78	968.83	1,040.03	972.59	67.45	15.420	
9,700.00	9,582.94	9,602.46	9,583.81	36.17	33.36	-67.49	1,546.16	969.42	1,021.19	953.46	67.73	15.077	
9,750.00	9,615.63	9,629.66	9,610.99	36.40	33.46	-70.58	1,545.67	970.08	1,001.90	933.87	68.03	14.728	
9,800.00	9,644.89	9,650.00	9,631.33	36.64	33.53	-73.52	1,545.48	970.61	982.64	914.30	68.34	14.379	
9,850.00	9,670.52	9,668.86	9,650.18	36.91	33.60	-76.46	1,545.49	971.12	963.84	895.16	68.68	14.035	
9,900.00	9,692.31	9,687.01	9,668.33	37.20	33.66	-79.36	1,545.64	971.64	945.87	876.81	69.05	13.697	
9,950.00	9,710.09	9,703.69	9,685.00	37.53	33.72	-82.11	1,545.84	972.13	929.07	859.58	69.48	13.371	
10,000.00	9,723.73	9,718.40	9,699.70	37.88	33.77	-84.61	1,546.03	972.54	913.82	843.85	69.97	13.060	
10,033.42	9,730.49	9,725.98	9,707.27	38.14	33.79	-86.04	1,546.14	972.75	904.68	834.36	70.32	12.865	
10,050.00	9,733.23	9,729.41	9,710.70	38.27	33.81	-86.52	1,546.18	972.84	900.50	830.00	70.51	12.772	
10,100.00	9,739.76	9,737.88	9,719.17	38.69	33.84	-87.74	1,546.30	973.07	889.52	818.41	71.10	12.510	
10,150.00	9,743.69	9,743.52	9,724.81	39.14	33.85	-88.62	1,546.37	973.22	881.08	809.32	71.75	12.279	
10,200.08	9,745.00	9,746.35	9,727.63	39.61	33.86	-89.15	1,546.41	973.29	875.32	802.88	72.44	12.083	
10,276.45	9,745.00	9,748.49	9,729.77	40.40	33.87	-89.30	1,546.43	973.35	871.99	798.41	73.58	11.851 CC	
10,300.00	9,745.00	9,749.15	9,730.43	40.65	33.87	-89.34	1,546.44	973.36	872.30	798.38	73.93	11.800 ES	
10,400.00	9,745.00	9,752.05	9,733.34	41.81	33.88	-89.53	1,546.47	973.44	880.69	805.22	75.47	11.670 SF	
10,500.00	9,745.00	9,754.96	9,736.24	43.07	33.89	-89.72	1,546.51	973.52	900.17	823.21	76.95	11.698	
10,600.00	9,745.00	9,757.81	9,739.09	44.44	33.90	-89.91	1,546.54	973.59	930.04	851.75	78.28	11.880	
10,700.00	9,745.00	9,760.60	9,741.88	45.89	33.91	-90.09	1,546.57	973.66	969.34	889.93	79.42	12.206	
10,800.00	9,745.00	9,763.33	9,744.61	47.42	33.92	-90.27	1,546.60	973.73	1,016.99	936.65	80.33	12.659	
10,900.00	9,745.00	9,766.02	9,747.30	49.03	33.93	-90.45	1,546.63	973.79	1,071.86	990.81	81.05	13.224	
11,000.00	9,745.00	9,768.65	9,749.93	50.70	33.94	-90.62	1,546.65	973.86	1,132.92	1,051.33	81.59	13.885	
11,100.00	9,745.00	9,771.23	9,752.51	52.43	33.95	-90.79	1,546.68	973.92	1,199.21	1,117.22	81.99	14.626	
11,200.00	9,745.00	9,773.76	9,755.04	54.22	33.96	-90.95	1,546.70	973.98	1,269.92	1,187.65	82.27	15.435	
11,300.00	9,745.00	9,776.41	9,757.68	56.05	33.97	-91.13	1,546.72	974.04	1,344.35	1,261.88	82.47	16.301	
11,400.00	9,745.00	9,779.20	9,760.48	57.93	33.98	-91.31	1,546.74	974.11	1,421.91	1,339.32	82.60	17.215	
11,500.00	9,745.00	9,782.01	9,763.28	59.84	33.99	-91.50	1,546.76	974.18	1,502.13	1,419.46	82.67	18.170	
11,600.00	9,745.00	9,784.83	9,766.10	61.80	34.00	-91.68	1,546.78	974.25	1,584.59	1,501.88	82.71	19.158	
11,700.00	9,745.00	9,787.66	9,768.93	63.78	34.01	-91.87	1,546.80	974.31	1,668.97	1,586.24	82.72	20.175	
11,800.00	9,745.00	9,790.51	9,771.78	65.80	34.02	-92.05	1,546.82	974.38	1,754.98	1,672.27	82.72	21.217	
11,900.00	9,745.00	9,793.36	9,774.63	67.84	34.03	-92.24	1,546.84	974.45	1,842.41	1,759.71	82.70	22.279	
12,000.00	9,745.00	9,796.23	9,777.50	69.90	34.04	-92.43	1,546.86	974.52	1,931.05	1,848.38	82.67	23.360	
12,100.00	9,745.00	9,799.11	9,780.38	71.99	34.05	-92.62	1,546.87	974.59	2,020.75	1,938.11	82.63	24.455	
12,200.00	9,745.00	9,802.01	9,783.27	74.10	34.06	-92.81	1,546.88	974.66	2,111.37	2,028.77	82.59	25.564	
12,300.00	9,745.00	9,804.91	9,786.18	76.23	34.07	-93.00	1,546.90	974.73	2,202.80	2,120.24	82.55	26.684	
12,400.00	9,745.00	9,807.32	9,788.59	78.37	34.08	-93.15	1,546.91	974.79	2,294.94	2,212.43	82.51	27.814	
12,500.00	9,745.00	9,810.07	9,791.33	80.54	34.09	-93.33	1,546.92	974.86	2,387.71	2,305.24	82.47	28.953	
12,600.00	9,745.00	9,812.83	9,794.10	82.71	34.10	-93.52	1,546.93	974.93	2,481.04	2,398.61	82.43	30.099	
12,700.00	9,745.00	9,815.61	9,796.87	84.90	34.11	-93.70	1,546.94	975.00	2,574.87	2,492.47	82.39	31.251	
12,800.00	9,745.00	9,818.40	9,799.67	87.10	34.11	-93.88	1,546.95	975.06	2,669.14	2,586.78	82.36	32.409	
12,900.00	9,745.00	9,821.21	9,802.47	89.32	34.12	-94.06	1,546.96	975.13	2,763.82	2,681.49	82.33	33.571	
13,000.00	9,745.00	9,824.04	9,805.30	91.54	34.13	-94.25	1,546.97	975.20	2,858.85	2,776.55	82.30	34.738	
13,100.00	9,745.00	9,826.88	9,808.14	93.77	34.14	-94.43	1,546.98	975.27	2,954.21	2,871.94	82.27	35.908	
13,200.00	9,745.00	9,829.75	9,811.01	96.02	34.15	-94.62	1,546.99	975.35	3,049.86	2,967.62	82.25	37.082	
13,300.00	9,745.00	9,832.66	9,813.91	98.27	34.16	-94.81	1,547.00	975.42	3,145.79	3,063.56	82.23	38.258	
13,400.00	9,745.00	9,835.60	9,816.85	100.53	34.17	-95.00	1,547.01	975.49	3,241.95	3,159.74	82.21	39.436	
13,500.00	9,745.00	9,838.57	9,819.83	102.80	34.18	-95.20	1,547.03	975.57	3,338.34	3,256.15	82.19	40.615	
13,600.00	9,745.00	9,841.59	9,822.84	105.07	34.20	-95.39	1,547.04	975.65	3,434.94	3,352.75	82.18	41.796	
13,700.00	9,745.00	9,844.64	9,825.89	107.35	34.21	-95.59	1,547.05	975.73	3,531.72	3,449.54	82.17	42.979	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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	
13,800.00	9,745.00	9,847.73	9,828.98	109.64	34.22	-95.79	1,547.06	975.81	3,628.67	3,546.50	82.17	44.162	
13,900.00	9,745.00	9,850.86	9,832.11	111.93	34.23	-95.99	1,547.07	975.89	3,725.78	3,643.62	82.16	45.346	
14,000.00	9,745.00	9,854.03	9,835.28	114.23	34.24	-96.20	1,547.09	975.97	3,823.04	3,740.88	82.16	46.530	
14,100.00	9,745.00	9,854.86	9,836.11	116.53	34.24	-96.25	1,547.09	975.99	3,920.44	3,838.28	82.16	47.719	
14,200.00	9,745.00	9,856.96	9,838.20	118.84	34.25	-96.39	1,547.10	976.05	4,017.96	3,935.81	82.16	48.906	
14,300.00	9,745.00	9,859.03	9,840.28	121.15	34.26	-96.52	1,547.10	976.10	4,115.60	4,033.45	82.16	50.094	
14,400.00	9,745.00	9,861.09	9,842.33	123.47	34.26	-96.66	1,547.11	976.15	4,213.35	4,131.19	82.16	51.281	
14,500.00	9,745.00	9,863.12	9,844.37	125.79	34.27	-96.79	1,547.12	976.21	4,311.21	4,229.04	82.17	52.468	
14,600.00	9,745.00	9,865.13	9,846.38	128.12	34.28	-96.92	1,547.13	976.26	4,409.15	4,326.98	82.18	53.654	
14,661.21	9,745.00	9,866.35	9,847.60	129.54	34.28	-97.00	1,547.13	976.29	4,469.15	4,386.96	82.18	54.380	



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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 - #121H - 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
0.00	0.00	2.65	-2.65	0.00	0.00	22.05	1,613.65	653.51	1,740.96				
100.00	100.00	102.65	97.35	0.13	0.14	22.05	1,613.65	653.51	1,740.96	1,740.70	0.26	6,594.180	
200.00	200.00	202.65	197.35	0.49	0.50	22.05	1,613.65	653.51	1,740.96	1,739.98	0.98	1,774.755	
300.00	300.00	302.65	297.35	0.84	0.85	22.05	1,613.65	653.51	1,740.96	1,739.26	1.70	1,025.360	
400.00	400.00	402.65	397.35	1.20	1.21	22.05	1,613.65	653.51	1,740.96	1,738.55	2.41	720.941	
500.00	500.00	502.65	497.35	1.56	1.57	22.05	1,613.65	653.51	1,740.96	1,737.83	3.13	555.900	
600.00	600.00	602.65	597.35	1.92	1.93	22.05	1,613.65	653.51	1,740.96	1,737.11	3.85	452.347	
700.00	700.00	702.65	697.35	2.28	2.29	22.05	1,613.65	653.51	1,740.96	1,736.39	4.57	381.315	
800.00	800.00	802.65	797.35	2.64	2.65	22.05	1,613.65	653.51	1,740.96	1,735.68	5.28	329.564	
900.00	900.00	902.65	897.35	3.00	3.00	22.05	1,613.65	653.51	1,740.96	1,734.96	6.00	290.181	
1,000.00	1,000.00	1,002.65	997.35	3.35	3.36	22.05	1,613.65	653.51	1,740.96	1,734.24	6.72	259.206	
1,100.00	1,099.99	1,102.66	1,097.34	3.71	3.72	1.18	1,613.65	653.51	1,739.65	1,732.22	7.43	234.043	
1,200.00	1,199.91	1,202.74	1,197.26	4.07	4.08	1.18	1,613.65	653.51	1,735.73	1,727.58	8.15	212.969	
1,300.00	1,299.69	1,302.96	1,297.04	4.43	4.44	1.19	1,613.65	653.51	1,729.19	1,720.32	8.87	194.989	
1,400.00	1,399.27	1,403.38	1,396.62	4.79	4.80	1.20	1,613.65	653.51	1,720.04	1,710.45	9.59	179.412	
1,500.00	1,498.57	1,495.92	1,495.92	5.16	5.13	1.21	1,613.65	653.51	1,708.29	1,698.01	10.28	166.207	
1,533.33	1,531.60	1,532.67	1,532.67	5.28	5.26	1.21	1,613.67	653.37	1,703.76	1,693.23	10.53	161.826	
1,600.00	1,597.62	1,607.09	1,607.07	5.53	5.52	1.17	1,613.84	652.02	1,694.18	1,683.15	11.03	153.642	
1,700.00	1,696.65	1,718.35	1,718.23	5.91	5.91	1.02	1,614.44	647.32	1,679.19	1,667.43	11.77	142.699	
1,800.00	1,795.67	1,822.28	1,821.92	6.30	6.27	0.80	1,615.32	640.43	1,663.62	1,651.13	12.49	133.220	
1,900.00	1,894.70	1,920.83	1,920.24	6.69	6.62	0.57	1,618.19	633.61	1,648.00	1,634.80	13.19	124.906	
2,000.00	1,993.73	2,019.39	2,018.56	7.08	6.97	0.34	1,617.06	626.79	1,632.40	1,618.50	13.90	117.411	
2,100.00	2,092.75	2,117.95	2,116.88	7.47	7.32	0.10	1,617.93	619.97	1,616.83	1,602.22	14.62	110.625	
2,200.00	2,191.78	2,216.51	2,215.19	7.87	7.67	-0.14	1,618.80	613.15	1,601.29	1,585.96	15.33	104.455	
2,300.00	2,290.81	2,315.06	2,313.51	8.27	8.03	-0.39	1,619.67	606.33	1,585.78	1,569.73	16.05	98.824	
2,400.00	2,389.83	2,413.62	2,411.83	8.67	8.38	-0.64	1,620.54	599.51	1,570.29	1,553.53	16.77	93.665	
2,500.00	2,488.86	2,512.18	2,510.15	9.07	8.74	-0.89	1,621.41	592.69	1,554.84	1,537.35	17.49	88.924	
2,600.00	2,587.89	2,610.74	2,608.46	9.47	9.10	-1.15	1,622.28	585.87	1,539.42	1,521.21	18.21	84.552	
2,700.00	2,686.91	2,709.29	2,706.78	9.88	9.46	-1.42	1,623.15	579.06	1,524.03	1,505.10	18.93	80.510	
2,800.00	2,785.94	2,807.85	2,805.10	10.28	9.82	-1.69	1,624.02	572.24	1,508.67	1,489.01	19.65	76.763	
2,899.91	2,884.88	2,911.16	2,908.12	10.69	10.20	-2.00	1,625.00	564.60	1,493.27	1,472.87	20.39	73.221	
3,000.00	2,983.80	3,017.45	3,013.88	11.10	10.60	-2.44	1,626.34	554.10	1,476.09	1,454.94	21.15	69.785	
3,100.00	3,082.20	3,121.82	3,117.40	11.53	10.99	-3.01	1,628.01	540.96	1,455.93	1,434.02	21.91	66.442	
3,200.00	3,180.10	3,218.10	3,212.74	11.97	11.37	-3.60	1,629.71	527.67	1,433.13	1,410.47	22.66	63.254	
3,249.91	3,228.76	3,265.92	3,260.10	12.20	11.55	-3.92	1,630.55	521.07	1,420.85	1,397.82	23.03	61.697	
3,300.00	3,277.51	3,313.82	3,307.53	12.43	11.74	-4.23	1,631.40	514.46	1,408.25	1,384.85	23.40	60.176	
3,400.00	3,374.85	3,409.46	3,402.24	12.89	12.12	-4.86	1,633.08	501.25	1,383.22	1,359.07	24.15	57.280	
3,500.00	3,472.19	3,505.10	3,496.95	13.36	12.49	-5.51	1,634.77	488.05	1,358.35	1,333.46	24.90	54.555	
3,600.00	3,569.53	3,600.74	3,591.66	13.82	12.87	-6.19	1,636.45	474.85	1,333.66	1,308.01	25.65	51.988	
3,700.00	3,666.87	3,703.62	3,686.37	14.29	13.28	-6.89	1,638.14	461.64	1,309.16	1,282.72	26.44	49.515	
3,800.00	3,764.20	3,792.03	3,781.08	14.77	13.63	-7.62	1,639.82	448.44	1,284.85	1,257.68	27.17	47.284	
3,900.00	3,861.54	3,887.67	3,875.79	15.24	14.01	-8.37	1,641.51	435.24	1,260.75	1,232.81	27.94	45.126	
4,000.00	3,958.88	3,983.31	3,970.50	15.72	14.40	-9.15	1,643.19	422.03	1,236.87	1,208.16	28.71	43.084	
4,100.00	4,056.22	4,078.95	4,065.21	16.20	14.78	-9.97	1,644.88	408.83	1,213.22	1,183.74	29.48	41.152	
4,200.00	4,153.56	4,174.59	4,159.92	16.67	15.17	-10.81	1,646.56	395.62	1,189.82	1,159.56	30.26	39.321	
4,300.00	4,250.89	4,270.23	4,254.63	17.16	15.55	-11.68	1,648.25	382.42	1,166.68	1,135.64	31.04	37.585	
4,400.00	4,348.23	4,365.87	4,349.34	17.64	15.94	-12.59	1,649.93	369.22	1,143.82	1,111.99	31.83	35.938	
4,500.00	4,445.57	4,461.51	4,444.05	18.12	16.33	-13.54	1,651.62	356.01	1,121.25	1,088.63	32.62	34.375	
4,600.00	4,542.91	4,557.15	4,538.76	18.61	16.72	-14.52	1,653.31	342.81	1,099.00	1,065.58	33.41	32.891	
4,683.84	4,624.52	4,637.34	4,618.17	19.01	17.05	-15.37	1,654.72	331.74	1,080.60	1,046.51	34.08	31.703	
4,700.00	4,640.25	4,652.80	4,633.48	19.09	17.11	-15.53	1,654.99	329.61	1,077.11	1,042.89	34.21	31.481	
4,800.00	4,737.97	4,748.87	4,728.62	19.56	17.50	-16.48	1,656.68	316.34	1,057.16	1,022.15	35.02	30.189	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 - #121H - 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)					
4,900.00	4,836.21	4,845.54	4,824.35	20.02	17.90	-17.44	1,658.39	303.00	1,040.03	1,004.21	35.82	29.032	
5,000.00	4,934.91	4,942.75	4,920.61	20.45	18.29	-18.39	1,660.10	289.58	1,025.71	989.08	36.63	28.002	
5,100.00	5,033.99	5,043.03	5,020.08	20.86	18.70	-19.29	1,661.70	277.01	1,014.05	976.62	37.43	27.092	
5,200.00	5,133.39	5,144.48	5,121.02	21.26	19.09	-20.03	1,662.99	266.93	1,004.82	966.61	38.21	26.297	
5,300.00	5,233.04	5,246.84	5,223.10	21.63	19.48	-20.59	1,663.94	259.46	997.89	958.92	38.97	25.608	
5,400.00	5,332.88	5,349.86	5,326.00	21.98	19.85	-20.96	1,664.55	254.69	993.16	953.46	39.70	25.018	
5,500.00	5,432.83	5,453.25	5,429.37	22.31	20.21	-21.13	1,664.81	252.66	990.55	950.15	40.40	24.519	
5,567.18	5,500.00	5,521.23	5,497.35	22.52	20.43	-0.27	1,664.82	252.59	990.01	949.16	40.85	24.232	
5,600.00	5,532.82	5,554.05	5,530.17	22.62	20.54	-0.27	1,664.82	252.59	990.01	948.94	41.08	24.102	
5,700.00	5,632.82	5,654.05	5,630.17	22.93	20.88	-0.27	1,664.82	252.59	990.01	948.26	41.75	23.715	
5,800.00	5,732.82	5,754.05	5,730.17	23.23	21.21	-0.27	1,664.82	252.59	990.01	947.59	42.42	23.338	
5,900.00	5,832.82	5,854.05	5,830.17	23.54	21.55	-0.27	1,664.82	252.59	990.01	946.92	43.10	22.973	
6,000.00	5,932.82	5,954.05	5,930.17	23.86	21.88	-0.27	1,664.82	252.59	990.01	946.24	43.77	22.618	
6,100.00	6,032.82	6,054.05	6,030.17	24.17	22.22	-0.27	1,664.82	252.59	990.01	945.56	44.45	22.273	
6,200.00	6,132.82	6,154.05	6,130.17	24.48	22.56	-0.27	1,664.82	252.59	990.01	944.88	45.13	21.938	
6,300.00	6,232.82	6,254.05	6,230.17	24.80	22.89	-0.27	1,664.82	252.59	990.01	944.20	45.81	21.613	
6,400.00	6,332.82	6,354.05	6,330.17	25.12	23.23	-0.27	1,664.82	252.59	990.01	943.52	46.49	21.296	
6,500.00	6,432.82	6,454.05	6,430.17	25.43	23.57	-0.27	1,664.82	252.59	990.01	942.84	47.17	20.988	
6,600.00	6,532.82	6,554.05	6,530.17	25.75	23.91	-0.27	1,664.82	252.59	990.01	942.16	47.85	20.689	
6,700.00	6,632.82	6,654.05	6,630.17	26.07	24.25	-0.27	1,664.82	252.59	990.01	941.47	48.54	20.397	
6,800.00	6,732.82	6,754.05	6,730.17	26.39	24.59	-0.27	1,664.82	252.59	990.01	940.79	49.22	20.113	
6,900.00	6,832.82	6,854.05	6,830.17	26.72	24.93	-0.27	1,664.82	252.59	990.01	940.10	49.91	19.837	
7,000.00	6,932.82	6,954.05	6,930.17	27.04	25.28	-0.27	1,664.82	252.59	990.01	939.42	50.59	19.568	
7,100.00	7,032.82	7,054.05	7,030.17	27.36	25.62	-0.27	1,664.82	252.59	990.01	938.73	51.28	19.305	
7,200.00	7,132.82	7,154.05	7,130.17	27.69	25.96	-0.27	1,664.82	252.59	990.01	938.04	51.97	19.050	
7,300.00	7,232.82	7,254.05	7,230.17	28.01	26.30	-0.27	1,664.82	252.59	990.01	937.35	52.66	18.800	
7,400.00	7,332.82	7,354.05	7,330.17	28.34	26.65	-0.27	1,664.82	252.59	990.01	936.66	53.35	18.557	
7,500.00	7,432.82	7,454.05	7,430.17	28.66	26.99	-0.27	1,664.82	252.59	990.01	935.97	54.04	18.320	
7,600.00	7,532.82	7,554.05	7,530.17	28.99	27.34	-0.27	1,664.82	252.59	990.01	935.28	54.73	18.089	
7,700.00	7,632.82	7,654.05	7,630.17	29.32	27.68	-0.27	1,664.82	252.59	990.01	934.59	55.42	17.863	
7,800.00	7,732.82	7,754.05	7,730.17	29.65	28.03	-0.27	1,664.82	252.59	990.01	933.90	56.12	17.642	
7,900.00	7,832.82	7,854.37	7,830.36	29.98	28.35	-0.07	1,664.82	256.10	990.00	933.22	56.78	17.435	
7,913.57	7,846.40	7,867.86	7,843.75	30.02	28.39	0.02	1,664.82	257.75	990.00	933.13	56.87	17.409 CC	
8,000.00	7,932.82	7,951.22	7,925.26	30.31	28.62	1.02	1,664.81	274.87	990.16	932.77	57.39	17.254 ES	
8,100.00	8,032.82	8,039.56	8,007.95	30.64	28.83	2.80	1,664.80	305.70	991.41	933.46	57.95	17.109	
8,200.00	8,132.82	8,116.93	8,075.74	30.97	29.00	4.94	1,664.78	342.86	995.14	936.70	58.44	17.029	
8,300.00	8,232.82	8,182.95	8,129.19	31.30	29.14	7.15	1,664.76	381.55	1,002.81	943.99	58.81	17.051	
8,400.00	8,332.82	8,238.56	8,170.51	31.64	29.27	9.26	1,664.75	418.74	1,015.63	956.63	59.00	17.215	
8,500.00	8,432.82	8,285.21	8,202.26	31.97	29.39	11.18	1,664.73	452.90	1,034.47	975.54	58.93	17.555	
8,600.00	8,532.82	8,324.42	8,226.72	32.30	29.50	12.87	1,664.72	483.53	1,059.79	1,001.22	58.57	18.093	
8,700.00	8,632.82	8,350.00	8,241.53	32.64	29.57	14.01	1,664.71	504.39	1,091.78	1,033.92	57.85	18.871	
8,800.00	8,732.82	8,385.71	8,260.61	32.97	29.69	15.65	1,664.70	534.57	1,130.14	1,073.08	57.06	19.806	
8,900.00	8,832.82	8,400.00	8,267.71	33.31	29.74	16.31	1,664.69	546.97	1,174.78	1,118.93	55.85	21.035	
9,000.00	8,932.82	8,430.72	8,281.93	33.64	29.86	17.75	1,664.68	574.20	1,224.93	1,170.17	54.76	22.368	
9,100.00	9,032.82	8,450.00	8,290.09	33.98	29.93	18.66	1,664.67	591.66	1,280.36	1,226.89	53.47	23.946	
9,200.00	9,132.82	8,464.79	8,295.95	34.32	30.00	19.37	1,664.67	605.24	1,340.44	1,288.33	52.11	25.724	
9,233.42	9,166.24	8,469.67	8,297.81	34.43	30.02	19.60	1,664.67	609.75	1,361.46	1,309.81	51.66	26.356	
9,250.00	9,182.82	8,472.10	8,298.72	34.49	30.03	-69.03	1,664.66	612.01	1,372.00	1,320.57	51.43	26.676	
9,300.00	9,232.67	8,480.12	8,301.66	34.65	30.07	-64.93	1,664.66	619.47	1,403.58	1,352.81	50.76	27.650	
9,350.00	9,282.02	8,500.00	8,308.48	34.83	30.16	-60.63	1,664.65	638.14	1,434.77	1,384.51	50.26	28.547	
9,400.00	9,330.49	8,500.00	8,308.48	35.01	30.16	-57.38	1,664.65	638.14	1,464.98	1,415.48	49.49	29.600	
9,450.00	9,377.70	8,500.00	8,308.48	35.19	30.16	-54.37	1,664.65	638.14	1,494.40	1,445.65	48.75	30.656	

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



Anticollision Report

Company: Matador Resources
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 Well Error: 0.00 usft
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 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 - #121H - 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		
9,500.00	9,423.31	8,520.50	8,314.84	35.38	30.26	-51.09	1,664.65	657.63	1,522.44	1,474.14	48.31	31.516		
9,550.00	9,466.96	8,532.22	8,318.16	35.57	30.32	-48.40	1,664.64	668.86	1,549.17	1,501.40	47.78	32.426		
9,600.00	9,508.32	8,550.00	8,322.76	35.76	30.41	-45.91	1,664.63	686.04	1,574.35	1,527.00	47.36	33.245		
9,650.00	9,547.08	8,550.00	8,322.76	35.96	30.41	-44.04	1,664.63	686.04	1,597.78	1,551.01	46.77	34.161		
9,700.00	9,582.94	8,570.12	8,327.31	36.17	30.53	-42.11	1,664.62	705.63	1,619.25	1,572.77	46.48	34.835		
9,750.00	9,615.63	8,583.48	8,329.96	36.40	30.61	-40.54	1,664.62	718.73	1,638.75	1,592.58	46.17	35.491		
9,800.00	9,644.89	8,600.00	8,332.80	36.64	30.70	-39.19	1,664.61	735.01	1,656.14	1,610.17	45.96	36.032		
9,850.00	9,670.52	8,600.00	8,332.80	36.91	30.70	-38.19	1,664.61	735.01	1,671.40	1,625.72	45.68	36.588		
9,900.00	9,692.31	8,625.10	8,336.22	37.20	30.86	-37.19	1,664.60	759.87	1,684.12	1,638.41	45.71	36.845		
9,950.00	9,710.09	8,650.00	8,338.54	37.53	31.02	-36.42	1,664.59	784.66	1,694.70	1,648.90	45.80	37.003		
10,000.00	9,723.73	8,650.00	8,338.54	37.88	31.02	-35.95	1,664.59	784.66	1,702.63	1,656.82	45.81	37.168		
10,033.42	9,730.49	8,663.38	8,339.34	38.14	31.11	-35.67	1,664.58	798.01	1,706.61	1,660.65	45.96	37.133		
10,050.00	9,733.23	8,668.18	8,339.55	38.27	31.15	-35.61	1,664.58	802.81	1,708.25	1,662.21	46.04	37.107		
10,100.00	9,739.76	8,690.92	8,340.00	38.69	31.30	-35.41	1,664.57	825.55	1,712.55	1,666.20	46.35	36.946		
10,150.00	9,743.69	8,712.35	8,340.00	39.14	31.47	-35.28	1,664.56	846.97	1,715.52	1,668.78	46.74	36.707		
10,200.08	9,745.00	8,762.41	8,340.00	39.61	31.87	-35.22	1,664.54	897.03	1,716.59	1,669.28	47.31	36.282		
10,300.00	9,745.00	8,862.33	8,340.00	40.65	32.78	-35.22	1,664.50	996.95	1,716.59	1,667.98	48.61	35.310		
10,400.00	9,745.00	8,962.33	8,340.00	41.81	33.84	-35.22	1,664.46	1,096.95	1,716.59	1,666.51	50.08	34.280		
10,500.00	9,745.00	9,062.33	8,340.00	43.07	35.03	-35.22	1,664.41	1,196.95	1,716.59	1,664.91	51.68	33.214		
10,600.00	9,745.00	9,162.33	8,340.00	44.44	36.35	-35.22	1,664.37	1,296.95	1,716.59	1,663.17	53.42	32.132		
10,700.00	9,745.00	9,262.33	8,340.00	45.89	37.78	-35.22	1,664.33	1,396.95	1,716.59	1,661.31	55.28	31.052		
10,800.00	9,745.00	9,362.33	8,340.00	47.42	39.30	-35.22	1,664.28	1,496.95	1,716.59	1,659.34	57.25	29.985		
10,900.00	9,745.00	9,462.33	8,340.00	49.03	40.91	-35.22	1,664.24	1,596.95	1,716.59	1,657.28	59.31	28.942		
11,000.00	9,745.00	9,562.33	8,340.00	50.70	42.60	-35.22	1,664.20	1,696.95	1,716.59	1,655.13	61.46	27.930		
11,100.00	9,745.00	9,662.33	8,340.00	52.43	44.36	-35.22	1,664.15	1,796.95	1,716.59	1,652.90	63.69	26.954		
11,200.00	9,745.00	9,762.33	8,340.00	54.22	46.18	-35.22	1,664.11	1,896.95	1,716.59	1,650.61	65.98	26.016		
11,300.00	9,745.00	9,862.33	8,340.00	56.05	48.05	-35.22	1,664.07	1,996.95	1,716.59	1,648.25	68.34	25.118		
11,400.00	9,745.00	9,962.33	8,340.00	57.93	49.97	-35.22	1,664.02	2,096.95	1,716.59	1,645.83	70.76	24.261		
11,500.00	9,745.00	10,062.33	8,340.00	59.84	51.93	-35.22	1,663.98	2,196.95	1,716.59	1,643.37	73.22	23.444		
11,600.00	9,745.00	10,162.33	8,340.00	61.80	53.93	-35.22	1,663.94	2,296.95	1,716.59	1,640.86	75.73	22.667		
11,700.00	9,745.00	10,262.33	8,340.00	63.78	55.96	-35.22	1,663.89	2,396.95	1,716.59	1,638.31	78.28	21.929		
11,800.00	9,745.00	10,362.33	8,340.00	65.80	58.02	-35.22	1,663.85	2,496.95	1,716.59	1,635.72	80.87	21.227		
11,900.00	9,745.00	10,462.33	8,340.00	67.84	60.11	-35.22	1,663.81	2,596.95	1,716.59	1,633.10	83.49	20.560		
12,000.00	9,745.00	10,562.33	8,340.00	69.90	62.22	-35.22	1,663.77	2,696.95	1,716.59	1,630.45	86.14	19.927		
12,100.00	9,745.00	10,662.33	8,340.00	71.99	64.36	-35.22	1,663.72	2,796.95	1,716.59	1,627.77	88.82	19.326		
12,200.00	9,745.00	10,762.33	8,340.00	74.10	66.52	-35.22	1,663.68	2,896.95	1,716.59	1,625.06	91.53	18.755		
12,300.00	9,745.00	10,862.33	8,340.00	76.23	68.69	-35.22	1,663.64	2,996.95	1,716.59	1,622.33	94.26	18.212		
12,400.00	9,745.00	10,962.33	8,340.00	78.37	70.88	-35.22	1,663.59	3,096.95	1,716.59	1,619.58	97.01	17.696		
12,500.00	9,745.00	11,062.33	8,340.00	80.54	73.08	-35.22	1,663.55	3,196.95	1,716.59	1,616.81	99.78	17.205		
12,600.00	9,745.00	11,162.33	8,340.00	82.71	75.30	-35.22	1,663.51	3,296.95	1,716.59	1,614.03	102.56	16.737		
12,700.00	9,745.00	11,262.33	8,340.00	84.90	77.53	-35.22	1,663.46	3,396.95	1,716.59	1,611.22	105.37	16.292		
12,800.00	9,745.00	11,362.33	8,340.00	87.10	79.77	-35.22	1,663.42	3,496.95	1,716.59	1,608.41	108.18	15.867		
12,900.00	9,745.00	11,462.33	8,340.00	89.32	82.02	-35.22	1,663.38	3,596.95	1,716.59	1,605.57	111.02	15.463		
13,000.00	9,745.00	11,562.33	8,340.00	91.54	84.29	-35.22	1,663.33	3,696.95	1,716.59	1,602.73	113.86	15.076		
13,100.00	9,745.00	11,662.33	8,340.00	93.77	86.56	-35.22	1,663.29	3,796.95	1,716.59	1,599.87	116.72	14.707		
13,200.00	9,745.00	11,762.33	8,340.00	96.02	88.84	-35.22	1,663.25	3,896.95	1,716.59	1,597.00	119.59	14.354		
13,300.00	9,745.00	11,862.33	8,340.00	98.27	91.12	-35.22	1,663.20	3,996.95	1,716.59	1,594.12	122.47	14.017		
13,400.00	9,745.00	11,962.33	8,340.00	100.53	93.41	-35.22	1,663.16	4,096.95	1,716.59	1,591.24	125.35	13.694		
13,500.00	9,745.00	12,062.33	8,340.00	102.80	95.71	-35.22	1,663.12	4,196.95	1,716.59	1,588.34	128.25	13.384		
13,600.00	9,745.00	12,162.33	8,340.00	105.07	98.02	-35.22	1,663.07	4,296.95	1,716.59	1,585.43	131.16	13.088		
13,700.00	9,745.00	12,262.33	8,340.00	107.35	100.33	-35.22	1,663.03	4,396.95	1,716.59	1,582.52	134.07	12.803		
13,800.00	9,745.00	12,362.33	8,340.00	109.64	102.65	-35.22	1,662.99	4,496.95	1,716.59	1,579.60	136.99	12.530		

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 - #121H - 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 (°)	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)		+N/-S (usft)	+E/-W (usft)						
13,900.00	9,745.00	12,462.33	8,340.00	111.93	104.97	-35.22	1,662.95	4,596.95	1,716.59	1,576.67	139.92	12.268		
14,000.00	9,745.00	12,562.33	8,340.00	114.23	107.29	-35.22	1,662.90	4,696.95	1,716.59	1,573.73	142.86	12.016		
14,100.00	9,745.00	12,662.33	8,340.00	116.53	109.62	-35.22	1,662.86	4,796.95	1,716.59	1,570.79	145.80	11.774		
14,200.00	9,745.00	12,762.33	8,340.00	118.84	111.96	-35.22	1,662.82	4,896.95	1,716.59	1,567.85	148.74	11.541		
14,300.00	9,745.00	12,862.33	8,340.00	121.15	114.30	-35.22	1,662.77	4,996.95	1,716.59	1,564.90	151.69	11.316		
14,400.00	9,745.00	12,962.33	8,340.00	123.47	116.64	-35.22	1,662.73	5,096.95	1,716.59	1,561.94	154.65	11.100		
14,500.00	9,745.00	13,062.33	8,340.00	125.79	118.98	-35.22	1,662.69	5,196.95	1,716.59	1,558.98	157.61	10.891		
14,600.00	9,745.00	13,162.33	8,340.00	128.12	121.33	-35.22	1,662.64	5,296.95	1,716.59	1,556.01	160.58	10.690		
14,653.44	9,745.00	13,215.76	8,340.00	129.36	122.58	-35.22	1,662.62	5,350.39	1,716.59	1,554.42	162.17	10.585		
14,661.21	9,745.00	13,216.38	8,340.00	129.54	122.60	-35.22	1,662.62	5,351.00	1,716.60	1,554.29	162.31	10.576 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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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	0.88	0.88	0.00	0.00	179.98	-59.97	0.02	59.97				
100.00	100.00	100.88	100.88	0.13	0.13	179.98	-59.97	0.02	59.97	59.71	0.26	232.740	
200.00	200.00	200.88	200.88	0.49	0.49	179.98	-59.97	0.02	59.97	59.00	0.97	61.532	
300.00	300.00	300.88	300.88	0.84	0.85	179.98	-59.97	0.02	59.97	58.28	1.69	35.453	
400.00	400.00	400.88	400.88	1.20	1.21	179.98	-59.97	0.02	59.97	57.56	2.41	24.899	
500.00	500.00	500.88	500.88	1.56	1.56	179.98	-59.97	0.02	59.97	56.84	3.13	19.188	
600.00	600.00	600.88	600.88	1.92	1.92	179.98	-59.97	0.02	59.97	56.13	3.84	15.607	
700.00	700.00	700.88	700.88	2.28	2.28	179.98	-59.97	0.02	59.97	55.41	4.56	13.153	
800.00	800.00	800.88	800.88	2.64	2.64	179.98	-59.97	0.02	59.97	54.69	5.28	11.366	
900.00	900.00	900.88	900.88	3.00	3.00	179.98	-59.97	0.02	59.97	53.98	5.99	10.006	
1,000.00	1,000.00	1,000.89	1,000.89	3.35	3.36	179.98	-59.97	0.02	59.97	53.26	6.71	8.937	
1,009.31	1,009.31	1,010.32	1,010.32	3.39	3.39	159.10	-59.96	0.03	59.97	53.19	6.78	8.849 CC	
1,100.00	1,099.99	1,102.23	1,102.22	3.71	3.72	158.86	-58.82	0.76	60.06	52.63	7.43	8.084	
1,200.00	1,199.91	1,203.56	1,203.47	4.07	4.08	158.13	-55.40	2.94	60.36	52.22	8.14	7.411	
1,300.00	1,299.69	1,304.38	1,304.08	4.43	4.44	157.04	-49.91	6.45	61.06	52.20	8.86	6.892 ES	
1,400.00	1,399.27	1,404.34	1,403.79	4.79	4.80	156.67	-44.04	10.21	63.76	54.18	9.58	6.656	
1,500.00	1,498.57	1,504.21	1,503.41	5.16	5.16	157.19	-38.17	13.96	68.86	58.56	10.30	6.686	
1,533.33	1,531.60	1,537.46	1,536.59	5.28	5.28	157.52	-36.22	15.21	71.10	60.56	10.54	6.746	
1,600.00	1,597.62	1,603.95	1,602.92	5.53	5.52	158.23	-32.31	17.71	75.85	64.83	11.02	6.882	
1,700.00	1,696.65	1,703.69	1,702.41	5.91	5.89	159.14	-26.45	21.46	83.00	71.26	11.74	7.068	
1,800.00	1,795.67	1,803.43	1,801.90	6.30	6.25	159.91	-20.59	25.21	90.17	77.70	12.47	7.232	
1,900.00	1,894.70	1,903.16	1,901.40	6.69	6.62	160.57	-14.73	28.95	97.35	84.15	13.19	7.378	
2,000.00	1,993.73	2,002.90	2,000.89	7.08	6.98	161.13	-8.87	32.70	104.54	90.62	13.92	7.509	
2,100.00	2,092.75	2,102.64	2,100.38	7.47	7.35	161.63	-3.00	36.45	111.74	97.09	14.65	7.627	
2,200.00	2,191.78	2,202.37	2,199.88	7.87	7.72	162.06	2.86	40.20	118.95	103.57	15.38	7.735	
2,300.00	2,290.81	2,302.11	2,299.37	8.27	8.09	162.44	8.72	43.95	126.16	110.05	16.11	7.832	
2,400.00	2,389.83	2,401.84	2,398.86	8.67	8.45	162.78	14.58	47.70	133.38	116.54	16.84	7.921	
2,500.00	2,488.86	2,501.58	2,498.36	9.07	8.82	163.09	20.44	51.45	140.60	123.03	17.57	8.003	
2,600.00	2,587.89	2,601.32	2,597.85	9.47	9.19	163.37	26.30	55.19	147.83	129.53	18.30	8.078	
2,700.00	2,686.91	2,701.05	2,697.34	9.88	9.56	163.62	32.16	58.94	155.06	136.03	19.03	8.147	
2,800.00	2,785.94	2,800.79	2,796.83	10.28	9.93	163.85	38.02	62.69	162.29	142.53	19.76	8.212	
2,899.91	2,884.88	2,902.50	2,898.27	10.69	10.31	164.00	44.30	66.71	169.21	148.71	20.50	8.254	
3,000.00	2,983.80	3,006.56	3,001.83	11.10	10.70	163.87	52.81	72.15	175.29	154.05	21.24	8.252	
3,100.00	3,082.20	3,110.66	3,105.13	11.53	11.10	163.57	63.69	79.11	181.47	159.49	21.98	8.255	
3,200.00	3,180.10	3,210.63	3,204.13	11.97	11.49	163.30	75.41	86.60	188.82	166.09	22.74	8.305	
3,249.91	3,228.76	3,260.34	3,253.35	12.20	11.69	163.26	81.24	90.33	193.43	170.32	23.11	8.369	
3,300.00	3,277.51	3,310.18	3,302.71	12.43	11.89	163.26	87.08	94.07	198.36	174.87	23.49	8.444	
3,400.00	3,374.85	3,409.69	3,401.25	12.89	12.28	163.26	98.75	101.53	208.21	183.96	24.25	8.587	
3,500.00	3,472.19	3,509.20	3,499.80	13.36	12.67	163.26	110.42	108.99	218.06	193.05	25.01	8.720	
3,600.00	3,569.53	3,608.72	3,598.34	13.82	13.07	163.26	122.08	116.45	227.91	202.14	25.77	8.845	
3,700.00	3,666.87	3,708.23	3,696.89	14.29	13.47	163.27	133.75	123.91	237.75	211.23	26.53	8.962	
3,800.00	3,764.20	3,807.75	3,795.43	14.77	13.86	163.27	145.42	131.37	247.60	220.31	27.29	9.073	
3,900.00	3,861.54	3,907.26	3,893.98	15.24	14.26	163.27	157.09	138.84	257.45	229.40	28.05	9.177	
4,000.00	3,958.88	4,006.77	3,992.52	15.72	14.66	163.27	168.75	146.30	267.30	238.48	28.82	9.275	
4,100.00	4,056.22	4,106.29	4,091.07	16.20	15.06	163.27	180.42	153.76	277.15	247.56	29.58	9.368	
4,200.00	4,153.56	4,205.80	4,189.61	16.67	15.47	163.27	192.09	161.22	286.99	256.64	30.35	9.456	
4,300.00	4,250.89	4,305.32	4,288.16	17.16	15.87	163.27	203.76	168.68	296.84	265.72	31.12	9.539	
4,400.00	4,348.23	4,404.83	4,386.71	17.64	16.27	163.27	215.42	176.15	306.69	274.80	31.89	9.618	
4,500.00	4,445.57	4,504.34	4,485.25	18.12	16.67	163.28	227.09	183.61	316.54	283.88	32.66	9.693	
4,600.00	4,542.91	4,603.86	4,583.80	18.61	17.08	163.28	238.76	191.07	326.39	292.96	33.43	9.764	
4,683.84	4,624.52	4,687.29	4,666.42	19.01	17.42	163.28	248.54	197.33	334.64	300.57	34.07	9.821	
4,700.00	4,640.25	4,703.37	4,682.35	19.09	17.48	163.28	250.43	198.53	336.20	302.00	34.20	9.831	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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-MWVD													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	
4,800.00	4,737.97	4,803.03	4,781.03	19.56	17.89	163.24	262.11	206.01	344.40	309.43	34.97	9.849	
4,900.00	4,836.21	4,902.86	4,879.89	20.02	18.30	163.06	273.82	213.49	350.09	314.36	35.74	9.796	
5,000.00	4,934.91	5,002.79	4,978.84	20.45	18.70	162.75	285.53	220.98	353.30	316.79	36.51	9.677	
5,100.00	5,033.99	5,102.74	5,077.83	20.86	19.11	162.31	297.25	228.48	354.02	316.74	37.28	9.496	
5,200.00	5,133.39	5,202.66	5,176.78	21.26	19.52	161.73	308.97	235.97	352.27	314.22	38.05	9.257	
5,300.00	5,233.04	5,298.03	5,271.27	21.63	19.91	161.06	319.80	242.90	348.48	309.67	38.81	8.979	
5,400.00	5,332.88	5,390.65	5,363.30	21.98	20.27	160.44	328.57	248.51	344.19	304.65	39.53	8.706	
5,500.00	5,432.83	5,483.40	5,455.69	22.31	20.63	159.86	335.47	252.92	339.54	299.31	40.23	8.440	
5,567.18	5,500.00	5,545.78	5,517.92	22.52	20.86	-179.64	339.04	255.21	336.22	295.53	40.68	8.265	
5,600.00	5,532.82	5,576.29	5,548.38	22.62	20.97	-179.80	340.48	256.12	334.66	293.77	40.90	8.183	
5,700.00	5,632.82	5,669.37	5,641.39	22.93	21.30	179.86	343.60	258.12	331.31	289.78	41.53	7.977	
5,800.00	5,732.82	5,762.58	5,734.58	23.23	21.62	179.73	344.80	258.89	330.02	287.88	42.14	7.832	
5,838.31	5,771.13	5,800.01	5,772.01	23.35	21.74	179.73	344.82	258.90	330.00	287.61	42.39	7.785	
5,900.00	5,832.82	5,861.70	5,833.70	23.54	21.95	179.73	344.82	258.90	330.00	287.19	42.81	7.708	
6,000.00	5,932.82	5,961.70	5,933.70	23.86	22.29	179.73	344.82	258.90	330.00	286.51	43.50	7.587	
6,100.00	6,032.82	6,061.70	6,033.70	24.17	22.62	179.73	344.82	258.90	330.00	285.82	44.19	7.469	
6,200.00	6,132.82	6,161.70	6,133.70	24.48	22.96	179.73	344.82	258.90	330.00	285.13	44.87	7.354	
6,300.00	6,232.82	6,261.70	6,233.70	24.80	23.29	179.73	344.82	258.90	330.00	284.44	45.56	7.243	
6,400.00	6,332.82	6,361.70	6,333.70	25.12	23.63	179.73	344.82	258.90	330.00	283.75	46.25	7.135	
6,500.00	6,432.82	6,461.70	6,433.70	25.43	23.97	179.73	344.82	258.90	330.00	283.06	46.94	7.030	
6,600.00	6,532.82	6,561.70	6,533.70	25.75	24.31	179.73	344.82	258.90	330.00	282.37	47.63	6.928	
6,700.00	6,632.82	6,661.70	6,633.70	26.07	24.65	179.73	344.82	258.90	330.00	281.68	48.33	6.829	
6,800.00	6,732.82	6,761.70	6,733.70	26.39	24.99	179.73	344.82	258.90	330.00	280.98	49.02	6.732	
6,900.00	6,832.82	6,861.70	6,833.70	26.72	25.33	179.73	344.82	258.90	330.00	280.29	49.71	6.638	
7,000.00	6,932.82	6,961.70	6,933.70	27.04	25.67	179.73	344.82	258.90	330.00	279.60	50.41	6.547	
7,100.00	7,032.82	7,061.70	7,033.70	27.36	26.01	179.73	344.82	258.90	330.00	278.90	51.10	6.458	
7,200.00	7,132.82	7,161.70	7,133.70	27.69	26.35	179.73	344.82	258.90	330.00	278.21	51.80	6.371	
7,300.00	7,232.82	7,261.70	7,233.70	28.01	26.69	179.73	344.82	258.90	330.00	277.51	52.49	6.287	
7,400.00	7,332.82	7,361.70	7,333.70	28.34	27.03	179.73	344.82	258.90	330.00	276.81	53.19	6.204	
7,500.00	7,432.82	7,461.70	7,433.70	28.66	27.38	179.73	344.82	258.90	330.00	276.12	53.89	6.124	
7,600.00	7,532.82	7,561.70	7,533.70	28.99	27.72	179.73	344.82	258.90	330.00	275.42	54.58	6.046	
7,700.00	7,632.82	7,661.70	7,633.70	29.32	28.06	179.73	344.82	258.90	330.00	274.72	55.28	5.969	
7,800.00	7,732.82	7,761.70	7,733.70	29.65	28.41	179.73	344.82	258.90	330.00	274.02	55.98	5.895	
7,800.71	7,733.54	7,762.41	7,734.42	29.65	28.41	179.73	344.82	258.90	330.00	274.02	55.99	5.894	
7,900.00	7,832.82	7,861.21	7,833.06	29.98	28.75	179.06	344.82	262.72	330.05	273.35	56.70	5.821	
8,000.00	7,932.82	7,966.76	7,926.63	30.31	29.11	175.80	344.81	281.57	330.98	273.52	57.46	5.760 SF	
8,100.00	8,032.82	8,043.96	8,008.21	30.64	29.46	170.57	344.80	312.13	335.51	277.44	58.08	5.777	
8,200.00	8,132.82	8,120.43	8,075.22	30.97	29.79	164.50	344.78	348.84	347.45	289.27	58.18	5.972	
8,300.00	8,232.82	8,185.82	8,128.22	31.30	30.08	158.54	344.76	387.08	370.00	312.64	57.36	6.451	
8,400.00	8,332.82	8,241.01	8,169.33	31.64	30.36	153.22	344.75	423.88	404.61	349.08	55.53	7.286	
8,500.00	8,432.82	8,287.42	8,201.02	31.97	30.60	148.73	344.73	457.76	450.86	397.89	52.97	8.511	
8,600.00	8,532.82	8,326.49	8,225.50	32.30	30.83	145.03	344.72	488.20	507.21	457.11	50.10	10.124	
8,700.00	8,632.82	8,359.56	8,244.56	32.64	31.03	142.00	344.71	515.22	571.77	524.52	47.24	12.102	
8,800.00	8,732.82	8,387.72	8,259.54	32.97	31.22	139.52	344.70	539.07	642.80	598.20	44.60	14.413	
8,900.00	8,832.82	8,411.90	8,271.45	33.31	31.38	137.47	344.69	560.10	718.88	676.64	42.24	17.019	
9,000.00	8,932.82	8,432.80	8,281.03	33.64	31.53	135.77	344.68	578.68	798.90	758.72	40.19	19.879	
9,100.00	9,032.82	8,450.00	8,288.40	33.98	31.66	134.42	344.68	594.22	882.03	843.66	38.38	22.983	
9,200.00	9,132.82	8,466.97	8,295.21	34.32	31.79	133.13	344.67	609.77	967.63	930.70	36.92	26.208	
9,233.42	9,166.24	8,471.88	8,297.09	34.43	31.83	132.76	344.67	614.29	996.69	960.22	36.47	27.329	
9,250.00	9,182.82	8,474.32	8,298.01	34.49	31.85	40.63	344.67	616.56	1,011.10	974.85	36.25	27.892	
9,300.00	9,232.67	8,482.36	8,300.98	34.65	31.91	35.15	344.66	624.03	1,053.73	1,018.16	35.58	29.619	
9,350.00	9,282.02	8,500.00	8,307.12	34.83	32.05	30.46	344.66	640.56	1,095.04	1,059.81	35.23	31.087	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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		
9,400.00	9,330.49	8,500.00	8,307.12	35.01	32.05	27.35	344.66	640.56	1,134.50	1,100.36	34.14	33.228		
9,450.00	9,377.70	8,500.00	8,307.12	35.19	32.05	24.80	344.66	640.56	1,172.40	1,139.35	33.05	35.468		
9,500.00	9,423.31	8,522.79	8,314.30	35.38	32.24	22.28	344.65	662.19	1,207.96	1,175.20	32.76	36.875		
9,550.00	9,466.96	8,534.50	8,317.66	35.57	32.35	20.44	344.64	673.41	1,241.52	1,209.48	32.04	38.750		
9,600.00	9,508.32	8,550.00	8,321.74	35.76	32.48	18.90	344.63	688.36	1,272.79	1,241.36	31.43	40.498		
9,650.00	9,547.08	8,550.00	8,321.74	35.96	32.48	17.78	344.63	688.36	1,301.72	1,271.39	30.34	42.911		
9,700.00	9,582.94	8,572.39	8,326.92	36.17	32.68	16.68	344.63	710.14	1,327.91	1,297.98	29.93	44.365		
9,750.00	9,615.63	8,600.00	8,332.14	36.40	32.94	15.75	344.61	737.25	1,351.83	1,322.16	29.66	45.572		
9,800.00	9,644.89	8,600.00	8,332.14	36.64	32.94	15.14	344.61	737.25	1,372.53	1,343.87	28.66	47.895		
9,850.00	9,670.52	8,600.00	8,332.14	36.91	32.94	14.63	344.61	737.25	1,390.90	1,363.16	27.74	50.139		
9,900.00	9,692.31	8,627.32	8,336.00	37.20	33.21	14.14	344.60	764.29	1,406.00	1,378.47	27.53	51.079		
9,950.00	9,710.09	8,650.00	8,338.23	37.53	33.43	13.77	344.59	786.87	1,418.48	1,391.25	27.23	52.089		
10,000.00	9,723.73	8,650.00	8,338.23	37.88	33.43	13.55	344.59	786.87	1,427.89	1,401.33	26.56	53.768		
10,033.42	9,730.49	8,665.54	8,339.24	38.14	33.59	13.42	344.59	802.37	1,432.51	1,406.06	26.45	54.167		
10,050.00	9,733.23	8,670.34	8,339.47	38.27	33.64	13.38	344.58	807.16	1,434.42	1,408.06	26.35	54.433		
10,100.00	9,739.76	8,695.04	8,340.00	38.69	33.89	13.29	344.57	831.86	1,439.42	1,413.15	26.27	54.784		
10,150.00	9,743.69	8,709.59	8,340.00	39.14	34.05	13.24	344.57	846.40	1,442.81	1,416.69	26.12	55.230		
10,200.08	9,745.00	8,759.65	8,340.00	39.61	34.61	13.21	344.55	896.46	1,444.09	1,417.61	26.48	54.530		
10,300.00	9,745.00	8,859.56	8,340.00	40.65	35.82	13.21	344.50	996.38	1,444.09	1,416.81	27.28	52.937		
10,400.00	9,745.00	8,959.56	8,340.00	41.81	37.14	13.21	344.46	1,096.38	1,444.09	1,415.91	28.18	51.243		
10,500.00	9,745.00	9,059.56	8,340.00	43.07	38.57	13.21	344.42	1,196.38	1,444.09	1,414.92	29.18	49.495		
10,600.00	9,745.00	9,159.56	8,340.00	44.44	40.09	13.21	344.37	1,296.38	1,444.09	1,413.84	30.26	47.729		
10,700.00	9,745.00	9,259.56	8,340.00	45.89	41.70	13.21	344.33	1,396.38	1,444.09	1,412.68	31.41	45.974		
10,800.00	9,745.00	9,359.56	8,340.00	47.42	43.39	13.21	344.29	1,496.38	1,444.09	1,411.46	32.63	44.252		
10,900.00	9,745.00	9,459.56	8,340.00	49.03	45.14	13.21	344.24	1,596.38	1,444.09	1,410.18	33.92	42.578		
11,000.00	9,745.00	9,559.56	8,340.00	50.70	46.95	13.21	344.20	1,696.38	1,444.09	1,408.84	35.25	40.965		
11,100.00	9,745.00	9,659.56	8,340.00	52.43	48.82	13.21	344.16	1,796.38	1,444.09	1,407.46	36.64	39.417		
11,200.00	9,745.00	9,759.56	8,340.00	54.22	50.74	13.21	344.11	1,896.38	1,444.09	1,406.03	38.06	37.940		
11,300.00	9,745.00	9,859.56	8,340.00	56.05	52.69	13.21	344.07	1,996.38	1,444.09	1,404.57	39.53	36.535		
11,400.00	9,745.00	9,959.56	8,340.00	57.93	54.69	13.21	344.03	2,096.38	1,444.09	1,403.07	41.02	35.201		
11,500.00	9,745.00	10,059.56	8,340.00	59.84	56.71	13.21	343.98	2,196.38	1,444.09	1,401.54	42.55	33.937		
11,600.00	9,745.00	10,159.56	8,340.00	61.80	58.77	13.21	343.94	2,296.38	1,444.09	1,399.98	44.11	32.740		
11,700.00	9,745.00	10,259.56	8,340.00	63.78	60.86	13.21	343.90	2,396.38	1,444.09	1,398.40	45.69	31.608		
11,800.00	9,745.00	10,359.56	8,340.00	65.80	62.97	13.21	343.86	2,496.38	1,444.09	1,396.80	47.29	30.538		
11,900.00	9,745.00	10,459.56	8,340.00	67.84	65.10	13.21	343.81	2,596.38	1,444.09	1,395.18	48.91	29.525		
12,000.00	9,745.00	10,559.56	8,340.00	69.90	67.25	13.21	343.77	2,696.38	1,444.09	1,393.54	50.55	28.568		
12,100.00	9,745.00	10,659.56	8,340.00	71.99	69.42	13.21	343.73	2,796.38	1,444.09	1,391.89	52.21	27.662		
12,200.00	9,745.00	10,759.56	8,340.00	74.10	71.60	13.21	343.68	2,896.38	1,444.09	1,390.22	53.88	26.804		
12,300.00	9,745.00	10,859.56	8,340.00	76.23	73.80	13.21	343.64	2,996.38	1,444.09	1,388.53	55.56	25.992		
12,400.00	9,745.00	10,959.56	8,340.00	78.37	76.02	13.21	343.60	3,096.38	1,444.09	1,386.84	57.26	25.222		
12,500.00	9,745.00	11,059.56	8,340.00	80.54	78.24	13.21	343.55	3,196.38	1,444.09	1,385.13	58.96	24.491		
12,600.00	9,745.00	11,159.56	8,340.00	82.71	80.48	13.21	343.51	3,296.38	1,444.09	1,383.41	60.68	23.798		
12,700.00	9,745.00	11,259.56	8,340.00	84.90	82.73	13.21	343.47	3,396.38	1,444.09	1,381.68	62.41	23.140		
12,800.00	9,745.00	11,359.56	8,340.00	87.10	84.99	13.21	343.42	3,496.38	1,444.09	1,379.95	64.14	22.513		
12,900.00	9,745.00	11,459.56	8,340.00	89.32	87.25	13.21	343.38	3,596.38	1,444.09	1,378.20	65.89	21.918		
13,000.00	9,745.00	11,559.56	8,340.00	91.54	89.53	13.21	343.34	3,696.38	1,444.09	1,376.45	67.64	21.350		
13,100.00	9,745.00	11,659.56	8,340.00	93.77	91.81	13.21	343.29	3,796.38	1,444.09	1,374.69	69.40	20.809		
13,200.00	9,745.00	11,759.56	8,340.00	96.02	94.10	13.21	343.25	3,896.38	1,444.09	1,372.93	71.16	20.293		
13,300.00	9,745.00	11,859.56	8,340.00	98.27	96.40	13.21	343.21	3,996.38	1,444.09	1,371.16	72.93	19.801		
13,400.00	9,745.00	11,959.56	8,340.00	100.53	98.70	13.21	343.16	4,096.38	1,444.09	1,369.38	74.71	19.330		
13,500.00	9,745.00	12,059.56	8,340.00	102.80	101.01	13.21	343.12	4,196.38	1,444.09	1,367.60	76.49	18.880		
13,600.00	9,745.00	12,159.56	8,340.00	105.07	103.32	13.21	343.08	4,296.38	1,444.09	1,365.82	78.27	18.450		

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 (°)	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)			
13,700.00	9,745.00	12,259.56	8,340.00	107.35	105.64	13.21	343.04	4,396.38	1,444.09	1,364.03	80.06	18.037	
13,800.00	9,745.00	12,359.56	8,340.00	109.64	107.96	13.21	342.99	4,496.38	1,444.09	1,362.24	81.86	17.642	
13,900.00	9,745.00	12,459.56	8,340.00	111.93	110.29	13.21	342.95	4,596.38	1,444.09	1,360.44	83.65	17.263	
14,000.00	9,745.00	12,559.56	8,340.00	114.23	112.62	13.21	342.91	4,696.38	1,444.09	1,358.64	85.45	16.899	
14,100.00	9,745.00	12,659.56	8,340.00	116.53	114.96	13.21	342.86	4,796.38	1,444.09	1,356.83	87.26	16.549	
14,200.00	9,745.00	12,759.56	8,340.00	118.84	117.30	13.21	342.82	4,896.38	1,444.09	1,355.02	89.07	16.214	
14,300.00	9,745.00	12,859.56	8,340.00	121.15	119.64	13.21	342.78	4,996.38	1,444.09	1,353.21	90.88	15.890	
14,400.00	9,745.00	12,959.56	8,340.00	123.47	121.99	13.21	342.73	5,096.38	1,444.09	1,351.40	92.69	15.579	
14,500.00	9,745.00	13,059.56	8,340.00	125.79	124.33	13.21	342.69	5,196.38	1,444.09	1,349.58	94.51	15.280	
14,600.00	9,745.00	13,159.56	8,340.00	128.12	126.69	13.21	342.65	5,296.38	1,444.09	1,347.76	96.33	14.992	
14,661.21	9,745.00	13,220.77	8,340.00	129.54	128.13	13.21	342.62	5,357.59	1,444.09	1,346.65	97.44	14.820	



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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 (°)	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	2.80	-2.80	0.00	0.00	21.13	1,613.65	623.49	1,729.92				
100.00	100.00	102.80	97.20	0.13	0.14	21.13	1,613.65	623.49	1,729.92	1,729.65	0.26	6,539.027	
200.00	200.00	202.80	197.20	0.49	0.50	21.13	1,613.65	623.49	1,729.92	1,728.93	0.98	1,762.530	
300.00	300.00	302.80	297.20	0.84	0.85	21.13	1,613.65	623.49	1,729.92	1,728.22	1.70	1,018.533	
400.00	400.00	402.80	397.20	1.20	1.21	21.13	1,613.65	623.49	1,729.92	1,727.50	2.42	716.208	
500.00	500.00	502.80	497.20	1.56	1.57	21.13	1,613.65	623.49	1,729.92	1,726.78	3.13	552.278	
600.00	600.00	602.80	597.20	1.92	1.93	21.13	1,613.65	623.49	1,729.92	1,726.07	3.85	449.414	
700.00	700.00	702.80	697.20	2.28	2.29	21.13	1,613.65	623.49	1,729.92	1,725.35	4.57	378.851	
800.00	800.00	802.80	797.20	2.64	2.65	21.13	1,613.65	623.49	1,729.92	1,724.63	5.28	327.440	
900.00	900.00	902.80	897.20	3.00	3.01	21.13	1,613.65	623.49	1,729.92	1,723.91	6.00	288.315	
1,000.00	1,000.00	1,002.80	997.20	3.35	3.36	21.13	1,613.65	623.49	1,729.92	1,723.20	6.72	257.541	
1,100.00	1,099.99	1,102.81	1,097.19	3.71	3.72	0.25	1,613.65	623.49	1,728.61	1,721.17	7.43	232.540	
1,200.00	1,199.91	1,189.88	1,189.88	4.07	4.03	0.25	1,613.79	623.36	1,724.78	1,716.67	8.10	212.858	
1,300.00	1,299.69	1,273.82	1,273.80	4.43	4.33	0.20	1,615.05	622.13	1,719.11	1,710.36	8.76	196.278	
1,400.00	1,399.27	1,357.63	1,357.53	4.79	4.63	0.09	1,617.64	619.63	1,711.77	1,702.35	9.41	181.824	
1,500.00	1,498.57	1,441.22	1,440.95	5.16	4.93	-0.08	1,621.53	615.85	1,702.74	1,692.67	10.07	169.073	
1,533.33	1,531.60	1,469.03	1,468.66	5.28	5.03	-0.15	1,623.11	614.32	1,699.37	1,689.08	10.29	165.129	
1,600.00	1,597.62	1,524.58	1,523.98	5.53	5.23	-0.30	1,626.71	610.83	1,692.65	1,681.92	10.73	157.758	
1,700.00	1,696.65	1,607.78	1,606.69	5.91	5.53	-0.58	1,633.18	604.56	1,683.38	1,671.99	11.39	147.807	
1,800.00	1,795.67	1,691.88	1,690.08	6.30	5.84	-0.92	1,641.03	596.95	1,675.11	1,663.06	12.06	138.926	
1,900.00	1,894.70	1,809.24	1,788.00	6.69	6.29	-1.36	1,650.91	587.37	1,667.35	1,654.49	12.86	129.648	
2,000.00	1,993.73	1,889.64	1,885.92	7.08	6.59	-1.80	1,660.79	577.79	1,659.68	1,646.15	13.53	122.677	
2,100.00	2,092.75	1,988.52	1,983.84	7.47	6.97	-2.24	1,670.67	568.22	1,652.11	1,637.84	14.27	115.766	
2,200.00	2,191.78	2,087.41	2,081.76	7.87	7.36	-2.68	1,680.56	558.64	1,644.65	1,629.63	15.02	109.520	
2,300.00	2,290.81	2,186.29	2,179.68	8.27	7.75	-3.13	1,690.44	549.06	1,637.28	1,621.52	15.77	103.853	
2,400.00	2,389.83	2,285.17	2,277.60	8.67	8.14	-3.59	1,700.32	539.48	1,630.02	1,613.50	16.52	98.692	
2,500.00	2,488.86	2,384.05	2,375.52	9.07	8.53	-4.05	1,710.20	529.90	1,622.86	1,605.59	17.27	93.975	
2,600.00	2,587.89	2,482.93	2,473.44	9.47	8.93	-4.51	1,720.08	520.33	1,615.81	1,597.79	18.02	89.649	
2,700.00	2,686.91	2,581.82	2,571.36	9.88	9.32	-4.97	1,729.96	510.75	1,608.87	1,590.09	18.78	85.670	
2,800.00	2,785.94	2,680.70	2,669.28	10.28	9.72	-5.44	1,739.84	501.17	1,602.03	1,582.49	19.54	81.999	
2,899.91	2,884.88	2,779.50	2,767.11	10.69	10.12	-5.92	1,749.72	491.60	1,595.31	1,575.01	20.29	78.607	
3,000.00	2,983.80	2,878.35	2,865.00	11.10	10.52	-6.41	1,759.60	482.02	1,587.39	1,566.33	21.06	75.391	
3,100.00	3,082.20	2,976.84	2,962.54	11.53	10.92	-6.93	1,769.44	472.48	1,577.00	1,555.19	21.82	72.281	
3,200.00	3,180.10	3,074.99	3,059.73	11.97	11.32	-7.47	1,779.25	462.98	1,564.16	1,541.58	22.58	69.268	
3,249.91	3,228.76	3,123.83	3,108.09	12.20	11.52	-7.75	1,784.13	458.25	1,556.84	1,533.87	22.96	67.797	
3,300.00	3,277.51	3,172.78	3,156.57	12.43	11.72	-8.02	1,789.02	453.50	1,549.20	1,525.85	23.35	66.359	
3,400.00	3,374.85	3,270.52	3,253.36	12.89	12.12	-8.57	1,798.79	444.04	1,534.06	1,509.95	24.11	63.627	
3,500.00	3,472.19	3,368.26	3,350.15	13.36	12.52	-9.13	1,808.55	434.57	1,519.06	1,494.19	24.88	61.066	
3,600.00	3,569.53	3,466.00	3,446.94	13.82	12.92	-9.70	1,818.32	425.10	1,504.21	1,478.57	25.64	58.660	
3,700.00	3,666.87	3,563.74	3,543.72	14.29	13.32	-10.28	1,828.09	415.63	1,489.52	1,463.11	26.41	56.396	
3,800.00	3,764.20	3,661.48	3,640.51	14.77	13.72	-10.87	1,837.86	406.17	1,474.98	1,447.79	27.18	54.264	
3,900.00	3,861.54	3,759.22	3,737.30	15.24	14.13	-11.48	1,847.62	396.70	1,460.60	1,432.64	27.95	52.252	
4,000.00	3,958.88	3,856.96	3,834.09	15.72	14.53	-12.09	1,857.39	387.23	1,446.38	1,417.66	28.73	50.352	
4,100.00	4,056.22	3,954.70	3,930.88	16.20	14.93	-12.72	1,867.16	377.76	1,432.34	1,402.84	29.50	48.556	
4,200.00	4,153.56	4,052.44	4,027.67	16.67	15.33	-13.36	1,876.92	368.30	1,418.48	1,388.20	30.27	46.854	
4,300.00	4,250.89	4,150.18	4,124.46	17.16	15.74	-14.01	1,886.69	358.83	1,404.79	1,373.74	31.05	45.242	
4,400.00	4,348.23	4,247.92	4,221.24	17.64	16.14	-14.67	1,896.46	349.36	1,391.29	1,359.46	31.83	43.712	
4,500.00	4,445.57	4,345.66	4,318.03	18.12	16.55	-15.35	1,906.23	339.89	1,377.99	1,345.38	32.61	42.260	
4,600.00	4,542.91	4,443.40	4,414.82	18.61	16.95	-16.04	1,915.99	330.43	1,364.88	1,331.49	33.39	40.879	
4,683.84	4,624.52	4,525.34	4,495.97	19.01	17.29	-16.63	1,924.18	322.49	1,354.04	1,320.00	34.04	39.773	
4,700.00	4,640.25	4,541.14	4,511.62	19.09	17.36	-16.73	1,925.76	320.96	1,352.01	1,317.84	34.17	39.566	
4,800.00	4,737.97	4,639.16	4,608.68	19.56	17.76	-17.38	1,935.56	311.46	1,340.95	1,306.00	34.95	38.366	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 (°)	Distance						
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	Warning
4,900.00	4,836.21	4,737.54	4,706.10	20.02	18.17	-18.01	1,945.39	301.93	1,332.58	1,296.85	35.73	37.295	
5,000.00	4,934.91	4,836.22	4,803.82	20.45	18.58	-18.63	1,955.25	292.38	1,326.87	1,290.36	36.51	36.347	
5,100.00	5,033.99	4,935.13	4,901.77	20.86	18.99	-19.23	1,965.13	282.79	1,323.80	1,286.52	37.28	35.514	
5,200.00	5,133.39	5,056.69	5,022.29	21.26	19.48	-19.90	1,976.50	271.78	1,322.76	1,284.64	38.12	34.702	
5,300.00	5,233.04	5,188.77	5,153.72	21.63	20.00	-20.46	1,985.82	262.75	1,321.97	1,283.01	38.96	33.932	
5,400.00	5,332.88	5,321.44	5,286.11	21.98	20.48	-20.82	1,991.88	256.87	1,321.21	1,281.46	39.75	33.237	
5,500.00	5,432.83	5,454.45	5,419.06	22.31	20.94	-21.00	1,994.65	254.19	1,320.43	1,279.94	40.49	32.610	
5,567.18	5,500.00	5,532.59	5,497.20	22.52	21.20	-0.14	1,994.83	254.01	1,320.01	1,279.06	40.96	32.230	
5,600.00	5,532.82	5,565.41	5,530.02	22.62	21.31	-0.14	1,994.83	254.01	1,320.01	1,278.84	41.18	32.056	
5,700.00	5,632.82	5,665.41	5,630.02	22.93	21.63	-0.14	1,994.83	254.01	1,320.01	1,278.16	41.85	31.539	
5,800.00	5,732.82	5,765.41	5,730.02	23.23	21.96	-0.14	1,994.83	254.01	1,320.01	1,277.48	42.53	31.037	
5,900.00	5,832.82	5,865.41	5,830.02	23.54	22.29	-0.14	1,994.83	254.01	1,320.01	1,276.81	43.21	30.550	
6,000.00	5,932.82	5,965.41	5,930.02	23.86	22.62	-0.14	1,994.83	254.01	1,320.01	1,276.13	43.89	30.077	
6,100.00	6,032.82	6,065.41	6,030.02	24.17	22.95	-0.14	1,994.83	254.01	1,320.01	1,275.45	44.57	29.618	
6,200.00	6,132.82	6,165.41	6,130.02	24.48	23.28	-0.14	1,994.83	254.01	1,320.01	1,274.76	45.25	29.172	
6,300.00	6,232.82	6,265.41	6,230.02	24.80	23.61	-0.14	1,994.83	254.01	1,320.01	1,274.08	45.93	28.738	
6,400.00	6,332.82	6,365.41	6,330.02	25.12	23.95	-0.14	1,994.83	254.01	1,320.01	1,273.40	46.62	28.316	
6,500.00	6,432.82	6,465.41	6,430.02	25.43	24.28	-0.14	1,994.83	254.01	1,320.01	1,272.71	47.30	27.906	
6,600.00	6,532.82	6,565.41	6,530.02	25.75	24.61	-0.14	1,994.83	254.01	1,320.01	1,272.03	47.99	27.508	
6,700.00	6,632.82	6,665.41	6,630.02	26.07	24.95	-0.14	1,994.83	254.01	1,320.01	1,271.34	48.67	27.120	
6,800.00	6,732.82	6,765.41	6,730.02	26.39	25.29	-0.14	1,994.83	254.01	1,320.01	1,270.65	49.36	26.742	
6,900.00	6,832.82	6,865.41	6,830.02	26.72	25.62	-0.14	1,994.83	254.01	1,320.01	1,269.96	50.05	26.374	
7,000.00	6,932.82	6,965.41	6,930.02	27.04	25.96	-0.14	1,994.83	254.01	1,320.01	1,269.28	50.74	26.016	
7,100.00	7,032.82	7,065.41	7,030.02	27.36	26.30	-0.14	1,994.83	254.01	1,320.01	1,268.59	51.43	25.667	
7,200.00	7,132.82	7,165.41	7,130.02	27.69	26.63	-0.14	1,994.83	254.01	1,320.01	1,267.90	52.12	25.327	
7,300.00	7,232.82	7,265.41	7,230.02	28.01	26.97	-0.14	1,994.83	254.01	1,320.01	1,267.20	52.81	24.995	
7,400.00	7,332.82	7,365.41	7,330.02	28.34	27.31	-0.14	1,994.83	254.01	1,320.01	1,266.51	53.50	24.672	
7,500.00	7,432.82	7,465.41	7,430.02	28.66	27.65	-0.14	1,994.83	254.01	1,320.01	1,265.82	54.19	24.357	
7,600.00	7,532.82	7,565.41	7,530.02	28.99	27.99	-0.14	1,994.83	254.01	1,320.01	1,265.13	54.89	24.049	
7,700.00	7,632.82	7,665.41	7,630.02	29.32	28.33	-0.14	1,994.83	254.01	1,320.01	1,264.43	55.58	23.749	
7,800.00	7,732.82	7,765.41	7,730.02	29.65	28.67	-0.14	1,994.83	254.01	1,320.01	1,263.74	56.28	23.456	
7,900.00	7,832.82	7,865.41	7,830.02	29.98	29.01	-0.14	1,994.83	254.01	1,320.01	1,263.04	56.97	23.170	
8,000.00	7,932.82	7,965.41	7,930.02	30.31	29.36	-0.14	1,994.83	254.01	1,320.01	1,262.35	57.67	22.890	
8,100.00	8,032.82	8,065.41	8,030.02	30.64	29.70	-0.14	1,994.83	254.01	1,320.01	1,261.65	58.36	22.617	
8,200.00	8,132.82	8,165.41	8,130.02	30.97	30.04	-0.14	1,994.83	254.01	1,320.01	1,260.96	59.06	22.351	
8,300.00	8,232.82	8,265.41	8,230.02	31.30	30.38	-0.14	1,994.83	254.01	1,320.01	1,260.26	59.76	22.090	
8,400.00	8,332.82	8,365.41	8,330.02	31.64	30.73	-0.14	1,994.83	254.01	1,320.01	1,259.56	60.45	21.835	
8,500.00	8,432.82	8,465.41	8,430.02	31.97	31.07	-0.14	1,994.83	254.01	1,320.01	1,258.86	61.15	21.586	
8,600.00	8,532.82	8,565.41	8,530.02	32.30	31.41	-0.14	1,994.83	254.01	1,320.01	1,258.16	61.85	21.342	
8,700.00	8,632.82	8,665.41	8,630.02	32.64	31.76	-0.14	1,994.83	254.01	1,320.01	1,257.47	62.55	21.104	
8,800.00	8,732.82	8,765.41	8,730.02	32.97	32.10	-0.14	1,994.83	254.01	1,320.01	1,256.77	63.25	20.871	
8,900.00	8,832.82	8,865.41	8,830.02	33.31	32.45	-0.14	1,994.83	254.01	1,320.01	1,256.07	63.95	20.642	
9,000.00	8,932.82	8,965.41	8,930.02	33.64	32.79	-0.14	1,994.83	254.01	1,320.01	1,255.37	64.65	20.419	
9,100.00	9,032.82	9,065.41	9,030.02	33.98	33.14	-0.14	1,994.83	254.01	1,320.01	1,254.67	65.35	20.200	
9,200.00	9,132.82	9,165.41	9,130.02	34.32	33.48	-0.14	1,994.83	254.01	1,320.01	1,253.97	66.05	19.986	
9,233.42	9,166.24	9,198.83	9,163.44	34.43	33.60	-0.14	1,994.83	254.01	1,320.01	1,253.73	66.28	19.915	
9,250.00	9,182.82	9,215.50	9,180.12	34.49	33.65	-90.17	1,994.83	254.18	1,320.01	1,253.62	66.40	19.881	
9,300.00	9,232.67	9,265.86	9,230.34	34.65	33.81	-90.18	1,994.83	257.61	1,320.02	1,253.28	66.73	19.781	
9,350.00	9,282.02	9,316.24	9,280.09	34.83	33.96	-90.19	1,994.83	265.43	1,320.02	1,252.95	67.06	19.683	
9,400.00	9,330.49	9,366.63	9,328.97	35.01	34.10	-90.20	1,994.82	277.61	1,320.02	1,252.62	67.39	19.587	
9,450.00	9,377.70	9,417.03	9,378.61	35.19	34.22	-90.20	1,994.81	294.03	1,320.02	1,252.29	67.72	19.491	
9,500.00	9,423.31	9,467.44	9,422.62	35.38	34.33	-90.20	1,994.80	314.57	1,320.02	1,251.96	68.05	19.397	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well#202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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-MWVD												Offset Well Error:	0 00 usft
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
9,550.00	9,466.96	9,517.86	9,466.66	35.57	34.44	-90.21	1,994.79	339.09	1,320.02	1,251.63	68.39	19.302	
9,600.00	9,508.32	9,568.28	9,508.38	35.76	34.53	-90.21	1,994.78	367.38	1,320.02	1,251.29	68.73	19.206	
9,650.00	9,547.08	9,618.70	9,547.45	35.96	34.61	-90.21	1,994.77	399.23	1,320.02	1,250.93	69.09	19.107	
9,700.00	9,582.94	9,669.12	9,583.56	36.17	34.69	-90.20	1,994.75	434.38	1,320.02	1,250.55	69.46	19.004	
9,750.00	9,615.63	9,719.53	9,616.44	36.40	34.78	-90.20	1,994.74	472.57	1,320.02	1,250.15	69.87	18.894	
9,800.00	9,644.89	9,769.93	9,645.84	36.64	34.87	-90.19	1,994.72	513.49	1,320.02	1,249.71	70.30	18.776	
9,850.00	9,670.52	9,820.31	9,671.51	36.91	34.98	-90.19	1,994.70	556.82	1,320.01	1,249.23	70.79	18.648	
9,900.00	9,692.31	9,870.68	9,693.28	37.20	35.13	-90.18	1,994.68	602.23	1,320.01	1,248.70	71.32	18.510	
9,950.00	9,710.09	9,921.03	9,710.97	37.53	35.31	-90.17	1,994.66	649.35	1,320.01	1,248.12	71.90	18.360	
10,000.00	9,723.73	9,971.36	9,724.45	37.88	35.54	-90.16	1,994.64	697.82	1,320.01	1,247.48	72.53	18.199	
10,033.42	9,730.49	10,004.98	9,731.07	38.14	35.70	-90.15	1,994.62	730.78	1,320.01	1,247.03	72.98	18.088	
10,050.00	9,733.23	10,021.62	9,733.76	38.27	35.79	-90.15	1,994.62	747.20	1,320.01	1,246.79	73.22	18.029	
10,100.00	9,739.76	10,071.79	9,740.13	38.69	36.08	-90.14	1,994.59	796.96	1,320.01	1,246.05	73.96	17.848	
10,150.00	9,743.69	10,121.95	9,743.88	39.14	36.41	-90.13	1,994.57	846.97	1,320.01	1,245.26	74.75	17.658	
10,200.00	9,745.00	10,172.17	9,745.00	39.61	36.76	-90.12	1,994.55	897.18	1,320.01	1,244.41	75.60	17.460	
10,300.00	9,745.00	10,272.09	9,745.00	40.65	37.57	-90.12	1,994.51	997.10	1,320.01	1,242.52	77.49	17.035	
10,400.00	9,745.00	10,372.09	9,745.00	41.81	38.51	-90.12	1,994.46	1,097.10	1,320.01	1,240.39	79.61	16.580	
10,500.00	9,745.00	10,472.09	9,745.00	43.07	39.58	-90.12	1,994.42	1,197.10	1,320.01	1,238.04	81.97	16.103	
10,600.00	9,745.00	10,572.09	9,745.00	44.44	40.76	-90.12	1,994.38	1,297.10	1,320.01	1,235.46	84.54	15.613	
10,700.00	9,745.00	10,672.09	9,745.00	45.89	42.05	-90.12	1,994.33	1,397.10	1,320.01	1,232.70	87.31	15.119	
10,800.00	9,745.00	10,772.09	9,745.00	47.42	43.44	-90.12	1,994.29	1,497.10	1,320.01	1,229.76	90.25	14.626	
10,900.00	9,745.00	10,872.09	9,745.00	49.03	44.91	-90.12	1,994.25	1,597.10	1,320.01	1,226.66	93.35	14.140	
11,000.00	9,745.00	10,972.09	9,745.00	50.70	46.46	-90.12	1,994.20	1,697.10	1,320.01	1,223.41	96.60	13.665	
11,100.00	9,745.00	11,072.09	9,745.00	52.43	48.08	-90.12	1,994.16	1,797.10	1,320.01	1,220.03	99.97	13.204	
11,200.00	9,745.00	11,172.09	9,745.00	54.22	49.77	-90.12	1,994.12	1,897.10	1,320.01	1,216.54	103.47	12.758	
11,300.00	9,745.00	11,272.09	9,745.00	56.05	51.52	-90.12	1,994.07	1,997.10	1,320.01	1,212.94	107.07	12.329	
11,400.00	9,745.00	11,372.09	9,745.00	57.93	53.32	-90.12	1,994.03	2,097.10	1,320.01	1,209.25	110.76	11.918	
11,500.00	9,745.00	11,472.09	9,745.00	59.84	55.17	-90.12	1,993.99	2,197.10	1,320.01	1,205.47	114.54	11.524	
11,600.00	9,745.00	11,572.09	9,745.00	61.80	57.06	-90.12	1,993.94	2,297.10	1,320.01	1,201.61	118.40	11.149	
11,700.00	9,745.00	11,672.09	9,745.00	63.78	58.99	-90.12	1,993.90	2,397.10	1,320.01	1,197.68	122.33	10.791	
11,800.00	9,745.00	11,772.09	9,745.00	65.80	60.95	-90.12	1,993.86	2,497.10	1,320.01	1,193.68	126.32	10.449	
11,900.00	9,745.00	11,872.09	9,745.00	67.84	62.95	-90.12	1,993.81	2,597.10	1,320.01	1,189.63	130.38	10.125	
12,000.00	9,745.00	11,972.09	9,745.00	69.90	64.98	-90.12	1,993.77	2,697.10	1,320.01	1,185.53	134.48	9.816	
12,100.00	9,745.00	12,072.09	9,745.00	71.99	67.03	-90.12	1,993.73	2,797.10	1,320.01	1,181.37	138.63	9.522	
12,200.00	9,745.00	12,172.09	9,745.00	74.10	69.10	-90.12	1,993.68	2,897.10	1,320.00	1,177.18	142.83	9.242	
12,300.00	9,745.00	12,272.09	9,745.00	76.23	71.20	-90.12	1,993.64	2,997.10	1,320.00	1,172.94	147.07	8.976	
12,400.00	9,745.00	12,372.09	9,745.00	78.37	73.32	-90.12	1,993.60	3,097.10	1,320.00	1,168.66	151.34	8.722	
12,500.00	9,745.00	12,472.09	9,745.00	80.54	75.46	-90.12	1,993.55	3,197.10	1,320.00	1,164.36	155.65	8.481	
12,600.00	9,745.00	12,572.09	9,745.00	82.71	77.61	-90.12	1,993.51	3,297.10	1,320.00	1,160.02	159.99	8.251	
12,700.00	9,745.00	12,672.09	9,745.00	84.90	79.78	-90.12	1,993.47	3,397.10	1,320.00	1,155.65	164.35	8.031	
12,800.00	9,745.00	12,772.09	9,745.00	87.10	81.96	-90.12	1,993.42	3,497.10	1,320.00	1,151.26	168.75	7.822	
12,900.00	9,745.00	12,872.09	9,745.00	89.32	84.16	-90.12	1,993.38	3,597.10	1,320.00	1,146.84	173.17	7.623	
13,000.00	9,745.00	12,972.09	9,745.00	91.54	86.37	-90.12	1,993.34	3,697.10	1,320.00	1,142.40	177.61	7.432	
13,100.00	9,745.00	13,072.09	9,745.00	93.77	88.59	-90.12	1,993.29	3,797.10	1,320.00	1,137.94	182.07	7.250	
13,200.00	9,745.00	13,172.09	9,745.00	96.02	90.82	-90.12	1,993.25	3,897.10	1,320.00	1,133.45	186.55	7.076	
13,300.00	9,745.00	13,272.09	9,745.00	98.27	93.06	-90.12	1,993.21	3,997.10	1,320.00	1,128.96	191.05	6.909	
13,400.00	9,745.00	13,372.09	9,745.00	100.53	95.31	-90.12	1,993.16	4,097.10	1,320.00	1,124.44	195.56	6.750	
13,500.00	9,745.00	13,472.09	9,745.00	102.80	97.57	-90.12	1,993.12	4,197.10	1,320.00	1,119.91	200.09	6.597	
13,600.00	9,745.00	13,572.09	9,745.00	105.07	99.83	-90.12	1,993.08	4,297.10	1,320.00	1,115.36	204.64	6.450	
13,700.00	9,745.00	13,672.09	9,745.00	107.35	102.10	-90.12	1,993.03	4,397.10	1,320.00	1,110.80	209.20	6.310	
13,800.00	9,745.00	13,772.09	9,745.00	109.64	104.38	-90.12	1,992.99	4,497.10	1,320.00	1,106.23	213.77	6.175	
13,900.00	9,745.00	13,872.09	9,745.00	111.93	106.67	-90.12	1,992.95	4,597.10	1,320.00	1,101.65	218.35	6.045	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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	
14,000.00	9,745.00	13,972.09	9,745.00	114.23	108.96	-90.12	1,992.90	4,697.10	1,320.00	1,097.05	222.95	5.921	
14,100.00	9,745.00	14,072.09	9,745.00	116.53	111.26	-90.12	1,992.86	4,797.10	1,320.00	1,092.45	227.55	5.801	
14,200.00	9,745.00	14,172.09	9,745.00	118.84	113.56	-90.12	1,992.82	4,897.10	1,320.00	1,087.83	232.17	5.686	
14,300.00	9,745.00	14,272.09	9,745.00	121.15	115.87	-90.12	1,992.77	4,997.10	1,320.00	1,083.21	236.79	5.574	
14,400.00	9,745.00	14,372.09	9,745.00	123.47	118.18	-90.12	1,992.73	5,097.10	1,320.00	1,078.57	241.43	5.467	
14,500.00	9,745.00	14,472.09	9,745.00	125.79	120.50	-90.12	1,992.69	5,197.10	1,320.00	1,073.93	246.07	5.364	
14,600.00	9,745.00	14,572.09	9,745.00	128.12	122.82	-90.12	1,992.64	5,297.10	1,320.00	1,069.28	250.72	5.265	
14,652.38	9,745.00	14,624.47	9,745.00	129.34	124.04	-90.12	1,992.62	5,349.47	1,320.00	1,066.84	253.16	5.214 CC	
14,661.21	9,745.00	14,623.75	9,745.00	129.54	124.02	-90.12	1,992.62	5,348.75	1,320.03	1,066.63	253.40	5.209 ES, SF	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	2.90	-2.90	0.00	0.00	21.49	1,583.61	623.52	1,701.94					
100.00	100.00	102.90	97.10	0.13	0.14	21.49	1,583.61	623.52	1,701.94	1,701.67	0.26	6,424.575		
200.00	200.00	202.90	197.10	0.49	0.50	21.49	1,583.61	623.52	1,701.94	1,700.96	0.98	1,733.394		
300.00	300.00	302.90	297.10	0.84	0.85	21.49	1,583.61	623.52	1,701.94	1,700.24	1.70	1,001.850		
400.00	400.00	402.90	397.10	1.20	1.21	21.49	1,583.61	623.52	1,701.94	1,699.52	2.42	704.521		
500.00	500.00	502.90	497.10	1.56	1.57	21.49	1,583.61	623.52	1,701.94	1,698.81	3.13	543.285		
600.00	600.00	602.90	597.10	1.92	1.93	21.49	1,583.61	623.52	1,701.94	1,698.09	3.85	442.105		
700.00	700.00	702.90	697.10	2.28	2.29	21.49	1,583.61	623.52	1,701.94	1,697.37	4.57	372.695		
800.00	800.00	802.90	797.10	2.64	2.65	21.49	1,583.61	623.52	1,701.94	1,696.66	5.28	322.123		
900.00	900.00	902.90	897.10	3.00	3.01	21.49	1,583.61	623.52	1,701.94	1,695.94	6.00	283.635		
1,000.00	1,000.00	997.10	997.10	3.35	3.34	21.49	1,583.61	623.52	1,701.94	1,695.24	6.70	254.150		
1,100.00	1,099.99	1,153.23	1,153.19	3.71	3.88	0.56	1,581.89	620.97	1,699.03	1,691.44	7.59	223.932		
1,200.00	1,199.91	1,305.77	1,293.95	4.07	4.40	0.41	1,577.34	614.21	1,690.25	1,681.79	8.46	199.840		
1,300.00	1,299.69	1,406.60	1,392.88	4.43	4.75	0.27	1,573.47	608.47	1,678.00	1,668.84	9.16	183.139		
1,400.00	1,399.27	1,507.79	1,491.45	4.79	5.10	0.14	1,569.62	602.75	1,663.17	1,653.30	9.87	168.493		
1,500.00	1,498.57	1,609.39	1,589.60	5.16	5.46	0.00	1,565.79	597.06	1,645.76	1,635.18	10.58	155.510		
1,533.33	1,531.60	1,623.30	1,622.21	5.28	5.51	-0.05	1,564.51	595.17	1,639.39	1,628.64	10.75	152.467		
1,600.00	1,597.62	1,688.63	1,687.38	5.53	5.74	-0.14	1,561.97	591.39	1,626.37	1,615.15	11.22	144.982		
1,700.00	1,696.65	1,786.62	1,785.14	5.91	6.10	-0.29	1,558.15	585.72	1,606.83	1,594.92	11.92	134.833		
1,800.00	1,795.67	1,884.61	1,882.89	6.30	6.45	-0.43	1,554.33	580.05	1,587.31	1,574.69	12.62	125.782		
1,900.00	1,894.70	1,982.60	1,980.64	6.69	6.81	-0.59	1,550.51	574.38	1,567.80	1,554.48	13.32	117.665		
2,000.00	1,993.73	2,080.59	2,078.39	7.08	7.16	-0.74	1,546.69	568.71	1,548.30	1,534.27	14.03	110.347		
2,100.00	2,092.75	2,178.59	2,176.15	7.47	7.52	-0.90	1,542.87	563.04	1,528.81	1,514.07	14.74	103.720		
2,200.00	2,191.78	2,276.58	2,273.90	7.87	7.88	-1.07	1,539.06	557.37	1,509.34	1,493.89	15.45	97.691		
2,300.00	2,290.81	2,374.57	2,371.65	8.27	8.24	-1.23	1,535.24	551.70	1,489.87	1,473.71	16.16	92.185		
2,400.00	2,389.83	2,472.56	2,469.41	8.67	8.60	-1.41	1,531.42	546.03	1,470.42	1,453.54	16.87	87.138		
2,500.00	2,488.86	2,570.55	2,567.16	9.07	8.96	-1.58	1,527.60	540.37	1,450.98	1,433.39	17.59	82.495		
2,600.00	2,587.89	2,668.55	2,664.91	9.47	9.33	-1.77	1,523.78	534.70	1,431.55	1,413.25	18.30	78.211		
2,700.00	2,686.91	2,766.54	2,762.67	9.88	9.69	-1.95	1,519.96	529.03	1,412.14	1,393.12	19.02	74.247		
2,800.00	2,785.94	2,867.64	2,863.52	10.28	10.06	-2.15	1,516.01	523.16	1,392.74	1,372.99	19.74	70.538		
2,899.91	2,884.88	3,004.55	2,999.86	10.69	10.58	-2.51	1,509.10	512.90	1,371.76	1,351.21	20.56	66.736		
3,000.00	2,983.80	3,134.73	3,129.01	11.10	11.09	-3.00	1,500.01	499.40	1,346.80	1,325.45	21.34	63.103		
3,100.00	3,082.20	3,230.15	3,223.50	11.53	11.47	-3.44	1,492.59	488.38	1,318.34	1,296.28	22.07	59.747		
3,200.00	3,180.10	3,324.78	3,317.21	11.97	11.84	-3.91	1,485.23	477.46	1,287.46	1,264.67	22.79	56.501		
3,249.91	3,228.76	3,371.70	3,363.68	12.20	12.03	-4.15	1,481.58	472.04	1,271.14	1,247.99	23.15	54.916		
3,300.00	3,277.51	3,418.67	3,410.19	12.43	12.22	-4.39	1,477.93	466.62	1,254.48	1,230.97	23.51	53.366		
3,400.00	3,374.85	3,512.45	3,503.06	12.89	12.60	-4.88	1,470.64	455.80	1,221.27	1,197.05	24.23	50.410		
3,500.00	3,472.19	3,606.23	3,595.93	13.36	12.97	-5.40	1,463.35	444.97	1,188.16	1,163.21	24.95	47.622		
3,600.00	3,569.53	3,700.02	3,688.80	13.82	13.35	-5.95	1,456.05	434.15	1,155.13	1,129.46	25.68	44.989		
3,700.00	3,666.87	3,793.80	3,781.67	14.29	13.73	-6.54	1,448.76	423.32	1,122.21	1,095.80	26.41	42.499		
3,800.00	3,764.20	3,887.58	3,874.54	14.77	14.11	-7.15	1,441.47	412.50	1,089.40	1,062.26	27.14	40.141		
3,900.00	3,861.54	3,981.37	3,967.41	15.24	14.50	-7.81	1,434.18	401.67	1,056.70	1,028.83	27.88	37.906		
4,000.00	3,958.88	4,075.15	4,060.28	15.72	14.88	-8.50	1,426.89	390.85	1,024.15	995.53	28.62	35.786		
4,100.00	4,056.22	4,168.93	4,153.15	16.20	15.26	-9.24	1,419.60	380.02	991.73	962.37	29.37	33.772		
4,200.00	4,153.56	4,262.71	4,246.02	16.67	15.65	-10.03	1,412.30	369.19	959.48	929.36	30.12	31.858		
4,300.00	4,250.89	4,356.50	4,338.89	17.16	16.03	-10.87	1,405.01	358.37	927.41	896.53	30.87	30.038		
4,400.00	4,348.23	4,450.28	4,431.76	17.64	16.42	-11.77	1,397.72	347.54	895.53	863.89	31.64	28.305		
4,500.00	4,445.57	4,544.06	4,524.63	18.12	16.80	-12.74	1,390.43	336.72	863.87	831.46	32.41	26.655		
4,600.00	4,542.91	4,637.85	4,617.50	18.61	17.19	-13.78	1,383.14	325.89	832.45	799.26	33.19	25.083		
4,683.84	4,624.52	4,716.48	4,695.37	19.01	17.52	-14.71	1,377.02	316.82	806.32	772.47	33.85	23.822		
4,700.00	4,640.25	4,731.64	4,710.39	19.09	17.58	-14.87	1,375.84	315.07	801.34	767.36	33.98	23.585		
4,800.00	4,737.97	4,825.99	4,803.82	19.56	17.97	-15.92	1,368.51	304.18	772.09	737.32	34.77	22.204		

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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		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	4,836.21	4,921.15	4,898.05	20.02	18.36	-17.00	1,361.11	293.19	745.57	709.99	35.58	20.956		
5,000.00	4,934.91	5,014.50	4,990.50	20.45	18.75	-18.08	1,353.89	282.47	721.84	685.44	36.39	19.835		
5,100.00	5,033.99	5,101.74	5,077.09	20.86	19.10	-18.99	1,347.94	273.64	701.79	664.58	37.21	18.860		
5,200.00	5,133.39	5,190.35	5,165.26	21.26	19.45	-19.77	1,343.03	266.35	685.74	647.73	38.01	18.042		
5,300.00	5,233.04	5,280.05	5,254.70	21.63	19.79	-20.40	1,339.22	260.70	673.61	634.83	38.78	17.370		
5,400.00	5,332.88	5,370.56	5,345.09	21.98	20.12	-20.85	1,336.58	256.77	665.35	625.82	39.52	16.834		
5,500.00	5,432.83	5,461.59	5,436.07	22.31	20.44	-21.10	1,335.12	254.80	660.88	620.65	40.23	16.427		
5,567.18	5,500.00	5,528.42	5,497.10	22.52	20.66	-0.27	1,334.82	254.16	660.01	619.30	40.71	16.213		
5,600.00	5,532.82	5,555.45	5,529.92	22.62	20.75	-0.27	1,334.82	254.16	660.01	619.10	40.91	16.135		
5,700.00	5,632.82	5,655.45	5,629.92	22.93	21.06	-0.27	1,334.82	254.16	660.01	618.44	41.57	15.878		
5,800.00	5,732.82	5,755.45	5,729.92	23.23	21.38	-0.27	1,334.82	254.16	660.01	617.78	42.23	15.628		
5,900.00	5,832.82	5,855.45	5,829.92	23.54	21.70	-0.27	1,334.82	254.16	660.01	617.11	42.90	15.386		
6,000.00	5,932.82	5,955.45	5,929.92	23.86	22.02	-0.27	1,334.82	254.16	660.01	616.44	43.57	15.150		
6,100.00	6,032.82	6,055.45	6,029.92	24.17	22.35	-0.27	1,334.82	254.16	660.01	615.77	44.23	14.921		
6,200.00	6,132.82	6,155.45	6,129.92	24.48	22.67	-0.27	1,334.82	254.16	660.01	615.10	44.90	14.698		
6,300.00	6,232.82	6,255.45	6,229.92	24.80	22.99	-0.27	1,334.82	254.16	660.01	614.43	45.58	14.481		
6,400.00	6,332.82	6,355.45	6,329.92	25.12	23.32	-0.27	1,334.82	254.16	660.01	613.76	46.25	14.271		
6,500.00	6,432.82	6,455.45	6,429.92	25.43	23.65	-0.27	1,334.82	254.16	660.01	613.08	46.92	14.066		
6,600.00	6,532.82	6,555.45	6,529.92	25.75	23.97	-0.27	1,334.82	254.16	660.01	612.41	47.60	13.866		
6,700.00	6,632.82	6,655.45	6,629.92	26.07	24.30	-0.27	1,334.82	254.16	660.01	611.73	48.28	13.672		
6,800.00	6,732.82	6,755.45	6,729.92	26.39	24.63	-0.27	1,334.82	254.16	660.01	611.05	48.95	13.482		
6,900.00	6,832.82	6,855.45	6,829.92	26.72	24.96	-0.27	1,334.82	254.16	660.01	610.37	49.63	13.298		
7,000.00	6,932.82	6,955.45	6,929.92	27.04	25.29	-0.27	1,334.82	254.16	660.01	609.69	50.31	13.118		
7,100.00	7,032.82	7,055.45	7,029.92	27.36	25.62	-0.27	1,334.82	254.16	660.01	609.01	50.99	12.943		
7,200.00	7,132.82	7,155.45	7,129.92	27.69	25.96	-0.27	1,334.82	254.16	660.01	608.33	51.68	12.772		
7,300.00	7,232.82	7,255.45	7,229.92	28.01	26.29	-0.27	1,334.82	254.16	660.01	607.65	52.36	12.605		
7,400.00	7,332.82	7,355.45	7,329.92	28.34	26.62	-0.27	1,334.82	254.16	660.01	606.96	53.04	12.443		
7,500.00	7,432.82	7,455.45	7,429.92	28.66	26.96	-0.27	1,334.82	254.16	660.01	606.28	53.73	12.284		
7,600.00	7,532.82	7,555.45	7,529.92	28.99	27.29	-0.27	1,334.82	254.16	660.01	605.59	54.41	12.129		
7,700.00	7,632.82	7,655.45	7,629.92	29.32	27.63	-0.27	1,334.82	254.16	660.01	604.91	55.10	11.978		
7,800.00	7,732.82	7,755.45	7,729.92	29.65	27.96	-0.27	1,334.82	254.16	660.01	604.22	55.79	11.831		
7,900.00	7,832.82	7,855.45	7,829.92	29.98	28.30	-0.27	1,334.82	254.16	660.01	603.53	56.48	11.687		
8,000.00	7,932.82	7,955.45	7,929.92	30.31	28.64	-0.27	1,334.82	254.16	660.01	602.84	57.16	11.546		
8,100.00	8,032.82	8,055.45	8,029.92	30.64	28.97	-0.27	1,334.82	254.16	660.01	602.15	57.85	11.408		
8,200.00	8,132.82	8,155.45	8,129.92	30.97	29.31	-0.27	1,334.82	254.16	660.01	601.46	58.54	11.274		
8,300.00	8,232.82	8,255.45	8,229.92	31.30	29.65	-0.27	1,334.82	254.16	660.01	600.77	59.23	11.142		
8,400.00	8,332.82	8,355.45	8,329.92	31.64	29.99	-0.27	1,334.82	254.16	660.01	600.08	59.92	11.014		
8,500.00	8,432.82	8,455.45	8,429.92	31.97	30.33	-0.27	1,334.82	254.16	660.01	599.39	60.62	10.888		
8,600.00	8,532.82	8,555.45	8,529.92	32.30	30.67	-0.27	1,334.82	254.16	660.01	598.70	61.31	10.765		
8,700.00	8,632.82	8,655.45	8,629.92	32.64	31.01	-0.27	1,334.82	254.16	660.01	598.01	62.00	10.645		
8,800.00	8,732.82	8,755.45	8,729.92	32.97	31.35	-0.27	1,334.82	254.16	660.01	597.31	62.70	10.527		
8,900.00	8,832.82	8,855.45	8,829.92	33.31	31.69	-0.27	1,334.82	254.16	660.01	596.62	63.39	10.412		
9,000.00	8,932.82	8,955.45	8,929.92	33.64	32.03	-0.27	1,334.82	254.16	660.01	595.92	64.08	10.299		
9,100.00	9,032.82	9,055.45	9,029.92	33.98	32.37	-0.27	1,334.82	254.16	660.01	595.23	64.78	10.189		
9,200.00	9,132.82	9,155.45	9,129.92	34.32	32.72	-0.27	1,334.82	254.16	660.01	594.53	65.47	10.080		
9,233.42	9,166.24	9,188.86	9,163.34	34.43	32.83	-0.27	1,334.82	254.16	660.01	594.30	65.71	10.045		
9,250.00	9,182.82	9,205.53	9,180.01	34.49	32.89	-90.31	1,334.82	254.33	660.01	594.19	65.82	10.027		
9,300.00	9,232.67	9,255.85	9,230.19	34.65	33.04	-90.33	1,334.82	257.74	660.01	593.86	66.15	9.977		
9,350.00	9,282.02	9,306.19	9,279.91	34.83	33.19	-90.34	1,334.82	265.55	660.01	593.52	66.49	9.927		
9,400.00	9,330.49	9,356.54	9,328.76	35.01	33.33	-90.36	1,334.81	277.69	660.01	593.20	66.82	9.878		
9,450.00	9,377.70	9,406.91	9,376.37	35.19	33.46	-90.37	1,334.80	294.08	660.01	592.87	67.14	9.830		
9,500.00	9,423.31	9,457.29	9,422.37	35.38	33.58	-90.38	1,334.79	314.59	660.01	592.54	67.47	9.782		

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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:
Survey Program: 0-MWD												Offset Well Error:
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)	
9,550.00	9,466.96	9,507.68	9,466.39	35.57	33.69	-90.39	1,334.78	339.07	660.01	592.21	67.80	9.734
9,600.00	9,508.32	9,558.07	9,508.10	35.76	33.79	-90.39	1,334.77	367.32	660.01	591.87	68.14	9.686
9,650.00	9,547.08	9,608.47	9,547.17	35.96	33.89	-90.39	1,334.76	399.13	660.01	591.52	68.49	9.636
9,700.00	9,582.94	9,658.86	9,583.29	36.17	33.98	-90.39	1,334.74	434.25	660.01	591.15	68.86	9.584
9,750.00	9,615.63	9,709.25	9,616.19	36.40	34.09	-90.38	1,334.73	472.40	660.01	590.75	69.26	9.529
9,800.00	9,644.89	9,759.64	9,645.60	36.64	34.20	-90.37	1,334.71	513.28	660.01	590.31	69.70	9.470
9,850.00	9,670.52	9,810.01	9,671.31	36.91	34.34	-90.36	1,334.69	556.59	660.01	589.84	70.18	9.405
9,900.00	9,692.31	9,860.37	9,693.11	37.20	34.50	-90.35	1,334.67	601.97	660.01	589.31	70.70	9.335
9,950.00	9,710.09	9,910.72	9,710.83	37.53	34.69	-90.33	1,334.65	649.07	660.01	588.73	71.28	9.259
10,000.00	9,723.73	9,961.04	9,724.35	37.88	34.92	-90.31	1,334.63	697.53	660.01	588.09	71.91	9.178
10,033.42	9,730.49	9,994.67	9,730.99	38.14	35.09	-90.30	1,334.61	730.49	660.01	587.64	72.36	9.121
10,050.00	9,733.23	10,011.30	9,733.69	38.27	35.18	-90.30	1,334.61	746.90	660.01	587.41	72.60	9.091
10,100.00	9,739.76	10,061.48	9,740.08	38.69	35.47	-90.28	1,334.59	796.66	660.01	586.66	73.34	8.999
10,150.00	9,743.69	10,111.64	9,743.86	39.14	35.79	-90.27	1,334.56	846.68	660.01	585.86	74.14	8.902
10,200.08	9,745.00	10,161.87	9,745.00	39.61	36.15	-90.25	1,334.54	896.89	660.00	585.01	74.99	8.801
10,300.00	9,745.00	10,261.79	9,745.00	40.65	36.97	-90.25	1,334.50	996.81	660.00	583.11	76.89	8.583
10,400.00	9,745.00	10,361.79	9,745.00	41.81	37.91	-90.25	1,334.46	1,096.81	660.00	580.97	79.03	8.351
10,500.00	9,745.00	10,461.79	9,745.00	43.07	38.99	-90.25	1,334.41	1,196.81	660.00	578.60	81.40	8.108
10,600.00	9,745.00	10,561.79	9,745.00	44.44	40.18	-90.25	1,334.37	1,296.81	660.00	576.02	83.99	7.858
10,700.00	9,745.00	10,661.79	9,745.00	45.89	41.48	-90.25	1,334.33	1,396.81	660.00	573.24	86.77	7.607
10,800.00	9,745.00	10,761.79	9,745.00	47.42	42.88	-90.25	1,334.28	1,496.81	660.00	570.28	89.72	7.356
10,900.00	9,745.00	10,861.79	9,745.00	49.03	44.37	-90.25	1,334.24	1,596.81	660.00	567.17	92.84	7.109
11,000.00	9,745.00	10,961.79	9,745.00	50.70	45.93	-90.25	1,334.20	1,696.81	660.00	563.91	96.10	6.868
11,100.00	9,745.00	11,061.79	9,745.00	52.43	47.57	-90.25	1,334.15	1,796.81	660.00	560.52	99.49	6.634
11,200.00	9,745.00	11,161.79	9,745.00	54.22	49.27	-90.25	1,334.11	1,896.81	660.00	557.01	102.99	6.408
11,300.00	9,745.00	11,261.79	9,745.00	56.05	51.03	-90.25	1,334.07	1,996.81	660.00	553.40	106.61	6.191
11,400.00	9,745.00	11,361.79	9,745.00	57.93	52.85	-90.25	1,334.03	2,096.81	660.00	549.69	110.31	5.983
11,500.00	9,745.00	11,461.79	9,745.00	59.84	54.71	-90.25	1,333.98	2,196.81	660.00	545.90	114.11	5.784
11,600.00	9,745.00	11,561.79	9,745.00	61.80	56.61	-90.25	1,333.94	2,296.81	660.00	542.03	117.98	5.594
11,700.00	9,745.00	11,661.79	9,745.00	63.78	58.55	-90.25	1,333.90	2,396.81	660.00	538.08	121.92	5.413
11,800.00	9,745.00	11,761.79	9,745.00	65.80	60.53	-90.25	1,333.85	2,496.81	660.00	534.08	125.92	5.241
11,900.00	9,745.00	11,861.79	9,745.00	67.84	62.54	-90.25	1,333.81	2,596.81	660.00	530.02	129.99	5.077
12,000.00	9,745.00	11,961.79	9,745.00	69.90	64.57	-90.25	1,333.77	2,696.81	660.00	525.90	134.10	4.922
12,100.00	9,745.00	12,061.79	9,745.00	71.99	66.64	-90.25	1,333.72	2,796.81	660.00	521.74	138.26	4.773
12,200.00	9,745.00	12,161.79	9,745.00	74.10	68.72	-90.25	1,333.68	2,896.81	660.00	517.53	142.47	4.633
12,300.00	9,745.00	12,261.79	9,745.00	76.23	70.83	-90.25	1,333.64	2,996.81	660.00	513.29	146.72	4.498
12,400.00	9,745.00	12,361.79	9,745.00	78.37	72.96	-90.25	1,333.59	3,096.81	660.00	509.01	151.00	4.371
12,500.00	9,745.00	12,461.79	9,745.00	80.54	75.10	-90.25	1,333.55	3,196.81	660.00	504.69	155.31	4.249
12,600.00	9,745.00	12,561.79	9,745.00	82.71	77.26	-90.25	1,333.51	3,296.81	660.00	500.34	159.66	4.134
12,700.00	9,745.00	12,661.79	9,745.00	84.90	79.44	-90.25	1,333.46	3,396.81	660.00	495.97	164.03	4.024
12,800.00	9,745.00	12,761.79	9,745.00	87.10	81.63	-90.25	1,333.42	3,496.81	660.00	491.57	168.44	3.918
12,900.00	9,745.00	12,861.79	9,745.00	89.32	83.83	-90.25	1,333.38	3,596.81	660.00	487.14	172.86	3.818
13,000.00	9,745.00	12,961.79	9,745.00	91.54	86.05	-90.25	1,333.33	3,696.81	660.00	482.70	177.31	3.722
13,100.00	9,745.00	13,061.79	9,745.00	93.77	88.28	-90.25	1,333.29	3,796.81	660.00	478.23	181.77	3.631
13,200.00	9,745.00	13,161.79	9,745.00	96.02	90.51	-90.25	1,333.25	3,896.81	660.00	473.74	186.26	3.543
13,300.00	9,745.00	13,261.79	9,745.00	98.27	92.76	-90.25	1,333.21	3,996.81	660.00	469.24	190.76	3.460
13,400.00	9,745.00	13,361.79	9,745.00	100.53	95.01	-90.25	1,333.16	4,096.81	660.00	464.72	195.28	3.380
13,500.00	9,745.00	13,461.79	9,745.00	102.80	97.28	-90.25	1,333.12	4,196.81	660.00	460.18	199.82	3.303
13,600.00	9,745.00	13,561.79	9,745.00	105.07	99.55	-90.25	1,333.08	4,296.81	660.00	455.63	204.37	3.229
13,700.00	9,745.00	13,661.79	9,745.00	107.35	101.82	-90.25	1,333.03	4,396.81	660.00	451.07	208.93	3.159
13,800.00	9,745.00	13,761.79	9,745.00	109.64	104.11	-90.25	1,332.99	4,496.81	660.00	446.49	213.51	3.091
13,900.00	9,745.00	13,861.79	9,745.00	111.93	106.40	-90.25	1,332.95	4,596.81	660.00	441.91	218.10	3.026

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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		
14,000.00	9,745.00	13,961.79	9,745.00	114.23	108.69	-90.25	1,332.90	4,696.81	660.00	437.31	222.70	2.964		
14,100.00	9,745.00	14,061.79	9,745.00	116.53	111.00	-90.25	1,332.86	4,796.81	660.00	432.70	227.31	2.904		
14,200.00	9,745.00	14,161.79	9,745.00	118.84	113.30	-90.25	1,332.82	4,896.81	660.00	428.08	231.93	2.846		
14,300.00	9,745.00	14,261.79	9,745.00	121.15	115.61	-90.25	1,332.77	4,996.81	660.00	423.45	236.55	2.790		
14,400.00	9,745.00	14,361.79	9,745.00	123.47	117.93	-90.25	1,332.73	5,096.81	660.00	418.81	241.19	2.736		
14,500.00	9,745.00	14,461.79	9,745.00	125.79	120.25	-90.25	1,332.69	5,196.81	660.00	414.17	245.84	2.685		
14,600.00	9,745.00	14,561.79	9,745.00	128.12	122.58	-90.25	1,332.64	5,296.81	660.00	409.52	250.49	2.635		
14,657.75	9,745.00	14,619.54	9,745.00	129.46	123.92	-90.25	1,332.62	5,354.55	660.00	406.83	253.18	2.607 CC		
14,661.21	9,745.00	14,618.22	9,745.00	129.54	123.89	-90.25	1,332.62	5,353.24	660.02	406.76	253.26	2.606 ES, SF		

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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
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
0.00	0.00	1.43	-1.43	0.00	0.00	-179.99	-119.89	-0.02	119.89				
100.00	100.00	101.43	98.57	0.13	0.13	-179.99	-119.89	-0.02	119.89	119.63	0.26	461.752	
200.00	200.00	201.43	198.57	0.49	0.49	-179.99	-119.89	-0.02	119.89	118.91	0.98	122.765	
300.00	300.00	301.43	298.57	0.84	0.85	-179.99	-119.89	-0.02	119.89	118.20	1.69	70.793	
400.00	400.00	401.43	398.57	1.20	1.21	-179.99	-119.89	-0.02	119.89	117.48	2.41	49.737	
500.00	500.00	501.43	498.57	1.56	1.57	-179.99	-119.89	-0.02	119.89	116.76	3.13	38.335	
600.00	600.00	601.43	598.57	1.92	1.92	-179.99	-119.89	-0.02	119.89	116.05	3.84	31.186	
700.00	700.00	701.43	698.57	2.28	2.28	-179.99	-119.89	-0.02	119.89	115.33	4.56	26.284	
800.00	800.00	801.43	798.57	2.64	2.64	-179.99	-119.89	-0.02	119.89	114.61	5.28	22.714	
900.00	900.00	901.43	898.57	3.00	3.00	-179.99	-119.89	-0.02	119.89	113.89	6.00	19.998	
1,000.00	1,000.00	998.57	998.57	3.35	3.35	-179.99	-119.89	-0.02	119.89	113.19	6.70	17.889 CC	
1,100.00	1,099.99	1,100.00	1,099.99	3.71	3.71	158.81	-119.29	1.14	120.52	113.10	7.42	16.246 ES	
1,200.00	1,199.91	1,201.41	1,201.31	4.07	4.06	157.80	-117.45	4.70	122.41	114.28	8.13	15.052	
1,300.00	1,299.69	1,302.21	1,301.90	4.43	4.42	156.26	-114.48	10.45	125.69	116.84	8.85	14.206	
1,400.00	1,399.27	1,402.02	1,401.47	4.79	4.78	155.07	-111.28	16.63	131.20	121.64	9.56	13.717	
1,500.00	1,498.57	1,501.69	1,500.90	5.16	5.14	154.42	-108.09	22.81	139.12	128.83	10.29	13.526	
1,533.33	1,531.60	1,534.87	1,534.00	5.28	5.26	154.32	-107.02	24.86	142.28	131.76	10.53	13.516	
1,600.00	1,597.62	1,601.21	1,600.18	5.53	5.50	154.21	-104.90	28.97	148.87	137.86	11.01	13.523	
1,700.00	1,696.65	1,700.72	1,699.45	5.91	5.86	154.07	-101.71	35.14	158.76	147.02	11.73	13.530	
1,800.00	1,795.67	1,800.23	1,798.72	6.30	6.22	153.95	-98.52	41.31	168.64	156.18	12.46	13.533	
1,900.00	1,894.70	1,899.74	1,897.98	6.69	6.59	153.84	-95.33	47.47	178.53	165.34	13.19	13.532	
2,000.00	1,993.73	2,000.75	1,997.25	7.08	6.96	153.74	-92.14	53.64	188.42	174.49	13.93	13.525	
2,100.00	2,092.75	2,101.24	2,096.52	7.47	7.32	153.66	-88.95	59.80	198.31	183.64	14.67	13.518	
2,200.00	2,191.78	2,201.73	2,195.78	7.87	7.69	153.58	-85.76	65.97	208.19	192.78	15.41	13.510	
2,300.00	2,290.81	2,302.22	2,295.05	8.27	8.06	153.50	-82.58	72.13	218.08	201.93	16.15	13.502	
2,400.00	2,389.83	2,402.71	2,394.32	8.67	8.43	153.44	-79.39	78.30	227.97	211.08	16.89	13.494	
2,500.00	2,488.86	2,503.20	2,493.59	9.07	8.81	153.38	-76.20	84.47	237.86	220.22	17.64	13.486	
2,600.00	2,587.89	2,603.69	2,592.85	9.47	9.18	153.32	-73.01	90.63	247.75	229.37	18.38	13.477	
2,700.00	2,686.91	2,704.18	2,692.12	9.88	9.55	153.27	-69.82	96.80	257.64	238.51	19.13	13.469	
2,800.00	2,785.94	2,804.67	2,791.39	10.28	9.92	153.22	-66.63	102.96	267.53	247.66	19.87	13.461	
2,899.91	2,884.88	2,895.98	2,891.77	10.69	10.26	153.12	-63.28	109.44	277.31	256.72	20.59	13.468	
3,000.00	2,983.80	2,998.28	2,993.61	11.10	10.65	152.65	-58.81	118.09	287.45	266.09	21.36	13.458	
3,100.00	3,082.20	3,100.35	3,094.92	11.53	11.04	151.94	-53.11	129.12	298.96	276.82	22.14	13.502	
3,200.00	3,180.10	3,199.86	3,193.46	11.97	11.43	151.21	-46.76	141.39	312.19	289.27	22.93	13.616	
3,249.91	3,228.76	3,249.20	3,242.32	12.20	11.63	150.95	-43.61	147.49	319.66	296.33	23.32	13.706	
3,300.00	3,277.51	3,301.33	3,291.31	12.43	11.84	150.77	-40.44	153.60	327.43	303.70	23.73	13.800	
3,400.00	3,374.85	3,402.56	3,389.12	12.89	12.24	150.45	-34.13	165.81	342.96	318.43	24.53	13.983	
3,500.00	3,472.19	3,503.79	3,486.93	13.36	12.64	150.15	-27.82	178.02	358.49	333.17	25.33	14.153	
3,600.00	3,569.53	3,605.02	3,584.74	13.82	13.05	149.88	-21.50	190.23	374.04	347.91	26.14	14.312	
3,700.00	3,666.87	3,706.25	3,682.54	14.29	13.45	149.63	-15.19	202.44	389.59	362.65	26.94	14.459	
3,800.00	3,764.20	3,807.48	3,780.35	14.77	13.86	149.40	-8.87	214.65	405.16	377.40	27.76	14.597	
3,900.00	3,861.54	3,891.29	3,878.16	15.24	14.20	149.19	-2.56	226.86	420.72	392.22	28.50	14.762	
4,000.00	3,958.88	3,986.87	3,972.96	15.72	14.58	149.13	3.06	237.73	436.64	407.36	29.28	14.912	
4,100.00	4,056.22	4,082.03	4,067.60	16.20	14.95	149.37	7.57	246.45	453.31	423.27	30.04	15.090	
4,200.00	4,153.56	4,178.79	4,162.07	16.67	15.30	149.87	10.99	253.06	470.77	439.99	30.78	15.295	
4,300.00	4,250.89	4,271.05	4,256.19	17.16	15.65	150.59	13.31	257.56	489.06	457.57	31.49	15.529	
4,400.00	4,348.23	4,364.69	4,349.79	17.64	15.98	151.51	14.57	259.98	508.27	476.08	32.18	15.792	
4,500.00	4,445.57	4,459.04	4,444.14	18.12	16.30	152.59	14.82	260.47	528.42	495.56	32.86	16.080	
4,600.00	4,542.91	4,556.38	4,541.48	18.61	16.63	153.69	14.82	260.47	548.98	515.43	33.56	16.360	
4,683.84	4,624.52	4,637.99	4,623.09	19.01	16.91	154.55	14.82	260.47	566.36	532.22	34.14	16.589	
4,700.00	4,640.25	4,653.73	4,638.82	19.09	16.97	154.73	14.82	260.47	569.69	535.44	34.25	16.632	
4,800.00	4,737.97	4,751.45	4,736.54	19.56	17.30	155.73	14.82	260.47	589.05	554.10	34.95	16.855	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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	
4,900.00	4,836.21	4,849.69	4,834.78	20.02	17.63	156.55	14.82	260.47	606.17	570.52	35.65	17.005	
5,000.00	4,934.91	4,948.38	4,933.48	20.45	17.97	157.23	14.82	260.47	620.99	584.65	36.34	17.087	
5,100.00	5,033.99	5,047.46	5,032.56	20.86	18.31	157.77	14.82	260.47	633.48	596.44	37.04	17.102	
5,200.00	5,133.39	5,146.86	5,131.96	21.26	18.65	158.20	14.82	260.47	643.59	605.85	37.74	17.055	
5,300.00	5,233.04	5,246.52	5,231.61	21.63	19.00	158.51	14.82	260.47	651.30	612.87	38.43	16.947	
5,400.00	5,332.88	5,346.35	5,331.45	21.98	19.34	158.72	14.82	260.47	656.60	617.47	39.12	16.782	
5,500.00	5,432.83	5,446.30	5,431.40	22.31	19.68	158.83	14.82	260.47	659.46	619.64	39.81	16.564	
5,567.18	5,500.00	5,513.47	5,498.57	22.52	19.92	179.73	14.82	260.47	660.01	619.73	40.27	16.388	
5,600.00	5,532.82	5,546.30	5,531.39	22.62	20.03	179.73	14.82	260.47	660.01	619.51	40.50	16.297	
5,700.00	5,632.82	5,646.30	5,631.39	22.93	20.38	179.73	14.82	260.47	660.01	618.82	41.18	16.026	
5,800.00	5,732.82	5,746.30	5,731.39	23.23	20.72	179.73	14.82	260.47	660.01	618.14	41.87	15.763	
5,900.00	5,832.82	5,846.30	5,831.39	23.54	21.07	179.73	14.82	260.47	660.01	617.45	42.56	15.509	
6,000.00	5,932.82	5,946.30	5,931.39	23.86	21.41	179.73	14.82	260.47	660.01	616.76	43.25	15.262	
6,100.00	6,032.82	6,046.30	6,031.39	24.17	21.76	179.73	14.82	260.47	660.01	616.07	43.94	15.022	
6,200.00	6,132.82	6,146.30	6,131.39	24.48	22.11	179.73	14.82	260.47	660.01	615.38	44.63	14.790	
6,300.00	6,232.82	6,246.30	6,231.39	24.80	22.46	179.73	14.82	260.47	660.01	614.69	45.32	14.564	
6,400.00	6,332.82	6,346.30	6,331.39	25.12	22.81	179.73	14.82	260.47	660.01	614.00	46.01	14.345	
6,500.00	6,432.82	6,446.30	6,431.39	25.43	23.16	179.73	14.82	260.47	660.01	613.31	46.70	14.133	
6,600.00	6,532.82	6,546.30	6,531.39	25.75	23.50	179.73	14.82	260.47	660.01	612.61	47.39	13.926	
6,700.00	6,632.82	6,646.30	6,631.39	26.07	23.85	179.73	14.82	260.47	660.01	611.92	48.09	13.725	
6,800.00	6,732.82	6,746.30	6,731.39	26.39	24.20	179.73	14.82	260.47	660.01	611.23	48.78	13.530	
6,900.00	6,832.82	6,846.30	6,831.39	26.72	24.55	179.73	14.82	260.47	660.01	610.53	49.48	13.339	
7,000.00	6,932.82	6,946.30	6,931.39	27.04	24.90	179.73	14.82	260.47	660.01	609.83	50.17	13.154	
7,100.00	7,032.82	7,046.30	7,031.39	27.36	25.25	179.73	14.82	260.47	660.01	609.14	50.87	12.974	
7,200.00	7,132.82	7,146.30	7,131.39	27.69	25.60	179.73	14.82	260.47	660.01	608.44	51.57	12.799	
7,300.00	7,232.82	7,246.30	7,231.39	28.01	25.95	179.73	14.82	260.47	660.01	607.74	52.26	12.628	
7,400.00	7,332.82	7,346.30	7,331.39	28.34	26.31	179.73	14.82	260.47	660.01	607.04	52.96	12.462	
7,500.00	7,432.82	7,446.30	7,431.39	28.66	26.66	179.73	14.82	260.47	660.01	606.35	53.66	12.300	
7,600.00	7,532.82	7,546.30	7,531.39	28.99	27.01	179.73	14.82	260.47	660.01	605.65	54.36	12.141	
7,700.00	7,632.82	7,646.30	7,631.39	29.32	27.36	179.73	14.82	260.47	660.01	604.95	55.06	11.987	
7,800.00	7,732.82	7,746.30	7,731.39	29.65	27.71	179.73	14.82	260.47	660.01	604.25	55.76	11.837	
7,900.00	7,832.82	7,846.30	7,831.39	29.98	28.06	179.73	14.82	260.47	660.01	603.55	56.46	11.690	
8,000.00	7,932.82	7,946.30	7,931.39	30.31	28.42	179.73	14.82	260.47	660.01	602.85	57.16	11.547	
8,100.00	8,032.82	8,046.30	8,031.39	30.64	28.77	179.73	14.82	260.47	660.01	602.15	57.86	11.407	
8,200.00	8,132.82	8,146.30	8,131.39	30.97	29.12	179.73	14.82	260.47	660.01	601.44	58.56	11.270	
8,300.00	8,232.82	8,246.30	8,231.39	31.30	29.47	179.73	14.82	260.47	660.01	600.74	59.27	11.137	
8,400.00	8,332.82	8,346.30	8,331.39	31.64	29.83	179.73	14.82	260.47	660.01	600.04	59.97	11.006	
8,500.00	8,432.82	8,446.30	8,431.39	31.97	30.18	179.73	14.82	260.47	660.01	599.34	60.67	10.879	
8,600.00	8,532.82	8,546.30	8,531.39	32.30	30.53	179.73	14.82	260.47	660.01	598.63	61.37	10.754	
8,700.00	8,632.82	8,646.30	8,631.39	32.64	30.88	179.73	14.82	260.47	660.01	597.93	62.08	10.632	
8,800.00	8,732.82	8,746.30	8,731.39	32.97	31.24	179.73	14.82	260.47	660.01	597.23	62.78	10.513	
8,900.00	8,832.82	8,846.30	8,831.39	33.31	31.59	179.73	14.82	260.47	660.01	596.52	63.48	10.396	
9,000.00	8,932.82	8,946.30	8,931.39	33.64	31.94	179.73	14.82	260.47	660.01	595.82	64.19	10.282	
9,100.00	9,032.82	9,046.30	9,031.39	33.98	32.30	179.73	14.82	260.47	660.01	595.12	64.89	10.171	
9,200.00	9,132.82	9,146.30	9,131.39	34.32	32.65	179.73	14.82	260.47	660.01	594.41	65.60	10.062	
9,233.42	9,166.24	9,179.71	9,164.81	34.43	32.77	179.73	14.82	260.47	660.01	594.18	65.83	10.026	
9,250.00	9,182.82	9,196.21	9,181.30	34.49	32.83	89.71	14.82	260.67	660.01	594.06	65.95	10.008	
9,300.00	9,232.67	9,245.92	9,230.88	34.65	33.01	89.72	14.82	264.13	660.01	593.71	66.30	9.955	
9,350.00	9,282.02	9,295.64	9,279.98	34.83	33.19	89.73	14.82	271.87	660.01	593.34	66.67	9.900	
9,400.00	9,330.49	9,345.39	9,328.24	35.01	33.39	89.75	14.81	283.85	660.00	592.95	67.05	9.843	
9,450.00	9,377.70	9,395.14	9,375.30	35.19	33.59	89.77	14.80	299.97	660.00	592.55	67.45	9.785	
9,500.00	9,423.31	9,444.92	9,420.80	35.38	33.80	89.79	14.79	320.12	660.00	592.13	67.87	9.725	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 Wall 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	
9,550.00	9,466.96	9,494.72	9,464.39	35.57	34.02	89.81	14.78	344.16	660.00	591.70	68.30	9.663		
9,600.00	9,508.32	9,544.54	9,505.76	35.76	34.25	89.83	14.77	371.90	660.00	591.24	68.76	9.599		
9,650.00	9,547.08	9,594.39	9,544.57	35.96	34.49	89.86	14.76	403.14	660.00	590.76	69.24	9.532		
9,700.00	9,582.94	9,644.26	9,580.55	36.17	34.75	89.88	14.74	437.66	660.00	590.25	69.75	9.463		
9,750.00	9,615.63	9,694.15	9,613.40	36.40	35.03	89.91	14.73	475.20	660.00	589.70	70.30	9.389		
9,800.00	9,644.89	9,744.08	9,642.88	36.64	35.33	89.94	14.71	515.47	660.00	589.11	70.89	9.311		
9,850.00	9,670.52	9,794.03	9,668.75	36.91	35.65	89.97	14.69	558.18	660.00	588.47	71.53	9.227		
9,900.00	9,692.31	9,844.01	9,690.82	37.20	36.00	89.99	14.67	603.00	660.00	587.78	72.22	9.139		
9,910.89	9,696.52	9,854.89	9,695.10	37.27	36.08	90.00	14.67	613.01	660.00	587.62	72.38	9.119		
9,950.00	9,710.09	9,894.02	9,708.91	37.53	36.37	90.02	14.65	649.61	660.00	587.04	72.96	9.046		
10,000.00	9,723.73	9,944.05	9,722.88	37.88	36.77	90.05	14.63	697.64	660.00	586.24	73.76	8.948		
10,033.42	9,730.49	9,977.51	9,729.85	38.14	37.06	90.07	14.62	730.36	660.00	585.67	74.33	8.880		
10,050.00	9,733.23	9,994.11	9,732.66	38.27	37.20	90.08	14.61	746.72	660.00	585.39	74.61	8.846		
10,100.00	9,739.76	10,044.16	9,739.38	38.69	37.66	90.09	14.59	796.31	660.00	584.48	75.52	8.739		
10,150.00	9,743.69	10,094.22	9,743.50	39.14	38.14	90.11	14.57	846.19	660.00	583.52	76.48	8.630		
10,200.08	9,745.00	10,144.37	9,744.99	39.61	38.64	90.12	14.55	896.32	660.00	582.52	77.48	8.518		
10,300.00	9,745.00	10,244.29	9,745.00	40.65	39.74	90.12	14.50	996.24	660.00	580.34	79.66	8.285		
10,400.00	9,745.00	10,344.29	9,745.00	41.81	40.95	90.12	14.46	1,096.24	660.00	577.94	82.06	8.043		
10,500.00	9,745.00	10,444.29	9,745.00	43.07	42.25	90.12	14.42	1,196.24	660.00	575.34	84.66	7.796		
10,600.00	9,745.00	10,544.29	9,745.00	44.44	43.66	90.12	14.37	1,296.24	660.00	572.54	87.46	7.546		
10,700.00	9,745.00	10,644.29	9,745.00	45.89	45.15	90.12	14.33	1,396.24	660.00	569.57	90.43	7.298		
10,800.00	9,745.00	10,744.29	9,745.00	47.42	46.72	90.12	14.29	1,496.24	660.00	566.44	93.56	7.054		
10,900.00	9,745.00	10,844.29	9,745.00	49.03	48.35	90.12	14.24	1,596.24	660.00	563.17	96.83	6.816		
11,000.00	9,745.00	10,944.29	9,745.00	50.70	50.06	90.12	14.20	1,696.24	660.00	559.77	100.23	6.585		
11,100.00	9,745.00	11,044.29	9,745.00	52.43	51.82	90.12	14.16	1,796.24	660.00	556.25	103.75	6.362		
11,200.00	9,745.00	11,144.29	9,745.00	54.22	53.63	90.12	14.11	1,896.24	660.00	552.64	107.36	6.147		
11,300.00	9,745.00	11,244.29	9,745.00	56.05	55.49	90.12	14.07	1,996.24	660.00	548.92	111.08	5.942		
11,400.00	9,745.00	11,344.29	9,745.00	57.93	57.39	90.12	14.03	2,096.24	660.00	545.13	114.87	5.745		
11,500.00	9,745.00	11,444.29	9,745.00	59.84	59.33	90.12	13.99	2,196.24	660.00	541.25	118.75	5.558		
11,600.00	9,745.00	11,544.29	9,745.00	61.80	61.30	90.12	13.94	2,296.24	660.00	537.31	122.69	5.379		
11,700.00	9,745.00	11,644.29	9,745.00	63.78	63.31	90.12	13.90	2,396.24	660.00	533.31	126.69	5.209		
11,800.00	9,745.00	11,744.29	9,745.00	65.80	65.34	90.12	13.86	2,496.24	660.00	529.24	130.76	5.048		
11,900.00	9,745.00	11,844.29	9,745.00	67.84	67.40	90.12	13.81	2,596.24	660.00	525.13	134.87	4.894		
12,000.00	9,745.00	11,944.29	9,745.00	69.90	69.48	90.12	13.77	2,696.24	660.00	520.97	139.03	4.747		
12,100.00	9,745.00	12,044.29	9,745.00	71.99	71.59	90.12	13.73	2,796.24	660.00	516.76	143.24	4.608		
12,200.00	9,745.00	12,144.29	9,745.00	74.10	73.71	90.12	13.68	2,896.24	660.00	512.52	147.48	4.475		
12,300.00	9,745.00	12,244.29	9,745.00	76.23	75.85	90.12	13.64	2,996.24	660.00	508.24	151.76	4.349		
12,400.00	9,745.00	12,344.29	9,745.00	78.37	78.01	90.12	13.60	3,096.24	660.00	503.92	156.08	4.229		
12,500.00	9,745.00	12,444.29	9,745.00	80.54	80.19	90.12	13.55	3,196.24	660.00	499.58	160.42	4.114		
12,600.00	9,745.00	12,544.29	9,745.00	82.71	82.37	90.12	13.51	3,296.24	660.00	495.21	164.79	4.005		
12,700.00	9,745.00	12,644.29	9,745.00	84.90	84.57	90.12	13.47	3,396.24	660.00	490.81	169.19	3.901		
12,800.00	9,745.00	12,744.29	9,745.00	87.10	86.79	90.12	13.42	3,496.24	660.00	486.39	173.61	3.802		
12,900.00	9,745.00	12,844.29	9,745.00	89.32	89.01	90.12	13.38	3,596.24	660.00	481.94	178.06	3.707		
13,000.00	9,745.00	12,944.29	9,745.00	91.54	91.24	90.12	13.34	3,696.24	660.00	477.48	182.52	3.616		
13,100.00	9,745.00	13,044.29	9,745.00	93.77	93.49	90.12	13.30	3,796.24	660.00	472.99	187.01	3.529		
13,200.00	9,745.00	13,144.29	9,745.00	96.02	95.74	90.12	13.25	3,896.24	660.00	468.49	191.51	3.446		
13,300.00	9,745.00	13,244.29	9,745.00	98.27	98.00	90.12	13.21	3,996.24	660.00	463.97	196.03	3.367		
13,400.00	9,745.00	13,344.29	9,745.00	100.53	100.27	90.12	13.17	4,096.24	660.00	459.44	200.56	3.291		
13,500.00	9,745.00	13,444.29	9,745.00	102.80	102.54	90.12	13.12	4,196.24	660.00	454.89	205.11	3.218		
13,600.00	9,745.00	13,544.29	9,745.00	105.07	104.82	90.12	13.08	4,296.24	660.00	450.33	209.67	3.148		
13,700.00	9,745.00	13,644.29	9,745.00	107.35	107.11	90.12	13.04	4,396.24	660.00	445.76	214.24	3.081		
13,800.00	9,745.00	13,744.29	9,745.00	109.64	109.41	90.12	12.99	4,496.24	660.00	441.17	218.83	3.016		

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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		
13,900.00	9,745.00	13,844.29	9,745.00	111.93	111.71	90.12	12.95	4,596.24	660.00	436.57	223.43	2.954		
14,000.00	9,745.00	13,944.29	9,745.00	114.23	114.01	90.12	12.91	4,696.24	660.00	431.97	228.03	2.894		
14,100.00	9,745.00	14,044.29	9,745.00	116.53	116.32	90.12	12.86	4,796.24	660.00	427.35	232.65	2.837		
14,200.00	9,745.00	14,144.29	9,745.00	118.84	118.63	90.12	12.82	4,896.24	660.00	422.72	237.28	2.782		
14,300.00	9,745.00	14,244.29	9,745.00	121.15	120.95	90.12	12.78	4,996.24	660.00	418.09	241.91	2.728		
14,400.00	9,745.00	14,344.29	9,745.00	123.47	123.27	90.12	12.73	5,096.24	660.00	413.44	246.56	2.677		
14,500.00	9,745.00	14,444.29	9,745.00	125.79	125.60	90.12	12.69	5,196.24	660.00	408.79	251.21	2.627		
14,600.00	9,745.00	14,544.29	9,745.00	128.12	127.93	90.12	12.65	5,296.24	660.00	404.13	255.86	2.579		
14,661.21	9,745.00	14,605.50	9,745.00	129.54	129.36	90.12	12.62	5,357.45	660.00	401.28	258.72	2.551 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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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		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	2.57	-2.57	0.00	0.00	20.19	1,613.70	593.47	1,719.37				
100.00	100.00	102.57	97.43	0.13	0.14	20.19	1,613.70	593.47	1,719.37	1,719.11	0.26	6,519.487	
200.00	200.00	202.57	197.43	0.49	0.49	20.19	1,613.70	593.47	1,719.37	1,718.39	0.98	1,753.259	
300.00	300.00	302.57	297.43	0.84	0.85	20.19	1,613.70	593.47	1,719.37	1,717.67	1.70	1,012.816	
400.00	400.00	402.57	397.43	1.20	1.21	20.19	1,613.70	593.47	1,719.37	1,716.96	2.41	712.085	
500.00	500.00	502.57	497.43	1.56	1.57	20.19	1,613.70	593.47	1,719.37	1,716.24	3.13	549.056	
600.00	600.00	602.57	597.43	1.92	1.93	20.19	1,613.70	593.47	1,719.37	1,715.52	3.85	446.770	
700.00	700.00	702.57	697.43	2.28	2.29	20.19	1,613.70	593.47	1,719.37	1,714.80	4.57	376.610	
800.00	800.00	802.57	797.43	2.64	2.65	20.19	1,613.70	593.47	1,719.37	1,714.09	5.28	325.495	
900.00	900.00	902.57	897.43	3.00	3.00	20.19	1,613.70	593.47	1,719.37	1,713.37	6.00	286.596	
1,000.00	1,000.00	997.43	997.43	3.35	3.34	20.19	1,613.70	593.47	1,719.37	1,712.67	6.70	256.707	
1,100.00	1,099.99	1,087.92	1,087.91	3.71	3.67	-0.71	1,614.27	592.63	1,718.33	1,710.95	7.38	232.934	
1,200.00	1,199.91	1,178.03	1,177.96	4.07	3.98	-0.82	1,616.02	590.03	1,715.25	1,707.19	8.05	212.992	
1,300.00	1,299.69	1,268.03	1,267.81	4.43	4.30	-0.99	1,618.97	585.68	1,710.13	1,701.40	8.73	195.877	
1,400.00	1,399.27	1,367.51	1,367.05	4.79	4.66	-1.23	1,622.85	579.94	1,702.70	1,693.25	9.45	180.253	
1,500.00	1,498.57	1,466.76	1,466.06	5.16	5.02	-1.47	1,626.73	574.20	1,692.70	1,682.53	10.16	166.545	
1,533.33	1,531.60	1,500.22	1,499.00	5.28	5.14	-1.55	1,628.02	572.29	1,688.79	1,678.38	10.41	162.296	
1,600.00	1,597.62	1,565.79	1,564.84	5.53	5.38	-1.71	1,630.60	568.48	1,680.70	1,669.81	10.88	154.443	
1,700.00	1,696.65	1,664.79	1,663.61	5.91	5.74	-1.96	1,634.47	562.76	1,668.58	1,656.98	11.60	143.828	
1,800.00	1,795.67	1,763.80	1,762.37	6.30	6.10	-2.20	1,638.34	557.04	1,666.50	1,644.18	12.32	134.427	
1,900.00	1,894.70	1,862.81	1,861.14	6.69	6.46	-2.46	1,642.21	551.32	1,644.45	1,631.40	13.05	126.049	
2,000.00	1,993.73	1,961.81	1,959.90	7.08	6.82	-2.71	1,646.08	545.60	1,632.43	1,618.66	13.77	118.538	
2,100.00	2,092.75	2,060.82	2,058.67	7.47	7.19	-2.97	1,649.95	539.87	1,620.44	1,605.94	14.50	111.769	
2,200.00	2,191.78	2,159.83	2,157.44	7.87	7.55	-3.24	1,653.82	534.15	1,608.49	1,593.26	15.23	105.640	
2,300.00	2,290.81	2,258.84	2,256.20	8.27	7.92	-3.50	1,657.69	528.43	1,596.57	1,580.61	15.96	100.065	
2,400.00	2,389.83	2,357.84	2,354.97	8.67	8.28	-3.77	1,661.56	522.71	1,584.68	1,568.00	16.69	94.974	
2,500.00	2,488.86	2,456.85	2,453.74	9.07	8.65	-4.05	1,665.42	516.99	1,572.83	1,555.42	17.42	90.307	
2,600.00	2,587.89	2,555.86	2,552.50	9.47	9.02	-4.33	1,669.29	511.27	1,561.02	1,542.87	18.15	86.015	
2,700.00	2,686.91	2,654.87	2,651.27	9.88	9.38	-4.61	1,673.16	505.55	1,549.25	1,530.37	18.88	82.054	
2,800.00	2,785.94	2,753.87	2,750.03	10.28	9.75	-4.90	1,677.03	499.83	1,537.51	1,517.90	19.61	78.388	
2,899.91	2,884.88	2,852.80	2,848.72	10.69	10.12	-5.19	1,680.90	494.11	1,525.83	1,505.48	20.35	74.990	
3,000.00	2,983.80	2,940.24	2,935.86	11.10	10.44	-5.52	1,684.91	488.18	1,513.25	1,492.20	21.05	71.897	
3,100.00	3,082.20	3,027.36	3,022.50	11.53	10.78	-5.93	1,690.02	480.63	1,498.90	1,477.14	21.75	68.905	
3,200.00	3,180.10	3,119.88	3,107.89	11.97	11.14	-6.43	1,696.15	471.56	1,482.81	1,460.33	22.49	65.941	
3,249.91	3,228.76	3,161.99	3,155.96	12.20	11.30	-6.75	1,699.94	465.97	1,474.08	1,451.24	22.84	64.538	
3,300.00	3,277.51	3,210.63	3,204.13	12.43	11.50	-7.05	1,703.73	460.36	1,465.03	1,441.81	23.22	63.093	
3,400.00	3,374.85	3,307.75	3,300.30	12.89	11.88	-7.67	1,711.30	449.16	1,447.09	1,423.11	23.98	60.349	
3,500.00	3,472.19	3,404.87	3,396.48	13.36	12.27	-8.30	1,718.87	437.97	1,429.33	1,404.59	24.74	57.773	
3,600.00	3,569.53	3,501.99	3,492.65	13.82	12.65	-8.95	1,726.45	426.77	1,411.74	1,386.24	25.50	55.352	
3,700.00	3,666.87	3,600.89	3,588.82	14.29	13.05	-9.62	1,734.02	415.57	1,394.34	1,368.07	26.28	53.060	
3,800.00	3,764.20	3,703.77	3,685.00	14.77	13.46	-10.30	1,741.59	404.38	1,377.14	1,350.07	27.07	50.871	
3,900.00	3,861.54	3,793.35	3,781.17	15.24	13.83	-11.00	1,749.16	393.18	1,360.13	1,332.32	27.81	48.903	
4,000.00	3,958.88	3,909.54	3,877.35	15.72	14.29	-11.72	1,756.73	381.98	1,343.33	1,314.67	28.66	46.866	
4,100.00	4,056.22	3,987.58	3,973.52	16.20	14.61	-12.45	1,764.31	370.79	1,326.75	1,297.38	29.36	45.183	
4,200.00	4,153.56	4,084.70	4,069.69	16.67	15.00	-13.20	1,771.88	359.59	1,310.38	1,280.24	30.14	43.473	
4,300.00	4,250.89	4,181.82	4,165.87	17.16	15.40	-13.97	1,779.45	348.40	1,294.26	1,263.33	30.92	41.853	
4,400.00	4,348.23	4,278.94	4,262.04	17.64	15.79	-14.76	1,787.02	337.20	1,278.37	1,246.66	31.71	40.318	
4,500.00	4,445.57	4,376.06	4,358.21	18.12	16.19	-15.57	1,794.60	326.00	1,262.73	1,230.23	32.49	38.861	
4,600.00	4,542.91	4,473.18	4,454.39	18.61	16.59	-16.39	1,802.17	314.81	1,247.35	1,214.07	33.28	37.478	
4,683.84	4,624.52	4,554.61	4,535.02	19.01	16.92	-17.10	1,808.52	303.42	1,234.66	1,200.72	33.95	36.372	
4,700.00	4,640.25	4,570.30	4,550.57	19.09	16.98	-17.23	1,809.74	303.61	1,232.27	1,198.20	34.07	36.165	
4,800.00	4,737.97	4,667.75	4,647.06	19.56	17.38	-18.01	1,817.34	292.38	1,219.07	1,184.21	34.87	34.965	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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							
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	4,836.21	4,768.13	4,746.48	20.02	17.79	-18.80	1,825.15	280.83	1,208.59	1,172.93	35.66	33.888	
5,000.00	4,934.91	4,886.68	4,864.16	20.45	18.27	-19.63	1,833.11	269.05	1,199.80	1,163.29	36.51	32.862	
5,100.00	5,033.99	5,006.14	4,983.14	20.86	18.73	-20.28	1,839.07	260.25	1,191.96	1,154.63	37.33	31.932	
5,200.00	5,133.39	5,126.27	5,103.07	21.26	19.16	-20.75	1,842.95	254.52	1,184.93	1,146.82	38.11	31.093	
5,300.00	5,233.04	5,246.83	5,223.58	21.63	19.59	-21.01	1,844.71	251.90	1,178.64	1,139.79	38.85	30.336	
5,400.00	5,332.88	5,353.55	5,330.31	21.98	19.95	-21.10	1,844.83	251.73	1,173.44	1,133.88	39.55	29.666	
5,500.00	5,432.83	5,453.50	5,430.26	22.31	20.28	-21.14	1,844.83	251.73	1,170.57	1,130.33	40.24	29.089	
5,567.18	5,500.00	5,520.68	5,497.43	22.52	20.51	-0.27	1,844.83	251.73	1,170.02	1,129.33	40.70	28.749	
5,600.00	5,532.82	5,553.50	5,530.25	22.62	20.62	-0.27	1,844.83	251.73	1,170.02	1,129.10	40.92	28.593	
5,700.00	5,632.82	5,653.50	5,630.25	22.93	20.95	-0.27	1,844.83	251.73	1,170.02	1,128.43	41.60	28.127	
5,800.00	5,732.82	5,753.50	5,730.25	23.23	21.29	-0.27	1,844.83	251.73	1,170.02	1,127.75	42.28	27.675	
5,900.00	5,832.82	5,853.50	5,830.25	23.54	21.63	-0.27	1,844.83	251.73	1,170.02	1,127.06	42.96	27.236	
6,000.00	5,932.82	5,953.50	5,930.25	23.86	21.97	-0.27	1,844.83	251.73	1,170.02	1,126.38	43.64	26.810	
6,100.00	6,032.82	6,053.50	6,030.25	24.17	22.30	-0.27	1,844.83	251.73	1,170.02	1,125.70	44.32	26.397	
6,200.00	6,132.82	6,153.50	6,130.25	24.48	22.64	-0.27	1,844.83	251.73	1,170.02	1,125.02	45.01	25.996	
6,300.00	6,232.82	6,253.50	6,230.25	24.80	22.98	-0.27	1,844.83	251.73	1,170.02	1,124.33	45.69	25.606	
6,400.00	6,332.82	6,353.50	6,330.25	25.12	23.33	-0.27	1,844.83	251.73	1,170.02	1,123.64	46.38	25.227	
6,500.00	6,432.82	6,453.50	6,430.25	25.43	23.67	-0.27	1,844.83	251.73	1,170.02	1,122.96	47.07	24.859	
6,600.00	6,532.82	6,553.50	6,530.25	25.75	24.01	-0.27	1,844.83	251.73	1,170.02	1,122.27	47.75	24.501	
6,700.00	6,632.82	6,653.50	6,630.25	26.07	24.35	-0.27	1,844.83	251.73	1,170.02	1,121.58	48.44	24.152	
6,800.00	6,732.82	6,753.50	6,730.25	26.39	24.69	-0.27	1,844.83	251.73	1,170.02	1,120.89	49.13	23.813	
6,900.00	6,832.82	6,853.50	6,830.25	26.72	25.04	-0.27	1,844.83	251.73	1,170.02	1,120.20	49.82	23.483	
7,000.00	6,932.82	6,953.50	6,930.25	27.04	25.38	-0.27	1,844.83	251.73	1,170.02	1,119.51	50.51	23.162	
7,100.00	7,032.82	7,053.50	7,030.25	27.36	25.72	-0.27	1,844.83	251.73	1,170.02	1,118.82	51.21	22.849	
7,200.00	7,132.82	7,153.50	7,130.25	27.69	26.07	-0.27	1,844.83	251.73	1,170.02	1,118.12	51.90	22.544	
7,300.00	7,232.82	7,253.50	7,230.25	28.01	26.41	-0.27	1,844.83	251.73	1,170.02	1,117.43	52.59	22.247	
7,400.00	7,332.82	7,353.50	7,330.25	28.34	26.76	-0.27	1,844.83	251.73	1,170.02	1,116.74	53.29	21.957	
7,500.00	7,432.82	7,453.50	7,430.25	28.66	27.10	-0.27	1,844.83	251.73	1,170.02	1,116.04	53.98	21.675	
7,600.00	7,532.82	7,553.50	7,530.25	28.99	27.45	-0.27	1,844.83	251.73	1,170.02	1,115.35	54.68	21.399	
7,700.00	7,632.82	7,653.50	7,630.25	29.32	27.80	-0.27	1,844.83	251.73	1,170.02	1,114.65	55.37	21.131	
7,800.00	7,732.82	7,753.50	7,730.25	29.65	28.14	-0.27	1,844.83	251.73	1,170.02	1,113.96	56.07	20.868	
7,900.00	7,832.82	7,853.50	7,830.25	29.98	28.49	-0.27	1,844.83	251.73	1,170.02	1,113.26	56.76	20.612	
8,000.00	7,932.82	7,953.50	7,930.25	30.31	28.84	-0.27	1,844.83	251.73	1,170.02	1,112.56	57.46	20.362	
8,100.00	8,032.82	8,053.50	8,030.25	30.64	29.18	-0.27	1,844.83	251.73	1,170.02	1,111.87	58.16	20.118	
8,200.00	8,132.82	8,153.50	8,130.25	30.97	29.53	-0.27	1,844.83	251.73	1,170.02	1,111.17	58.86	19.879	
8,300.00	8,232.82	8,253.50	8,230.25	31.30	29.88	-0.27	1,844.83	251.73	1,170.02	1,110.47	59.55	19.646	
8,400.00	8,332.82	8,353.50	8,330.25	31.64	30.23	-0.27	1,844.83	251.73	1,170.02	1,109.77	60.25	19.418	
8,500.00	8,432.82	8,453.50	8,430.25	31.97	30.58	-0.27	1,844.83	251.73	1,170.02	1,109.07	60.95	19.195	
8,600.00	8,532.82	8,553.50	8,530.25	32.30	30.92	-0.27	1,844.83	251.73	1,170.02	1,108.37	61.65	18.978	
8,700.00	8,632.82	8,653.50	8,630.25	32.64	31.27	-0.27	1,844.83	251.73	1,170.02	1,107.67	62.35	18.765	
8,800.00	8,732.82	8,753.50	8,730.25	32.97	31.62	-0.27	1,844.83	251.73	1,170.02	1,106.97	63.05	18.556	
8,900.00	8,832.82	8,853.50	8,830.25	33.31	31.97	-0.27	1,844.83	251.73	1,170.02	1,106.27	63.75	18.352	
9,000.00	8,932.82	8,953.50	8,930.25	33.64	32.32	-0.27	1,844.83	251.73	1,170.02	1,105.57	64.46	18.152	
9,100.00	9,032.82	9,053.50	9,030.25	33.98	32.67	-0.27	1,844.83	251.73	1,170.02	1,104.87	65.16	17.957	
9,200.00	9,132.82	9,153.50	9,130.25	34.32	33.02	-0.27	1,844.83	251.73	1,170.02	1,104.16	65.86	17.766	
9,233.42	9,166.24	9,186.92	9,163.67	34.43	33.14	-0.27	1,844.83	251.73	1,170.02	1,103.93	66.09	17.703 CC	
9,250.00	9,182.82	9,203.50	9,180.25	34.49	33.20	-90.31	1,844.83	251.73	1,170.02	1,103.82	66.21	17.672	
9,300.00	9,232.67	9,253.35	9,230.10	34.65	33.37	-90.48	1,844.83	251.73	1,170.05	1,103.49	66.56	17.578	
9,350.00	9,282.02	9,302.70	9,279.45	34.83	33.54	-90.86	1,844.83	251.73	1,170.14	1,103.22	66.92	17.485	
9,400.00	9,330.49	9,351.16	9,327.92	35.01	33.71	-91.41	1,844.83	251.73	1,170.40	1,103.10	67.29	17.393 ES	
9,450.00	9,377.70	9,401.62	9,375.13	35.19	33.89	-92.12	1,844.83	251.73	1,170.93	1,103.25	67.68	17.302	
9,500.00	9,423.31	9,443.99	9,420.74	35.38	34.04	-92.93	1,844.83	251.73	1,171.92	1,103.87	68.05	17.222	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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		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)						
9,550.00	9,466.96	9,487.64	9,464.39	35.57	34.19	-93.80	1,844.83	251.73	1,173.57	1,105.13	68.44	17.147		
9,600.00	9,508.32	9,529.00	9,505.75	35.76	34.34	-94.68	1,844.83	251.73	1,176.09	1,107.24	68.84	17.084		
9,650.00	9,547.08	9,567.75	9,544.51	35.96	34.47	-95.51	1,844.83	251.73	1,179.71	1,110.46	69.25	17.035		
9,700.00	9,582.94	9,603.61	9,580.37	36.17	34.60	-96.22	1,844.83	251.73	1,184.67	1,114.99	69.68	17.002		
9,750.00	9,615.63	9,636.30	9,613.06	36.40	34.71	-96.76	1,844.83	251.73	1,191.19	1,121.07	70.12	16.988		
9,800.00	9,644.89	9,665.57	9,642.32	36.64	34.81	-97.07	1,844.83	251.73	1,199.45	1,128.88	70.57	16.996		
9,850.00	9,670.52	9,708.80	9,667.95	36.91	34.97	-97.10	1,844.83	251.73	1,209.63	1,138.52	71.10	17.012		
9,900.00	9,692.31	9,712.98	9,689.74	37.20	34.98	-96.80	1,844.83	251.73	1,221.82	1,150.30	71.52	17.084		
9,950.00	9,710.09	9,730.77	9,707.52	37.53	35.04	-96.12	1,844.83	251.73	1,236.09	1,164.09	72.00	17.167		
10,000.00	9,723.73	9,744.41	9,721.16	37.88	35.09	-95.04	1,844.83	251.73	1,252.43	1,179.94	72.49	17.278		
10,033.42	9,730.49	9,751.17	9,727.92	38.14	35.11	-94.07	1,844.83	251.73	1,264.47	1,191.67	72.81	17.367		
10,050.00	9,733.23	9,753.91	9,730.66	38.27	35.12	-93.80	1,844.83	251.73	1,270.77	1,197.80	72.97	17.416		
10,100.00	9,739.76	9,760.44	9,737.19	38.69	35.15	-92.79	1,844.83	251.73	1,290.92	1,217.48	73.44	17.579		
10,150.00	9,743.69	9,764.36	9,741.12	39.14	35.16	-91.53	1,844.83	251.73	1,312.75	1,238.86	73.89	17.765		
10,200.08	9,745.00	9,765.68	9,742.43	39.61	35.17	-90.00	1,844.83	251.73	1,336.20	1,261.86	74.34	17.975		
10,300.00	9,745.00	9,765.68	9,742.43	40.65	35.17	-90.00	1,844.83	251.73	1,387.22	1,312.03	75.19	18.449		
10,400.00	9,745.00	9,765.68	9,742.43	41.81	35.17	-90.00	1,844.83	251.73	1,443.41	1,367.41	76.01	18.991		
10,500.00	9,745.00	9,765.68	9,742.43	43.07	35.17	-90.00	1,844.83	251.73	1,504.16	1,427.39	76.77	19.593		
10,600.00	9,745.00	11,379.95	10,550.00	44.44	43.24	-121.46	1,994.14	1,297.02	1,547.24	1,473.31	73.93	20.927		
10,700.00	9,745.00	11,479.95	10,550.00	45.89	44.46	-121.46	1,994.10	1,397.02	1,547.25	1,470.99	76.26	20.289		
10,800.00	9,745.00	11,579.95	10,550.00	47.42	45.77	-121.46	1,994.06	1,497.02	1,547.25	1,468.51	78.74	19.650		
10,900.00	9,745.00	11,679.95	10,550.00	49.03	47.16	-121.46	1,994.03	1,597.02	1,547.26	1,465.89	81.36	19.016		
11,000.00	9,745.00	11,779.95	10,550.00	50.70	48.64	-121.46	1,993.99	1,697.02	1,547.26	1,463.14	84.12	18.394		
11,100.00	9,745.00	11,879.95	10,550.00	52.43	50.19	-121.46	1,993.95	1,797.02	1,547.27	1,460.28	86.98	17.788		
11,200.00	9,745.00	11,979.95	10,550.00	54.22	51.80	-121.46	1,993.91	1,897.02	1,547.27	1,457.31	89.96	17.200		
11,300.00	9,745.00	12,079.95	10,550.00	56.05	53.48	-121.46	1,993.88	1,997.02	1,547.28	1,454.25	93.03	16.632		
11,400.00	9,745.00	12,179.95	10,550.00	57.93	55.21	-121.46	1,993.84	2,097.02	1,547.28	1,451.10	96.18	16.087		
11,500.00	9,745.00	12,279.95	10,550.00	59.84	57.00	-121.46	1,993.80	2,197.02	1,547.28	1,447.87	99.42	15.564		
11,600.00	9,745.00	12,379.95	10,550.00	61.80	58.82	-121.46	1,993.76	2,297.02	1,547.29	1,444.57	102.72	15.063		
11,700.00	9,745.00	12,479.95	10,550.00	63.78	60.69	-121.46	1,993.73	2,397.02	1,547.29	1,441.20	106.09	14.585		
11,800.00	9,745.00	12,579.95	10,550.00	65.80	62.60	-121.46	1,993.69	2,497.02	1,547.30	1,437.78	109.52	14.128		
11,900.00	9,745.00	12,679.95	10,550.00	67.84	64.54	-121.46	1,993.65	2,597.02	1,547.30	1,434.31	113.00	13.693		
12,000.00	9,745.00	12,779.95	10,550.00	69.90	66.52	-121.46	1,993.61	2,697.02	1,547.31	1,430.78	116.53	13.279		
12,100.00	9,745.00	12,879.95	10,550.00	71.99	68.52	-121.46	1,993.58	2,797.02	1,547.31	1,427.21	120.10	12.884		
12,200.00	9,745.00	12,979.95	10,550.00	74.10	70.55	-121.46	1,993.54	2,897.02	1,547.32	1,423.61	123.71	12.507		
12,300.00	9,745.00	13,079.95	10,550.00	76.23	72.60	-121.46	1,993.50	2,997.02	1,547.32	1,419.96	127.36	12.149		
12,400.00	9,745.00	13,179.95	10,550.00	78.37	74.68	-121.46	1,993.46	3,097.02	1,547.33	1,416.28	131.05	11.808		
12,500.00	9,745.00	13,279.95	10,550.00	80.54	76.77	-121.46	1,993.43	3,197.02	1,547.33	1,412.57	134.76	11.482		
12,600.00	9,745.00	13,379.95	10,550.00	82.71	78.89	-121.46	1,993.39	3,297.02	1,547.34	1,408.83	138.50	11.172		
12,700.00	9,745.00	13,479.95	10,550.00	84.90	81.02	-121.46	1,993.35	3,397.02	1,547.34	1,405.07	142.27	10.876		
12,800.00	9,745.00	13,579.95	10,550.00	87.10	83.17	-121.46	1,993.31	3,497.02	1,547.35	1,401.28	146.07	10.594		
12,900.00	9,745.00	13,679.95	10,550.00	89.32	85.33	-121.46	1,993.28	3,597.02	1,547.35	1,397.47	149.88	10.324		
13,000.00	9,745.00	13,779.95	10,550.00	91.54	87.51	-121.46	1,993.24	3,697.02	1,547.36	1,393.64	153.72	10.066		
13,100.00	9,745.00	13,879.95	10,550.00	93.77	89.69	-121.46	1,993.20	3,797.02	1,547.36	1,389.79	157.57	9.820		
13,200.00	9,745.00	13,979.95	10,550.00	96.02	91.90	-121.46	1,993.16	3,897.02	1,547.37	1,385.92	161.45	9.584		
13,300.00	9,745.00	14,079.95	10,550.00	98.27	94.11	-121.46	1,993.13	3,997.02	1,547.37	1,382.04	165.34	9.359		
13,400.00	9,745.00	14,179.95	10,550.00	100.53	96.33	-121.46	1,993.09	4,097.02	1,547.38	1,378.13	169.24	9.143		
13,500.00	9,745.00	14,279.95	10,550.00	102.80	98.56	-121.46	1,993.05	4,197.02	1,547.38	1,374.22	173.16	8.936		
13,600.00	9,745.00	14,379.95	10,550.00	105.07	100.80	-121.46	1,993.01	4,297.02	1,547.39	1,370.29	177.09	8.738		
13,700.00	9,745.00	14,479.95	10,550.00	107.35	103.05	-121.46	1,992.98	4,397.02	1,547.39	1,366.35	181.04	8.547		
13,800.00	9,745.00	14,579.95	10,550.00	109.64	105.31	-121.46	1,992.94	4,497.02	1,547.40	1,362.40	185.00	8.364		
13,900.00	9,745.00	14,679.95	10,550.00	111.93	107.57	-121.46	1,992.90	4,597.02	1,547.40	1,358.43	188.97	8.189		

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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	
14,000.00	9,745.00	14,779.95	10,550.00	114.23	109.84	-121.46	1,992.86	4,697.02	1,547.40	1,354.46	192.94	8.020	
14,100.00	9,745.00	14,879.95	10,550.00	116.53	112.12	-121.46	1,992.83	4,797.02	1,547.41	1,350.48	196.93	7.858	
14,200.00	9,745.00	14,979.95	10,550.00	118.84	114.40	-121.46	1,992.79	4,897.02	1,547.41	1,346.48	200.93	7.701	
14,300.00	9,745.00	15,079.95	10,550.00	121.15	116.69	-121.46	1,992.75	4,997.02	1,547.42	1,342.48	204.94	7.551	
14,400.00	9,745.00	15,179.95	10,550.00	123.47	118.98	-121.46	1,992.71	5,097.02	1,547.42	1,338.47	208.95	7.406	
14,500.00	9,745.00	15,279.95	10,550.00	125.79	121.28	-121.46	1,992.68	5,197.02	1,547.43	1,334.46	212.97	7.266	
14,600.00	9,745.00	15,379.95	10,550.00	128.12	123.59	-121.46	1,992.64	5,297.02	1,547.43	1,330.43	217.00	7.131	
14,602.75	9,745.00	15,382.69	10,550.00	128.18	123.65	-121.46	1,992.64	5,299.77	1,547.43	1,330.32	217.11	7.127	
14,661.21	9,745.00	15,431.68	10,550.00	129.54	124.78	-121.46	1,992.62	5,348.75	1,547.47	1,328.12	219.34	7.055 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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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 Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.32	0.32	0.00	0.00	179.89	-29.94	0.06	29.94				
100.00	100.00	100.32	100.32	0.13	0.13	179.89	-29.94	0.06	29.94	29.68	0.26	117.108	
200.00	200.00	200.32	200.32	0.49	0.49	179.89	-29.94	0.06	29.94	28.97	0.97	30.783	
300.00	300.00	300.32	300.32	0.84	0.85	179.89	-29.94	0.06	29.94	28.25	1.69	17.721	
400.00	400.00	400.32	400.32	1.20	1.20	179.89	-29.94	0.06	29.94	27.53	2.41	12.441	
500.00	500.00	500.32	500.32	1.56	1.56	179.89	-29.94	0.06	29.94	26.82	3.12	9.586	
600.00	600.00	600.32	600.32	1.92	1.92	179.89	-29.94	0.06	29.94	26.10	3.84	7.796	
700.00	700.00	700.32	700.32	2.28	2.28	179.89	-29.94	0.06	29.94	25.38	4.56	6.570	
800.00	800.00	800.32	800.32	2.64	2.64	179.89	-29.94	0.06	29.94	24.67	5.27	5.677	
900.00	900.00	900.32	900.32	3.00	3.00	179.89	-29.94	0.06	29.94	23.95	5.99	4.997	
1,000.00	1,000.00	1,000.32	1,000.32	3.35	3.35	179.89	-29.94	0.06	29.94	23.23	6.71	4.463	
1,013.72	1,013.72	1,014.14	1,014.14	3.40	3.40	159.01	-29.92	0.07	29.94	23.13	6.81	4.399 CC	
1,100.00	1,099.99	1,101.04	1,101.03	3.71	3.71	158.83	-28.73	0.62	29.96	22.54	7.43	4.035	
1,200.00	1,199.91	1,201.75	1,201.66	4.07	4.08	158.31	-25.11	2.31	30.04	21.90	8.14	3.691	
1,300.00	1,299.69	1,302.46	1,302.15	4.43	4.44	157.45	-19.09	5.11	30.18	21.33	8.85	3.410	
1,400.00	1,399.27	1,403.17	1,402.42	4.79	4.80	156.27	-10.66	9.02	30.39	20.83	9.56	3.179 ES	
1,500.00	1,498.57	1,503.13	1,501.84	5.16	5.17	156.01	-1.19	13.43	31.91	21.63	10.28	3.104	
1,533.33	1,531.60	1,536.45	1,534.97	5.28	5.29	156.33	1.97	14.90	32.95	22.43	10.52	3.131	
1,600.00	1,597.62	1,603.07	1,601.23	5.53	5.54	157.12	8.28	17.83	35.30	24.29	11.01	3.207	
1,700.00	1,696.65	1,703.01	1,700.62	5.91	5.91	158.13	17.75	22.24	38.83	27.10	11.73	3.310	
1,800.00	1,795.67	1,802.94	1,800.01	6.30	6.28	158.97	27.23	26.64	42.38	29.92	12.46	3.401	
1,900.00	1,894.70	1,902.88	1,899.39	6.69	6.66	159.68	36.70	31.05	45.93	32.74	13.19	3.482	
2,000.00	1,993.73	2,002.82	1,998.78	7.08	7.04	160.29	46.17	35.45	49.49	35.56	13.92	3.554	
2,100.00	2,092.75	2,102.75	2,098.17	7.47	7.42	160.82	55.64	39.86	53.05	38.39	14.66	3.620	
2,200.00	2,191.78	2,202.69	2,197.56	7.87	7.80	161.28	65.11	44.26	56.61	41.23	15.39	3.679	
2,300.00	2,290.81	2,302.62	2,296.95	8.27	8.18	161.69	74.59	48.67	60.18	44.06	16.12	3.733	
2,400.00	2,389.83	2,402.56	2,396.33	8.67	8.56	162.05	84.06	53.07	63.76	46.90	16.86	3.782	
2,500.00	2,488.86	2,502.49	2,495.72	9.07	8.94	162.37	93.53	57.48	67.33	49.74	17.59	3.827	
2,600.00	2,587.89	2,602.43	2,595.11	9.47	9.33	162.66	103.00	61.88	70.91	52.58	18.33	3.868	
2,700.00	2,686.91	2,702.36	2,694.50	9.88	9.71	162.92	112.47	66.29	74.48	55.42	19.07	3.907	
2,800.00	2,785.94	2,802.30	2,793.89	10.28	10.10	163.16	121.95	70.69	78.06	58.26	19.80	3.942	
2,899.91	2,884.88	2,902.15	2,893.19	10.69	10.48	163.37	131.41	75.09	81.64	61.10	20.54	3.975	
3,000.00	2,983.80	3,004.19	2,994.53	11.10	10.88	163.51	142.24	80.13	85.31	64.04	21.27	4.011	
3,100.00	3,082.20	3,106.31	3,095.59	11.53	11.29	163.52	155.53	86.31	88.97	66.98	21.99	4.046	
3,200.00	3,180.10	3,208.52	3,196.30	11.97	11.72	163.39	171.27	93.63	92.65	69.94	22.71	4.079	
3,249.91	3,228.76	3,259.57	3,246.43	12.20	11.93	163.29	180.05	97.71	94.49	71.41	23.07	4.095	
3,300.00	3,277.51	3,309.91	3,295.76	12.43	12.15	163.16	189.14	101.94	96.20	72.74	23.45	4.102	
3,400.00	3,374.85	3,409.85	3,393.70	12.89	12.58	162.89	207.20	110.34	99.58	75.35	24.22	4.111	
3,500.00	3,472.19	3,509.79	3,491.63	13.36	13.02	162.65	225.27	118.74	102.96	77.96	25.00	4.119	
3,600.00	3,569.53	3,609.73	3,589.57	13.82	13.45	162.42	243.34	127.14	106.34	80.57	25.78	4.126	
3,700.00	3,666.87	3,709.68	3,687.50	14.29	13.89	162.21	261.41	135.54	109.73	83.17	26.56	4.132	
3,800.00	3,764.20	3,809.62	3,785.44	14.77	14.33	162.00	279.47	143.95	113.12	85.78	27.34	4.138	
3,900.00	3,861.54	3,909.56	3,883.37	15.24	14.78	161.81	297.54	152.35	116.50	88.38	28.12	4.143	
4,000.00	3,958.88	4,009.50	3,981.31	15.72	15.22	161.64	315.61	160.75	119.89	90.98	28.91	4.147	
4,100.00	4,056.22	4,109.44	4,079.24	16.20	15.67	161.47	333.67	169.15	123.28	93.59	29.70	4.151	
4,200.00	4,153.56	4,209.38	4,177.18	16.67	16.12	161.31	351.74	177.55	126.68	96.19	30.49	4.155	
4,300.00	4,250.89	4,309.33	4,275.12	17.16	16.57	161.15	369.81	185.96	130.07	98.79	31.28	4.159	
4,400.00	4,348.23	4,409.27	4,373.05	17.64	17.02	161.01	387.88	194.36	133.46	101.39	32.07	4.162	
4,500.00	4,445.57	4,509.21	4,470.99	18.12	17.47	160.87	405.94	202.76	136.86	103.99	32.86	4.164	
4,600.00	4,542.91	4,609.15	4,568.92	18.61	17.92	160.74	424.01	211.16	140.25	106.59	33.66	4.167	
4,683.84	4,624.52	4,707.05	4,651.03	19.01	18.37	160.64	439.16	218.20	143.10	108.72	34.38	4.162	
4,700.00	4,640.25	4,709.09	4,666.86	19.09	18.38	160.62	442.08	219.56	143.62	109.16	34.45	4.168	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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		
4,800.00	4,737.97	4,808.17	4,763.96	19.56	18.83	160.30	459.91	227.85	145.46	110.20	35.27	4.125		
4,900.00	4,836.21	4,904.78	4,858.99	20.02	19.25	159.94	475.70	235.20	146.55	110.46	36.09	4.061		
5,000.00	4,934.91	5,001.38	4,954.41	20.45	19.67	159.63	489.31	241.53	147.50	110.62	36.88	4.000		
5,100.00	5,033.99	5,097.97	5,050.18	20.86	20.06	159.38	500.72	246.83	148.29	110.66	37.63	3.941		
5,200.00	5,133.39	5,194.56	5,146.22	21.26	20.44	159.17	509.93	251.12	148.94	110.58	38.35	3.883		
5,300.00	5,233.04	5,291.13	5,242.49	21.63	20.80	159.02	516.94	254.38	149.43	110.39	39.04	3.828		
5,400.00	5,332.88	5,387.71	5,338.91	21.98	21.14	158.92	521.74	256.61	149.77	110.09	39.69	3.774		
5,500.00	5,432.83	5,484.28	5,435.44	22.31	21.47	158.86	524.33	257.81	149.96	109.66	40.30	3.721		
5,567.18	5,500.00	5,549.16	5,500.32	22.52	21.68	179.72	524.82	258.04	150.00	109.31	40.69	3.686		
5,600.00	5,532.82	5,581.98	5,533.14	22.62	21.79	179.72	524.82	258.04	150.00	109.09	40.91	3.666		
5,700.00	5,632.82	5,681.98	5,633.14	22.93	22.11	179.72	524.82	258.04	150.00	108.41	41.59	3.606		
5,800.00	5,732.82	5,781.98	5,733.14	23.23	22.43	179.72	524.82	258.04	150.00	107.73	42.27	3.548		
5,900.00	5,832.82	5,881.98	5,833.14	23.54	22.75	179.72	524.82	258.04	150.00	107.04	42.96	3.492		
6,000.00	5,932.82	5,981.98	5,933.14	23.86	23.07	179.72	524.82	258.04	150.00	106.36	43.64	3.437		
6,100.00	6,032.82	6,081.98	6,033.14	24.17	23.40	179.72	524.82	258.04	150.00	105.68	44.33	3.384		
6,200.00	6,132.82	6,181.98	6,133.14	24.48	23.72	179.72	524.82	258.04	150.00	104.99	45.01	3.333		
6,300.00	6,232.82	6,281.98	6,233.14	24.80	24.05	179.72	524.82	258.04	150.00	104.30	45.70	3.283		
6,400.00	6,332.82	6,381.98	6,333.14	25.12	24.37	179.72	524.82	258.04	150.00	103.62	46.38	3.234		
6,500.00	6,432.82	6,481.98	6,433.14	25.43	24.70	179.72	524.82	258.04	150.00	102.93	47.07	3.187		
6,600.00	6,532.82	6,581.98	6,533.14	25.75	25.03	179.72	524.82	258.04	150.00	102.24	47.76	3.141		
6,700.00	6,632.82	6,681.98	6,633.14	26.07	25.36	179.72	524.82	258.04	150.00	101.55	48.45	3.096		
6,800.00	6,732.82	6,781.98	6,733.14	26.39	25.69	179.72	524.82	258.04	150.00	100.86	49.14	3.052		
6,900.00	6,832.82	6,881.98	6,833.14	26.72	26.02	179.72	524.82	258.04	150.00	100.17	49.83	3.010		
7,000.00	6,932.82	6,981.98	6,933.14	27.04	26.35	179.72	524.82	258.04	150.00	99.48	50.53	2.969		
7,100.00	7,032.82	7,081.98	7,033.14	27.36	26.68	179.72	524.82	258.04	150.00	98.78	51.22	2.929		
7,200.00	7,132.82	7,181.98	7,133.14	27.69	27.02	179.72	524.82	258.04	150.00	98.09	51.91	2.889		
7,300.00	7,232.82	7,281.98	7,233.14	28.01	27.35	179.72	524.82	258.04	150.00	97.39	52.61	2.851		
7,400.00	7,332.82	7,381.98	7,333.14	28.34	27.68	179.72	524.82	258.04	150.00	96.70	53.30	2.814		
7,500.00	7,432.82	7,481.98	7,433.14	28.66	28.02	179.72	524.82	258.04	150.00	96.00	54.00	2.778		
7,600.00	7,532.82	7,581.98	7,533.14	28.99	28.35	179.72	524.82	258.04	150.00	95.31	54.69	2.743		
7,700.00	7,632.82	7,681.98	7,633.14	29.32	28.69	179.72	524.82	258.04	150.00	94.61	55.39	2.708		
7,800.00	7,732.82	7,781.98	7,733.14	29.65	29.03	179.72	524.82	258.04	150.00	93.92	56.09	2.674		
7,900.00	7,832.82	7,881.98	7,833.14	29.98	29.36	179.72	524.82	258.04	150.00	93.22	56.78	2.642		
8,000.00	7,932.82	7,981.98	7,933.14	30.31	29.70	179.72	524.82	258.04	150.00	92.52	57.48	2.610		
8,100.00	8,032.82	8,081.98	8,033.14	30.64	30.04	179.72	524.82	258.04	150.00	91.82	58.18	2.578		
8,200.00	8,132.82	8,181.98	8,133.14	30.97	30.38	179.72	524.82	258.04	150.00	91.12	58.88	2.548		
8,300.00	8,232.82	8,281.98	8,233.14	31.30	30.72	179.72	524.82	258.04	150.00	90.42	59.58	2.518		
8,400.00	8,332.82	8,381.98	8,333.14	31.64	31.06	179.72	524.82	258.04	150.00	89.72	60.28	2.489		
8,500.00	8,432.82	8,481.98	8,433.14	31.97	31.40	179.72	524.82	258.04	150.00	89.02	60.98	2.460		
8,600.00	8,532.82	8,581.98	8,533.14	32.30	31.74	179.72	524.82	258.04	150.00	88.32	61.68	2.432		
8,700.00	8,632.82	8,681.98	8,633.14	32.64	32.08	179.72	524.82	258.04	150.00	87.62	62.38	2.405		
8,800.00	8,732.82	8,781.98	8,733.14	32.97	32.42	179.72	524.82	258.04	150.00	86.92	63.08	2.378		
8,900.00	8,832.82	8,881.98	8,833.14	33.31	32.76	179.72	524.82	258.04	150.00	86.22	63.78	2.352		
9,000.00	8,932.82	8,981.98	8,933.14	33.64	33.10	179.72	524.82	258.04	150.00	85.52	64.48	2.326		
9,100.00	9,032.82	9,081.98	9,033.14	33.98	33.44	179.72	524.82	258.04	150.00	84.82	65.19	2.301		
9,200.00	9,132.82	9,181.98	9,133.14	34.32	33.79	179.72	524.82	258.04	150.00	84.11	65.89	2.277		
9,233.42	9,166.24	9,215.40	9,166.56	34.43	33.90	179.72	524.82	258.04	150.00	83.88	66.12	2.269		
9,250.00	9,182.82	9,231.98	9,183.14	34.49	33.96	89.79	524.82	258.04	150.00	83.76	66.24	2.265		
9,262.85	9,195.66	9,244.82	9,195.98	34.53	34.00	89.99	524.82	258.04	150.00	83.68	66.32	2.262		
9,300.00	9,232.67	9,281.83	9,232.99	34.65	34.13	91.17	524.82	258.04	150.03	83.49	66.54	2.255		
9,350.00	9,282.02	9,331.18	9,282.34	34.83	34.30	94.12	524.82	258.04	150.41	83.61	66.79	2.252 SF		
9,400.00	9,330.49	9,379.65	9,330.81	35.01	34.46	98.45	524.82	258.04	151.79	84.77	67.02	2.265		

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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							
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	Warning
9,450.00	9,377.70	9,426.86	9,378.02	35.19	34.63	103.81	524.82	258.04	155.16	87.92	67.24	2.308	
9,500.00	9,423.31	9,472.47	9,423.63	35.38	34.78	109.71	524.82	258.04	161.60	94.11	67.49	2.395	
9,550.00	9,466.96	9,516.12	9,467.28	35.57	34.93	115.61	524.82	258.04	172.15	104.36	67.79	2.540	
9,600.00	9,508.32	9,557.48	9,508.64	35.76	35.07	121.04	524.82	258.04	187.52	119.38	68.15	2.752	
9,650.00	9,547.08	9,603.76	9,547.40	35.96	35.23	125.67	524.82	258.04	208.00	139.44	68.56	3.034	
9,700.00	9,582.94	9,632.10	9,583.26	36.17	35.33	129.31	524.82	258.04	233.48	164.55	68.93	3.387	
9,750.00	9,615.63	9,664.79	9,615.95	36.40	35.44	131.87	524.82	258.04	263.58	194.28	69.30	3.803	
9,800.00	9,644.89	9,705.95	9,645.21	36.64	35.59	133.31	524.82	258.04	297.79	228.12	69.68	4.274	
9,850.00	9,670.52	9,719.68	9,670.84	36.91	35.63	133.53	524.82	258.04	335.57	265.64	69.92	4.799	
9,900.00	9,692.31	9,741.47	9,692.63	37.20	35.71	132.36	524.82	258.04	376.34	306.18	70.16	5.364	
9,950.00	9,710.09	9,759.25	9,710.41	37.53	35.77	129.42	524.82	258.04	419.60	349.25	70.35	5.964	
10,000.00	9,723.73	9,772.90	9,724.05	37.88	35.82	124.09	524.82	258.04	464.83	394.32	70.51	6.593	
10,033.42	9,730.49	9,779.65	9,730.81	38.14	35.84	118.69	524.82	258.04	495.91	425.32	70.58	7.026	
10,050.00	9,733.23	9,782.39	9,733.55	38.27	35.85	117.03	524.82	258.04	511.52	440.90	70.62	7.243	
10,100.00	9,739.76	9,788.92	9,740.08	38.69	35.87	110.59	524.82	258.04	559.10	488.40	70.70	7.908	
10,150.00	9,743.69	9,807.15	9,744.01	39.14	35.93	101.62	524.82	258.04	607.26	536.44	70.82	8.575	
10,200.08	9,745.00	9,805.84	9,745.32	39.61	35.93	90.00	524.82	258.04	655.88	585.04	70.85	9.257	
10,300.00	9,745.00	9,805.84	9,745.32	40.65	35.93	90.00	524.82	258.04	753.50	682.59	70.91	10.626	
10,400.00	9,745.00	11,199.01	10,550.00	41.81	44.49	179.62	669.07	1,096.92	804.70	773.74	30.96	25.994	
10,500.00	9,745.00	11,298.75	10,550.00	43.07	45.69	179.95	673.74	1,196.54	804.68	773.10	31.58	25.481	
10,546.10	9,745.00	11,344.84	10,550.00	43.70	46.26	179.98	674.15	1,242.62	804.68	772.76	31.92	25.209	
10,600.00	9,745.00	11,401.27	10,550.00	44.44	46.99	179.98	674.13	1,296.52	804.68	772.33	32.35	24.878	
10,700.00	9,745.00	11,501.27	10,550.00	45.89	48.35	179.98	674.09	1,396.52	804.68	771.51	33.17	24.262	
10,800.00	9,745.00	11,601.27	10,550.00	47.42	49.79	179.98	674.06	1,496.52	804.68	770.64	34.04	23.639	
10,900.00	9,745.00	11,701.27	10,550.00	49.03	51.31	179.98	674.02	1,596.52	804.68	769.72	34.96	23.015	
11,000.00	9,745.00	11,801.27	10,550.00	50.70	52.90	179.98	673.98	1,696.52	804.68	768.75	35.93	22.396	
11,100.00	9,745.00	11,901.27	10,550.00	52.43	54.54	179.99	673.95	1,796.52	804.68	767.74	36.94	21.784	
11,200.00	9,745.00	12,001.27	10,550.00	54.22	56.25	179.99	673.91	1,896.52	804.68	766.70	37.98	21.184	
11,300.00	9,745.00	12,101.27	10,550.00	56.05	58.00	179.99	673.87	1,996.52	804.68	765.61	39.07	20.598	
11,400.00	9,745.00	12,201.27	10,550.00	57.93	59.81	179.99	673.83	2,096.52	804.68	764.50	40.18	20.027	
11,500.00	9,745.00	12,301.27	10,550.00	59.84	61.65	179.99	673.80	2,196.52	804.68	763.36	41.32	19.473	
11,600.00	9,745.00	12,401.27	10,550.00	61.80	63.54	179.99	673.76	2,296.52	804.68	762.19	42.49	18.937	
11,700.00	9,745.00	12,501.27	10,550.00	63.78	65.46	179.99	673.72	2,396.52	804.68	760.99	43.69	18.419	
11,800.00	9,745.00	12,601.27	10,550.00	65.80	67.41	179.99	673.69	2,496.52	804.68	759.77	44.91	17.919	
11,900.00	9,745.00	12,701.27	10,550.00	67.84	69.40	179.99	673.65	2,596.52	804.68	758.53	46.15	17.438	
12,000.00	9,745.00	12,801.27	10,550.00	69.90	71.41	179.99	673.61	2,696.52	804.68	757.28	47.40	16.975	
12,100.00	9,745.00	12,901.27	10,550.00	71.99	73.44	179.99	673.57	2,796.52	804.68	756.00	48.68	16.530	
12,200.00	9,745.00	13,001.27	10,550.00	74.10	75.50	179.99	673.54	2,896.52	804.68	754.71	49.97	16.102	
12,300.00	9,745.00	13,101.27	10,550.00	76.23	77.58	179.99	673.50	2,996.52	804.68	753.40	51.28	15.691	
12,400.00	9,745.00	13,201.27	10,550.00	78.37	79.68	179.99	673.46	3,096.52	804.68	752.07	52.61	15.296	
12,500.00	9,745.00	13,301.27	10,550.00	80.54	81.80	179.99	673.42	3,196.52	804.68	750.74	53.94	14.917	
12,600.00	9,745.00	13,401.27	10,550.00	82.71	83.93	179.99	673.39	3,296.52	804.68	749.39	55.29	14.554	
12,700.00	9,745.00	13,501.27	10,550.00	84.90	86.08	179.99	673.35	3,396.52	804.68	748.03	56.65	14.204	
12,800.00	9,745.00	13,601.27	10,550.00	87.10	88.25	179.99	673.31	3,496.52	804.68	746.66	58.02	13.869	
12,900.00	9,745.00	13,701.27	10,550.00	89.32	90.42	179.99	673.28	3,596.52	804.68	745.28	59.40	13.547	
13,000.00	9,745.00	13,801.27	10,550.00	91.54	92.61	179.99	673.24	3,696.52	804.68	743.89	60.79	13.237	
13,100.00	9,745.00	13,901.27	10,550.00	93.77	94.81	179.99	673.20	3,796.52	804.68	742.49	62.19	12.940	
13,200.00	9,745.00	14,001.27	10,550.00	96.02	97.03	179.99	673.16	3,896.52	804.68	741.09	63.59	12.653	
13,300.00	9,745.00	14,101.27	10,550.00	98.27	99.25	179.99	673.13	3,996.52	804.68	739.67	65.01	12.378	
13,400.00	9,745.00	14,201.27	10,550.00	100.53	101.48	179.99	673.09	4,096.52	804.68	738.25	66.43	12.114	
13,500.00	9,745.00	14,301.27	10,550.00	102.80	103.72	180.00	673.05	4,196.52	804.68	736.83	67.85	11.859	
13,600.00	9,745.00	14,401.27	10,550.00	105.07	105.97	180.00	673.02	4,296.52	804.68	735.39	69.29	11.614	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 (°)	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor	
13,700.00	9,745.00	14,501.27	10,550.00	107.35	108.22	180.00	672.98	4,396.52	804.68	733.95	70.73	11.377	
13,800.00	9,745.00	14,601.27	10,550.00	109.64	110.48	180.00	672.94	4,496.52	804.68	732.51	72.17	11.150	
13,900.00	9,745.00	14,701.27	10,550.00	111.93	112.75	180.00	672.90	4,596.52	804.68	731.06	73.62	10.930	
14,000.00	9,745.00	14,801.27	10,550.00	114.23	115.03	180.00	672.87	4,696.52	804.68	729.61	75.07	10.719	
14,100.00	9,745.00	14,901.27	10,550.00	116.53	117.31	180.00	672.83	4,796.52	804.68	728.15	76.53	10.514	
14,200.00	9,745.00	15,001.27	10,550.00	118.84	119.60	180.00	672.79	4,896.52	804.68	726.68	78.00	10.317	
14,300.00	9,745.00	15,101.27	10,550.00	121.15	121.89	180.00	672.75	4,996.52	804.68	725.22	79.46	10.127	
14,400.00	9,745.00	15,201.27	10,550.00	123.47	124.19	180.00	672.72	5,096.52	804.68	723.75	80.93	9.942	
14,500.00	9,745.00	15,301.27	10,550.00	125.79	126.49	180.00	672.68	5,196.52	804.68	722.27	82.41	9.765	
14,600.00	9,745.00	15,401.27	10,550.00	128.12	128.79	180.00	672.64	5,296.52	804.68	720.80	83.88	9.593	
14,661.21	9,745.00	15,459.94	10,550.00	129.54	129.73	-180.00	672.62	5,357.73	804.68	720.13	84.55	9.517	



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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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)					
0.00	0.00	2.55	-2.55	0.00	0.00	20.54	1,583.62	593.48	1,691.17				
100.00	100.00	102.55	97.45	0.13	0.14	20.54	1,583.62	593.48	1,691.17	1,690.91	0.26	6,414.318	
200.00	200.00	202.55	197.45	0.49	0.49	20.54	1,583.62	593.48	1,691.17	1,690.19	0.98	1,724.634	
300.00	300.00	302.55	297.45	0.84	0.85	20.54	1,583.62	593.48	1,691.17	1,689.48	1.70	996.249	
400.00	400.00	402.55	397.45	1.20	1.21	20.54	1,583.62	593.48	1,691.17	1,688.76	2.41	700.429	
500.00	500.00	502.55	497.45	1.56	1.57	20.54	1,583.62	593.48	1,691.17	1,688.04	3.13	540.065	
600.00	600.00	602.55	597.45	1.92	1.93	20.54	1,583.62	593.48	1,691.17	1,687.33	3.85	439.452	
700.00	700.00	702.55	697.45	2.28	2.29	20.54	1,583.62	593.48	1,691.17	1,686.61	4.57	370.440	
800.00	800.00	802.55	797.45	2.64	2.65	20.54	1,583.62	593.48	1,691.17	1,685.89	5.28	320.161	
900.00	900.00	902.55	897.45	3.00	3.00	20.54	1,583.62	593.48	1,691.17	1,685.18	6.00	281.900	
1,000.00	1,000.00	997.45	997.45	3.35	3.34	20.54	1,583.62	593.48	1,691.17	1,684.48	6.70	252.495	
1,100.00	1,099.99	1,132.46	1,132.43	3.71	3.81	-0.39	1,582.98	591.27	1,688.86	1,681.33	7.52	224.506	
1,200.00	1,199.91	1,267.73	1,267.51	4.07	4.27	-0.59	1,581.00	584.47	1,681.81	1,673.47	8.34	201.622	
1,300.00	1,299.69	1,366.72	1,366.26	4.43	4.62	-0.78	1,579.08	577.84	1,671.14	1,662.09	9.04	184.775	
1,400.00	1,399.27	1,465.67	1,464.97	4.79	4.97	-0.99	1,577.15	571.21	1,657.89	1,648.14	9.75	170.059	
1,500.00	1,498.57	1,564.24	1,563.29	5.16	5.32	-1.19	1,575.23	564.61	1,642.07	1,631.61	10.46	157.059	
1,533.33	1,531.60	1,603.01	1,595.97	5.28	5.46	-1.26	1,574.59	562.42	1,636.23	1,625.51	10.71	152.728	
1,600.00	1,597.62	1,662.46	1,661.28	5.53	5.67	-1.40	1,573.32	558.03	1,624.26	1,613.10	11.16	145.521	
1,700.00	1,696.65	1,760.66	1,759.24	5.91	6.03	-1.62	1,571.41	551.45	1,606.34	1,594.47	11.87	135.354	
1,800.00	1,795.67	1,858.86	1,857.20	6.30	6.38	-1.84	1,569.50	544.88	1,588.43	1,575.85	12.58	126.301	
1,900.00	1,894.70	1,957.06	1,955.16	6.69	6.74	-2.06	1,567.59	538.30	1,570.55	1,557.26	13.29	118.194	
2,000.00	1,993.73	2,055.26	2,053.13	7.08	7.10	-2.29	1,565.67	531.72	1,552.69	1,538.69	14.00	110.896	
2,100.00	2,092.75	2,153.46	2,151.09	7.47	7.46	-2.52	1,563.76	525.14	1,534.86	1,520.14	14.72	104.293	
2,200.00	2,191.78	2,251.66	2,249.05	7.87	7.82	-2.76	1,561.85	518.56	1,517.05	1,501.61	15.43	98.294	
2,300.00	2,290.81	2,349.86	2,347.01	8.27	8.18	-3.01	1,559.94	511.99	1,499.27	1,483.11	16.15	92.821	
2,400.00	2,389.83	2,448.06	2,444.97	8.67	8.54	-3.26	1,558.03	505.41	1,481.51	1,464.64	16.87	87.809	
2,500.00	2,488.86	2,546.26	2,542.93	9.07	8.91	-3.52	1,556.12	498.83	1,463.78	1,446.19	17.59	83.203	
2,600.00	2,587.89	2,644.46	2,640.89	9.47	9.27	-3.78	1,554.21	492.25	1,446.09	1,427.77	18.31	78.957	
2,700.00	2,686.91	2,742.67	2,738.85	9.88	9.63	-4.05	1,552.30	485.67	1,428.42	1,409.38	19.04	75.030	
2,800.00	2,785.94	2,840.87	2,836.81	10.28	10.00	-4.33	1,550.38	479.10	1,410.79	1,391.02	19.76	71.389	
2,899.91	2,884.88	2,960.71	2,956.24	10.69	10.45	-4.73	1,547.61	469.53	1,392.50	1,371.96	20.55	67.766	
3,000.00	2,983.80	3,081.26	3,075.99	11.10	10.91	-5.32	1,543.76	456.30	1,371.31	1,349.97	21.34	64.254	
3,100.00	3,082.20	3,183.97	3,177.72	11.53	11.32	-5.96	1,539.82	442.73	1,346.49	1,324.40	22.10	60.933	
3,200.00	3,180.10	3,279.21	3,272.04	11.97	11.70	-6.61	1,536.12	430.00	1,319.22	1,296.38	22.84	57.761	
3,249.91	3,228.76	3,326.46	3,318.83	12.20	11.89	-6.95	1,534.28	423.68	1,304.73	1,281.52	23.21	56.214	
3,300.00	3,277.51	3,373.77	3,365.68	12.43	12.08	-7.27	1,532.45	417.36	1,289.92	1,266.33	23.58	54.701	
3,400.00	3,374.85	3,468.24	3,459.23	12.89	12.45	-7.94	1,528.78	404.74	1,260.46	1,236.13	24.32	51.819	
3,500.00	3,472.19	3,562.71	3,552.78	13.36	12.84	-8.65	1,525.11	392.11	1,231.17	1,206.09	25.07	49.107	
3,600.00	3,569.53	3,657.18	3,646.33	13.82	13.22	-9.38	1,521.44	379.49	1,202.06	1,176.23	25.82	46.551	
3,700.00	3,666.87	3,751.64	3,739.88	14.29	13.60	-10.15	1,517.77	366.86	1,173.14	1,146.56	26.58	44.138	
3,800.00	3,764.20	3,846.11	3,833.42	14.77	13.98	-10.96	1,514.10	354.23	1,144.44	1,117.10	27.34	41.860	
3,900.00	3,861.54	3,940.58	3,926.97	15.24	14.37	-11.81	1,510.44	341.61	1,115.96	1,087.85	28.11	39.706	
4,000.00	3,958.88	4,035.05	4,020.52	15.72	14.75	-12.70	1,506.77	328.98	1,087.72	1,058.84	28.88	37.667	
4,100.00	4,056.22	4,129.51	4,114.07	16.20	15.14	-13.63	1,503.10	316.36	1,059.75	1,030.09	29.65	35.736	
4,200.00	4,153.56	4,223.98	4,207.62	16.67	15.52	-14.62	1,499.43	303.73	1,032.06	1,001.62	30.44	33.906	
4,300.00	4,250.89	4,318.45	4,301.17	17.16	15.91	-15.66	1,495.76	291.11	1,004.68	973.45	31.23	32.171	
4,400.00	4,348.23	4,406.17	4,388.13	17.64	16.27	-16.63	1,492.55	280.05	977.91	945.89	32.01	30.547	
4,500.00	4,445.57	4,493.62	4,475.06	18.12	16.61	-17.54	1,489.89	270.91	952.21	919.41	32.79	29.038	
4,600.00	4,542.91	4,582.06	4,563.17	18.61	16.95	-18.38	1,487.77	263.61	927.51	893.95	33.56	27.636	
4,683.84	4,624.52	4,656.91	4,637.86	19.01	17.23	-19.03	1,486.42	258.97	907.54	873.34	34.20	26.535	
4,700.00	4,640.25	4,671.41	4,652.34	19.09	17.28	-19.13	1,486.21	258.23	903.80	869.48	34.32	26.331	
4,800.00	4,737.97	4,761.96	4,742.81	19.56	17.61	-19.66	1,485.22	254.82	882.52	847.45	35.07	25.162	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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	
4,900.00	4,836.21	4,853.68	4,834.52	20.02	17.92	-20.04	1,484.83	253.47	864.48	828.67	35.81	24.144	
5,000.00	4,934.91	4,951.51	4,932.36	20.45	18.24	-20.33	1,484.82	253.45	849.35	812.82	36.52	23.256	
5,100.00	5,033.99	5,050.60	5,031.44	20.86	18.57	-20.58	1,484.82	253.45	836.68	799.45	37.23	22.471	
5,200.00	5,133.39	5,150.00	5,130.84	21.26	18.90	-20.79	1,484.82	253.45	826.48	788.54	37.94	21.784	
5,300.00	5,233.04	5,249.65	5,230.49	21.63	19.22	-20.96	1,484.82	253.45	818.73	780.09	38.64	21.190	
5,400.00	5,332.88	5,349.49	5,330.33	21.98	19.55	-21.07	1,484.82	253.45	813.42	774.09	39.33	20.683	
5,500.00	5,432.83	5,449.44	5,430.28	22.31	19.89	-21.13	1,484.82	253.45	810.56	770.55	40.01	20.258	
5,567.18	5,500.00	5,516.61	5,497.45	22.52	20.11	-0.27	1,484.82	253.45	810.01	769.54	40.46	20.018	
5,600.00	5,532.82	5,549.43	5,530.27	22.62	20.22	-0.27	1,484.82	253.45	810.01	769.32	40.69	19.909	
5,700.00	5,632.82	5,649.43	5,630.27	22.93	20.55	-0.27	1,484.82	253.45	810.01	768.65	41.36	19.585	
5,800.00	5,732.82	5,749.43	5,730.27	23.23	20.89	-0.27	1,484.82	253.45	810.01	767.98	42.03	19.271	
5,900.00	5,832.82	5,849.43	5,830.27	23.54	21.22	-0.27	1,484.82	253.45	810.01	767.30	42.71	18.966	
6,000.00	5,932.82	5,949.43	5,930.27	23.86	21.56	-0.27	1,484.82	253.45	810.01	766.62	43.39	18.670	
6,100.00	6,032.82	6,049.43	6,030.27	24.17	21.89	-0.27	1,484.82	253.45	810.01	765.94	44.06	18.382	
6,200.00	6,132.82	6,149.43	6,130.27	24.48	22.23	-0.27	1,484.82	253.45	810.01	765.27	44.74	18.103	
6,300.00	6,232.82	6,249.43	6,230.27	24.80	22.57	-0.27	1,484.82	253.45	810.01	764.58	45.42	17.832	
6,400.00	6,332.82	6,349.43	6,330.27	25.12	22.91	-0.27	1,484.82	253.45	810.01	763.90	46.11	17.568	
6,500.00	6,432.82	6,449.43	6,430.27	25.43	23.25	-0.27	1,484.82	253.45	810.01	763.22	46.79	17.312	
6,600.00	6,532.82	6,549.43	6,530.27	25.75	23.59	-0.27	1,484.82	253.45	810.01	762.54	47.47	17.062	
6,700.00	6,632.82	6,649.43	6,630.27	26.07	23.93	-0.27	1,484.82	253.45	810.01	761.85	48.16	16.820	
6,800.00	6,732.82	6,749.43	6,730.27	26.39	24.27	-0.27	1,484.82	253.45	810.01	761.16	48.84	16.583	
6,900.00	6,832.82	6,849.43	6,830.27	26.72	24.61	-0.27	1,484.82	253.45	810.01	760.48	49.53	16.354	
7,000.00	6,932.82	6,949.43	6,930.27	27.04	24.95	-0.27	1,484.82	253.45	810.01	759.79	50.22	16.130	
7,100.00	7,032.82	7,049.43	7,030.27	27.36	25.29	-0.27	1,484.82	253.45	810.01	759.10	50.91	15.912	
7,200.00	7,132.82	7,149.43	7,130.27	27.69	25.63	-0.27	1,484.82	253.45	810.01	758.41	51.60	15.699	
7,300.00	7,232.82	7,249.43	7,230.27	28.01	25.98	-0.27	1,484.82	253.45	810.01	757.72	52.29	15.492	
7,400.00	7,332.82	7,349.43	7,330.27	28.34	26.32	-0.27	1,484.82	253.45	810.01	757.03	52.98	15.290	
7,500.00	7,432.82	7,449.43	7,430.27	28.66	26.66	-0.27	1,484.82	253.45	810.01	756.34	53.67	15.093	
7,600.00	7,532.82	7,549.43	7,530.27	28.99	27.01	-0.27	1,484.82	253.45	810.01	755.65	54.36	14.901	
7,700.00	7,632.82	7,649.43	7,630.27	29.32	27.35	-0.27	1,484.82	253.45	810.01	754.96	55.05	14.713	
7,800.00	7,732.82	7,749.43	7,730.27	29.65	27.70	-0.27	1,484.82	253.45	810.01	754.26	55.75	14.530	
7,900.00	7,832.82	7,849.43	7,830.27	29.98	28.04	-0.27	1,484.82	253.45	810.01	753.57	56.44	14.352	
8,000.00	7,932.82	7,949.43	7,930.27	30.31	28.39	-0.27	1,484.82	253.45	810.01	752.88	57.13	14.177	
8,100.00	8,032.82	8,049.43	8,030.27	30.64	28.74	-0.27	1,484.82	253.45	810.01	752.18	57.83	14.007	
8,200.00	8,132.82	8,149.43	8,130.27	30.97	29.08	-0.27	1,484.82	253.45	810.01	751.48	58.52	13.840	
8,300.00	8,232.82	8,249.43	8,230.27	31.30	29.43	-0.27	1,484.82	253.45	810.01	750.79	59.22	13.678	
8,400.00	8,332.82	8,349.43	8,330.27	31.64	29.78	-0.27	1,484.82	253.45	810.01	750.09	59.92	13.519	
8,500.00	8,432.82	8,449.43	8,430.27	31.97	30.12	-0.27	1,484.82	253.45	810.01	749.40	60.61	13.363	
8,600.00	8,532.82	8,549.43	8,530.27	32.30	30.47	-0.27	1,484.82	253.45	810.01	748.70	61.31	13.211	
8,700.00	8,632.82	8,649.43	8,630.27	32.64	30.82	-0.27	1,484.82	253.45	810.01	748.00	62.01	13.063	
8,800.00	8,732.82	8,749.43	8,730.27	32.97	31.17	-0.27	1,484.82	253.45	810.01	747.30	62.71	12.917	
8,900.00	8,832.82	8,849.43	8,830.27	33.31	31.51	-0.27	1,484.82	253.45	810.01	746.60	63.41	12.775	
9,000.00	8,932.82	8,949.43	8,930.27	33.64	31.86	-0.27	1,484.82	253.45	810.01	745.90	64.11	12.636	
9,100.00	9,032.82	9,049.43	9,030.27	33.98	32.21	-0.27	1,484.82	253.45	810.01	745.20	64.80	12.499	
9,200.00	9,132.82	9,149.43	9,130.27	34.32	32.56	-0.27	1,484.82	253.45	810.01	744.50	65.50	12.366	
9,233.42	9,166.24	9,182.85	9,163.69	34.43	32.68	-0.27	1,484.82	253.45	810.01	744.27	65.74	12.322 CC	
9,250.00	9,182.82	9,200.57	9,180.27	34.49	32.74	-90.32	1,484.82	253.45	810.01	744.15	65.86	12.299	
9,300.00	9,232.67	9,249.28	9,230.12	34.65	32.91	-90.57	1,484.82	253.45	810.04	743.83	66.21	12.234	
9,350.00	9,282.02	9,301.37	9,279.47	34.83	33.09	-91.11	1,484.82	253.45	810.16	743.57	66.59	12.166	
9,400.00	9,330.49	9,347.09	9,327.94	35.01	33.25	-91.91	1,484.82	253.45	810.49	743.53	66.96	12.104 ES	
9,450.00	9,377.70	9,405.69	9,375.15	35.19	33.45	-92.93	1,484.82	253.45	811.23	743.83	67.40	12.036	
9,500.00	9,423.31	9,439.92	9,420.76	35.38	33.57	-94.11	1,484.82	253.45	812.61	744.84	67.77	11.991	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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-MVVD												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
9,550.00	9,466.96	9,483.57	9,464.41	35.57	33.73	-95.37	1,484.82	253.45	814.93	746.74	68.19	11.951	
9,600.00	9,508.32	9,524.93	9,505.77	35.76	33.87	-96.64	1,484.82	253.45	818.48	749.85	68.63	11.926	
9,650.00	9,547.08	9,563.69	9,544.53	35.96	34.01	-97.83	1,484.82	253.45	823.61	754.53	69.08	11.922	
9,700.00	9,582.94	9,600.45	9,580.39	36.17	34.13	-98.86	1,484.82	253.45	830.62	761.06	69.55	11.942	
9,750.00	9,615.63	9,632.23	9,613.08	36.40	34.25	-99.64	1,484.82	253.45	839.80	769.77	70.03	11.991	
9,800.00	9,644.89	9,661.50	9,642.34	36.64	34.35	-100.09	1,484.82	253.45	851.40	780.87	70.53	12.072	
9,850.00	9,670.52	9,687.13	9,667.97	36.91	34.44	-100.14	1,484.82	253.45	865.58	794.56	71.02	12.187	
9,900.00	9,692.31	9,708.91	9,689.76	37.20	34.51	-99.72	1,484.82	253.45	882.45	810.93	71.52	12.339	
9,950.00	9,710.09	9,726.70	9,707.54	37.53	34.58	-98.77	1,484.82	253.45	902.00	830.01	72.00	12.528	
10,000.00	9,723.73	9,740.34	9,721.18	37.88	34.62	-97.22	1,484.82	253.45	924.17	851.71	72.46	12.754	
10,033.42	9,730.49	9,747.10	9,727.94	38.14	34.65	-95.85	1,484.82	253.45	940.36	867.61	72.75	12.926	
10,050.00	9,733.23	9,749.84	9,730.68	38.27	34.66	-95.45	1,484.82	253.45	948.77	875.88	72.89	13.016	
10,100.00	9,739.76	9,756.37	9,737.21	38.69	34.68	-94.02	1,484.82	253.45	975.50	902.21	73.30	13.309	
10,150.00	9,743.69	9,760.30	9,741.14	39.14	34.69	-92.20	1,484.82	253.45	1,004.13	930.46	73.67	13.630	
10,200.08	9,745.00	9,761.61	9,742.45	39.61	34.70	-90.00	1,484.82	253.45	1,034.50	960.49	74.01	13.978	
10,300.00	9,745.00	11,135.52	10,550.00	40.65	40.48	-140.43	1,341.93	1,058.39	1,049.48	995.14	54.35	19.311	
10,400.00	9,745.00	11,209.45	10,550.00	41.81	41.20	-140.65	1,336.53	1,132.13	1,044.86	989.42	55.44	18.846	
10,500.00	9,745.00	11,283.69	10,550.00	43.07	41.99	-140.76	1,333.99	1,206.32	1,042.72	985.92	56.80	18.358	
10,529.69	9,745.00	11,319.27	10,550.00	43.48	42.38	-140.77	1,333.78	1,226.40	1,042.55	985.19	57.36	18.175	
10,600.00	9,745.00	11,374.08	10,550.00	44.44	43.02	-140.77	1,333.76	1,296.71	1,042.55	984.11	58.45	17.838	
10,700.00	9,745.00	11,474.08	10,550.00	45.89	44.26	-140.77	1,333.73	1,396.71	1,042.56	982.29	60.27	17.297	
10,800.00	9,745.00	11,574.08	10,550.00	47.42	45.60	-140.77	1,333.70	1,496.71	1,042.57	980.35	62.22	16.756	
10,900.00	9,745.00	11,674.08	10,550.00	49.03	47.02	-140.77	1,333.67	1,596.71	1,042.58	978.31	64.28	16.220	
11,000.00	9,745.00	11,774.08	10,550.00	50.70	48.52	-140.76	1,333.65	1,696.71	1,042.59	976.16	66.43	15.694	
11,100.00	9,745.00	11,874.08	10,550.00	52.43	50.09	-140.76	1,333.62	1,796.71	1,042.60	973.92	68.68	15.181	
11,200.00	9,745.00	11,974.08	10,550.00	54.22	51.73	-140.76	1,333.59	1,896.71	1,042.61	971.61	71.01	14.684	
11,300.00	9,745.00	12,074.08	10,550.00	56.05	53.43	-140.76	1,333.56	1,996.71	1,042.62	969.22	73.41	14.203	
11,400.00	9,745.00	12,174.08	10,550.00	57.93	55.18	-140.76	1,333.53	2,096.71	1,042.63	966.76	75.87	13.742	
11,500.00	9,745.00	12,274.08	10,550.00	59.84	56.98	-140.76	1,333.51	2,196.71	1,042.64	964.24	78.40	13.299	
11,600.00	9,745.00	12,374.08	10,550.00	61.80	58.83	-140.76	1,333.48	2,296.71	1,042.65	961.67	80.98	12.875	
11,700.00	9,745.00	12,474.08	10,550.00	63.78	60.71	-140.76	1,333.45	2,396.71	1,042.66	959.04	83.62	12.470	
11,800.00	9,745.00	12,574.08	10,550.00	65.80	62.64	-140.76	1,333.42	2,496.71	1,042.67	956.38	86.29	12.083	
11,900.00	9,745.00	12,674.08	10,550.00	67.84	64.59	-140.76	1,333.39	2,596.71	1,042.68	953.67	89.01	11.714	
12,000.00	9,745.00	12,774.08	10,550.00	69.90	66.58	-140.76	1,333.37	2,696.71	1,042.69	950.92	91.77	11.362	
12,100.00	9,745.00	12,874.08	10,550.00	71.99	68.60	-140.76	1,333.34	2,796.71	1,042.70	948.14	94.56	11.027	
12,200.00	9,745.00	12,974.08	10,550.00	74.10	70.64	-140.76	1,333.31	2,896.71	1,042.71	945.33	97.38	10.707	
12,300.00	9,745.00	13,074.08	10,550.00	76.23	72.70	-140.76	1,333.28	2,996.71	1,042.72	942.49	100.23	10.403	
12,400.00	9,745.00	13,174.08	10,550.00	78.37	74.79	-140.76	1,333.25	3,096.71	1,042.73	939.62	103.11	10.113	
12,500.00	9,745.00	13,274.08	10,550.00	80.54	76.89	-140.76	1,333.23	3,196.71	1,042.74	936.73	106.01	9.836	
12,600.00	9,745.00	13,374.08	10,550.00	82.71	79.02	-140.75	1,333.20	3,296.71	1,042.75	933.81	108.94	9.572	
12,700.00	9,745.00	13,474.08	10,550.00	84.90	81.16	-140.75	1,333.17	3,396.71	1,042.76	930.88	111.88	9.320	
12,800.00	9,745.00	13,574.08	10,550.00	87.10	83.32	-140.75	1,333.14	3,496.71	1,042.77	927.92	114.84	9.080	
12,900.00	9,745.00	13,674.08	10,550.00	89.32	85.49	-140.75	1,333.11	3,596.71	1,042.78	924.95	117.82	8.850	
13,000.00	9,745.00	13,774.08	10,550.00	91.54	87.67	-140.75	1,333.08	3,696.71	1,042.79	921.96	120.82	8.631	
13,100.00	9,745.00	13,874.08	10,550.00	93.77	89.87	-140.75	1,333.06	3,796.71	1,042.80	918.96	123.83	8.421	
13,200.00	9,745.00	13,974.08	10,550.00	96.02	92.08	-140.75	1,333.03	3,896.71	1,042.80	915.94	126.86	8.220	
13,300.00	9,745.00	14,074.08	10,550.00	98.27	94.29	-140.75	1,333.00	3,996.71	1,042.81	912.91	129.90	8.028	
13,400.00	9,745.00	14,174.08	10,550.00	100.53	96.52	-140.75	1,332.97	4,096.71	1,042.82	909.87	132.95	7.844	
13,500.00	9,745.00	14,274.08	10,550.00	102.80	98.76	-140.75	1,332.94	4,196.71	1,042.83	906.82	136.02	7.667	
13,600.00	9,745.00	14,374.08	10,550.00	105.07	101.01	-140.75	1,332.92	4,296.71	1,042.84	903.75	139.09	7.498	
13,700.00	9,745.00	14,474.08	10,550.00	107.35	103.26	-140.75	1,332.89	4,396.71	1,042.85	900.68	142.17	7.335	
13,800.00	9,745.00	14,574.08	10,550.00	109.64	105.52	-140.75	1,332.86	4,496.71	1,042.86	897.60	145.27	7.179	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,900.00	9,745.00	14,674.08	10,550.00	111.93	107.79	-140.75	1,332.83	4,596.71	1,042.87	894.51	148.37	7.029	
14,000.00	9,745.00	14,774.08	10,550.00	114.23	110.07	-140.75	1,332.80	4,696.71	1,042.88	891.41	151.48	6.885	
14,100.00	9,745.00	14,874.08	10,550.00	116.53	112.35	-140.74	1,332.78	4,796.71	1,042.89	888.30	154.59	6.746	
14,200.00	9,745.00	14,974.08	10,550.00	118.84	114.64	-140.74	1,332.75	4,896.71	1,042.90	885.18	157.72	6.612	
14,300.00	9,745.00	15,074.08	10,550.00	121.15	116.93	-140.74	1,332.72	4,996.71	1,042.91	882.06	160.85	6.484	
14,400.00	9,745.00	15,174.08	10,550.00	123.47	119.23	-140.74	1,332.69	5,096.71	1,042.92	878.93	163.99	6.360	
14,500.00	9,745.00	15,274.08	10,550.00	125.79	121.53	-140.74	1,332.66	5,196.71	1,042.93	875.80	167.13	6.240	
14,600.00	9,745.00	15,374.08	10,550.00	128.12	123.84	-140.74	1,332.64	5,296.71	1,042.94	872.66	170.28	6.125	
14,604.36	9,745.00	15,378.44	10,550.00	128.22	123.94	-140.74	1,332.63	5,301.06	1,042.94	872.52	170.42	6.120	
14,661.21	9,745.00	15,430.62	10,550.00	129.54	124.92	-140.74	1,332.62	5,353.24	1,042.96	870.97	171.99	6.064 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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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							
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
0.00	0.00	1.41	-1.41	0.00	0.00	179.97	-89.87	0.05	89.87				
100.00	100.00	101.41	98.59	0.13	0.13	179.97	-89.87	0.05	89.87	89.61	0.26	346.227	
200.00	200.00	201.41	198.59	0.49	0.49	179.97	-89.87	0.05	89.87	88.89	0.98	92.032	
300.00	300.00	301.41	298.59	0.84	0.85	179.97	-89.87	0.05	89.87	88.18	1.69	53.069	
400.00	400.00	401.41	398.59	1.20	1.21	179.97	-89.87	0.05	89.87	87.46	2.41	37.284	
500.00	500.00	501.41	498.59	1.56	1.57	179.97	-89.87	0.05	89.87	86.74	3.13	28.737	
600.00	600.00	601.41	598.59	1.92	1.92	179.97	-89.87	0.05	89.87	86.03	3.84	23.378	
700.00	700.00	701.41	698.59	2.28	2.28	179.97	-89.87	0.05	89.87	85.31	4.56	19.703	
800.00	800.00	801.41	798.59	2.64	2.64	179.97	-89.87	0.05	89.87	84.59	5.28	17.027	
900.00	900.00	901.41	898.59	3.00	3.00	179.97	-89.87	0.05	89.87	83.87	6.00	14.991	
1,000.00	1,000.00	1,001.41	998.59	3.35	3.36	179.97	-89.87	0.05	89.87	83.16	6.71	13.389 CC, ES	
1,100.00	1,099.99	1,101.42	1,098.58	3.71	3.72	159.38	-89.87	0.05	91.09	83.67	7.43	12.263	
1,200.00	1,199.91	1,201.50	1,198.50	4.07	4.08	160.20	-89.87	0.05	94.78	86.63	8.15	11.635	
1,300.00	1,299.69	1,301.72	1,298.28	4.43	4.44	161.43	-89.87	0.05	100.96	92.09	8.86	11.390	
1,400.00	1,399.27	1,402.14	1,397.86	4.79	4.80	162.91	-89.87	0.05	109.67	100.09	9.58	11.444	
1,500.00	1,498.57	1,502.84	1,497.16	5.16	5.16	164.50	-89.87	0.05	120.96	110.66	10.30	11.738	
1,533.33	1,531.60	1,530.19	1,530.19	5.28	5.25	165.03	-89.87	0.05	125.30	114.78	10.52	11.906	
1,600.00	1,597.62	1,603.79	1,596.21	5.53	5.52	166.05	-89.87	0.05	134.29	123.26	11.03	12.178	
1,700.00	1,696.65	1,704.76	1,695.24	5.91	5.88	167.35	-89.87	0.05	147.84	136.09	11.75	12.585	
1,800.00	1,795.67	1,805.74	1,794.26	6.30	6.24	168.43	-89.87	0.05	161.46	148.99	12.47	12.948	
1,900.00	1,894.70	1,906.71	1,893.29	6.69	6.60	169.35	-89.87	0.05	175.12	161.93	13.19	13.274	
2,000.00	1,993.73	1,992.32	1,992.32	7.08	6.91	170.13	-89.87	0.05	188.82	174.96	13.86	13.623	
2,100.00	2,092.75	2,095.53	2,095.52	7.47	7.28	170.64	-89.03	0.90	201.60	187.00	14.59	13.813	
2,200.00	2,191.78	2,199.66	2,199.57	7.87	7.65	170.67	-86.22	3.77	212.15	196.83	15.33	13.842	
2,300.00	2,290.81	2,304.20	2,303.88	8.27	8.02	170.28	-81.39	8.69	220.46	204.40	16.06	13.730	
2,400.00	2,389.83	2,409.03	2,408.24	8.67	8.39	169.51	-74.55	15.67	226.53	209.74	16.78	13.496	
2,500.00	2,488.86	2,513.96	2,512.41	9.07	8.77	168.36	-65.70	24.70	230.41	212.90	17.51	13.159	
2,600.00	2,587.89	2,614.73	2,612.20	9.47	9.14	167.01	-55.91	34.68	232.93	214.68	18.25	12.766	
2,700.00	2,686.91	2,714.55	2,711.06	9.88	9.51	165.71	-46.18	44.60	235.52	216.54	18.99	12.405	
2,800.00	2,785.94	2,814.37	2,809.91	10.28	9.88	164.43	-36.46	54.52	238.24	218.51	19.73	12.075	
2,899.91	2,884.88	2,914.11	2,908.67	10.69	10.26	163.18	-26.74	64.43	241.08	220.60	20.48	11.772	
3,000.00	2,983.80	3,013.99	3,007.58	11.10	10.64	162.04	-17.00	74.35	245.27	224.04	21.23	11.552	
3,100.00	3,082.20	3,113.68	3,106.31	11.53	11.02	161.11	-7.29	84.26	252.03	230.04	21.99	11.460	
3,200.00	3,180.10	3,213.21	3,204.86	11.97	11.41	160.41	2.41	94.15	261.30	238.55	22.75	11.484	
3,249.91	3,228.76	3,262.80	3,253.97	12.20	11.60	160.15	7.24	99.07	266.86	243.72	23.14	11.534	
3,300.00	3,277.51	3,312.53	3,303.22	12.43	11.79	159.94	12.09	104.02	272.74	249.22	23.52	11.596	
3,400.00	3,374.85	3,411.82	3,401.54	12.89	12.18	159.56	21.76	113.88	284.50	260.21	24.29	11.714	
3,500.00	3,472.19	3,511.11	3,499.86	13.36	12.57	159.21	31.44	123.75	296.27	271.21	25.06	11.823	
3,600.00	3,569.53	3,610.40	3,598.18	13.82	12.96	158.89	41.11	133.61	308.05	282.22	25.83	11.925	
3,700.00	3,666.87	3,709.69	3,696.51	14.29	13.35	158.58	50.79	143.48	319.84	293.24	26.61	12.020	
3,800.00	3,764.20	3,808.97	3,794.83	14.77	13.74	158.31	60.46	153.35	331.64	304.26	27.39	12.109	
3,900.00	3,861.54	3,908.26	3,893.15	15.24	14.14	158.04	70.14	163.21	343.45	315.28	28.17	12.193	
4,000.00	3,958.88	4,007.55	3,991.47	15.72	14.53	157.80	79.81	173.08	355.26	326.31	28.95	12.271	
4,100.00	4,056.22	4,106.84	4,089.80	16.20	14.93	157.57	89.49	182.94	367.08	337.34	29.74	12.345	
4,200.00	4,153.56	4,206.13	4,188.12	16.67	15.33	157.36	99.16	192.81	378.90	348.38	30.52	12.414	
4,300.00	4,250.89	4,305.42	4,286.44	17.16	15.73	157.16	108.84	202.67	390.73	359.42	31.31	12.479	
4,400.00	4,348.23	4,404.71	4,384.77	17.64	16.13	156.97	118.52	212.54	402.57	370.46	32.10	12.541	
4,500.00	4,445.57	4,504.00	4,483.09	18.12	16.53	156.79	128.19	222.41	414.40	381.51	32.89	12.599	
4,600.00	4,542.91	4,603.29	4,581.41	18.61	16.93	156.63	137.87	232.27	426.24	392.56	33.68	12.654	
4,683.84	4,624.52	4,681.28	4,658.72	19.01	17.24	156.56	145.04	239.59	436.62	402.29	34.32	12.720	
4,700.00	4,640.25	4,696.15	4,673.49	19.09	17.30	156.58	146.28	240.86	438.71	404.27	34.45	12.736	
4,800.00	4,737.97	4,788.15	4,764.98	19.56	17.66	156.73	153.08	247.79	451.24	416.06	35.18	12.827	

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 (°)	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)					Between Centres (usft)	Between Ellipses (usft)
4,900.00	4,836.21	4,880.04	4,856.56	20.02	18.00	156.95	158.33	253.14	462.99	427.11	35.88	12.903		
5,000.00	4,934.91	4,971.80	4,948.16	20.45	18.34	157.24	162.03	256.92	473.96	437.40	36.56	12.964		
5,100.00	5,033.99	5,063.42	5,039.73	20.86	18.66	157.60	164.19	259.12	484.17	446.96	37.21	13.012		
5,200.00	5,133.39	5,155.68	5,131.98	21.26	18.98	158.02	164.82	259.76	493.60	455.76	37.84	13.044		
5,300.00	5,233.04	5,255.33	5,231.63	21.63	19.32	158.42	164.82	259.76	501.31	462.78	38.53	13.011		
5,400.00	5,332.88	5,355.17	5,331.47	21.98	19.66	158.69	164.82	259.76	506.60	467.38	39.22	12.917		
5,500.00	5,432.83	5,455.12	5,431.42	22.31	20.00	158.83	164.82	259.76	509.46	469.55	39.91	12.766		
5,567.18	5,500.00	5,522.29	5,498.59	22.52	20.23	179.73	164.82	259.76	510.01	469.64	40.37	12.634		
5,600.00	5,532.82	5,555.11	5,531.41	22.62	20.34	179.73	164.82	259.76	510.01	469.41	40.59	12.564		
5,700.00	5,632.82	5,655.11	5,631.41	22.93	20.69	179.73	164.82	259.76	510.01	468.73	41.28	12.355		
5,800.00	5,732.82	5,755.11	5,731.41	23.23	21.03	179.73	164.82	259.76	510.01	468.04	41.97	12.153		
5,900.00	5,832.82	5,855.11	5,831.41	23.54	21.37	179.73	164.82	259.76	510.01	467.35	42.65	11.957		
6,000.00	5,932.82	5,955.11	5,931.41	23.86	21.72	179.73	164.82	259.76	510.01	466.66	43.34	11.767		
6,100.00	6,032.82	6,055.11	6,031.41	24.17	22.06	179.73	164.82	259.76	510.01	465.97	44.03	11.583		
6,200.00	6,132.82	6,155.11	6,131.41	24.48	22.41	179.73	164.82	259.76	510.01	465.28	44.72	11.404		
6,300.00	6,232.82	6,255.11	6,231.41	24.80	22.75	179.73	164.82	259.76	510.01	464.59	45.41	11.230		
6,400.00	6,332.82	6,355.11	6,331.41	25.12	23.10	179.73	164.82	259.76	510.01	463.90	46.11	11.062		
6,500.00	6,432.82	6,455.11	6,431.41	25.43	23.44	179.73	164.82	259.76	510.01	463.21	46.80	10.898		
6,600.00	6,532.82	6,555.11	6,531.41	25.75	23.79	179.73	164.82	259.76	510.01	462.51	47.49	10.739		
6,700.00	6,632.82	6,655.11	6,631.41	26.07	24.14	179.73	164.82	259.76	510.01	461.82	48.19	10.584		
6,800.00	6,732.82	6,755.11	6,731.41	26.39	24.48	179.73	164.82	259.76	510.01	461.13	48.88	10.434		
6,900.00	6,832.82	6,855.11	6,831.41	26.72	24.83	179.73	164.82	259.76	510.01	460.43	49.58	10.287		
7,000.00	6,932.82	6,955.11	6,931.41	27.04	25.18	179.73	164.82	259.76	510.01	459.73	50.27	10.145		
7,100.00	7,032.82	7,055.11	7,031.41	27.36	25.53	179.73	164.82	259.76	510.01	459.04	50.97	10.006		
7,200.00	7,132.82	7,155.11	7,131.41	27.69	25.88	179.73	164.82	259.76	510.01	458.34	51.67	9.871		
7,300.00	7,232.82	7,255.11	7,231.41	28.01	26.22	179.73	164.82	259.76	510.01	457.64	52.37	9.739		
7,400.00	7,332.82	7,355.11	7,331.41	28.34	26.57	179.73	164.82	259.76	510.01	456.94	53.06	9.611		
7,500.00	7,432.82	7,455.11	7,431.41	28.66	26.92	179.73	164.82	259.76	510.01	456.24	53.76	9.486		
7,600.00	7,532.82	7,555.11	7,531.41	28.99	27.27	179.73	164.82	259.76	510.01	455.55	54.46	9.365		
7,700.00	7,632.82	7,655.11	7,631.41	29.32	27.62	179.73	164.82	259.76	510.01	454.85	55.16	9.246		
7,800.00	7,732.82	7,755.11	7,731.41	29.65	27.97	179.73	164.82	259.76	510.01	454.15	55.86	9.130		
7,900.00	7,832.82	7,855.11	7,831.41	29.98	28.32	179.73	164.82	259.76	510.01	453.44	56.56	9.017		
8,000.00	7,932.82	7,955.11	7,931.41	30.31	28.67	179.73	164.82	259.76	510.01	452.74	57.26	8.906		
8,100.00	8,032.82	8,055.11	8,031.41	30.64	29.02	179.73	164.82	259.76	510.01	452.04	57.96	8.799		
8,200.00	8,132.82	8,155.11	8,131.41	30.97	29.37	179.73	164.82	259.76	510.01	451.34	58.67	8.693		
8,300.00	8,232.82	8,255.11	8,231.41	31.30	29.72	179.73	164.82	259.76	510.01	450.64	59.37	8.591		
8,400.00	8,332.82	8,355.11	8,331.41	31.64	30.07	179.73	164.82	259.76	510.01	449.94	60.07	8.490		
8,500.00	8,432.82	8,455.11	8,431.41	31.97	30.43	179.73	164.82	259.76	510.01	449.23	60.77	8.392		
8,600.00	8,532.82	8,555.11	8,531.41	32.30	30.78	179.73	164.82	259.76	510.01	448.53	61.48	8.296		
8,700.00	8,632.82	8,655.11	8,631.41	32.64	31.13	179.73	164.82	259.76	510.01	447.83	62.18	8.202		
8,800.00	8,732.82	8,755.11	8,731.41	32.97	31.48	179.73	164.82	259.76	510.01	447.12	62.88	8.110		
8,900.00	8,832.82	8,855.11	8,831.41	33.31	31.83	179.73	164.82	259.76	510.01	446.42	63.59	8.021		
9,000.00	8,932.82	8,955.11	8,931.41	33.64	32.18	179.73	164.82	259.76	510.01	445.71	64.29	7.933		
9,100.00	9,032.82	9,055.11	9,031.41	33.98	32.54	179.73	164.82	259.76	510.01	445.01	65.00	7.847		
9,200.00	9,132.82	9,155.11	9,131.41	34.32	32.89	179.73	164.82	259.76	510.01	444.31	65.70	7.762		
9,233.42	9,166.24	9,188.53	9,164.83	34.43	33.01	179.73	164.82	259.76	510.01	444.07	65.94	7.735		
9,250.00	9,182.82	9,205.11	9,181.41	34.49	33.07	89.73	164.82	259.76	510.01	443.95	66.05	7.721		
9,288.61	9,221.35	9,243.64	9,219.94	34.62	33.20	90.00	164.82	259.76	510.00	443.68	66.32	7.690		
9,300.00	9,232.67	9,254.96	9,231.26	34.65	33.24	90.13	164.82	259.76	510.00	443.61	66.39	7.682		
9,350.00	9,282.02	9,304.31	9,280.61	34.83	33.42	91.01	164.82	259.76	510.08	443.36	66.73	7.644		
9,400.00	9,330.49	9,352.78	9,329.08	35.01	33.59	92.30	164.82	259.76	510.45	443.40	67.05	7.613		
9,450.00	9,377.70	9,400.01	9,376.29	35.19	33.75	93.94	164.82	259.76	511.40	444.03	67.36	7.592		

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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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	
9,500.00	9,423.31	9,445.60	9,421.90	35.38	33.91	95.83	164.82	259.76	513.32	445.65	67.66	7.586	
9,550.00	9,486.96	9,489.25	9,465.55	35.57	34.07	97.85	164.82	259.76	516.65	448.69	67.95	7.603	
9,600.00	9,508.32	9,530.61	9,506.91	35.76	34.21	99.87	164.82	259.76	521.87	453.64	68.23	7.649	
9,650.00	9,547.08	9,569.37	9,545.67	35.96	34.35	101.77	164.82	259.76	529.46	460.98	68.48	7.731	
9,700.00	9,582.94	9,605.23	9,581.53	36.17	34.48	103.40	164.82	259.76	539.86	471.13	68.73	7.855	
9,750.00	9,615.63	9,637.92	9,614.22	36.40	34.59	104.65	164.82	259.76	553.41	484.46	68.96	8.025	
9,800.00	9,644.89	9,667.18	9,643.48	36.64	34.70	105.39	164.82	259.76	570.37	501.20	69.17	8.246	
9,850.00	9,670.52	9,707.19	9,669.11	36.91	34.84	105.52	164.82	259.76	590.83	521.42	69.41	8.512	
9,900.00	9,692.31	9,714.60	9,690.90	37.20	34.86	104.93	164.82	259.76	614.77	545.24	69.53	8.841	
9,950.00	9,710.09	9,732.38	9,708.68	37.53	34.93	103.53	164.82	259.76	642.03	572.35	69.68	9.214	
10,000.00	9,723.73	9,746.02	9,722.32	37.88	34.97	101.21	164.82	259.76	672.32	602.53	69.80	9.632	
10,033.42	9,730.49	9,752.78	9,729.08	38.14	35.00	99.11	164.82	259.76	694.09	624.23	69.86	9.935	
10,050.00	9,733.23	9,755.52	9,731.82	38.27	35.01	98.50	164.82	259.76	705.29	635.40	69.89	10.092	
10,100.00	9,739.76	9,762.05	9,738.35	38.69	35.03	96.28	164.82	259.76	740.39	670.43	69.96	10.583	
10,150.00	9,743.69	9,765.98	9,742.28	39.14	35.04	93.45	164.82	259.76	777.28	707.27	70.01	11.102	
10,200.08	9,745.00	9,767.29	9,743.59	39.61	35.05	90.00	164.82	259.76	815.72	745.67	70.05	11.645	
10,300.00	9,745.00	9,767.29	9,743.59	40.65	35.05	90.00	164.82	259.76	895.88	825.78	70.10	12.780	
10,400.00	9,745.00	9,767.29	9,743.59	41.81	35.05	90.00	164.82	259.76	979.75	909.60	70.16	13.965	
10,500.00	9,745.00	11,248.65	10,550.00	43.07	44.37	140.73	14.98	1,173.05	1,041.97	979.43	62.54	16.662	
10,600.00	9,745.00	11,371.95	10,550.00	44.44	46.00	140.68	13.76	1,296.34	1,042.45	977.85	64.60	16.136	
10,700.00	9,745.00	11,471.95	10,550.00	45.89	47.43	140.68	13.73	1,396.34	1,042.44	975.89	66.55	15.664	
10,800.00	9,745.00	11,571.95	10,550.00	47.42	48.93	140.68	13.70	1,496.34	1,042.43	973.83	68.60	15.195	
10,900.00	9,745.00	11,671.95	10,550.00	49.03	50.50	140.68	13.68	1,596.34	1,042.42	971.67	70.75	14.734	
11,000.00	9,745.00	11,771.95	10,550.00	50.70	52.14	140.68	13.65	1,696.34	1,042.41	969.43	72.98	14.283	
11,100.00	9,745.00	11,871.95	10,550.00	52.43	53.83	140.68	13.62	1,796.34	1,042.40	967.11	75.30	13.844	
11,200.00	9,745.00	11,971.95	10,550.00	54.22	55.58	140.68	13.59	1,896.34	1,042.39	964.71	77.68	13.419	
11,300.00	9,745.00	12,071.95	10,550.00	56.05	57.38	140.68	13.56	1,996.34	1,042.38	962.26	80.13	13.009	
11,400.00	9,745.00	12,171.95	10,550.00	57.93	59.23	140.68	13.54	2,096.34	1,042.38	959.74	82.64	12.613	
11,500.00	9,745.00	12,271.95	10,550.00	59.84	61.11	140.68	13.51	2,196.34	1,042.37	957.16	85.20	12.234	
11,600.00	9,745.00	12,371.95	10,550.00	61.80	63.04	140.68	13.48	2,296.34	1,042.36	954.54	87.82	11.869	
11,700.00	9,745.00	12,471.95	10,550.00	63.78	64.99	140.68	13.45	2,396.34	1,042.35	951.87	90.48	11.520	
11,800.00	9,745.00	12,571.95	10,550.00	65.80	66.98	140.68	13.42	2,496.34	1,042.34	949.16	93.18	11.186	
11,900.00	9,745.00	12,671.95	10,550.00	67.84	68.99	140.68	13.39	2,596.34	1,042.33	946.41	95.92	10.867	
12,000.00	9,745.00	12,771.95	10,550.00	69.90	71.03	140.68	13.37	2,696.34	1,042.32	943.62	98.69	10.561	
12,100.00	9,745.00	12,871.95	10,550.00	71.99	73.09	140.69	13.34	2,796.34	1,042.31	940.81	101.50	10.269	
12,200.00	9,745.00	12,971.95	10,550.00	74.10	75.18	140.69	13.31	2,896.34	1,042.30	937.96	104.34	9.990	
12,300.00	9,745.00	13,071.95	10,550.00	76.23	77.28	140.69	13.28	2,996.34	1,042.29	935.09	107.20	9.723	
12,400.00	9,745.00	13,171.95	10,550.00	78.37	79.41	140.69	13.25	3,096.34	1,042.28	932.19	110.09	9.468	
12,500.00	9,745.00	13,271.95	10,550.00	80.54	81.55	140.69	13.23	3,196.34	1,042.27	929.27	113.00	9.224	
12,600.00	9,745.00	13,371.95	10,550.00	82.71	83.70	140.69	13.20	3,296.34	1,042.26	926.33	115.93	8.991	
12,700.00	9,745.00	13,471.95	10,550.00	84.90	85.87	140.69	13.17	3,396.34	1,042.25	923.37	118.88	8.767	
12,800.00	9,745.00	13,571.95	10,550.00	87.10	88.05	140.69	13.14	3,496.34	1,042.24	920.39	121.85	8.554	
12,900.00	9,745.00	13,671.95	10,550.00	89.32	90.25	140.69	13.11	3,596.34	1,042.23	917.40	124.84	8.349	
13,000.00	9,745.00	13,771.95	10,550.00	91.54	92.46	140.69	13.09	3,696.34	1,042.22	914.38	127.84	8.153	
13,100.00	9,745.00	13,871.95	10,550.00	93.77	94.67	140.69	13.06	3,796.34	1,042.21	911.36	130.86	7.965	
13,200.00	9,745.00	13,971.95	10,550.00	96.02	96.90	140.69	13.03	3,896.34	1,042.20	908.32	133.89	7.784	
13,300.00	9,745.00	14,071.95	10,550.00	98.27	99.14	140.69	13.00	3,996.34	1,042.19	905.26	136.93	7.611	
13,400.00	9,745.00	14,171.95	10,550.00	100.53	101.38	140.69	12.97	4,096.34	1,042.18	902.20	139.99	7.445	
13,500.00	9,745.00	14,271.95	10,550.00	102.80	103.63	140.69	12.95	4,196.34	1,042.17	899.12	143.05	7.285	
13,600.00	9,745.00	14,371.95	10,550.00	105.07	105.89	140.69	12.92	4,296.34	1,042.16	896.03	146.13	7.132	
13,700.00	9,745.00	14,471.95	10,550.00	107.35	108.16	140.70	12.89	4,396.34	1,042.16	892.94	149.22	6.984	
13,800.00	9,745.00	14,571.95	10,550.00	109.64	110.44	140.70	12.86	4,496.34	1,042.15	889.83	152.31	6.842	

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: #202H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
 TVD Reference: WELL @ 2984.50usft (Patterson 297)
 MD Reference: WELL @ 2984.50usft (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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,900.00	9,745.00	14,671.95	10,550.00	111.93	112.72	140.70	12.83	4,596.34	1,042.14	886.72	155.42	6.705	
14,000.00	9,745.00	14,771.95	10,550.00	114.23	115.00	140.70	12.81	4,696.34	1,042.13	883.59	158.53	6.574	
14,100.00	9,745.00	14,871.95	10,550.00	116.53	117.29	140.70	12.78	4,796.34	1,042.12	880.46	161.65	6.447	
14,200.00	9,745.00	14,971.95	10,550.00	118.84	119.59	140.70	12.75	4,896.34	1,042.11	877.33	164.78	6.324	
14,300.00	9,745.00	15,071.95	10,550.00	121.15	121.89	140.70	12.72	4,996.34	1,042.10	874.18	167.92	6.206	
14,400.00	9,745.00	15,171.95	10,550.00	123.47	124.20	140.70	12.69	5,096.34	1,042.09	871.03	171.06	6.092	
14,500.00	9,745.00	15,271.95	10,550.00	125.79	126.51	140.70	12.67	5,196.34	1,042.08	867.87	174.20	5.982	
14,600.00	9,745.00	15,371.95	10,550.00	128.12	128.83	140.70	12.64	5,296.34	1,042.07	864.71	177.36	5.876	
14,661.21	9,745.00	15,433.16	10,550.00	129.54	130.25	140.70	12.62	5,357.55	1,042.06	862.77	179.29	5.812 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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 @ 2984.50usft (Patterson 297) Coordinates are relative to: #202H

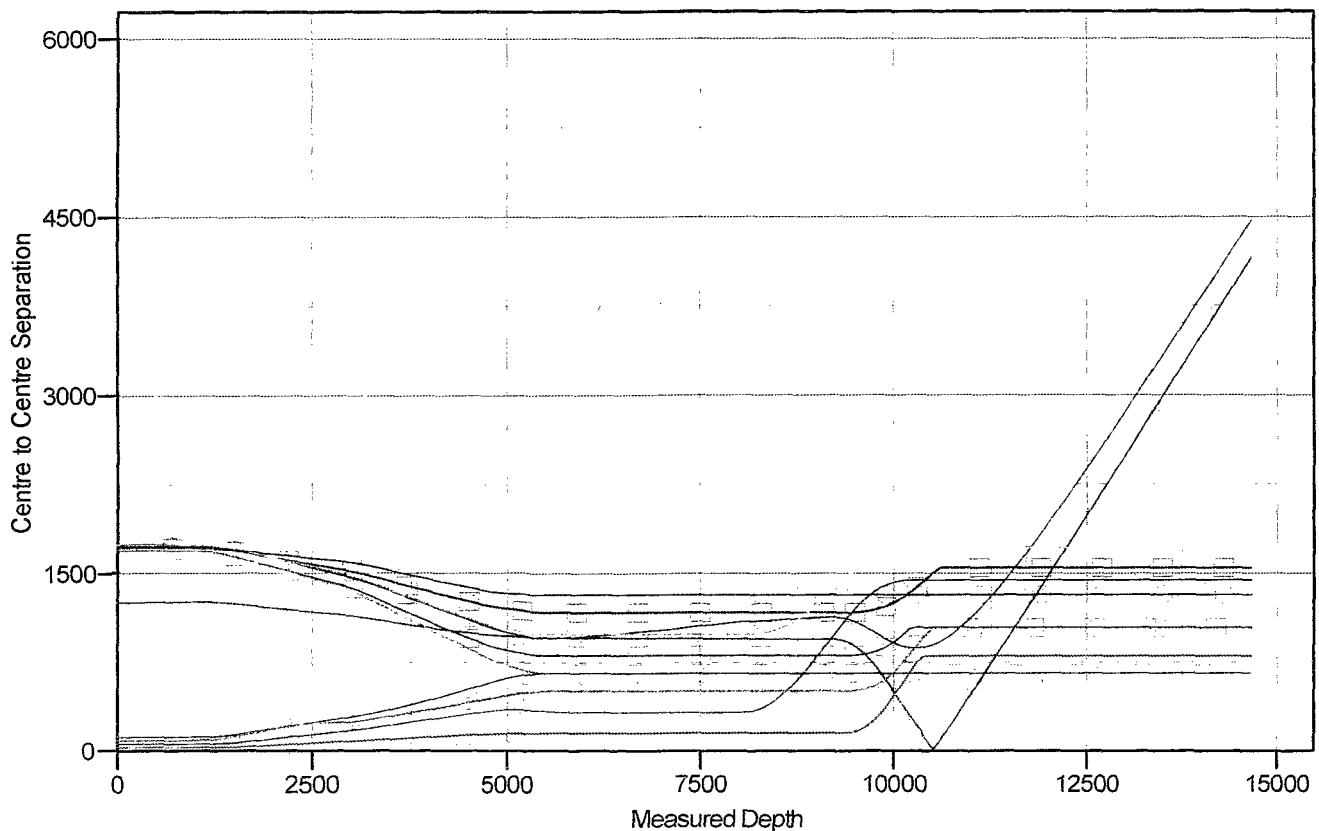
Offset Depths are relative to Offset Datum

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°

Ladder Plot



LEGEND

- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| ✕ #1, 202H, Surveys V0 | ⊠ #225H, Wellbore #1, Design #1 V0 | ✕ #122H, Wellbore #1, Design #1 V0 |
| ⊠ #222H, Wellbore #1, Design #1 V0 | ⊠ #121H, Wellbore #1, Design #1 V0 | ⊠ #206H, Wellbore #1, Design #1 V0 |
| ⊠ #1, Wellbore #1, Surveys V0 | ⊠ #201H, 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: #202H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #202H
TVD Reference: WELL @ 2984.50usft (Patterson 297)
MD Reference: WELL @ 2984.50usft (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 @ 2984.50usft (Patterson 297) Coordinates are relative to: #202H

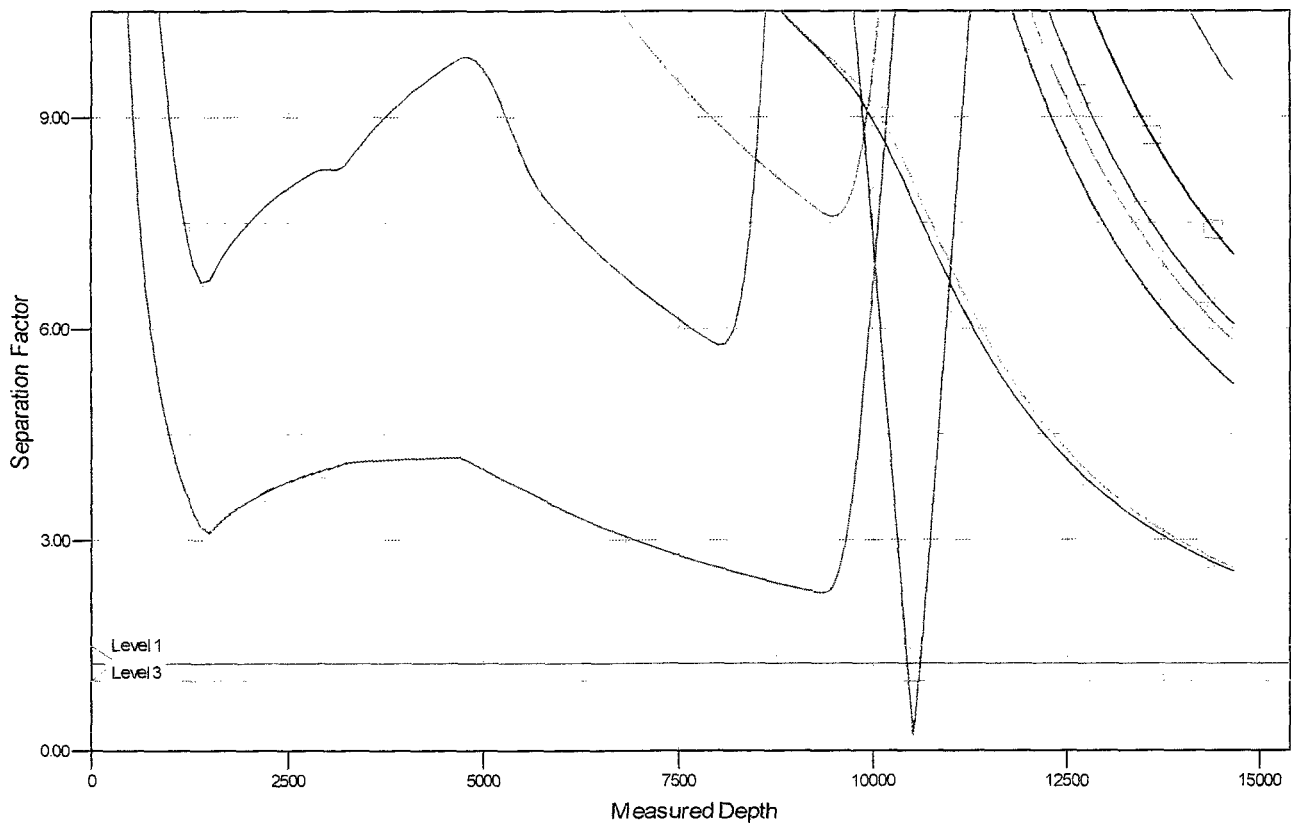
Offset Depths are relative to Offset Datum

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



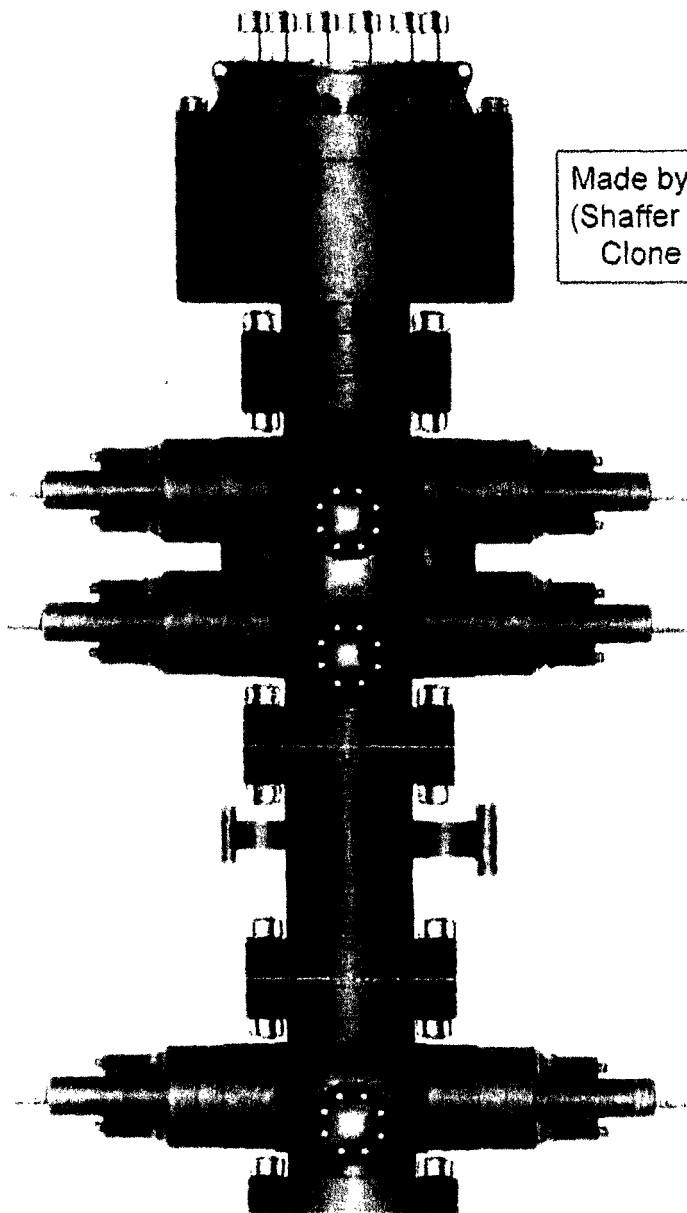
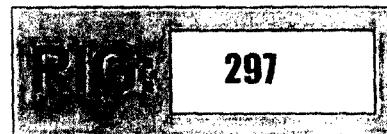
LEGEND

- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| ✕ #1, 202H, Surveys V0 | ⊠ #225H, Wellbore #1, Design #1 V0 | ✕ #122H, Wellbore #1, Design #1 V0 |
| ⊠ #222H, Wellbore #1, Design #1 V0 | ⊠ #121H, Wellbore #1, Design #1 V0 | ⊠ #206H, Wellbore #1, Design #1 V0 |
| ⊠ #1, Wellbore #1, Surveys V0 | ⊠ #201H, 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



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: 10" 5" Pipe 8" M 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



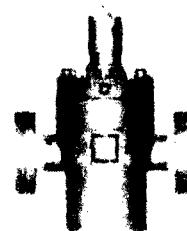
2" Check Valve



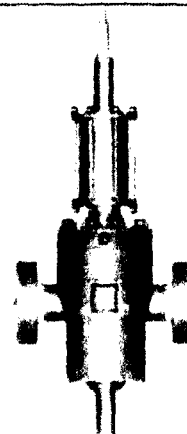
2" Manual Valve



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 #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 5000 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" 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 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
15K 4-STRING
MQ-94

ADJUSTABLE, CHOKE
1-13/16 10M

2-9/16 10M

1-13/16 10M

1-13/16 10M ACTUATED

1-13/16 10M ACTUATED

67.4 EST

2-9/16 10M

ADAPTER, SM-T
7-1/16 15M X 2-9/16 10M

7-1/16 15M

1-13/16 15M

TUBING HANGER
SM-T
7-1/16 X 2-3/8
API MOD BTM X
EU 8RD TOP

4-1/2 DBL FS

CASING HANGER
S-22
11 X 4-1/2

1-13/16 15M

11 10M

1-13/16 15M

9-5/8 DBL IPS

1-13/16 10M

13-5/8 5M

2-1/16 5M

CASING HANGER, SMB-22 PORTED
13-5/8 X 7
W/PRIMARY SEAL

13-5/8 5M

2 LP 5M

CASING HANGER, SMB-22
13-5/8 X 9-5/8
W/SEAL ASSEMBLY

25 OD BASEPLATE

13-3/8 CASING

9-5/8 CASING

7 CASING

4-1/2 CASING

2-3/8 TUBING

90.8 EST

42.4 EST

97.0 EST

54.8 EST

8.4 EST

25.8 EST

28.1 EST

104.8 EST

18.0 EST

20.7 EST

0FT

1FT

2FT

3FT

4FT

5FT

6FT

7FT

8FT

9FT

10FT

0FT

1FT

2FT

3FT

4FT

5FT

6FT

7FT

8FT

9FT

10FT

NOTE:
DIMENSIONS SHOWN ON THIS DRAWING ARE
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DEPENDING ON RAW MATERIAL LENGTHS.
NO GUARANTEE OF STACKUP HEIGHT IS IMPLIED.
DIMENSIONS SHOWN SHOULD BE CONSIDERED
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INTERNATIONAL, INC.

15,000 PSI WELLHEAD & TREE ASSEMBLY
13-3/8 X 9-5/8 X 7 X 4-1/2 X 2-3/8

DATE: RPL

SCALE: 1:10

DATE: 18JAN16

REV

DRAWING NO.

P-20986

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.
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FOR REFERENCE PURPOSES ONLY.

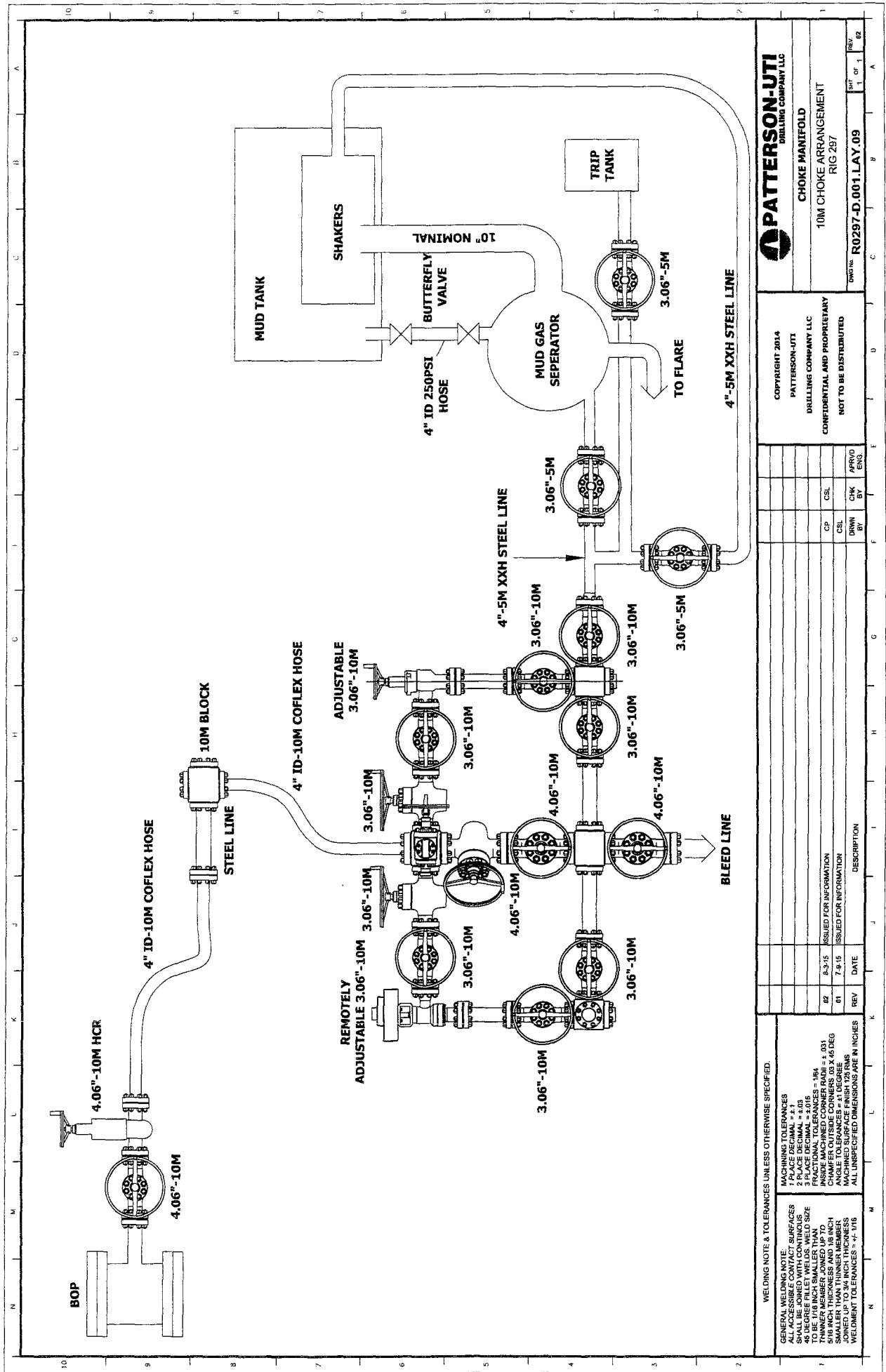
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WEIR

15,000 PSI WELLHEAD & TREE ASSEMBLY
13-3/8 X 9-5/8 X 7 X 4-1/2 X 2-3/8

DESIGNED BY	RPL	SCALE	1:10	DATE	18JAN16	REV	
APPROVED BY		DRAWING NO.		P-20986			





Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Patterson

Pick Ticket #: 284918

December 8, 2014

Hose Specifications

Hose Type

CK

I.D.

3"

Length

10'

O.D.

4.79"

Verification

Type of Fitting

4-1/16 10K

Die Size

5.37"

Coupling Method

Swage

Final O.D.

5.37"

Working Pressure

10000 PSI

Burst Pressure

Standard Safety Multiplier Applies

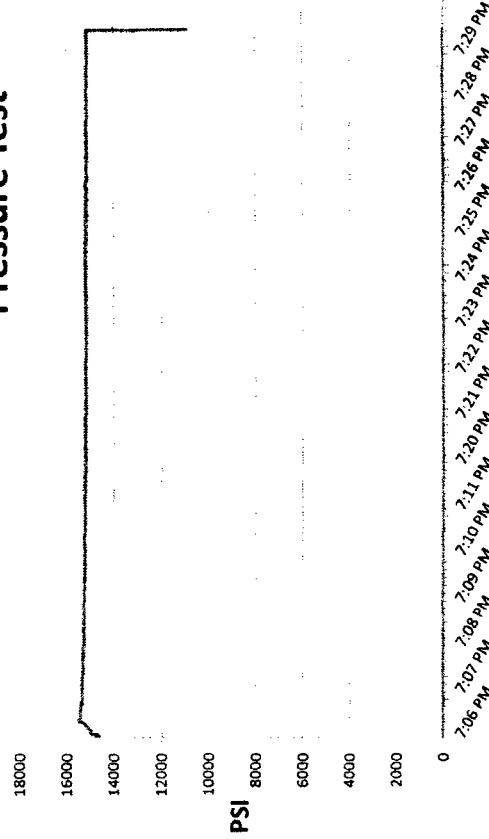
Hose Serial #

10490

Hose Assembly Serial #

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



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.

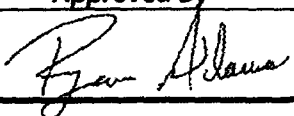
Supplier:

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

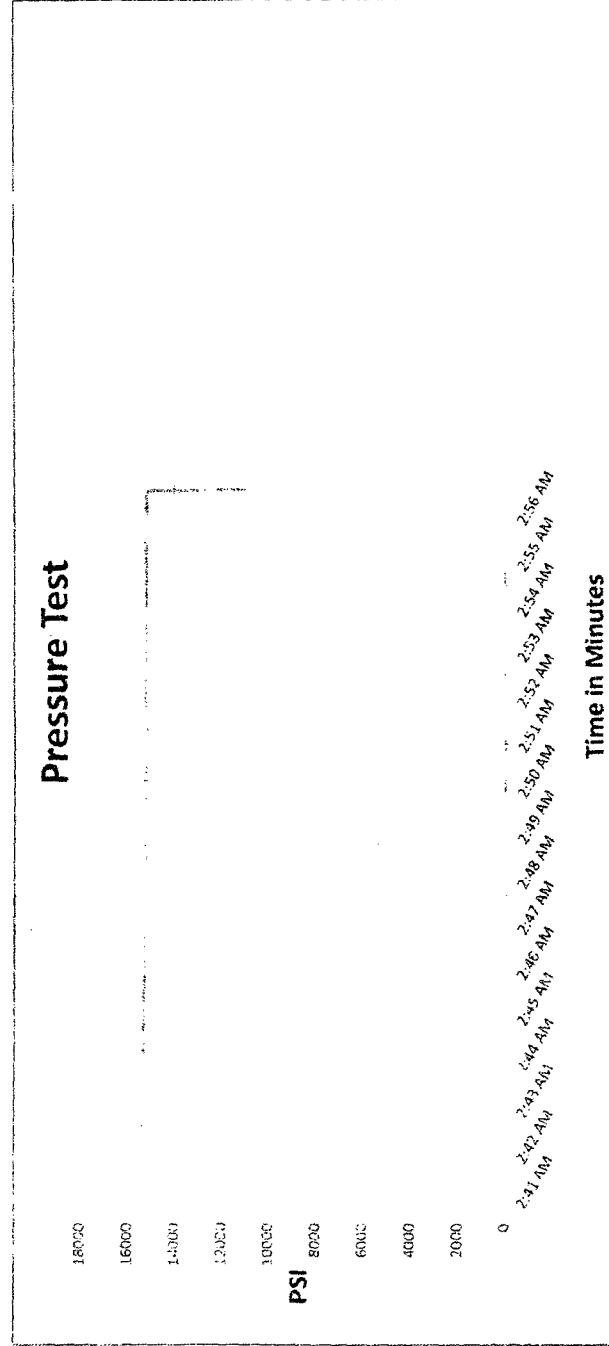
Hose Type
CK
I.D.
3"
Working Pressure
10000 PSI

Length
20'
O.D.
4.77"

Verification

Type of Fitting
4-1/16 10K
Die Size
5.37"
Coupling Method
Swage
Final O.D.
5.40"
Hose Serial #
10490
Hose Assembly Serial #
284918-1

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
15 2/4 Minutes

Actual Burst Pressure

Peak Pressure
15893 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 #)	287918-1	Hose O.D. (Inches)	5.30"
Hose Assembly Length	20'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.OX64WB	Stem (Part and Revision #)	R3.OX64WB
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	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 # **287918-1**

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

Internal Hydrostatic Test Graph



Midwest Hose
& Specialty, Inc.

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

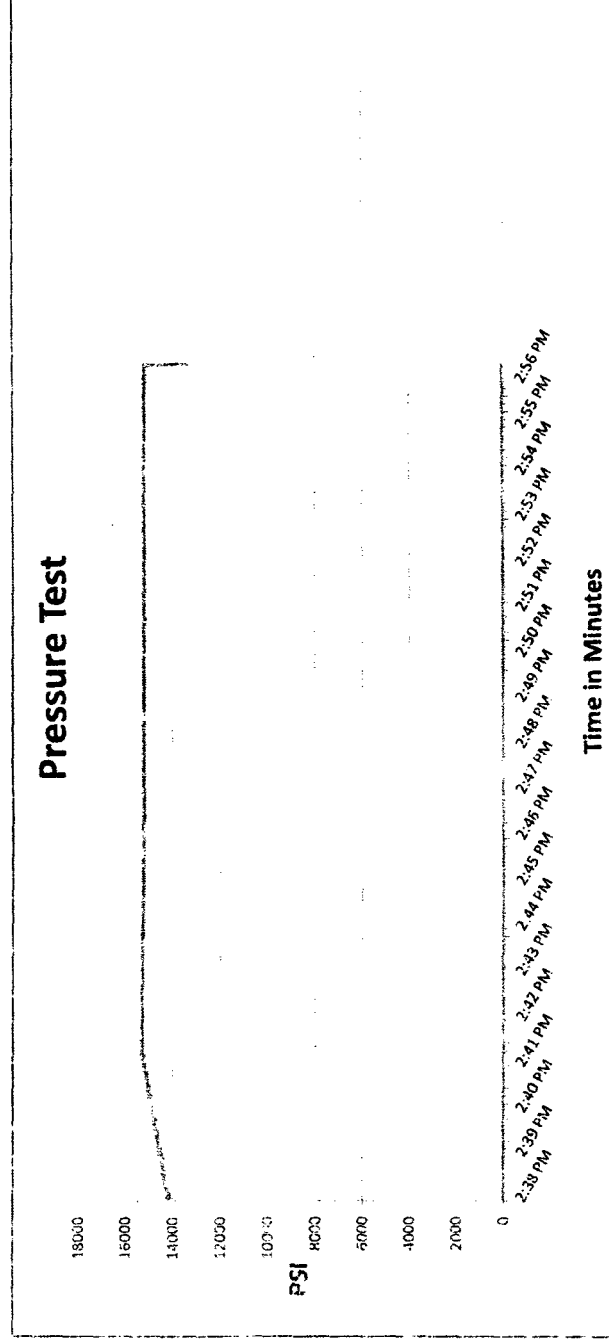
Hose Type
Mud
I.D.
3"
Working Pressure
10000 PSI

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 #
10190
Hose Assembly Serial #
284918-3

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

[Signature]

[Signature]



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:

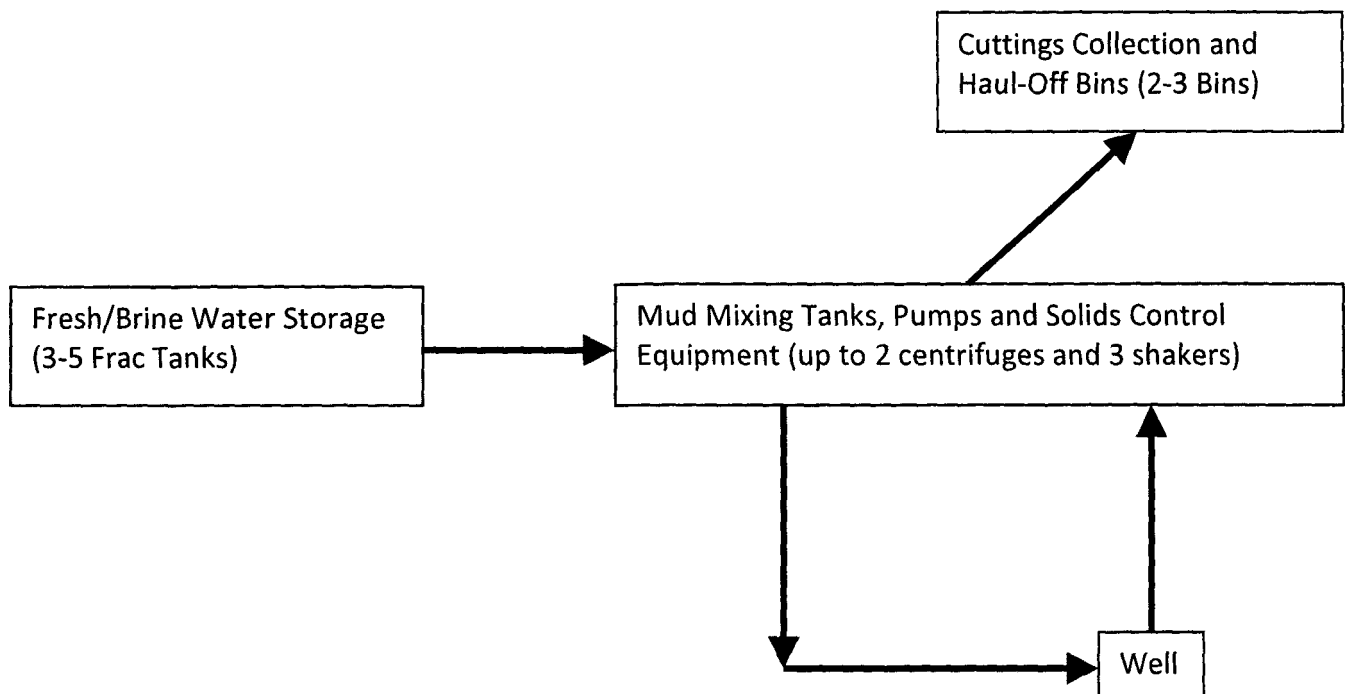
Approved By

Date

12/9/2014

Closed-Loop System

Zach McCormick Fed Com
Matador Resources Company
Eddy County, NM

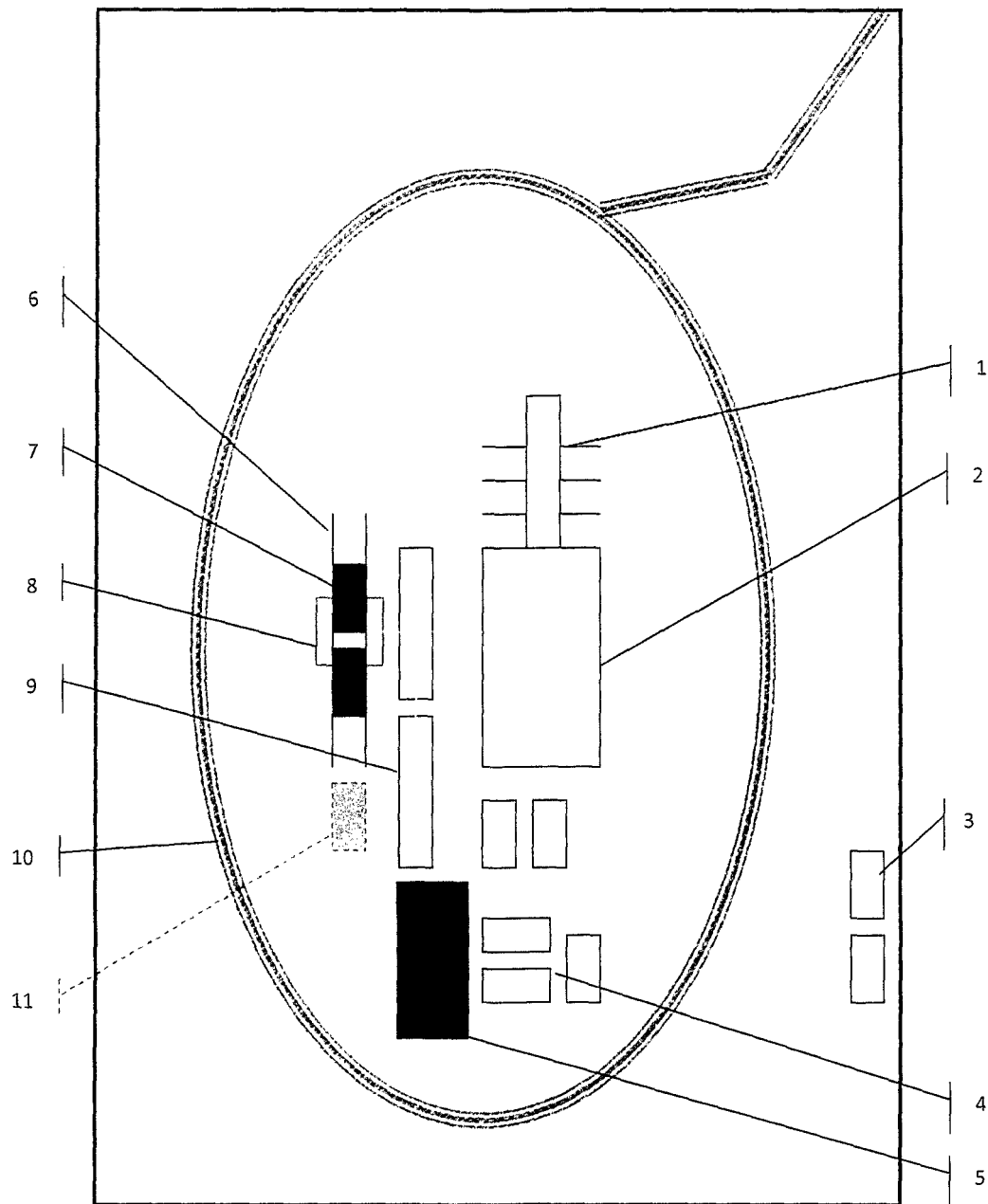


Operating and Maintenance Plan:

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:

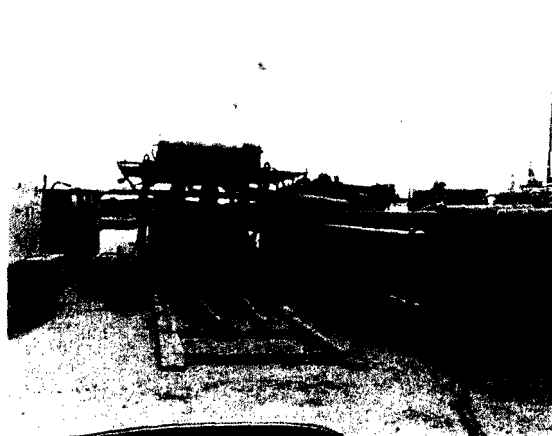
During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.



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.

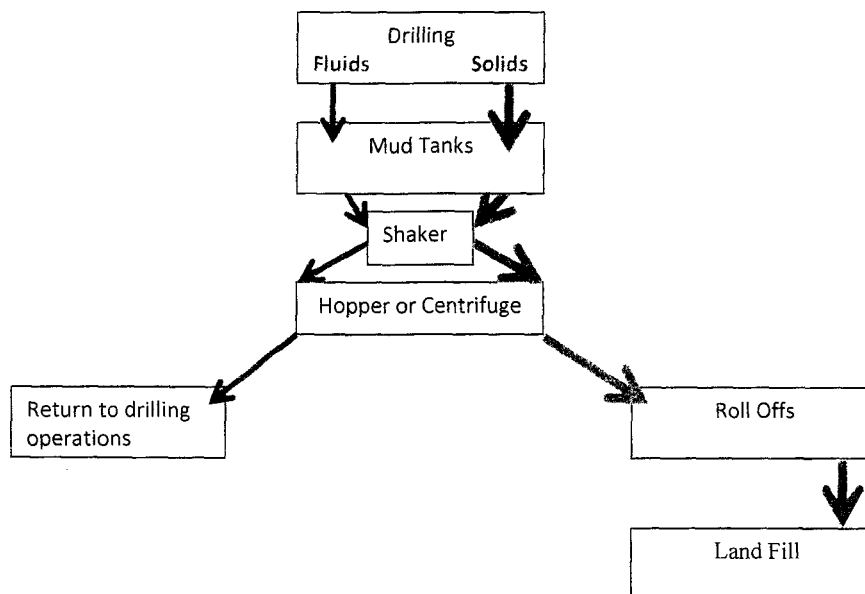
PROVIDING PERMITS for LAND USERS

17 Verano Escondido, Santa Fe, New Mexico 87503 (505) 466-8120



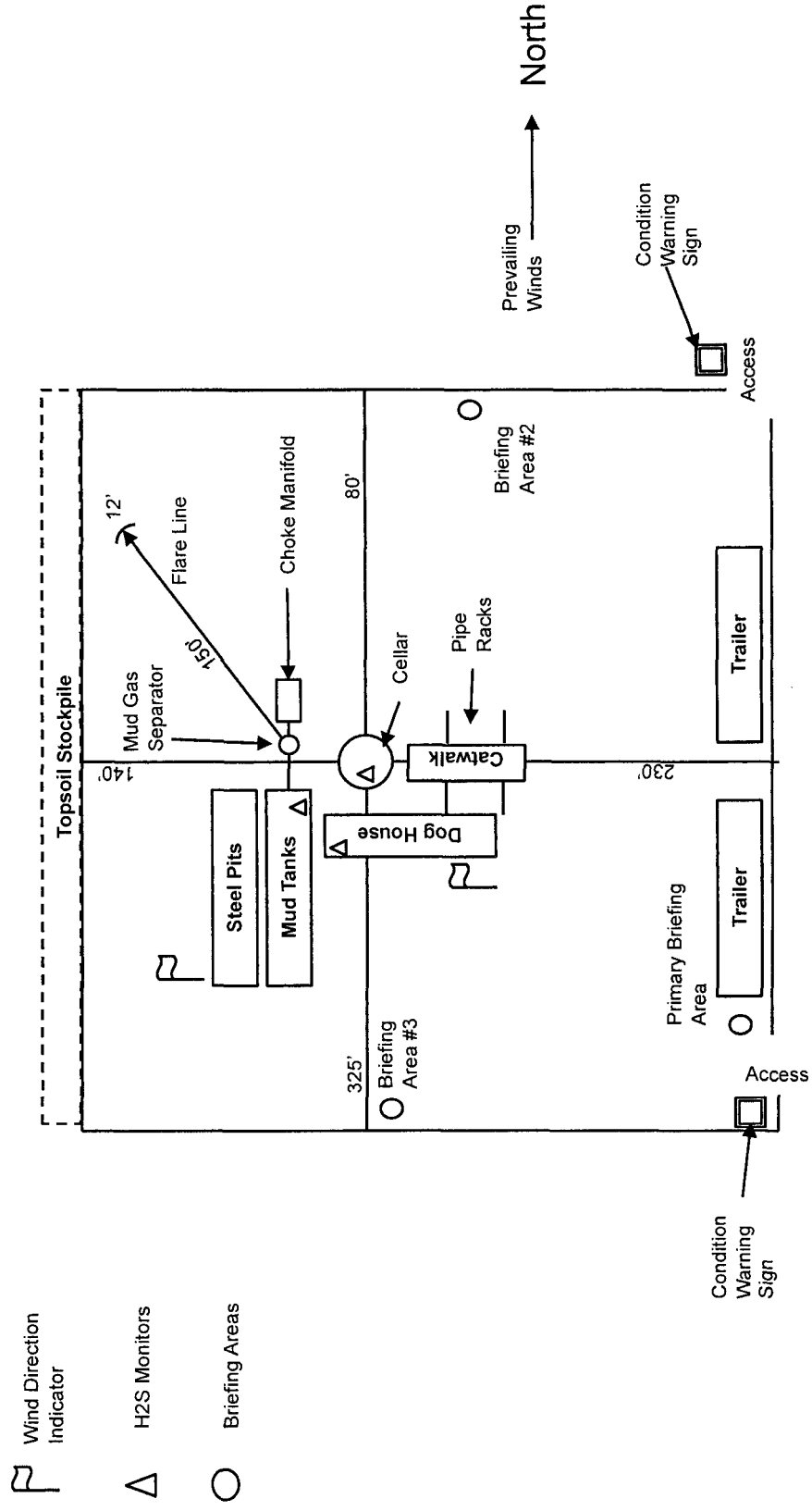
Closed Loop Drilling System: Mud tanks to right (1)
 Hopper in air to settle out solids (2)
 Water return pipe (3)
 Shaker between hopper and mud tanks (4)
 Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Rig Layout

Zach McCormick Fed Com 202H
Eddy County, NM





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

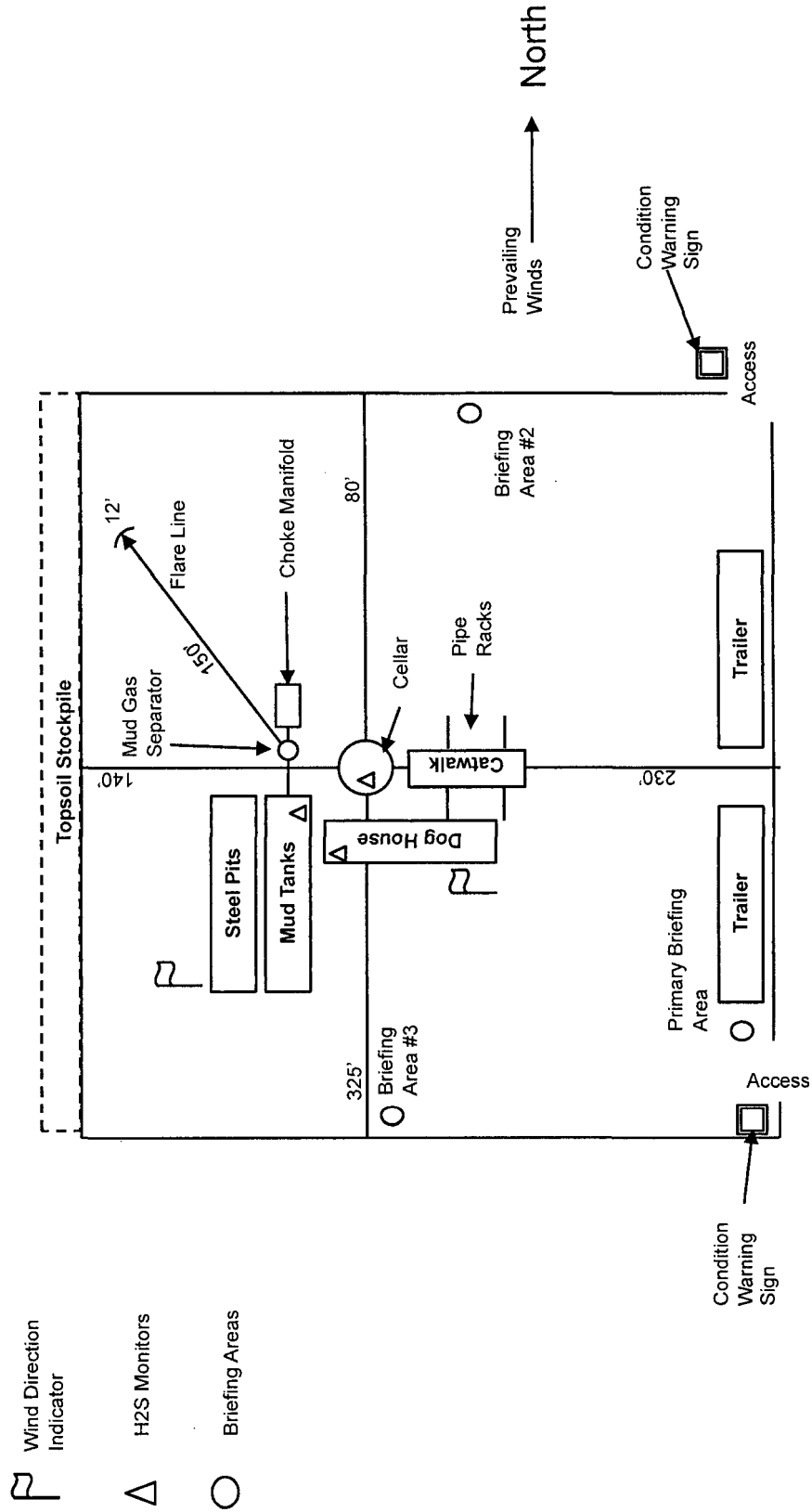
- See next page

H2S Contingency Plan Emergency Contacts
Matador Production Company
Zach McCormick Fed Com wells, Eddy County, NM

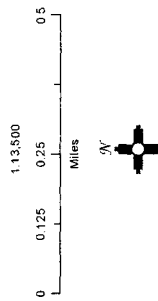
<u>Company Office</u>			
Matador Production Company		(972)-371-5200	
<u>Key Personnel</u>			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Aaron Byrd	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 202H
Eddy County, NM

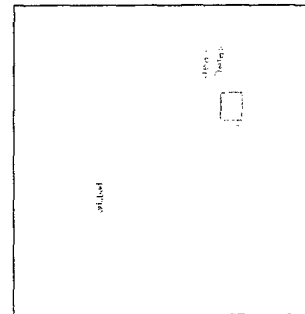


Zach McCormick Federal Com
18-24S-29E RB #202H
H2S Contingency Plan:
1 Mile Radius Map

 Surface Hole Location

NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

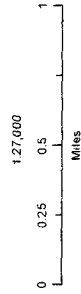
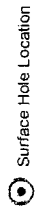
Prepared by Permits West, Inc., June 23, 2016
for Matador Production Company



Matador Production Company

Zach McCormick Federal Com
18-24S-29E RB #202H
H2S Contingency Plan:
2 Mile Radius Map

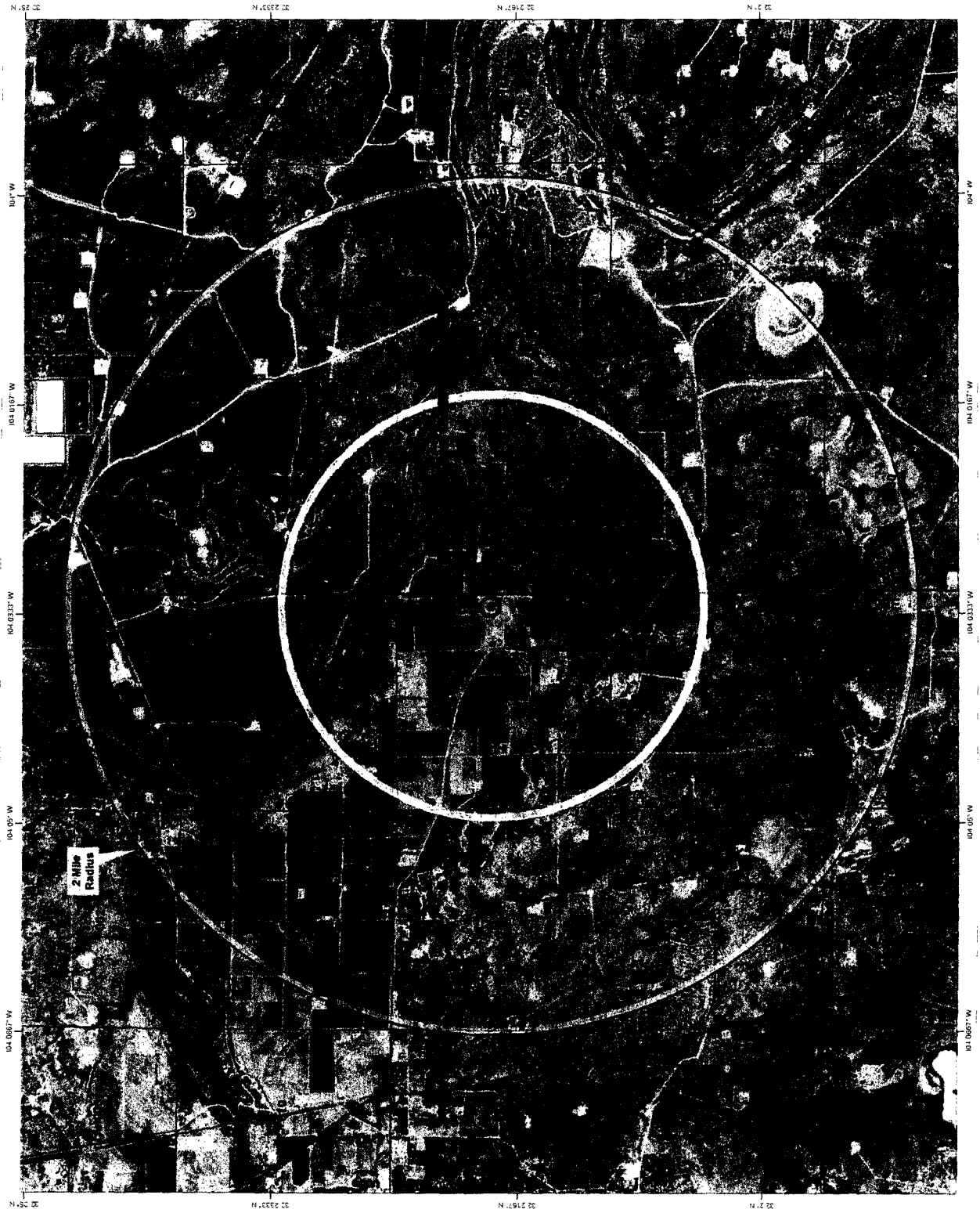
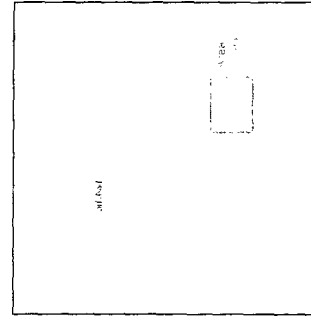
Section 13, Township 24S, Range 28E
Eddy County, New Mexico



NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

PERMITS

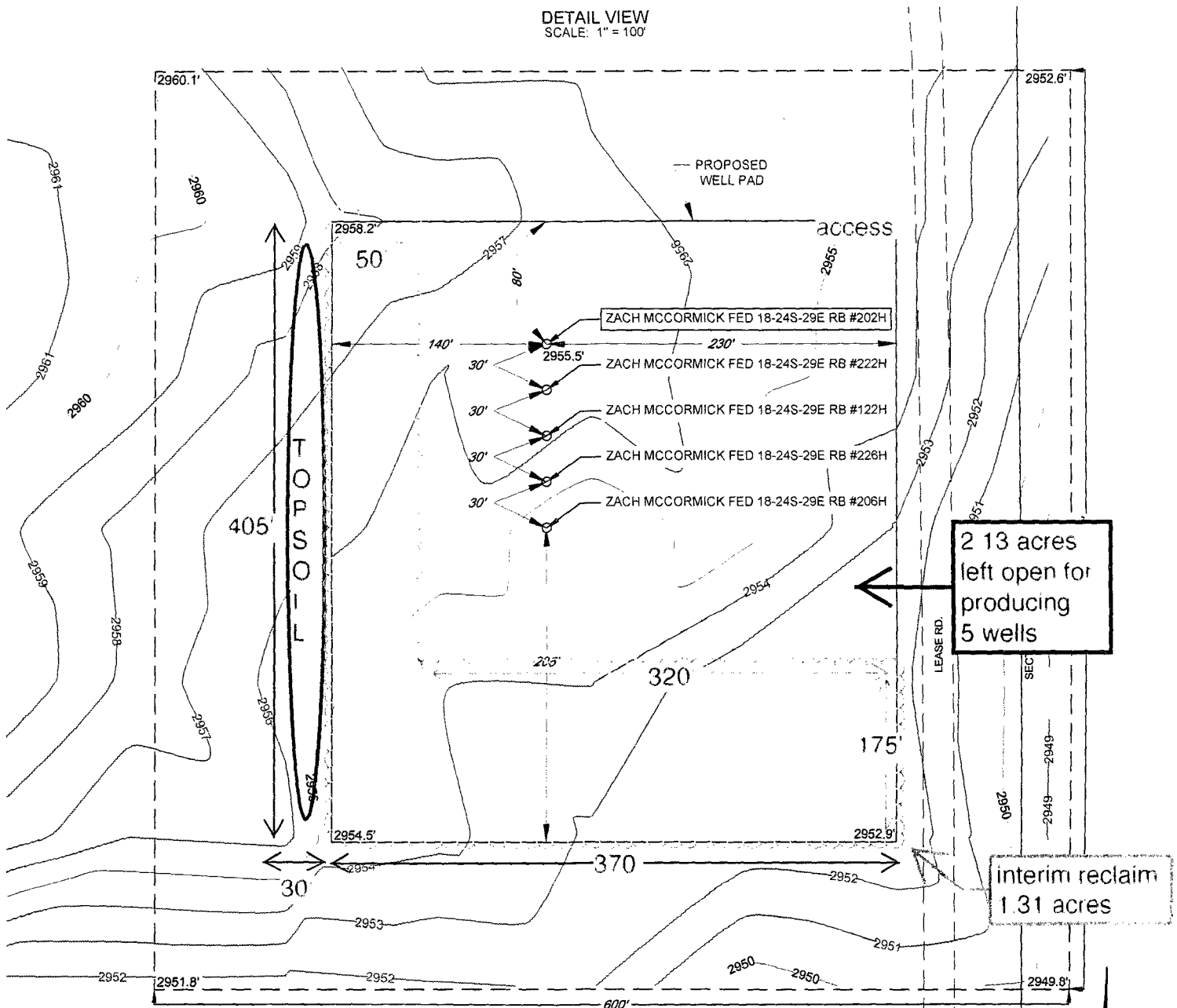
Prepared by Permits West, Inc., June 22, 2016
for Matador Production Company





SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



INTERIM RECLAMATION DIAGRAM

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #202H

LEGEND

#202H LATITUDE N 32.2185068 #202H LONGITUDE W 104.0327650

- — — — — EXISTING ROAD
- — — — — SECTION LINE
- — — — — ARCH SITE

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

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

Matador Production Company

SURFACE PLAN PAGE 1

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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, then dirt, road and go South 0.4 mile

Then turn right and go Southwest 20' cross-country to the proposed 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 (See MAPS 3 & 4)

Road from County Road 720 to the pad will be upgraded with additional caliche. The new road (20') will be crowned, have a 14' wide driving surface, and surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 1%. Maximum cut or fill = 1'. No culvert, cattle guard, or vehicle turn out is needed.

3. EXISTING WELLS (See MAP 2)

Existing oil, gas, injection, water, and P & A wells are within a mile. There are no disposal wells within a mile radius.

4. PROPOSED PRODUCTION FACILITIES (See MAPS 3 & 7-9)

A 190' x 350' (1.53 acre) central production facility will be built 50' north of the well pad. Three to four inch O. D. HDPE low-pressure (<125 psi) flow lines

Matador Production Company

SURFACE PLAN PAGE 2

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

will be buried from the well pad 50' north to the facility. Oil tanks, water tanks, meter runs, separators, and a flare will be installed on the west side of the facility. Top ≈ 6 " of topsoil will be stockpiled west of the facility. A berm will surround the fill sides of the facility.

Longwood Midstream's Black River Gathering System will serve the facility with ≈ 6 " O. D. steel gas line and ≈ 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 0.4 mile south to the production facility and well pad.

5. WATER SUPPLY (See MAP 2)

Water will be trucked 0.9 mile via existing roads from an existing water well (C 00464) on private land in NENW 13-24s-28e.

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

NM One Call (811) will be notified before construction starts. Top ≈ 6 " of soil and brush will be stockpiled west of the pad. Pipe racks will be to the east. 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

SURFACE PLAN PAGE 3

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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 $\approx 38\%$ by removing caliche and reclaiming the south (175') and west (50') sides. This will leave 2.13 acres for five 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 will be 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 Zach McCormick

Matador Production Company

SURFACE PLAN PAGE 4

Zach McCormick Fed Com 202H

SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

Fed Com 18-24s-29e 202H well site, flow lines, production facility, and road in E2NE4 Section 13, T. 24 S., R. 28 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.

Lone Mountain filed archaeology report NMCRIS-136312 on July 22, 2016.

Matador Production Company

SURFACE PLAN PAGE 5

Zach McCormick Fed Com 202H

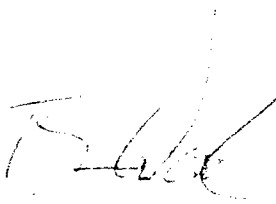
SHL 2325' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1651' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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 13th 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
DRILLING OPERATIONS
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM124060
WELL NAME & NO.:	202H Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	2325'/N & 311'/E
BOTTOM HOLE FOOTAGE:	1651'/N & 240'/E
LOCATION:	Section 20, T.20 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM**

office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least **8 hours**. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst

Possible water flows in the Artesia Group and Salado.

Possibility of lost circulation in the Artesia Group, Rustler, Capitan Reef, and Delaware.

Abnormal pressure might be encountered upon entering third Bone Spring and subsequent formations.

1. The **13-3/8** inch surface casing shall be set at approximately **650** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch 1st intermediate casing is:
- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**
3. The minimum required fill of cement behind the **7** inch 2nd intermediate casing is:
- ☒ Cement as proposed. Operator shall provide method of verification.
4. The minimum required fill of cement behind the **4-1/2** inch production casing is:
- ☒ Cement as proposed. Operator shall provide method of verification. **Excess calculates to 17%. Additional cement may be required.**
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the

field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** inch surface casing shoe shall be **2000 (2M) annular**.

Option 1:

- i. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch second intermediate casing shoe shall be **3000 (3M)** psi.
- ii. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7 inch third intermediate casing shoe shall be **5000 (5M)** psi.

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

Option 2:

- i. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the second intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch second intermediate casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.
 - e. **After the 9 5/8" casing has been landed and cemented, the operator will then lift up the BOP to install the 'D-section' of the wellhead. Therefore, per Onshore Oil and Gas Order No. 2, the**

entire BOP/BOPE shall be tested prior to drilling out the second intermediate casing hole.

- f. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - d. The results of the test shall be reported to the appropriate BLM office.
 - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

Proposed mud weight may not be adequate for drilling through Wolfcamp.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

TMAK 05262017

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM117120
WELL NAME & NO.:	202H-Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	2325'N & 311'E
BOTTOM HOLE FOOTAGE:	1651'N & 240'E
LOCATION:	Section 13, T.24 S., R.28 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**
 - Cave/Karst
 - Avian Protection
- ☐ **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

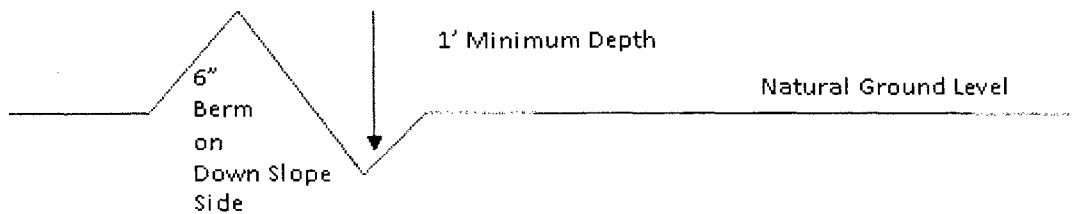
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping 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

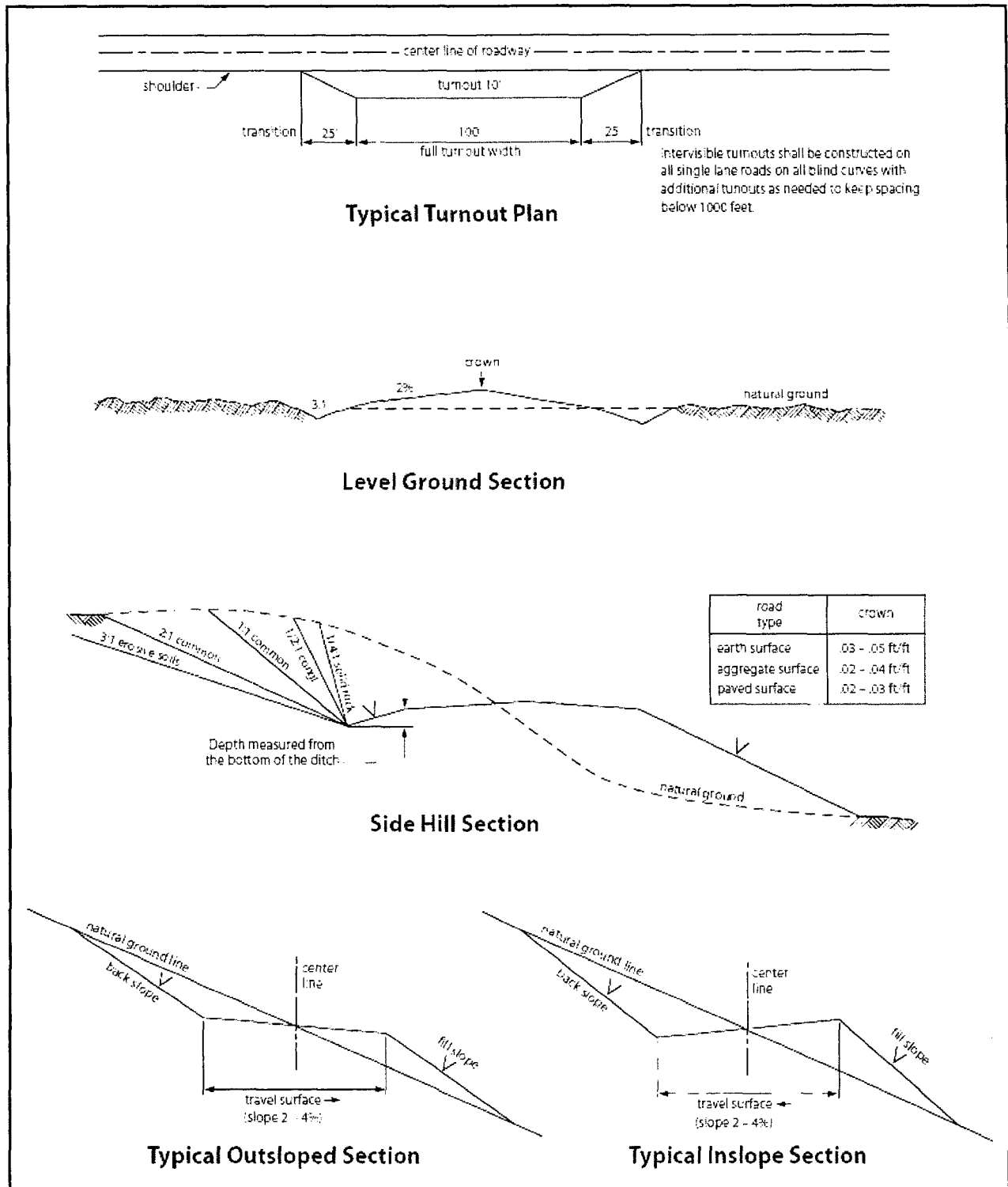


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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