

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EMNRD-OCD ARTESIA
REC'D: 7/8/2020

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM004825
2. Name of Operator MATADOR PRODUCTION COMPANY	6. If Indian, Allottee or Tribe Name
3a. Address ONE LINCOLN CENTER 5400 LBJ FREEWAY SUITE 1500 DALLAS, TX 75240	7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) 972-629-2158	8. Well Name and No. PENNZOIL 3231 FED COM 135H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 33 T20S R29E NWNW 600FNL 280FWL 32.536083 N Lat, 104.087891 W Lon	9. API Well No. 30-015-44575-00-X1
	10. Field and Pool or Exploratory Area GETTY
	11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

BLM Bond No. NMB001079
Surety Bond No. RLB0015172

Matador requests the name of the Pennzoil 3231 Fed Com 135H be changed to the Ted Paup 3231 Fed Com 206H (plat attached).

Matador requests the BHL be revised from 996' FNL 60' FWL of Sec. 31 T20S R29E to 2123' FNL and 60' FWL of Sec. 31 T20S R29E. The BHL given represents the terminus of the well. The last perforation point will be 2123' FNL and 100' FWL of the referenced spacing unit comprising the S2N2 of Sections 31 and 32 of T20S R29E.

Matador proposes a TVD change from 9110' to 9513'. Per Matador's conversation with Raymond Podany

14. I hereby certify that the foregoing is true and correct. Electronic Submission #508739 verified by the BLM Well Information System For MATADOR PRODUCTION COMPANY, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 03/28/2020 (20PP1811SE)	
Name (Printed/Typed) CADE LABOLT	Title LANDMAN
Signature (Electronic Submission)	Date 03/27/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By NDUNGU KAMAU	Title PETROLEUM ENGINEER	Date 04/09/2020
Conditions of approval, if any, are attached. Approval of this notice 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.		
Office Carlsbad		

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #508739 that would not fit on the form

32. Additional remarks, continued

on March 7, 2019, please see the attached C102 to revise the pool of Matador's Ted Paup 3231 Fed Com 206H well from the Getty; Bone Spring (standard oil) (Pool Code 27470) to the Burton Flat East; Upper Wolfcamp (standard oil) (Pool Code 98315).

Matador requests the option to a production casing change to run 5-1/2" 20# P110 CYHC Tec-Lock Wedge from a Top MD of 0' to Total Depth.

Please see the attached revised directional/anticollision report, directional wall plot, directional well plan and Ted-Lock Wedge schematic.

Revisions to Operator-Submitted EC Data for Sundry Notice #508739

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM004825	NMNM004825
Agreement:		
Operator:	MATADOR PRODUCTION COMPANY 5400 LBJ FWY SUITE 1500 DALLAS, TX 75240 Ph: 972-371-5200	MATADOR PRODUCTION COMPANY ONE LINCOLN CENTER 5400 LBJ FREEWAY SUITE 1500 DALLAS, TX 75240 Ph: 972.371.5200
Admin Contact:	CADE LABOLT LANDMAN E-Mail: cade.labolt@matadorresources.com Ph: 972-629-2158	CADE LABOLT LANDMAN E-Mail: cade.labolt@matadorresources.com Ph: 972-629-2158
Tech Contact:	CADE LABOLT LANDMAN E-Mail: cade.labolt@matadorresources.com Ph: 972-629-2158	CADE LABOLT LANDMAN E-Mail: cade.labolt@matadorresources.com Ph: 972-629-2158
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	GETTY; BONE SPRING	GETTY
Well/Facility:	PENNZOIL 3231 FED COM 135H Sec 33 T20S R29E Mer NMP 600FNL 280FWL	PENNZOIL 3231 FED COM 135H Sec 33 T20S R29E NWNW 600FNL 280FWL 32.536083 N Lat, 104.087891 W Lon

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-44575		² Pool Code 98315	³ Pool Name Burton Flat East; Upper Wolfcamp (Oil)
⁴ Property Code 328129	⁵ Property Name TED PAUP 3231 FED COM		⁶ Well Number 206H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY		⁹ Elevation 3264'

¹⁰Surface Location

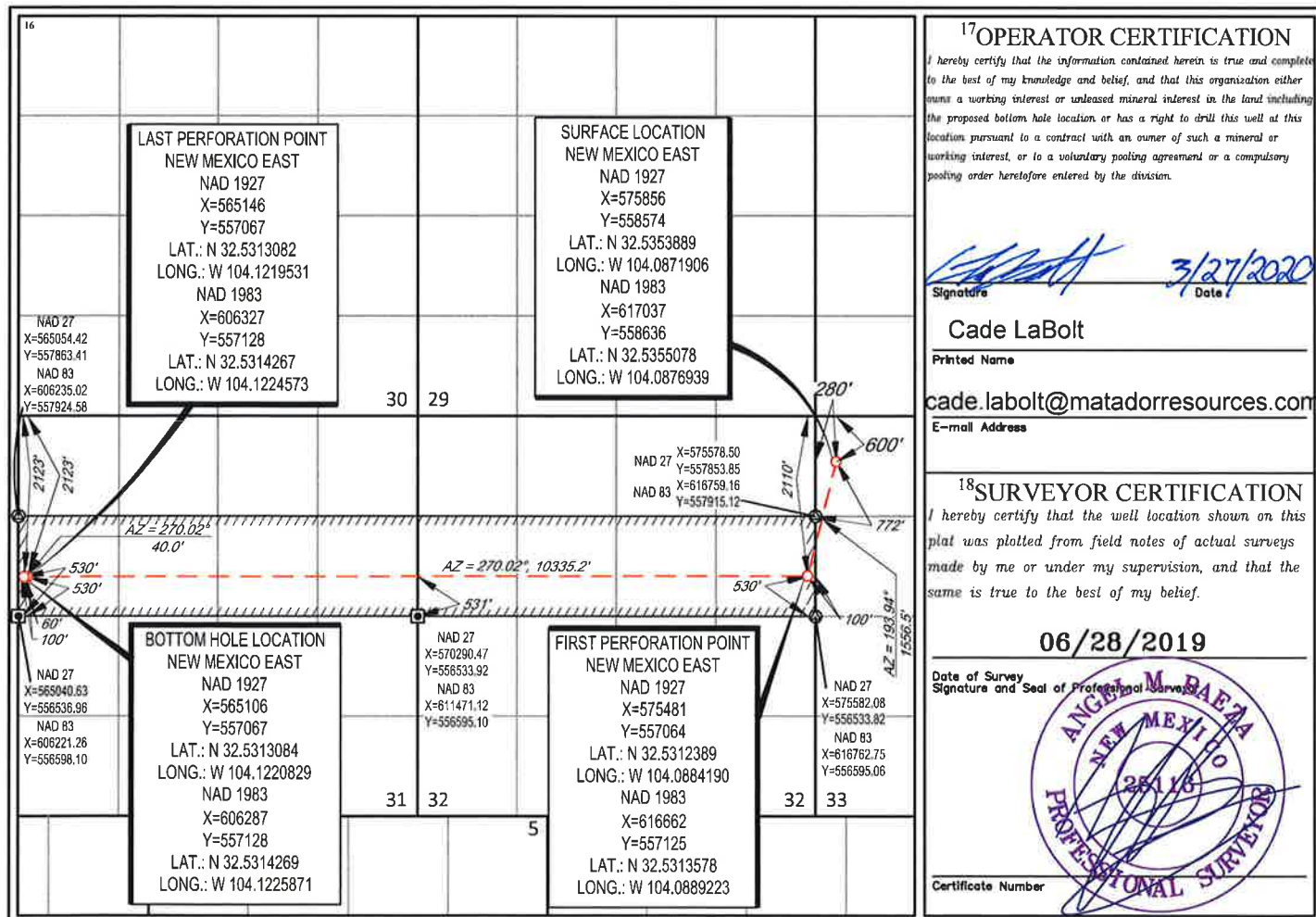
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	20-S	29-E	-	600'	NORTH	280'	WEST	EDDY

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	31	20-S	29-E	-	2123'	NORTH	60'	WEST	EDDY

¹² Dedicated Acres 318.80	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

[Signature] 3/27/2020
Signature Date

Cade LaBolt

Printed Name

cade.labolt@matadorresources.com

E-mail Address

¹⁸SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

06/28/2019

Date of Survey
Signature and Seal of Professional Surveyor



Certificate Number

S:\SURVEY\MATADOR_RESOURCES\TED_PAUP_3231_32-20S-29E\FINAL_PRODUCTS\ILO_TED_PAUP_3231_FED_COM_206H_REV1.DWG 3/27/2020 9:12:28 AM adisabella

Matador Production Company

Ranger/Arrowhead

Ted Paup 3231

Ted Paup 3231 Fed Com #206H

Wellbore #1

BLM Plan #1

Anticollision Report

27 March, 2020

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference	BLM Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/27/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,175.2	BLM Plan #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						
Pennzoil 3231						
Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan	5,787.0	5,758.6	180.6	134.7	3.932	CC
Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan	5,800.0	5,770.8	180.7	134.6	3.924	ES, SF
Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan	8,237.7	8,117.7	502.1	443.7	8.600	CC, ES
Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan	20,175.2	18,846.1	1,388.5	1,200.3	7.377	SF
Ted Paup 3231						
Ted Paup 3231 Fed Com #205H - Wellbore #1 - BLM Pla	2,802.8	2,810.5	61.9	42.7	3.230	CC, ES
Ted Paup 3231 Fed Com #205H - Wellbore #1 - BLM Pla	20,175.2	20,040.1	1,126.7	600.0	2.139	SF

Offset Design	Pennzoil 3231 - Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program:	0-MWD												Offset Well Error:	0.0 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		
0.0	0.0	171.2	170.3	0.0	0.7	174.50	-1,382.9	133.2	1,399.8					
100.0	100.0	270.4	268.7	0.1	0.9	174.41	-1,370.6	134.1	1,387.6	1,386.1	1.41	986.834		
200.0	200.0	369.7	367.2	0.5	1.3	174.33	-1,358.3	134.9	1,375.3	1,373.4	1.93	711.531		
300.0	300.0	468.9	465.6	0.8	1.7	174.24	-1,346.0	135.7	1,363.1	1,360.5	2.57	530.136		
400.0	400.0	568.1	564.1	1.2	2.1	174.16	-1,333.8	136.5	1,350.9	1,347.6	3.25	415.444		
500.0	500.0	667.4	662.6	1.6	2.5	174.07	-1,321.5	137.3	1,338.7	1,334.7	3.95	338.905		
600.0	600.0	766.6	761.0	1.9	2.9	173.98	-1,309.2	138.2	1,326.4	1,321.8	4.66	284.812		
700.0	700.0	865.8	859.5	2.3	3.3	173.88	-1,297.0	139.0	1,314.2	1,308.8	5.37	244.666		
800.0	800.0	965.0	958.0	2.6	3.7	173.79	-1,284.7	139.8	1,302.0	1,295.9	6.08	214.063		
900.0	900.0	1,064.3	1,056.4	3.0	4.1	173.69	-1,272.4	140.6	1,289.8	1,283.0	6.80	189.663		
1,000.0	1,000.0	1,163.5	1,154.9	3.4	4.5	173.60	-1,260.1	141.4	1,277.6	1,270.1	7.52	169.912		
1,100.0	1,100.0	1,262.7	1,253.4	3.7	4.9	173.50	-1,247.9	142.2	1,265.4	1,257.2	8.24	153.590		
1,200.0	1,200.0	1,362.0	1,351.8	4.1	5.3	173.40	-1,235.6	143.1	1,253.2	1,244.2	8.96	139.879		
1,300.0	1,300.0	1,461.2	1,450.3	4.4	5.8	173.29	-1,223.3	143.9	1,241.0	1,231.3	9.68	128.202		
1,400.0	1,400.0	1,560.4	1,548.7	4.8	6.2	173.19	-1,211.1	144.7	1,228.8	1,218.4	10.40	118.138		
1,500.0	1,500.0	1,659.6	1,647.2	5.1	6.6	173.08	-1,198.8	145.5	1,216.6	1,205.5	11.12	109.377		
1,600.0	1,600.0	1,758.9	1,745.7	5.5	7.0	172.97	-1,186.5	146.3	1,204.5	1,192.6	11.85	101.680		
1,700.0	1,700.0	1,858.1	1,844.1	5.9	7.4	172.86	-1,174.2	147.1	1,192.3	1,179.7	12.57	94.867		
1,800.0	1,800.0	1,957.3	1,942.6	6.2	7.8	172.74	-1,162.0	148.0	1,180.1	1,166.8	13.29	88.792		
1,900.0	1,900.0	2,056.6	2,041.1	6.6	8.2	172.63	-1,149.7	148.8	1,167.9	1,153.9	14.01	83.344		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
2,000.0	2,000.0	2,155.8	2,139.5	6.9	8.6	172.51	-1,137.4	149.6	1,155.8	1,141.0	14.74	78.429		
2,100.0	2,100.0	2,254.9	2,237.9	7.3	9.0	-7.74	-1,125.2	150.4	1,142.8	1,127.3	15.44	74.004		
2,200.0	2,200.0	2,353.8	2,336.0	7.6	9.4	-7.91	-1,112.9	151.2	1,128.1	1,111.9	16.13	69.930		
2,300.0	2,299.9	2,452.4	2,433.8	7.9	9.8	-8.09	-1,100.7	152.0	1,111.6	1,094.8	16.82	66.083		
2,400.0	2,399.7	2,550.7	2,531.3	8.3	10.2	-8.29	-1,088.6	152.8	1,093.5	1,076.0	17.51	62.441		
2,500.0	2,499.4	2,648.6	2,628.5	8.6	10.6	-8.52	-1,076.5	153.7	1,073.7	1,055.5	18.20	58.982		
2,600.0	2,598.9	2,746.2	2,725.4	8.9	10.9	-8.77	-1,064.4	154.5	1,052.3	1,033.4	18.90	55.687		
2,700.0	2,698.3	2,843.4	2,821.8	9.3	11.3	-9.05	-1,052.4	155.3	1,029.1	1,009.5	19.59	52.540		
2,800.0	2,797.4	2,940.1	2,917.8	9.6	11.7	-9.37	-1,040.4	156.1	1,004.3	984.0	20.28	49.527		
2,900.0	2,896.3	3,036.5	3,013.4	10.0	12.1	-9.71	-1,028.5	156.8	977.9	956.9	20.97	46.635		
3,000.0	2,994.9	3,132.3	3,108.5	10.4	12.5	-10.10	-1,016.6	157.6	949.8	928.2	21.66	43.853		
3,100.0	3,093.3	3,227.6	3,203.1	10.7	12.9	-10.54	-1,004.9	158.4	920.2	897.8	22.35	41.172		
3,200.0	3,191.2	3,322.4	3,297.1	11.1	13.3	-11.03	-993.1	159.2	888.9	865.9	23.04	38.582		
3,255.5	3,245.5	3,374.7	3,349.1	11.3	13.5	-11.32	-986.7	159.6	870.9	847.4	23.42	37.180		
3,300.0	3,288.9	3,416.6	3,390.6	11.5	13.7	-11.54	-981.5	160.0	856.2	832.5	23.73	36.082		
3,400.0	3,386.5	3,510.8	3,484.1	11.9	14.0	-12.07	-969.8	160.8	823.4	798.9	24.42	33.715		
3,500.0	3,484.1	3,604.9	3,577.5	12.3	14.4	-12.63	-958.2	161.5	790.6	765.4	25.12	31.475		
3,600.0	3,581.7	3,699.1	3,671.0	12.8	14.8	-13.24	-946.5	162.3	757.8	732.0	25.82	29.354		
3,700.0	3,679.3	3,793.3	3,764.4	13.2	15.2	-13.91	-934.9	163.1	725.2	698.7	26.52	27.344		
3,800.0	3,777.0	3,887.4	3,857.8	13.6	15.6	-14.64	-923.2	163.9	692.7	665.4	27.23	25.437		
3,900.0	3,874.6	3,981.6	3,951.3	14.0	15.9	-15.44	-911.6	164.6	660.2	632.3	27.95	23.625		
4,000.0	3,972.2	4,075.8	4,044.7	14.5	16.3	-16.33	-900.0	165.4	627.9	599.3	28.67	21.904		
4,100.0	4,069.8	4,170.0	4,138.2	14.9	16.7	-17.30	-888.3	166.2	595.8	566.4	29.40	20.267		
4,200.0	4,167.4	4,264.1	4,231.6	15.4	17.1	-18.39	-876.7	167.0	563.8	533.7	30.13	18.711		
4,300.0	4,265.0	4,358.3	4,325.0	15.8	17.5	-19.61	-865.0	167.7	532.0	501.1	30.88	17.229		
4,400.0	4,362.6	4,452.5	4,418.5	16.3	17.8	-20.97	-853.4	168.5	500.5	468.9	31.64	15.819		
4,500.0	4,460.2	4,546.6	4,511.9	16.7	18.2	-22.52	-841.7	169.3	469.3	436.9	32.41	14.478		
4,600.0	4,557.8	4,640.8	4,605.4	17.2	18.6	-24.28	-830.1	170.1	438.4	405.2	33.21	13.203		
4,700.0	4,655.4	4,735.0	4,698.8	17.7	19.0	-26.30	-818.4	170.8	408.0	373.9	34.02	11.991		
4,800.0	4,753.0	4,829.1	4,792.2	18.1	19.4	-28.64	-806.8	171.6	378.1	343.2	34.87	10.843		
4,900.0	4,850.7	4,923.3	4,885.7	18.6	19.8	-31.36	-795.1	172.4	348.9	313.1	35.75	9.758		
5,000.0	4,948.3	5,017.5	4,979.1	19.1	20.1	-34.55	-783.5	173.2	320.6	283.9	36.69	8.737		
5,100.0	5,045.9	5,111.6	5,072.6	19.5	20.5	-38.31	-771.8	173.9	293.4	255.7	37.69	7.784		
5,200.0	5,143.5	5,205.8	5,166.0	20.0	20.9	-42.79	-760.2	174.7	267.7	228.9	38.77	6.905		
5,300.0	5,241.1	5,300.0	5,259.5	20.5	21.3	-48.12	-748.6	175.5	243.9	204.0	39.93	6.107		
5,400.0	5,338.7	5,405.9	5,352.9	21.0	21.7	-54.46	-736.9	176.3	222.7	181.4	41.24	5.399		
5,500.0	5,436.3	5,488.3	5,446.3	21.4	22.0	-61.91	-725.3	177.0	204.8	162.3	42.53	4.816		
5,600.0	5,533.9	5,582.5	5,539.8	21.9	22.4	-70.47	-713.6	177.8	191.3	147.4	43.86	4.361		
5,700.0	5,631.5	5,676.6	5,633.2	22.4	22.8	-79.96	-702.0	178.6	183.0	137.9	45.08	4.059		
5,787.0	5,716.5	5,758.6	5,714.5	22.8	23.1	-88.64	-691.8	179.3	180.6	134.7	45.93	3.932 CC		
5,800.0	5,729.1	5,770.8	5,726.7	22.9	23.2	-89.94	-690.3	179.4	180.7	134.6	46.04	3.924 ES, SF		
5,900.0	5,826.7	5,865.0	5,820.1	23.3	23.6	-99.85	-678.7	180.1	184.6	137.9	46.68	3.953		
6,000.0	5,924.3	5,959.1	5,913.5	23.8	23.9	-109.13	-667.0	180.9	194.3	147.3	47.06	4.129		
6,100.0	6,022.0	6,053.3	6,007.0	24.3	24.3	-117.41	-655.4	181.7	209.1	161.8	47.28	4.422		
6,200.0	6,119.6	6,147.5	6,100.4	24.8	24.7	-124.57	-643.7	182.5	227.9	180.4	47.46	4.802		
6,300.0	6,217.2	6,241.6	6,193.9	25.3	25.1	-130.63	-632.1	183.2	249.8	202.2	47.67	5.242		
6,400.0	6,314.8	6,335.8	6,287.3	25.8	25.5	-135.72	-620.4	184.0	274.2	226.2	47.93	5.720		
6,500.0	6,412.4	6,430.0	6,380.7	26.2	25.8	-140.00	-608.8	184.8	300.3	252.0	48.27	6.221		
6,600.0	6,510.0	6,524.1	6,474.2	26.7	26.2	-143.61	-597.1	185.6	327.8	279.2	48.68	6.735		
6,700.0	6,607.6	6,618.3	6,567.6	27.2	26.6	-146.66	-585.5	186.3	356.4	307.3	49.13	7.254		
6,800.0	6,705.2	6,712.5	6,661.1	27.7	27.0	-149.27	-573.9	187.1	385.8	336.2	49.63	7.773		
6,900.0	6,802.8	6,806.6	6,754.5	28.2	27.4	-151.52	-562.2	187.9	415.8	365.7	50.17	8.289		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
7,000.0	6,900.4	6,900.8	6,847.9	28.7	27.8	-153.47	-550.6	188.7	446.4	395.6	50.74	8.798		
7,100.0	6,998.0	7,005.0	6,941.4	29.2	28.2	-155.17	-538.9	189.4	477.4	426.0	51.36	9.294		
7,200.0	7,095.7	7,089.1	7,034.8	29.7	28.5	-156.67	-527.3	190.2	508.7	456.7	51.93	9.794		
7,300.0	7,193.3	7,183.3	7,128.3	30.1	28.9	-158.00	-515.6	191.0	540.3	487.7	52.56	10.279		
7,400.0	7,290.9	7,277.5	7,221.7	30.6	29.3	-159.18	-504.0	191.8	572.1	518.9	53.20	10.754		
7,500.0	7,388.5	7,371.6	7,315.2	31.1	29.7	-160.23	-492.3	192.5	604.1	550.3	53.84	11.220		
7,600.0	7,486.1	7,465.8	7,408.6	31.6	30.0	-161.19	-480.7	193.3	636.3	581.8	54.50	11.675		
7,700.0	7,583.7	7,560.0	7,502.0	32.1	30.4	-162.05	-469.0	194.1	668.6	613.5	55.16	12.121		
7,800.0	7,681.3	7,675.3	7,616.3	32.6	30.9	-163.27	-454.8	191.7	700.5	644.4	56.07	12.492		
7,900.0	7,778.9	7,811.0	7,747.5	33.1	31.4	-166.60	-438.4	162.3	727.7	670.7	56.97	14.251		
7,989.9	7,866.7	7,916.9	7,842.9	33.5	31.7	-170.57	-426.5	118.3	749.8	692.2	57.54	13.031		
8,000.0	7,876.5	7,927.6	7,852.1	33.6	31.8	-171.04	-425.3	112.8	752.2	694.6	57.59	13.061		
8,100.0	7,974.5	8,022.0	7,928.1	34.1	32.1	-175.53	-415.8	57.8	776.4	718.3	58.09	13.364		
8,200.0	8,072.9	8,096.4	7,981.0	34.5	32.3	-179.49	-409.2	6.1	802.2	743.8	58.39	13.738		
8,300.0	8,171.8	8,154.7	8,017.6	35.0	32.4	177.22	-404.6	-39.0	831.7	773.3	58.36	14.251		
8,400.0	8,271.0	8,200.0	8,042.7	35.4	32.6	174.60	-401.4	-76.6	865.9	808.0	57.90	14.954		
8,500.0	8,370.5	8,237.3	8,061.2	35.8	32.7	172.44	-399.1	-108.9	905.3	848.2	57.06	15.865		
8,600.0	8,470.2	8,267.1	8,074.4	36.1	32.8	170.76	-397.4	-135.5	949.6	893.8	55.84	17.005		
8,700.0	8,570.1	8,291.5	8,084.2	36.5	32.9	169.43	-396.2	-157.9	998.8	944.4	54.35	18.377		
8,800.0	8,670.1	8,311.9	8,091.7	36.8	33.0	168.40	-395.2	-176.8	1,052.2	999.6	52.67	19.980		
8,826.9	8,697.0	8,316.8	8,093.4	36.8	33.0	-11.73	-395.0	-181.4	1,067.3	1,015.1	52.19	20.452		
8,900.0	8,770.1	8,329.1	8,097.4	37.0	33.0	-12.46	-394.5	-193.0	1,110.1	1,059.2	50.87	21.824		
8,926.9	8,797.0	8,333.2	8,098.7	37.1	33.0	-12.70	-394.3	-196.9	1,126.5	1,076.2	50.38	22.362		
8,950.0	8,820.1	8,336.7	8,099.8	37.2	33.1	140.90	-394.2	-200.3	1,141.2	1,091.3	49.97	22.838		
9,000.0	8,869.9	8,350.0	8,103.8	37.4	33.1	136.97	-393.7	-212.9	1,175.8	1,126.5	49.27	23.863		
9,050.0	8,919.1	8,350.0	8,103.8	37.6	33.1	132.94	-393.7	-212.9	1,213.3	1,164.9	48.43	25.053		
9,100.0	8,967.5	8,350.0	8,103.8	37.8	33.1	127.76	-393.7	-212.9	1,253.6	1,205.9	47.71	26.277		
9,150.0	9,014.5	8,367.9	8,108.7	38.1	33.2	120.14	-393.1	-230.2	1,295.6	1,248.2	47.42	27.321		
9,200.0	9,059.9	8,375.8	8,110.6	38.4	33.2	111.64	-392.8	-237.8	1,339.3	1,292.2	47.07	28.453		
9,226.9	9,083.5	8,380.0	8,111.6	38.6	33.2	106.46	-392.7	-241.9	1,363.3	1,316.3	46.93	29.049		
9,244.9	9,099.0	8,382.8	8,112.3	38.7	33.3	106.34	-392.6	-244.6	1,379.4	1,332.5	46.85	29.444		
9,250.0	9,103.5	8,383.6	8,112.5	38.8	33.3	104.88	-392.6	-245.4	1,384.0	1,337.1	46.82	29.558		
9,300.0	9,146.3	8,400.0	8,116.0	39.1	33.3	91.89	-392.1	-261.3	1,428.0	1,381.3	46.72	30.565		
9,350.0	9,188.0	8,400.0	8,116.0	39.4	33.3	81.73	-392.1	-261.3	1,470.3	1,423.9	46.36	31.714		
9,400.0	9,228.4	8,400.0	8,116.0	39.7	33.3	73.38	-392.1	-261.3	1,510.9	1,464.9	46.02	32.834		
9,450.0	9,267.2	8,423.1	8,120.2	40.0	33.5	66.28	-391.6	-284.1	1,549.2	1,503.2	46.01	33.669		
9,500.0	9,303.9	8,435.1	8,122.1	40.3	33.5	60.64	-391.3	-295.9	1,585.4	1,539.6	45.85	34.576		
9,550.0	9,338.4	8,450.0	8,124.0	40.5	33.6	56.01	-391.1	-310.7	1,619.2	1,573.5	45.74	35.399		
9,600.0	9,370.4	8,450.0	8,124.0	40.8	33.6	52.33	-391.1	-310.7	1,650.5	1,605.0	45.47	36.296		
9,650.0	9,399.7	8,474.7	8,126.4	41.0	33.8	49.16	-390.8	-335.3	1,678.8	1,633.3	45.51	36.886		
9,700.0	9,426.0	8,500.0	8,127.7	41.3	33.9	46.57	-390.6	-360.5	1,704.5	1,658.9	45.56	37.408		
9,750.0	9,449.1	8,500.0	8,127.7	41.5	33.9	44.60	-390.6	-360.5	1,727.1	1,681.7	45.40	38.040		
9,800.0	9,468.8	8,519.3	8,128.0	41.7	34.1	42.92	-390.5	-379.9	1,746.6	1,701.2	45.46	38.423		
9,850.0	9,485.1	8,566.3	8,128.0	41.9	34.4	41.49	-390.5	-426.8	1,762.7	1,716.9	45.80	38.487		
9,900.0	9,497.7	8,614.5	8,128.0	42.1	34.8	40.43	-390.4	-475.0	1,774.6	1,728.4	46.20	38.409		
9,950.0	9,506.6	8,663.7	8,128.0	42.3	35.3	39.69	-390.4	-524.2	1,782.4	1,735.7	46.68	38.181		
10,000.0	9,511.7	8,713.4	8,128.0	42.5	35.8	39.26	-390.3	-573.9	1,785.9	1,738.7	47.22	37.821		
10,041.6	9,513.0	8,755.0	8,128.0	42.7	36.2	39.12	-390.3	-615.5	1,785.6	1,737.8	47.72	37.416		
10,100.0	9,513.0	8,813.2	8,128.0	42.9	36.9	39.07	-390.3	-673.7	1,783.4	1,734.9	48.48	36.783		
10,200.0	9,513.0	8,913.2	8,128.0	43.5	38.1	39.02	-390.2	-773.7	1,781.4	1,731.4	50.00	35.629		
10,239.1	9,513.0	8,952.3	8,128.0	43.8	38.6	39.02	-390.1	-812.8	1,781.3	1,730.6	50.66	35.159		
10,240.5	9,513.0	8,953.6	8,128.0	43.8	38.6	39.02	-390.1	-814.2	1,781.3	1,730.6	50.69	35.143		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
10,300.0	9,513.0	9,013.2	8,128.0	44.3	39.5	39.02	-390.1	-873.7	1,781.3	1,729.5	51.74	34.428		
10,400.0	9,513.0	9,113.2	8,128.0	45.2	40.9	39.02	-390.0	-973.7	1,781.3	1,727.7	53.64	33.210		
10,500.0	9,513.0	9,213.2	8,128.0	46.2	42.5	39.02	-389.9	-1,073.7	1,781.3	1,725.7	55.67	31.999		
10,600.0	9,513.0	9,313.2	8,128.0	47.3	44.1	39.02	-389.8	-1,173.7	1,781.4	1,723.6	57.82	30.808		
10,700.0	9,513.0	9,413.2	8,128.0	48.6	45.8	39.02	-389.7	-1,273.7	1,781.4	1,721.3	60.08	29.650		
10,800.0	9,513.0	9,513.2	8,128.0	50.0	47.6	39.02	-389.6	-1,373.7	1,781.4	1,719.0	62.44	28.532		
10,900.0	9,513.0	9,613.2	8,128.0	51.5	49.5	39.02	-389.6	-1,473.7	1,781.5	1,716.6	64.88	27.460		
11,000.0	9,513.0	9,713.2	8,128.0	53.0	51.3	39.02	-389.5	-1,573.7	1,781.5	1,714.1	67.39	26.435		
11,100.0	9,513.0	9,813.2	8,128.0	54.7	53.3	39.03	-389.4	-1,673.7	1,781.5	1,711.5	69.97	25.460		
11,200.0	9,513.0	9,913.2	8,128.0	56.4	55.2	39.03	-389.3	-1,773.7	1,781.5	1,708.9	72.62	24.534		
11,300.0	9,513.0	10,013.2	8,128.0	58.1	57.2	39.03	-389.2	-1,873.7	1,781.6	1,706.3	75.31	23.656		
11,400.0	9,513.0	10,113.2	8,128.0	59.9	59.2	39.03	-389.1	-1,973.7	1,781.6	1,703.5	78.06	22.824		
11,500.0	9,513.0	10,213.2	8,128.0	61.8	61.3	39.03	-389.0	-2,073.7	1,781.6	1,700.8	80.84	22.038		
11,600.0	9,513.0	10,313.2	8,128.0	63.7	63.4	39.03	-389.0	-2,173.7	1,781.7	1,698.0	83.67	21.294		
11,700.0	9,513.0	10,413.2	8,128.0	65.7	65.5	39.03	-388.9	-2,273.7	1,781.7	1,695.2	86.53	20.590		
11,800.0	9,513.0	10,513.2	8,128.0	67.7	67.6	39.03	-388.8	-2,373.7	1,781.7	1,692.3	89.42	19.925		
11,900.0	9,513.0	10,613.2	8,128.0	69.7	69.8	39.03	-388.7	-2,473.7	1,781.8	1,689.4	92.34	19.295		
12,000.0	9,513.0	10,713.2	8,128.0	71.7	71.9	39.04	-388.6	-2,573.7	1,781.8	1,686.5	95.29	18.699		
12,100.0	9,513.0	10,813.2	8,128.0	73.8	74.1	39.04	-388.5	-2,673.7	1,781.8	1,683.6	98.26	18.134		
12,200.0	9,513.0	10,913.2	8,128.0	75.9	76.3	39.04	-388.4	-2,773.7	1,781.8	1,680.6	101.25	17.599		
12,300.0	9,513.0	11,013.2	8,128.0	78.0	78.5	39.04	-388.3	-2,873.7	1,781.9	1,677.6	104.26	17.091		
12,400.0	9,513.0	11,113.2	8,128.0	80.1	80.7	39.04	-388.3	-2,973.7	1,781.9	1,674.6	107.29	16.609		
12,500.0	9,513.0	11,213.2	8,128.0	82.3	83.0	39.04	-388.2	-3,073.7	1,781.9	1,671.6	110.33	16.151		
12,600.0	9,513.0	11,313.2	8,128.0	84.5	85.2	39.04	-388.1	-3,173.7	1,782.0	1,668.6	113.39	15.715		
12,700.0	9,513.0	11,413.2	8,128.0	86.7	87.5	39.04	-388.0	-3,273.7	1,782.0	1,665.5	116.46	15.301		
12,800.0	9,513.0	11,513.2	8,128.0	88.9	89.7	39.05	-387.9	-3,373.7	1,782.0	1,662.5	119.55	14.906		
12,900.0	9,513.0	11,613.2	8,128.0	91.1	92.0	39.05	-387.8	-3,473.7	1,782.0	1,659.4	122.65	14.530		
13,000.0	9,513.0	11,713.2	8,128.0	93.3	94.3	39.05	-387.7	-3,573.7	1,782.1	1,656.3	125.76	14.171		
13,100.0	9,513.0	11,813.2	8,128.0	95.5	96.6	39.05	-387.7	-3,673.7	1,782.1	1,653.2	128.87	13.828		
13,200.0	9,513.0	11,913.2	8,128.0	97.8	98.8	39.05	-387.6	-3,773.7	1,782.1	1,650.1	132.00	13.501		
13,300.0	9,513.0	12,013.2	8,128.0	100.1	101.1	39.05	-387.5	-3,873.7	1,782.2	1,647.0	135.14	13.187		
13,400.0	9,513.0	12,113.2	8,128.0	102.3	103.4	39.05	-387.4	-3,973.7	1,782.2	1,643.9	138.29	12.888		
13,500.0	9,513.0	12,213.2	8,128.0	104.6	105.7	39.05	-387.3	-4,073.7	1,782.2	1,640.8	141.44	12.601		
13,600.0	9,513.0	12,313.2	8,128.0	106.9	108.1	39.05	-387.2	-4,173.7	1,782.2	1,637.6	144.60	12.325		
13,700.0	9,513.0	12,413.2	8,128.0	109.2	110.4	39.06	-387.1	-4,273.7	1,782.3	1,634.5	147.77	12.061		
13,800.0	9,513.0	12,513.2	8,128.0	111.5	112.7	39.06	-387.0	-4,373.7	1,782.3	1,631.4	150.94	11.808		
13,900.0	9,513.0	12,613.2	8,128.0	113.8	115.0	39.06	-387.0	-4,473.7	1,782.3	1,628.2	154.12	11.565		
14,000.0	9,513.0	12,713.2	8,128.0	116.1	117.3	39.06	-386.9	-4,573.7	1,782.4	1,625.1	157.30	11.331		
14,100.0	9,513.0	12,813.2	8,128.0	118.4	119.7	39.06	-386.8	-4,673.7	1,782.4	1,621.9	160.49	11.106		
14,200.0	9,513.0	12,913.2	8,128.0	120.7	122.0	39.06	-386.7	-4,773.7	1,782.4	1,618.7	163.69	10.889		
14,300.0	9,513.0	13,013.2	8,128.0	123.1	124.3	39.06	-386.6	-4,873.7	1,782.5	1,615.6	166.89	10.681		
14,400.0	9,513.0	13,113.2	8,128.0	125.4	126.7	39.06	-386.5	-4,973.7	1,782.5	1,612.4	170.09	10.480		
14,500.0	9,513.0	13,213.2	8,128.0	127.7	129.0	39.06	-386.4	-5,073.7	1,782.5	1,609.2	173.30	10.286		
14,600.0	9,513.0	13,313.2	8,128.0	130.1	131.4	39.07	-386.3	-5,173.7	1,782.5	1,606.0	176.51	10.099		
14,700.0	9,513.0	13,413.2	8,128.0	132.4	133.7	39.07	-386.3	-5,273.7	1,782.6	1,602.8	179.73	9.918		
14,800.0	9,513.0	13,513.2	8,128.0	134.8	136.1	39.07	-386.2	-5,373.7	1,782.6	1,599.7	182.95	9.744		
14,900.0	9,513.0	13,613.2	8,128.0	137.1	138.4	39.07	-386.1	-5,473.7	1,782.6	1,596.5	186.17	9.575		
15,000.0	9,513.0	13,713.2	8,128.0	139.5	140.8	39.07	-386.0	-5,573.7	1,782.7	1,593.3	189.40	9.412		
15,100.0	9,513.0	13,813.2	8,128.0	141.8	143.1	39.07	-385.9	-5,673.7	1,782.7	1,590.1	192.62	9.255		
15,200.0	9,513.0	13,913.2	8,128.0	144.2	145.5	39.07	-385.8	-5,773.7	1,782.7	1,586.9	195.86	9.102		
15,300.0	9,513.0	14,013.2	8,128.0	146.5	147.9	39.07	-385.7	-5,873.7	1,782.7	1,583.7	199.09	8.954		
15,400.0	9,513.0	14,113.2	8,128.0	148.9	150.2	39.08	-385.7	-5,973.7	1,782.8	1,580.4	202.33	8.811		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #125H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
15,500.0	9,513.0	14,213.2	8,128.0	151.3	152.6	39.08	-385.6	-6,073.7	1,782.8	1,577.2	205.57	8.673		
15,600.0	9,513.0	14,313.2	8,128.0	153.7	155.0	39.08	-385.5	-6,173.7	1,782.8	1,574.0	208.81	8.538		
15,700.0	9,513.0	14,413.2	8,128.0	156.0	157.3	39.08	-385.4	-6,273.7	1,782.9	1,570.8	212.05	8.408		
15,800.0	9,513.0	14,513.2	8,128.0	158.4	159.7	39.08	-385.3	-6,373.7	1,782.9	1,567.6	215.30	8.281		
15,900.0	9,513.0	14,613.2	8,128.0	160.8	162.1	39.08	-385.2	-6,473.7	1,782.9	1,564.4	218.55	8.158		
16,000.0	9,513.0	14,713.2	8,128.0	163.2	164.4	39.08	-385.1	-6,573.7	1,782.9	1,561.1	221.80	8.039		
16,100.0	9,513.0	14,813.2	8,128.0	165.6	166.8	39.08	-385.0	-6,673.7	1,783.0	1,557.9	225.05	7.922		
16,200.0	9,513.0	14,913.2	8,128.0	167.9	169.2	39.08	-385.0	-6,773.7	1,783.0	1,554.7	228.31	7.810		
16,300.0	9,513.0	15,013.2	8,128.0	170.3	171.6	39.09	-384.9	-6,873.7	1,783.0	1,551.5	231.57	7.700		
16,400.0	9,513.0	15,113.2	8,128.0	172.7	173.9	39.09	-384.8	-6,973.7	1,783.1	1,548.2	234.82	7.593		
16,500.0	9,513.0	15,213.2	8,128.0	175.1	176.3	39.09	-384.7	-7,073.7	1,783.1	1,545.0	238.08	7.489		
16,600.0	9,513.0	15,313.2	8,128.0	177.5	178.7	39.09	-384.6	-7,173.7	1,783.1	1,541.8	241.34	7.388		
16,700.0	9,513.0	15,413.2	8,128.0	179.9	181.1	39.09	-384.5	-7,273.7	1,783.2	1,538.5	244.61	7.290		
16,800.0	9,513.0	15,513.2	8,128.0	182.3	183.5	39.09	-384.4	-7,373.7	1,783.2	1,535.3	247.87	7.194		
16,900.0	9,513.0	15,613.2	8,128.0	184.7	185.8	39.09	-384.4	-7,473.7	1,783.2	1,532.1	251.14	7.101		
17,000.0	9,513.0	15,713.2	8,128.0	187.1	188.2	39.09	-384.3	-7,573.7	1,783.2	1,528.8	254.41	7.009		
17,100.0	9,513.0	15,813.2	8,128.0	189.5	190.6	39.09	-384.2	-7,673.7	1,783.3	1,525.6	257.67	6.921		
17,200.0	9,513.0	15,913.2	8,128.0	191.9	193.0	39.10	-384.1	-7,773.7	1,783.3	1,522.4	260.94	6.834		
17,300.0	9,513.0	16,013.2	8,128.0	194.3	195.4	39.10	-384.0	-7,873.7	1,783.3	1,519.1	264.22	6.750		
17,400.0	9,513.0	16,113.2	8,128.0	196.7	197.8	39.10	-383.9	-7,973.7	1,783.4	1,515.9	267.49	6.667		
17,500.0	9,513.0	16,213.2	8,128.0	199.1	200.2	39.10	-383.8	-8,073.7	1,783.4	1,512.6	270.76	6.587		
17,600.0	9,513.0	16,313.2	8,128.0	201.5	202.5	39.10	-383.7	-8,173.7	1,783.4	1,509.4	274.04	6.508		
17,700.0	9,513.0	16,413.2	8,128.0	203.9	204.9	39.10	-383.7	-8,273.7	1,783.4	1,506.1	277.31	6.431		
17,800.0	9,513.0	16,513.2	8,128.0	206.3	207.3	39.10	-383.6	-8,373.7	1,783.5	1,502.9	280.59	6.356		
17,900.0	9,513.0	16,613.2	8,128.0	208.7	209.7	39.10	-383.5	-8,473.7	1,783.5	1,499.6	283.87	6.283		
18,000.0	9,513.0	16,713.2	8,128.0	211.1	212.1	39.11	-383.4	-8,573.7	1,783.5	1,496.4	287.15	6.211		
18,100.0	9,513.0	16,813.2	8,128.0	213.6	214.5	39.11	-383.3	-8,673.7	1,783.6	1,493.1	290.42	6.141		
18,200.0	9,513.0	16,913.2	8,128.0	216.0	216.9	39.11	-383.2	-8,773.7	1,783.6	1,489.9	293.71	6.073		
18,300.0	9,513.0	17,013.2	8,128.0	218.4	219.3	39.11	-383.1	-8,873.7	1,783.6	1,486.6	296.99	6.006		
18,400.0	9,513.0	17,113.2	8,128.0	220.8	221.7	39.11	-383.0	-8,973.7	1,783.6	1,483.4	300.27	5.940		
18,500.0	9,513.0	17,213.2	8,128.0	223.2	224.1	39.11	-383.0	-9,073.7	1,783.7	1,480.1	303.55	5.876		
18,600.0	9,513.0	17,313.2	8,128.0	225.6	226.5	39.11	-382.9	-9,173.7	1,783.7	1,476.9	306.84	5.813		
18,700.0	9,513.0	17,413.2	8,128.0	228.0	228.9	39.11	-382.8	-9,273.7	1,783.7	1,473.6	310.12	5.752		
18,800.0	9,513.0	17,513.2	8,128.0	230.5	231.3	39.11	-382.7	-9,373.7	1,783.8	1,470.4	313.41	5.692		
18,900.0	9,513.0	17,613.2	8,128.0	232.9	233.7	39.12	-382.6	-9,473.7	1,783.8	1,467.1	316.69	5.633		
19,000.0	9,513.0	17,713.2	8,128.0	235.3	236.0	39.12	-382.5	-9,573.7	1,783.8	1,463.8	319.98	5.575		
19,100.0	9,513.0	17,813.2	8,128.0	237.7	238.4	39.12	-382.4	-9,673.7	1,783.9	1,460.6	323.27	5.518		
19,200.0	9,513.0	17,913.2	8,128.0	240.1	240.8	39.12	-382.4	-9,773.7	1,783.9	1,457.3	326.56	5.463		
19,300.0	9,513.0	18,013.2	8,128.0	242.6	243.2	39.12	-382.3	-9,873.7	1,783.9	1,454.1	329.85	5.408		
19,400.0	9,513.0	18,113.2	8,128.0	245.0	245.6	39.12	-382.2	-9,973.7	1,783.9	1,450.8	333.14	5.355		
19,500.0	9,513.0	18,213.2	8,128.0	247.4	248.0	39.12	-382.1	-10,073.7	1,784.0	1,447.5	336.43	5.303		
19,600.0	9,513.0	18,313.2	8,128.0	249.8	250.4	39.12	-382.0	-10,173.7	1,784.0	1,444.3	339.72	5.251		
19,700.0	9,513.0	18,413.2	8,128.0	252.2	252.8	39.12	-381.9	-10,273.7	1,784.0	1,441.0	343.01	5.201		
19,800.0	9,513.0	18,513.2	8,128.0	254.7	255.2	39.13	-381.8	-10,373.7	1,784.1	1,437.8	346.31	5.152		
19,900.0	9,513.0	18,613.2	8,128.0	257.1	257.6	39.13	-381.7	-10,473.7	1,784.1	1,434.5	349.60	5.103		
20,000.0	9,513.0	18,713.2	8,128.0	259.5	260.0	39.13	-381.7	-10,573.7	1,784.1	1,431.2	352.89	5.056		
20,100.0	9,513.0	18,813.2	8,128.0	261.9	262.4	39.13	-381.6	-10,673.7	1,784.1	1,428.0	356.19	5.009		
20,101.8	9,513.0	18,815.0	8,128.0	262.0	262.5	39.13	-381.6	-10,675.5	1,784.1	1,427.9	356.25	5.008		
20,175.2	9,513.0	18,877.8	8,128.0	263.8	264.0	39.13	-381.5	-10,738.3	1,784.2	1,425.7	358.45	4.977		

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
0.0	0.0	0.0	0.0	0.0	0.0	175.83	-1,399.6	102.1	1,403.3					
100.0	100.0	44.1	44.1	0.1	0.1	175.81	-1,400.8	102.5	1,405.7	1,405.4	0.24	5,741.224		
200.0	200.0	144.0	143.9	0.5	0.3	175.77	-1,404.7	103.8	1,409.6	1,408.8	0.81	1,730.387		
300.0	300.0	243.9	243.8	0.8	0.7	175.73	-1,408.5	105.0	1,413.5	1,412.0	1.51	937.738		
400.0	400.0	343.9	343.6	1.2	1.0	175.70	-1,412.3	106.3	1,417.4	1,415.2	2.22	638.676		
500.0	500.0	443.8	443.4	1.6	1.4	175.66	-1,416.1	107.6	1,421.3	1,418.4	2.93	484.419		
600.0	600.0	543.7	543.3	1.9	1.8	175.62	-1,420.0	108.8	1,425.2	1,421.6	3.65	390.468		
700.0	700.0	643.6	643.1	2.3	2.1	175.58	-1,423.8	110.1	1,429.1	1,424.8	4.37	327.289		
800.0	800.0	743.5	742.9	2.6	2.5	175.54	-1,427.6	111.4	1,433.0	1,428.0	5.08	281.903		
900.0	900.0	843.5	842.8	3.0	2.8	175.50	-1,431.4	112.6	1,436.9	1,431.1	5.80	247.727		
1,000.0	1,000.0	943.4	942.6	3.4	3.2	175.46	-1,435.2	113.9	1,440.9	1,434.3	6.52	221.065		
1,100.0	1,100.0	1,043.3	1,042.5	3.7	3.6	175.43	-1,439.1	115.2	1,444.8	1,437.5	7.23	199.700		
1,200.0	1,200.0	1,143.2	1,142.3	4.1	3.9	175.39	-1,442.9	116.4	1,448.7	1,440.7	7.95	182.172		
1,300.0	1,300.0	1,243.1	1,242.1	4.4	4.3	175.35	-1,446.7	117.7	1,452.6	1,443.9	8.67	167.548		
1,400.0	1,400.0	1,343.0	1,342.0	4.8	4.7	175.31	-1,450.5	118.9	1,456.5	1,447.1	9.39	155.159		
1,500.0	1,500.0	1,443.0	1,441.8	5.1	5.0	175.28	-1,454.4	120.2	1,460.4	1,450.3	10.10	144.530		
1,600.0	1,600.0	1,542.9	1,541.6	5.5	5.4	175.24	-1,458.2	121.5	1,464.3	1,453.5	10.82	135.309		
1,700.0	1,700.0	1,642.8	1,641.5	5.9	5.8	175.20	-1,462.0	122.7	1,468.3	1,456.7	11.54	127.235		
1,800.0	1,800.0	1,742.7	1,741.3	6.2	6.1	175.16	-1,465.8	124.0	1,472.2	1,459.9	12.26	120.106		
1,900.0	1,900.0	1,842.6	1,841.2	6.6	6.5	175.13	-1,469.6	125.3	1,476.1	1,463.1	12.97	113.766		
2,000.0	2,000.0	1,942.6	1,941.0	6.9	6.9	175.09	-1,473.5	126.5	1,480.0	1,466.3	13.69	108.090		
2,100.0	2,100.0	2,042.5	2,040.9	7.3	7.2	-5.05	-1,477.3	127.8	1,483.1	1,468.7	14.39	103.049		
2,200.0	2,200.0	2,142.5	2,140.8	7.6	7.6	-5.09	-1,481.1	129.0	1,484.4	1,469.3	15.08	98.460		
2,300.0	2,299.9	2,242.5	2,240.7	7.9	8.0	-5.15	-1,484.9	130.3	1,484.0	1,468.2	15.76	94.141		
2,400.0	2,399.7	2,342.4	2,340.6	8.3	8.3	-5.20	-1,488.8	131.6	1,481.8	1,465.3	16.45	90.064		
2,500.0	2,499.4	2,442.4	2,440.4	8.6	8.7	-5.27	-1,492.6	132.8	1,477.9	1,460.8	17.14	86.202		
2,600.0	2,598.9	2,542.2	2,540.1	8.9	9.1	-5.35	-1,496.4	134.1	1,472.3	1,454.4	17.84	82.534		
2,700.0	2,698.3	2,641.9	2,639.8	9.3	9.4	-5.43	-1,500.2	135.4	1,464.9	1,446.4	18.53	79.040		
2,800.0	2,797.4	2,741.4	2,739.2	9.6	9.8	-5.52	-1,504.0	136.6	1,455.8	1,436.6	19.23	75.704		
2,900.0	2,896.3	2,840.8	2,838.5	10.0	10.1	-5.63	-1,507.8	137.9	1,445.0	1,425.1	19.93	72.511		
3,000.0	2,994.9	2,940.0	2,937.6	10.4	10.5	-5.74	-1,511.6	139.1	1,432.5	1,411.8	20.63	69.447		
3,100.0	3,093.3	3,039.0	3,036.5	10.7	10.9	-5.86	-1,515.4	140.4	1,418.2	1,396.9	21.33	66.501		
3,200.0	3,191.2	3,137.6	3,135.1	11.1	11.2	-6.00	-1,519.2	141.6	1,402.3	1,380.2	22.03	63.663		
3,255.5	3,245.5	3,207.7	3,189.7	11.3	11.5	-6.08	-1,521.3	142.3	1,392.7	1,370.2	22.47	61.975		
3,300.0	3,288.9	3,236.0	3,233.4	11.5	11.6	-6.14	-1,522.9	142.9	1,384.8	1,362.0	22.73	60.929		
3,400.0	3,386.5	3,334.4	3,331.7	11.9	11.9	-6.27	-1,526.7	144.1	1,367.0	1,343.6	23.43	58.345		
3,500.0	3,484.1	3,432.8	3,430.0	12.3	12.3	-6.41	-1,530.5	145.4	1,349.2	1,325.1	24.13	55.907		
3,600.0	3,581.7	3,531.1	3,528.3	12.8	12.7	-6.55	-1,534.2	146.6	1,331.5	1,306.7	24.84	53.603		
3,700.0	3,679.3	3,629.5	3,626.5	13.2	13.0	-6.69	-1,538.0	147.8	1,313.8	1,288.2	25.55	51.422		
3,800.0	3,777.0	3,727.8	3,724.8	13.6	13.4	-6.84	-1,541.7	149.1	1,296.1	1,269.8	26.26	49.356		
3,900.0	3,874.6	3,826.2	3,823.1	14.0	13.7	-6.99	-1,545.5	150.3	1,278.3	1,251.4	26.97	47.396		
4,000.0	3,972.2	3,924.6	3,921.4	14.5	14.1	-7.15	-1,549.3	151.6	1,260.6	1,232.9	27.69	45.534		
4,100.0	4,069.8	4,022.9	4,019.7	14.9	14.5	-7.31	-1,553.0	152.8	1,242.9	1,214.5	28.40	43.764		
4,200.0	4,167.4	4,121.3	4,117.9	15.4	14.8	-7.48	-1,556.8	154.1	1,225.2	1,196.1	29.12	42.078		
4,300.0	4,265.0	4,219.6	4,216.2	15.8	15.2	-7.65	-1,560.6	155.3	1,207.6	1,177.7	29.84	40.473		
4,400.0	4,362.6	4,318.0	4,314.5	16.3	15.5	-7.83	-1,564.3	156.5	1,189.9	1,159.3	30.56	38.941		
4,500.0	4,460.2	4,416.4	4,412.8	16.7	15.9	-8.01	-1,568.1	157.8	1,172.2	1,141.0	31.28	37.479		
4,600.0	4,557.8	4,514.7	4,511.1	17.2	16.3	-8.19	-1,571.8	159.0	1,154.6	1,122.6	32.00	36.082		
4,700.0	4,655.4	4,613.1	4,609.3	17.7	16.6	-8.39	-1,575.6	160.3	1,137.0	1,104.3	32.72	34.746		
4,800.0	4,753.0	4,711.4	4,707.6	18.1	17.0	-8.58	-1,579.4	161.5	1,119.4	1,085.9	33.45	33.466		
4,900.0	4,850.7	4,809.8	4,805.9	18.6	17.3	-8.79	-1,583.1	162.8	1,101.8	1,067.6	34.17	32.240		
5,000.0	4,948.3	4,908.2	4,904.2	19.1	17.7	-9.00	-1,586.9	164.0	1,084.2	1,049.3	34.90	31.065		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
5,100.0	5,045.9	5,006.5	5,002.5	19.5	18.1	-9.22	-1,590.7	165.2	1,066.6	1,031.0	35.63	29.937		
5,200.0	5,143.5	5,104.9	5,100.8	20.0	18.4	-9.44	-1,594.4	166.5	1,049.0	1,012.7	36.36	28.854		
5,300.0	5,241.1	5,203.2	5,199.0	20.5	18.8	-9.68	-1,598.2	167.7	1,031.5	994.4	37.09	27.813		
5,400.0	5,338.7	5,301.6	5,297.3	21.0	19.1	-9.92	-1,601.9	169.0	1,014.0	976.1	37.82	26.812		
5,500.0	5,436.3	5,400.0	5,395.6	21.4	19.5	-10.17	-1,605.7	170.2	996.4	957.9	38.55	25.848		
5,600.0	5,533.9	5,501.7	5,493.9	21.9	19.9	-10.43	-1,609.5	171.5	979.0	939.7	39.29	24.913		
5,700.0	5,631.5	5,603.3	5,592.2	22.4	20.2	-10.70	-1,613.2	172.7	961.5	921.4	40.04	24.013		
5,800.0	5,729.1	5,705.0	5,690.4	22.9	20.6	-10.97	-1,617.0	173.9	944.0	903.2	40.79	23.145		
5,900.0	5,826.7	5,793.4	5,788.7	23.3	20.9	-11.26	-1,620.8	175.2	926.6	885.1	41.49	22.334		
6,000.0	5,924.3	5,908.2	5,887.0	23.8	21.3	-11.56	-1,624.5	176.4	909.2	866.9	42.29	21.501		
6,100.0	6,022.0	6,009.9	5,985.3	24.3	21.7	-11.87	-1,628.3	177.7	891.8	848.8	43.04	20.722		
6,200.0	6,119.6	6,088.5	6,083.6	24.8	22.0	-12.20	-1,632.0	178.9	874.5	830.8	43.71	20.008		
6,300.0	6,217.2	6,186.8	6,181.8	25.3	22.4	-12.53	-1,635.8	180.2	857.2	812.7	44.45	19.284		
6,400.0	6,314.8	6,285.2	6,280.1	25.8	22.7	-12.89	-1,639.6	181.4	839.9	794.7	45.19	18.584		
6,500.0	6,412.4	6,383.6	6,378.4	26.2	23.1	-13.25	-1,643.3	182.7	822.6	776.7	45.94	17.907		
6,600.0	6,510.0	6,481.9	6,476.7	26.7	23.4	-13.63	-1,647.1	183.9	805.4	758.7	46.68	17.252		
6,700.0	6,607.6	6,580.3	6,575.0	27.2	23.8	-14.03	-1,650.8	185.1	788.2	740.8	47.43	16.617		
6,800.0	6,705.2	6,678.6	6,673.2	27.7	24.2	-14.44	-1,654.6	186.4	771.0	722.9	48.18	16.002		
6,900.0	6,802.8	6,777.0	6,771.5	28.2	24.5	-14.88	-1,658.4	187.6	753.9	705.0	48.94	15.406		
7,000.0	6,900.4	6,875.4	6,869.8	28.7	24.9	-15.33	-1,662.1	188.9	736.9	687.2	49.69	14.829		
7,100.0	6,998.0	6,973.7	6,968.1	29.2	25.2	-15.81	-1,665.9	190.1	719.8	669.4	50.45	14.269		
7,200.0	7,095.7	7,072.1	7,066.4	29.7	25.6	-16.30	-1,669.7	191.4	702.9	651.7	51.21	13.725		
7,300.0	7,193.3	7,170.5	7,164.6	30.1	26.0	-16.83	-1,673.4	192.6	686.0	634.0	51.97	13.198		
7,400.0	7,290.9	7,268.8	7,262.9	30.6	26.3	-17.38	-1,677.2	193.8	669.1	616.4	52.74	12.687		
7,500.0	7,388.5	7,367.2	7,361.2	31.1	26.7	-17.95	-1,680.9	195.1	652.3	598.8	53.51	12.191		
7,600.0	7,486.1	7,465.5	7,459.5	31.6	27.0	-18.56	-1,684.7	196.3	635.6	581.3	54.28	11.709		
7,700.0	7,583.7	7,563.9	7,557.8	32.1	27.4	-19.20	-1,688.5	197.6	618.9	563.9	55.06	11.241		
7,800.0	7,681.3	7,711.9	7,704.2	32.6	27.9	-18.47	-1,694.1	180.5	598.3	542.7	55.53	10.774		
7,900.0	7,778.9	7,843.4	7,827.0	33.1	28.3	-14.60	-1,698.8	134.3	570.9	515.1	55.76	10.239		
7,989.9	7,866.7	7,940.5	7,909.2	33.5	28.5	-9.52	-1,701.9	82.9	544.2	487.9	56.25	9.674		
8,000.0	7,876.5	7,950.2	7,916.8	33.6	28.5	-8.90	-1,702.2	77.0	541.3	484.9	56.33	9.608		
8,100.0	7,974.5	8,033.3	7,978.5	34.1	28.7	-2.79	-1,704.5	21.4	516.5	459.2	57.34	9.009		
8,200.0	8,072.9	8,097.5	8,020.2	34.5	28.9	2.75	-1,706.1	-27.3	503.2	445.0	58.23	8.643		
8,237.7	8,110.1	8,117.7	8,032.2	34.7	28.9	4.61	-1,706.6	-43.6	502.1	443.7	58.38	8.600 CC, ES		
8,300.0	8,171.8	8,147.3	8,048.7	35.0	29.0	7.42	-1,707.2	-68.1	505.4	447.1	58.27	8.673		
8,400.0	8,271.0	8,186.5	8,068.6	35.4	29.2	11.30	-1,707.9	-101.9	524.8	467.7	57.09	9.192		
8,500.0	8,370.5	8,217.9	8,082.8	35.8	29.3	14.55	-1,708.5	-129.9	560.9	506.1	54.84	10.228		
8,600.0	8,470.2	8,250.0	8,095.7	36.1	29.5	18.01	-1,709.0	-159.2	611.6	559.4	52.21	11.715		
8,700.0	8,570.1	8,264.5	8,101.0	36.5	29.6	19.86	-1,709.2	-172.7	673.8	624.8	49.07	13.732		
8,800.0	8,670.1	8,282.2	8,107.0	36.8	29.7	22.19	-1,709.4	-189.3	745.1	698.8	46.33	16.084		
8,826.9	8,697.0	8,286.4	8,108.4	36.8	29.7	-157.09	-1,709.4	-193.4	765.5	719.9	45.64	16.773		
8,900.0	8,770.1	8,300.0	8,112.5	37.0	29.8	-155.72	-1,709.6	-206.3	822.8	778.9	43.97	18.715		
8,926.9	8,797.0	8,300.0	8,112.5	37.1	29.8	-155.72	-1,709.6	-206.3	844.5	801.2	43.25	19.523		
8,950.0	8,820.1	8,300.0	8,112.5	37.2	29.8	-0.68	-1,709.6	-206.3	863.0	820.3	42.65	20.234		
9,000.0	8,869.9	8,300.0	8,112.5	37.4	29.8	-0.61	-1,709.6	-206.3	901.9	860.6	41.30	21.836		
9,050.0	8,919.1	8,317.8	8,117.5	37.6	29.9	0.81	-1,709.8	-223.4	938.8	898.4	40.38	23.247		
9,100.0	8,967.5	8,325.1	8,119.4	37.8	30.0	1.25	-1,709.8	-230.4	973.9	934.8	39.12	24.894		
9,150.0	9,014.5	8,332.5	8,121.2	38.1	30.0	1.63	-1,709.9	-237.6	1,007.1	969.3	37.83	26.626		
9,200.0	9,059.9	8,350.0	8,125.2	38.4	30.1	2.58	-1,710.1	-254.7	1,038.4	1,001.7	36.75	28.256		
9,226.9	9,083.5	8,350.0	8,125.2	38.6	30.1	2.49	-1,710.1	-254.7	1,054.3	1,018.4	35.92	29.353		
9,244.9	9,099.0	8,350.0	8,125.2	38.7	30.1	2.49	-1,710.1	-254.7	1,064.7	1,029.4	35.37	30.105		
9,250.0	9,103.5	8,350.0	8,125.2	38.8	30.1	2.00	-1,710.1	-254.7	1,067.8	1,032.6	35.21	30.323		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
9,300.0	9,146.3	8,350.0	8,125.2	39.1	30.1	-2.25	-1,710.1	-254.7	1,097.3	1,063.6	33.73	32.529		
9,350.0	9,188.0	8,350.0	8,125.2	39.4	30.1	-5.53	-1,710.1	-254.7	1,126.9	1,094.6	32.32	34.870		
9,400.0	9,228.4	8,373.9	8,129.7	39.7	30.3	-6.90	-1,710.2	-278.2	1,155.5	1,124.0	31.50	36.683		
9,450.0	9,267.2	8,384.5	8,131.4	40.0	30.4	-8.26	-1,710.3	-288.6	1,183.7	1,153.3	30.45	38.879		
9,500.0	9,303.9	8,400.0	8,133.5	40.3	30.5	-8.95	-1,710.4	-303.9	1,211.0	1,181.5	29.57	40.955		
9,550.0	9,338.4	8,400.0	8,133.5	40.5	30.5	-9.71	-1,710.4	-303.9	1,237.2	1,208.7	28.51	43.391		
9,600.0	9,370.4	8,419.9	8,135.7	40.8	30.7	-9.68	-1,710.4	-323.7	1,261.9	1,234.0	27.91	45.213		
9,650.0	9,399.7	8,432.7	8,136.7	41.0	30.8	-9.65	-1,710.5	-336.5	1,285.2	1,257.9	27.31	47.053		
9,700.0	9,426.0	8,450.0	8,137.6	41.3	30.9	-9.45	-1,710.5	-353.8	1,306.9	1,280.0	26.90	48.580		
9,750.0	9,449.1	8,459.4	8,137.9	41.5	31.0	-9.28	-1,710.5	-363.2	1,326.7	1,300.2	26.56	49.943		
9,800.0	9,468.8	8,477.1	8,138.0	41.7	31.1	-8.97	-1,710.5	-380.9	1,344.7	1,318.2	26.45	50.840		
9,850.0	9,485.1	8,524.1	8,138.0	41.9	31.6	-8.49	-1,710.5	-427.8	1,359.9	1,333.4	26.59	51.148		
9,900.0	9,497.7	8,572.3	8,138.0	42.1	32.1	-8.15	-1,710.5	-476.1	1,372.0	1,345.1	26.82	51.156		
9,950.0	9,506.6	8,621.5	8,138.0	42.3	32.6	-7.95	-1,710.5	-525.3	1,380.6	1,353.4	27.14	50.869		
10,000.0	9,511.7	8,671.2	8,138.0	42.5	33.2	-7.89	-1,710.5	-575.0	1,385.7	1,358.2	27.55	50.296		
10,041.6	9,513.0	8,712.8	8,138.0	42.7	33.6	-7.93	-1,710.4	-616.5	1,387.3	1,359.4	27.96	49.622		
10,100.0	9,513.0	8,771.0	8,138.0	42.9	34.4	-8.09	-1,710.4	-674.8	1,387.8	1,359.3	28.57	48.569		
10,200.0	9,513.0	8,871.0	8,138.0	43.5	35.7	-8.22	-1,710.4	-774.7	1,388.3	1,358.7	29.61	46.881		
10,240.5	9,513.0	8,911.4	8,138.0	43.8	36.3	-8.24	-1,710.4	-815.2	1,388.3	1,358.3	30.02	46.242		
10,300.0	9,513.0	8,971.0	8,138.0	44.3	37.2	-8.24	-1,710.4	-874.7	1,388.3	1,357.7	30.64	45.315		
10,400.0	9,513.0	9,071.0	8,138.0	45.2	38.8	-8.24	-1,710.3	-974.7	1,388.3	1,356.6	31.71	43.777		
10,500.0	9,513.0	9,171.0	8,138.0	46.2	40.4	-8.24	-1,710.3	-1,074.7	1,388.3	1,355.5	32.84	42.273		
10,600.0	9,513.0	9,271.0	8,138.0	47.3	42.1	-8.24	-1,710.3	-1,174.7	1,388.3	1,354.3	34.02	40.811		
10,700.0	9,513.0	9,371.0	8,138.0	48.6	43.9	-8.24	-1,710.3	-1,274.7	1,388.3	1,353.1	35.24	39.399		
10,800.0	9,513.0	9,471.0	8,138.0	50.0	45.7	-8.24	-1,710.2	-1,374.7	1,388.3	1,351.8	36.49	38.042		
10,900.0	9,513.0	9,571.0	8,138.0	51.5	47.6	-8.24	-1,710.2	-1,474.7	1,388.3	1,350.5	37.79	36.742		
11,000.0	9,513.0	9,671.0	8,138.0	53.0	49.6	-8.24	-1,710.2	-1,574.7	1,388.3	1,349.2	39.11	35.500		
11,100.0	9,513.0	9,771.0	8,138.0	54.7	51.5	-8.24	-1,710.1	-1,674.7	1,388.3	1,347.9	40.46	34.316		
11,200.0	9,513.0	9,871.0	8,138.0	56.4	53.5	-8.24	-1,710.1	-1,774.7	1,388.3	1,346.5	41.83	33.188		
11,300.0	9,513.0	9,971.0	8,138.0	58.1	55.6	-8.24	-1,710.1	-1,874.7	1,388.3	1,345.1	43.23	32.115		
11,400.0	9,513.0	10,071.0	8,138.0	59.9	57.7	-8.24	-1,710.1	-1,974.7	1,388.3	1,343.7	44.65	31.095		
11,500.0	9,513.0	10,171.0	8,138.0	61.8	59.8	-8.24	-1,710.0	-2,074.7	1,388.3	1,342.3	46.09	30.126		
11,600.0	9,513.0	10,271.0	8,138.0	63.7	61.9	-8.24	-1,710.0	-2,174.7	1,388.3	1,340.8	47.54	29.204		
11,700.0	9,513.0	10,371.0	8,138.0	65.7	64.0	-8.24	-1,710.0	-2,274.7	1,388.3	1,339.3	49.01	28.329		
11,800.0	9,513.0	10,471.0	8,138.0	67.7	66.2	-8.24	-1,709.9	-2,374.7	1,388.3	1,337.9	50.49	27.496		
11,900.0	9,513.0	10,571.0	8,138.0	69.7	68.4	-8.24	-1,709.9	-2,474.7	1,388.3	1,336.4	51.99	26.705		
12,000.0	9,513.0	10,671.0	8,138.0	71.7	70.6	-8.24	-1,709.9	-2,574.7	1,388.3	1,334.9	53.50	25.952		
12,100.0	9,513.0	10,771.0	8,138.0	73.8	72.8	-8.25	-1,709.8	-2,674.7	1,388.4	1,333.3	55.02	25.235		
12,200.0	9,513.0	10,871.0	8,138.0	75.9	75.0	-8.25	-1,709.8	-2,774.7	1,388.4	1,331.8	56.55	24.552		
12,300.0	9,513.0	10,971.0	8,138.0	78.0	77.2	-8.25	-1,709.8	-2,874.7	1,388.4	1,330.3	58.09	23.902		
12,400.0	9,513.0	11,071.0	8,138.0	80.1	79.5	-8.25	-1,709.8	-2,974.7	1,388.4	1,328.7	59.63	23.282		
12,500.0	9,513.0	11,171.0	8,138.0	82.3	81.7	-8.25	-1,709.7	-3,074.7	1,388.4	1,327.2	61.19	22.690		
12,600.0	9,513.0	11,271.0	8,138.0	84.5	84.0	-8.25	-1,709.7	-3,174.7	1,388.4	1,325.6	62.75	22.125		
12,700.0	9,513.0	11,371.0	8,138.0	86.7	86.3	-8.25	-1,709.7	-3,274.7	1,388.4	1,324.0	64.32	21.585		
12,800.0	9,513.0	11,471.0	8,138.0	88.9	88.6	-8.25	-1,709.6	-3,374.7	1,388.4	1,322.5	65.90	21.069		
12,900.0	9,513.0	11,571.0	8,138.0	91.1	90.9	-8.25	-1,709.6	-3,474.7	1,388.4	1,320.9	67.48	20.575		
13,000.0	9,513.0	11,671.0	8,138.0	93.3	93.1	-8.25	-1,709.6	-3,574.7	1,388.4	1,319.3	69.07	20.102		
13,100.0	9,513.0	11,771.0	8,138.0	95.5	95.4	-8.25	-1,709.6	-3,674.7	1,388.4	1,317.7	70.66	19.649		
13,200.0	9,513.0	11,871.0	8,138.0	97.8	97.8	-8.25	-1,709.5	-3,774.7	1,388.4	1,316.1	72.26	19.214		
13,300.0	9,513.0	11,971.0	8,138.0	100.1	100.1	-8.25	-1,709.5	-3,874.7	1,388.4	1,314.5	73.86	18.798		
13,400.0	9,513.0	12,071.0	8,138.0	102.3	102.4	-8.25	-1,709.5	-3,974.7	1,388.4	1,312.9	75.47	18.397		
13,500.0	9,513.0	12,171.0	8,138.0	104.6	104.7	-8.25	-1,709.4	-4,074.7	1,388.4	1,311.3	77.08	18.013		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
13,600.0	9,513.0	12,271.0	8,138.0	106.9	107.0	-8.25	-1,709.4	-4,174.7	1,388.4	1,309.7	78.69	17.644		
13,700.0	9,513.0	12,371.0	8,138.0	109.2	109.4	-8.25	-1,709.4	-4,274.7	1,388.4	1,308.1	80.31	17.288		
13,800.0	9,513.0	12,471.0	8,138.0	111.5	111.7	-8.25	-1,709.4	-4,374.7	1,388.4	1,306.5	81.93	16.946		
13,900.0	9,513.0	12,571.0	8,138.0	113.8	114.0	-8.25	-1,709.3	-4,474.7	1,388.4	1,304.8	83.55	16.617		
14,000.0	9,513.0	12,671.0	8,138.0	116.1	116.4	-8.25	-1,709.3	-4,574.7	1,388.4	1,303.2	85.18	16.300		
14,100.0	9,513.0	12,771.0	8,138.0	118.4	118.7	-8.25	-1,709.3	-4,674.7	1,388.4	1,301.6	86.81	15.994		
14,200.0	9,513.0	12,871.0	8,138.0	120.7	121.1	-8.26	-1,709.2	-4,774.7	1,388.4	1,299.9	88.44	15.698		
14,300.0	9,513.0	12,971.0	8,138.0	123.1	123.4	-8.26	-1,709.2	-4,874.7	1,388.4	1,298.3	90.08	15.413		
14,400.0	9,513.0	13,071.0	8,138.0	125.4	125.8	-8.26	-1,709.2	-4,974.7	1,388.4	1,296.7	91.71	15.138		
14,500.0	9,513.0	13,171.0	8,138.0	127.7	128.1	-8.26	-1,709.2	-5,074.7	1,388.4	1,295.0	93.35	14.872		
14,600.0	9,513.0	13,271.0	8,138.0	130.1	130.5	-8.26	-1,709.1	-5,174.7	1,388.4	1,293.4	94.99	14.615		
14,700.0	9,513.0	13,371.0	8,138.0	132.4	132.8	-8.26	-1,709.1	-5,274.7	1,388.4	1,291.8	96.64	14.367		
14,800.0	9,513.0	13,471.0	8,138.0	134.8	135.2	-8.26	-1,709.1	-5,374.7	1,388.4	1,290.1	98.28	14.126		
14,900.0	9,513.0	13,571.0	8,138.0	137.1	137.5	-8.26	-1,709.0	-5,474.7	1,388.4	1,288.5	99.93	13.893		
15,000.0	9,513.0	13,671.0	8,138.0	139.5	139.9	-8.26	-1,709.0	-5,574.7	1,388.4	1,286.8	101.58	13.668		
15,100.0	9,513.0	13,771.0	8,138.0	141.8	142.3	-8.26	-1,709.0	-5,674.7	1,388.4	1,285.2	103.23	13.449		
15,200.0	9,513.0	13,871.0	8,138.0	144.2	144.6	-8.26	-1,709.0	-5,774.7	1,388.4	1,283.5	104.88	13.237		
15,300.0	9,513.0	13,971.0	8,138.0	146.5	147.0	-8.26	-1,708.9	-5,874.7	1,388.4	1,281.9	106.54	13.032		
15,400.0	9,513.0	14,071.0	8,138.0	148.9	149.4	-8.26	-1,708.9	-5,974.7	1,388.4	1,280.2	108.19	12.833		
15,500.0	9,513.0	14,171.0	8,138.0	151.3	151.8	-8.26	-1,708.9	-6,074.7	1,388.4	1,278.6	109.85	12.639		
15,600.0	9,513.0	14,271.0	8,138.0	153.7	154.1	-8.26	-1,708.8	-6,174.7	1,388.4	1,276.9	111.51	12.451		
15,700.0	9,513.0	14,371.0	8,138.0	156.0	156.5	-8.26	-1,708.8	-6,274.7	1,388.4	1,275.2	113.17	12.269		
15,800.0	9,513.0	14,471.0	8,138.0	158.4	158.9	-8.26	-1,708.8	-6,374.7	1,388.4	1,273.6	114.83	12.091		
15,900.0	9,513.0	14,571.0	8,138.0	160.8	161.3	-8.26	-1,708.8	-6,474.7	1,388.4	1,271.9	116.49	11.919		
16,000.0	9,513.0	14,671.0	8,138.0	163.2	163.6	-8.26	-1,708.7	-6,574.7	1,388.4	1,270.3	118.15	11.751		
16,100.0	9,513.0	14,771.0	8,138.0	165.6	166.0	-8.26	-1,708.7	-6,674.7	1,388.4	1,268.6	119.82	11.588		
16,200.0	9,513.0	14,871.0	8,138.0	167.9	168.4	-8.26	-1,708.7	-6,774.7	1,388.4	1,266.9	121.48	11.429		
16,300.0	9,513.0	14,971.0	8,138.0	170.3	170.8	-8.27	-1,708.6	-6,874.7	1,388.4	1,265.3	123.15	11.274		
16,400.0	9,513.0	15,071.0	8,138.0	172.7	173.2	-8.27	-1,708.6	-6,974.7	1,388.4	1,263.6	124.82	11.124		
16,500.0	9,513.0	15,171.0	8,138.0	175.1	175.5	-8.27	-1,708.6	-7,074.7	1,388.4	1,261.9	126.48	10.977		
16,600.0	9,513.0	15,271.0	8,138.0	177.5	177.9	-8.27	-1,708.5	-7,174.7	1,388.4	1,260.3	128.15	10.834		
16,700.0	9,513.0	15,371.0	8,138.0	179.9	180.3	-8.27	-1,708.5	-7,274.7	1,388.4	1,258.6	129.82	10.695		
16,800.0	9,513.0	15,471.0	8,138.0	182.3	182.7	-8.27	-1,708.5	-7,374.7	1,388.4	1,256.9	131.49	10.559		
16,900.0	9,513.0	15,571.0	8,138.0	184.7	185.1	-8.27	-1,708.5	-7,474.7	1,388.4	1,255.3	133.17	10.426		
17,000.0	9,513.0	15,671.0	8,138.0	187.1	187.5	-8.27	-1,708.4	-7,574.7	1,388.4	1,253.6	134.84	10.297		
17,100.0	9,513.0	15,771.0	8,138.0	189.5	189.9	-8.27	-1,708.4	-7,674.7	1,388.4	1,251.9	136.51	10.171		
17,200.0	9,513.0	15,871.0	8,138.0	191.9	192.3	-8.27	-1,708.4	-7,774.7	1,388.4	1,250.3	138.18	10.048		
17,300.0	9,513.0	15,971.0	8,138.0	194.3	194.7	-8.27	-1,708.3	-7,874.7	1,388.4	1,248.6	139.86	9.927		
17,400.0	9,513.0	16,071.0	8,138.0	196.7	197.0	-8.27	-1,708.3	-7,974.7	1,388.4	1,246.9	141.53	9.810		
17,500.0	9,513.0	16,171.0	8,138.0	199.1	199.4	-8.27	-1,708.3	-8,074.7	1,388.4	1,245.2	143.21	9.695		
17,600.0	9,513.0	16,271.0	8,138.0	201.5	201.8	-8.27	-1,708.3	-8,174.7	1,388.4	1,243.6	144.88	9.583		
17,700.0	9,513.0	16,371.0	8,138.0	203.9	204.2	-8.27	-1,708.2	-8,274.7	1,388.4	1,241.9	146.56	9.473		
17,800.0	9,513.0	16,471.0	8,138.0	206.3	206.6	-8.27	-1,708.2	-8,374.7	1,388.4	1,240.2	148.24	9.366		
17,900.0	9,513.0	16,571.0	8,138.0	208.7	209.0	-8.27	-1,708.2	-8,474.7	1,388.4	1,238.5	149.92	9.261		
18,000.0	9,513.0	16,671.0	8,138.0	211.1	211.4	-8.27	-1,708.1	-8,574.7	1,388.4	1,236.9	151.60	9.159		
18,100.0	9,513.0	16,771.0	8,138.0	213.6	213.8	-8.27	-1,708.1	-8,674.7	1,388.5	1,235.2	153.27	9.059		
18,200.0	9,513.0	16,871.0	8,138.0	216.0	216.2	-8.27	-1,708.1	-8,774.7	1,388.5	1,233.5	154.95	8.960		
18,300.0	9,513.0	16,971.0	8,138.0	218.4	218.6	-8.27	-1,708.1	-8,874.7	1,388.5	1,231.8	156.63	8.864		
18,400.0	9,513.0	17,071.0	8,138.0	220.8	221.0	-8.28	-1,708.0	-8,974.7	1,388.5	1,230.1	158.31	8.770		
18,500.0	9,513.0	17,171.0	8,138.0	223.2	223.4	-8.28	-1,708.0	-9,074.7	1,388.5	1,228.5	160.00	8.678		
18,600.0	9,513.0	17,271.0	8,138.0	225.6	225.8	-8.28	-1,708.0	-9,174.7	1,388.5	1,226.8	161.68	8.588		
18,700.0	9,513.0	17,371.0	8,138.0	228.0	228.2	-8.28	-1,707.9	-9,274.7	1,388.5	1,225.1	163.36	8.499		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Pennzoil 3231 - Pennzoil 3231 Fed Com #126H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 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	
18,800.0	9,513.0	17,471.0	8,138.0	230.5	230.6	-8.28	-1,707.9	-9,374.7	1,388.5	1,223.4	165.04	8.413	
18,900.0	9,513.0	17,571.0	8,138.0	232.9	233.0	-8.28	-1,707.9	-9,474.7	1,388.5	1,221.7	166.72	8.328	
19,000.0	9,513.0	17,671.0	8,138.0	235.3	235.4	-8.28	-1,707.9	-9,574.7	1,388.5	1,220.1	168.41	8.245	
19,100.0	9,513.0	17,771.0	8,138.0	237.7	237.8	-8.28	-1,707.8	-9,674.7	1,388.5	1,218.4	170.09	8.163	
19,200.0	9,513.0	17,871.0	8,138.0	240.1	240.2	-8.28	-1,707.8	-9,774.7	1,388.5	1,216.7	171.77	8.083	
19,300.0	9,513.0	17,971.0	8,138.0	242.6	242.6	-8.28	-1,707.8	-9,874.7	1,388.5	1,215.0	173.46	8.005	
19,400.0	9,513.0	18,071.0	8,138.0	245.0	245.0	-8.28	-1,707.7	-9,974.7	1,388.5	1,213.3	175.14	7.928	
19,500.0	9,513.0	18,171.0	8,138.0	247.4	247.4	-8.28	-1,707.7	-10,074.7	1,388.5	1,211.6	176.83	7.852	
19,600.0	9,513.0	18,271.0	8,138.0	249.8	249.8	-8.28	-1,707.7	-10,174.7	1,388.5	1,210.0	178.51	7.778	
19,700.0	9,513.0	18,371.0	8,138.0	252.2	252.2	-8.28	-1,707.7	-10,274.7	1,388.5	1,208.3	180.20	7.705	
19,800.0	9,513.0	18,471.0	8,138.0	254.7	254.6	-8.28	-1,707.6	-10,374.7	1,388.5	1,206.6	181.89	7.634	
19,900.0	9,513.0	18,571.0	8,138.0	257.1	257.0	-8.28	-1,707.6	-10,474.7	1,388.5	1,204.9	183.57	7.564	
20,000.0	9,513.0	18,671.0	8,138.0	259.5	259.4	-8.28	-1,707.6	-10,574.7	1,388.5	1,203.2	185.26	7.495	
20,100.0	9,513.0	18,771.0	8,138.0	261.9	261.8	-8.28	-1,707.5	-10,674.7	1,388.5	1,201.5	186.94	7.427	
20,175.2	9,513.0	18,846.1	8,138.0	263.8	263.6	-8.28	-1,707.5	-10,749.9	1,388.5	1,200.3	188.21	7.377 SF	

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
0.0	0.0	0.0	0.0	0.0	0.0	28.74	54.6	30.0	62.3					
100.0	100.0	100.0	100.0	0.1	0.1	28.74	54.6	30.0	62.3	62.0	0.26	243.087		
200.0	200.0	200.0	200.0	0.5	0.5	28.74	54.6	30.0	62.3	61.3	0.97	64.017		
300.0	300.0	300.0	300.0	0.8	0.8	28.74	54.6	30.0	62.3	60.6	1.69	36.863		
400.0	400.0	400.0	400.0	1.2	1.2	28.74	54.6	30.0	62.3	59.9	2.41	25.883		
500.0	500.0	500.0	500.0	1.6	1.6	28.74	54.6	30.0	62.3	59.2	3.12	19.943		
600.0	600.0	600.0	600.0	1.9	1.9	28.74	54.6	30.0	62.3	58.5	3.84	16.221		
700.0	700.0	700.0	700.0	2.3	2.3	28.74	54.6	30.0	62.3	57.7	4.56	13.669		
800.0	800.0	800.0	800.0	2.6	2.6	28.74	54.6	30.0	62.3	57.0	5.27	11.812		
900.0	900.0	900.0	900.0	3.0	3.0	28.74	54.6	30.0	62.3	56.3	5.99	10.398		
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	28.74	54.6	30.0	62.3	55.6	6.71	9.287		
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	28.74	54.6	30.0	62.3	54.9	7.43	8.390		
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	28.74	54.6	30.0	62.3	54.2	8.14	7.652		
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	28.74	54.6	30.0	62.3	53.4	8.86	7.032		
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	28.74	54.6	30.0	62.3	52.7	9.58	6.506		
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	28.74	54.6	30.0	62.3	52.0	10.29	6.053		
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	28.74	54.6	30.0	62.3	51.3	11.01	5.659		
1,700.0	1,700.0	1,700.0	1,700.0	5.9	5.9	28.74	54.6	30.0	62.3	50.6	11.73	5.313		
1,800.0	1,800.0	1,800.0	1,800.0	6.2	6.2	28.74	54.6	30.0	62.3	49.9	12.44	5.007		
1,900.0	1,900.0	1,900.0	1,900.0	6.6	6.6	28.74	54.6	30.0	62.3	49.1	13.16	4.734		
2,000.0	2,000.0	2,000.0	2,000.0	6.9	6.9	28.74	54.6	30.0	62.3	48.4	13.88	4.489		
2,100.0	2,100.0	2,101.0	2,101.0	7.3	7.3	-151.37	53.7	30.0	62.3	47.7	14.56	4.279		
2,200.0	2,200.0	2,201.9	2,201.9	7.6	7.6	-151.35	51.1	30.0	62.3	47.1	15.21	4.095		
2,300.0	2,299.9	2,302.9	2,302.7	7.9	7.9	-151.33	46.6	29.9	62.2	46.4	15.86	3.925		
2,400.0	2,399.7	2,403.8	2,403.5	8.3	8.3	-151.30	40.4	29.9	62.2	45.7	16.51	3.767		
2,500.0	2,499.4	2,504.8	2,504.2	8.6	8.6	-151.26	32.4	29.9	62.1	45.0	17.16	3.620		
2,600.0	2,598.9	2,605.8	2,604.6	8.9	9.0	-151.21	22.6	29.9	62.1	44.2	17.82	3.483		
2,700.0	2,698.3	2,706.7	2,704.9	9.3	9.3	-151.15	11.1	29.9	62.0	43.5	18.47	3.354		
2,800.0	2,797.4	2,807.7	2,805.0	9.6	9.7	-151.08	-2.2	29.9	61.9	42.7	19.13	3.234		
2,802.8	2,800.2	2,810.5	2,807.8	9.6	9.7	-151.08	-2.6	29.9	61.9	42.7	19.15	3.230 CC, ES		
2,900.0	2,896.3	2,907.6	2,904.0	10.0	10.0	-151.45	-16.1	29.9	62.6	42.8	19.82	3.160		
3,000.0	2,994.9	3,007.6	3,002.9	10.4	10.4	-152.53	-30.0	29.9	65.0	44.4	20.51	3.166		
3,100.0	3,093.3	3,107.5	3,101.9	10.7	10.7	-154.18	-43.9	29.9	68.9	47.7	21.21	3.247		
3,200.0	3,191.2	3,207.3	3,200.7	11.1	11.1	-156.19	-57.8	29.9	74.4	52.5	21.91	3.397		
3,255.5	3,245.5	3,262.6	3,255.5	11.3	11.3	-157.40	-65.5	29.9	78.2	55.9	22.29	3.509		
3,300.0	3,288.9	3,307.0	3,299.5	11.5	11.5	-158.35	-71.7	29.9	81.5	58.9	22.60	3.606		
3,400.0	3,386.5	3,406.7	3,398.2	11.9	11.9	-160.23	-85.6	29.8	88.9	65.6	23.30	3.817		
3,500.0	3,484.1	3,506.4	3,496.9	12.3	12.2	-161.81	-99.4	29.8	96.5	72.5	24.01	4.018		
3,600.0	3,581.7	3,606.0	3,595.6	12.8	12.6	-163.17	-113.3	29.8	104.0	79.3	24.72	4.210		
3,700.0	3,679.3	3,705.7	3,694.3	13.2	13.0	-164.34	-127.2	29.8	111.7	86.2	25.43	4.392		
3,800.0	3,777.0	3,805.4	3,793.0	13.6	13.4	-165.36	-141.1	29.8	119.3	93.2	26.14	4.566		
3,900.0	3,874.6	3,905.1	3,891.7	14.0	13.8	-166.26	-154.9	29.8	127.0	100.2	26.85	4.731		
4,000.0	3,972.2	4,004.8	3,990.5	14.5	14.2	-167.06	-168.8	29.8	134.8	107.2	27.57	4.888		
4,100.0	4,069.8	4,104.5	4,089.2	14.9	14.6	-167.77	-182.7	29.8	142.5	114.2	28.29	5.038		
4,200.0	4,167.4	4,204.1	4,187.9	15.4	15.0	-168.40	-196.5	29.8	150.3	121.3	29.01	5.181		
4,300.0	4,265.0	4,303.8	4,286.6	15.8	15.4	-168.97	-210.4	29.8	158.1	128.4	29.74	5.317		
4,400.0	4,362.6	4,403.5	4,385.3	16.3	15.8	-169.49	-224.3	29.7	165.9	135.4	30.46	5.446		
4,500.0	4,460.2	4,503.2	4,484.0	16.7	16.2	-169.97	-238.2	29.7	173.7	142.5	31.19	5.570		
4,600.0	4,557.8	4,602.9	4,582.7	17.2	16.6	-170.40	-252.0	29.7	181.6	149.6	31.92	5.688		
4,700.0	4,655.4	4,702.6	4,681.5	17.7	17.0	-170.79	-265.9	29.7	189.4	156.7	32.65	5.801		
4,800.0	4,753.0	4,802.2	4,780.2	18.1	17.4	-171.16	-279.8	29.7	197.2	163.9	33.38	5.909		
4,900.0	4,850.7	4,901.9	4,878.9	18.6	17.8	-171.50	-293.7	29.7	205.1	171.0	34.11	6.012		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
5,000.0	4,948.3	5,000.0	4,976.0	19.1	18.2	-171.81	-307.2	29.7	213.1	178.2	34.85	6.113		
5,100.0	5,045.9	5,094.2	5,069.5	19.5	18.5	-172.15	-318.4	29.7	222.9	187.3	35.59	6.263		
5,200.0	5,143.5	5,187.9	5,162.8	20.0	18.9	-172.54	-327.3	29.7	235.2	198.9	36.30	6.479		
5,300.0	5,241.1	5,280.9	5,255.6	20.5	19.3	-172.95	-333.9	29.7	249.9	212.9	36.98	6.756		
5,400.0	5,338.7	5,373.2	5,347.8	21.0	19.6	-173.37	-338.2	29.7	266.9	229.3	37.64	7.092		
5,500.0	5,436.3	5,464.7	5,439.3	21.4	19.9	-173.80	-340.2	29.7	286.4	248.1	38.26	7.485		
5,600.0	5,533.9	5,559.4	5,533.9	21.9	20.2	-174.21	-340.4	29.7	307.8	268.9	38.91	7.909		
5,700.0	5,631.5	5,657.0	5,631.5	22.4	20.5	-174.60	-340.4	29.7	329.4	289.8	39.61	8.316		
5,800.0	5,729.1	5,754.6	5,729.1	22.9	20.8	-174.93	-340.4	29.7	351.1	310.7	40.31	8.709		
5,900.0	5,826.7	5,852.2	5,826.7	23.3	21.2	-175.23	-340.4	29.7	372.7	331.7	41.01	9.088		
6,000.0	5,924.3	5,949.8	5,924.3	23.8	21.5	-175.49	-340.4	29.7	394.4	352.7	41.72	9.454		
6,100.0	6,022.0	6,047.4	6,022.0	24.3	21.8	-175.72	-340.4	29.7	416.1	373.6	42.42	9.808		
6,200.0	6,119.6	6,145.0	6,119.6	24.8	22.1	-175.94	-340.4	29.7	437.8	394.6	43.13	10.151		
6,300.0	6,217.2	6,242.6	6,217.2	25.3	22.4	-176.13	-340.4	29.7	459.4	415.6	43.83	10.482		
6,400.0	6,314.8	6,340.2	6,314.8	25.8	22.8	-176.30	-340.4	29.7	481.1	436.6	44.54	10.802		
6,500.0	6,412.4	6,437.8	6,412.4	26.2	23.1	-176.46	-340.4	29.7	502.8	457.6	45.25	11.113		
6,600.0	6,510.0	6,535.5	6,510.0	26.7	23.4	-176.61	-340.4	29.7	524.5	478.6	45.96	11.414		
6,700.0	6,607.6	6,633.1	6,607.6	27.2	23.7	-176.74	-340.4	29.7	546.2	499.6	46.67	11.705		
6,800.0	6,705.2	6,730.7	6,705.2	27.7	24.1	-176.87	-340.4	29.7	567.9	520.6	47.38	11.987		
6,900.0	6,802.8	6,828.3	6,802.8	28.2	24.4	-176.98	-340.4	29.7	589.6	541.6	48.09	12.262		
7,000.0	6,900.4	6,925.9	6,900.4	28.7	24.7	-177.09	-340.4	29.7	611.4	562.6	48.80	12.527		
7,100.0	6,998.0	7,023.5	6,998.0	29.2	25.0	-177.19	-340.4	29.7	633.1	583.6	49.51	12.786		
7,200.0	7,095.7	7,121.1	7,095.7	29.7	25.4	-177.28	-340.4	29.7	654.8	604.6	50.23	13.036		
7,300.0	7,193.3	7,218.7	7,193.3	30.1	25.7	-177.37	-340.4	29.7	676.5	625.6	50.94	13.280		
7,400.0	7,290.9	7,316.3	7,290.9	30.6	26.0	-177.45	-340.4	29.7	698.2	646.6	51.66	13.517		
7,500.0	7,388.5	7,413.9	7,388.5	31.1	26.4	-177.53	-340.4	29.7	719.9	667.6	52.37	13.747		
7,600.0	7,486.1	7,511.5	7,486.1	31.6	26.7	-177.60	-340.4	29.7	741.7	688.6	53.09	13.970		
7,700.0	7,583.7	7,609.2	7,583.7	32.1	27.0	-177.67	-340.4	29.7	763.4	709.6	53.80	14.188		
7,800.0	7,681.3	7,706.8	7,681.3	32.6	27.4	-177.73	-340.4	29.7	785.1	730.6	54.52	14.400		
7,900.0	7,778.9	7,804.4	7,778.9	33.1	27.7	-177.80	-340.4	29.7	806.8	751.6	55.24	14.606		
7,989.9	7,866.7	7,907.9	7,866.7	33.5	28.0	-177.85	-340.4	29.7	826.3	770.4	55.94	14.773		
8,000.0	7,876.5	7,902.0	7,876.5	33.6	28.0	-177.86	-340.4	29.7	828.5	772.6	55.96	14.807		
8,100.0	7,974.5	8,000.1	7,974.5	34.1	28.4	-177.92	-340.4	29.7	848.7	792.0	56.67	14.976		
8,200.0	8,072.9	8,101.7	8,072.9	34.5	28.7	-177.97	-340.4	29.7	866.3	808.9	57.40	15.093		
8,300.0	8,171.8	8,202.8	8,171.8	35.0	29.0	-178.01	-340.4	29.7	881.4	823.2	58.12	15.164		
8,400.0	8,271.0	8,303.6	8,271.0	35.4	29.4	-178.05	-340.4	29.7	893.8	835.0	58.84	15.191		
8,500.0	8,370.5	8,404.1	8,370.5	35.8	29.7	-178.07	-340.4	29.7	903.7	844.1	59.55	15.175		
8,600.0	8,470.2	8,504.3	8,470.2	36.1	30.1	-178.09	-340.4	29.7	910.9	850.6	60.25	15.117		
8,700.0	8,570.1	8,604.4	8,570.1	36.5	30.4	-178.10	-340.4	29.7	915.5	854.6	60.95	15.020		
8,800.0	8,670.1	8,704.5	8,670.1	36.8	30.8	-178.11	-340.4	29.7	917.5	855.9	61.65	14.883		
8,826.9	8,697.0	8,722.5	8,697.0	36.8	30.8	2.00	-340.4	29.7	917.6	855.8	61.80	14.848		
8,900.0	8,770.1	8,804.5	8,770.1	37.0	31.1	2.00	-340.4	29.7	917.6	855.3	62.32	14.724		
8,926.9	8,797.0	8,822.5	8,797.0	37.1	31.2	2.00	-340.4	29.7	917.6	855.2	62.47	14.689		
8,950.0	8,820.1	8,845.5	8,820.1	37.2	31.2	156.99	-340.4	29.7	918.1	855.4	62.63	14.659		
9,000.0	8,869.9	8,895.3	8,869.9	37.4	31.4	156.94	-340.4	29.7	921.9	858.9	62.98	14.638		
9,050.0	8,919.1	8,944.8	8,919.1	37.6	31.6	156.84	-340.4	29.6	929.8	866.4	63.34	14.678		
9,100.0	8,967.5	9,004.7	8,979.1	37.8	31.8	156.55	-340.7	26.4	941.3	877.5	63.80	14.753		
9,150.0	9,014.5	9,063.7	9,037.4	38.1	32.0	155.85	-341.4	17.1	956.0	891.8	64.24	14.881		
9,200.0	9,059.9	9,121.1	9,092.8	38.4	32.2	154.74	-342.4	2.4	974.0	909.4	64.67	15.062		
9,226.9	9,083.5	9,151.1	9,121.1	38.6	32.3	153.98	-343.2	-7.5	985.0	920.1	64.89	15.180		
9,244.9	9,099.0	9,170.8	9,139.4	38.7	32.3	153.79	-343.7	-14.7	992.6	927.6	65.03	15.264		
9,250.0	9,103.5	9,176.4	9,144.6	38.8	32.4	152.65	-343.8	-16.9	994.8	929.7	65.07	15.288		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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		
9,300.0	9,146.3	9,231.0	9,193.6	39.1	32.5	142.23	-345.6	-40.8	1,015.3	949.9	65.46	15.510		
9,350.0	9,188.0	9,285.5	9,240.1	39.4	32.7	133.05	-347.7	-69.2	1,034.7	968.9	65.85	15.713		
9,400.0	9,228.4	9,340.0	9,283.6	39.7	32.9	125.11	-350.1	-101.8	1,052.9	986.6	66.25	15.893		
9,450.0	9,267.2	9,394.3	9,323.8	40.0	33.0	118.28	-352.8	-138.3	1,069.6	1,002.9	66.66	16.046		
9,500.0	9,303.9	9,448.5	9,360.1	40.3	33.2	112.46	-355.7	-178.3	1,084.7	1,017.6	67.09	16.168		
9,550.0	9,338.4	9,502.4	9,392.4	40.5	33.4	107.50	-358.9	-221.3	1,098.2	1,030.7	67.55	16.258		
9,600.0	9,370.4	9,555.8	9,420.3	40.8	33.6	103.28	-362.2	-266.8	1,109.9	1,041.9	68.04	16.312		
9,650.0	9,399.7	9,608.8	9,443.6	41.0	33.9	99.72	-365.7	-314.2	1,119.7	1,051.2	68.57	16.329		
9,700.0	9,426.0	9,661.0	9,462.2	41.3	34.2	96.72	-369.3	-362.9	1,127.7	1,058.5	69.14	16.309		
9,750.0	9,449.1	9,712.5	9,476.1	41.5	34.6	94.23	-372.9	-412.3	1,133.6	1,063.9	69.75	16.252		
9,800.0	9,468.8	9,763.1	9,485.4	41.7	34.9	92.20	-376.5	-461.8	1,137.6	1,067.2	70.39	16.160		
9,850.0	9,485.1	9,812.6	9,490.2	41.9	35.3	90.59	-380.1	-511.0	1,139.5	1,068.4	71.07	16.034		
9,900.0	9,497.7	9,856.2	9,491.0	42.1	35.7	89.43	-383.3	-554.4	1,139.4	1,067.7	71.69	15.893		
9,950.0	9,506.6	9,891.4	9,491.0	42.3	36.0	88.82	-385.5	-589.5	1,137.8	1,065.6	72.24	15.750		
10,000.0	9,511.7	9,926.9	9,491.0	42.5	36.3	88.66	-387.3	-625.0	1,134.7	1,061.8	72.86	15.573		
10,041.6	9,513.0	9,956.6	9,491.0	42.7	36.6	88.88	-388.4	-654.7	1,130.9	1,057.5	73.42	15.403		
10,100.0	9,513.0	10,000.0	9,491.0	42.9	37.1	88.88	-389.6	-698.1	1,125.9	1,051.6	74.27	15.160		
10,200.0	9,513.0	10,075.6	9,491.0	43.5	37.9	88.88	-390.1	-773.7	1,121.9	1,046.0	75.91	14.781		
10,239.0	9,513.0	10,114.6	9,491.0	43.8	38.4	88.88	-390.0	-812.7	1,121.7	1,044.9	76.79	14.607		
10,240.5	9,513.0	10,116.0	9,491.0	43.8	38.4	88.88	-390.0	-814.1	1,121.7	1,044.9	76.82	14.601		
10,300.0	9,513.0	10,175.6	9,491.0	44.3	39.1	88.88	-390.0	-873.7	1,121.7	1,043.5	78.24	14.336		
10,400.0	9,513.0	10,275.6	9,491.0	45.2	40.4	88.88	-389.9	-973.7	1,121.8	1,041.0	80.80	13.883		
10,500.0	9,513.0	10,375.6	9,491.0	46.2	41.9	88.88	-389.8	-1,073.7	1,121.8	1,038.2	83.57	13.423		
10,600.0	9,513.0	10,475.6	9,491.0	47.3	43.4	88.88	-389.7	-1,173.7	1,121.9	1,035.3	86.53	12.965		
10,700.0	9,513.0	10,575.6	9,491.0	48.6	45.0	88.88	-389.6	-1,273.7	1,121.9	1,032.3	89.66	12.513		
10,800.0	9,513.0	10,675.6	9,491.0	50.0	46.6	88.88	-389.5	-1,373.7	1,122.0	1,029.0	92.94	12.072		
10,900.0	9,513.0	10,775.6	9,491.0	51.5	48.4	88.88	-389.4	-1,473.7	1,122.0	1,025.6	96.36	11.644		
11,000.0	9,513.0	10,875.6	9,491.0	53.0	50.2	88.88	-389.3	-1,573.7	1,122.1	1,022.2	99.91	11.231		
11,100.0	9,513.0	10,975.6	9,491.0	54.7	52.0	88.88	-389.3	-1,673.7	1,122.1	1,018.6	103.56	10.835		
11,200.0	9,513.0	11,075.6	9,491.0	56.4	53.9	88.88	-389.2	-1,773.7	1,122.2	1,014.8	107.31	10.457		
11,300.0	9,513.0	11,175.6	9,491.0	58.1	55.9	88.88	-389.1	-1,873.7	1,122.2	1,011.1	111.16	10.096		
11,400.0	9,513.0	11,275.6	9,491.0	59.9	57.8	88.88	-389.0	-1,973.7	1,122.3	1,007.2	115.08	9.752		
11,500.0	9,513.0	11,375.6	9,491.0	61.8	59.8	88.88	-388.9	-2,073.7	1,122.3	1,003.2	119.07	9.425		
11,600.0	9,513.0	11,475.6	9,491.0	63.7	61.9	88.88	-388.8	-2,173.7	1,122.4	999.2	123.14	9.115		
11,700.0	9,513.0	11,575.6	9,491.0	65.7	64.0	88.88	-388.7	-2,273.7	1,122.4	995.2	127.26	8.820		
11,800.0	9,513.0	11,675.6	9,491.0	67.7	66.1	88.88	-388.6	-2,373.7	1,122.5	991.0	131.43	8.540		
11,900.0	9,513.0	11,775.6	9,491.0	69.7	68.2	88.88	-388.5	-2,473.7	1,122.5	986.9	135.65	8.275		
12,000.0	9,513.0	11,875.6	9,491.0	71.7	70.3	88.88	-388.4	-2,573.7	1,122.6	982.6	139.92	8.023		
12,100.0	9,513.0	11,975.6	9,491.0	73.8	72.5	88.88	-388.4	-2,673.7	1,122.6	978.4	144.23	7.784		
12,200.0	9,513.0	12,075.6	9,491.0	75.9	74.7	88.88	-388.3	-2,773.7	1,122.7	974.1	148.57	7.556		
12,300.0	9,513.0	12,175.6	9,491.0	78.0	76.9	88.88	-388.2	-2,873.7	1,122.7	969.8	152.95	7.340		
12,400.0	9,513.0	12,275.6	9,491.0	80.1	79.1	88.88	-388.1	-2,973.7	1,122.8	965.4	157.36	7.135		
12,500.0	9,513.0	12,375.6	9,491.0	82.3	81.3	88.88	-388.0	-3,073.7	1,122.8	961.0	161.79	6.940		
12,600.0	9,513.0	12,475.6	9,491.0	84.5	83.6	88.88	-387.9	-3,173.7	1,122.9	956.6	166.26	6.754		
12,700.0	9,513.0	12,575.6	9,491.0	86.7	85.8	88.88	-387.8	-3,273.7	1,122.9	952.2	170.74	6.577		
12,800.0	9,513.0	12,675.6	9,491.0	88.9	88.1	88.88	-387.7	-3,373.7	1,123.0	947.7	175.25	6.408		
12,900.0	9,513.0	12,775.6	9,491.0	91.1	90.3	88.88	-387.6	-3,473.7	1,123.0	943.2	179.78	6.247		
13,000.0	9,513.0	12,875.6	9,491.0	93.3	92.6	88.88	-387.5	-3,573.7	1,123.1	938.7	184.33	6.093		
13,100.0	9,513.0	12,975.6	9,491.0	95.5	94.9	88.88	-387.5	-3,673.7	1,123.1	934.2	188.90	5.946		
13,200.0	9,513.0	13,075.6	9,491.0	97.8	97.2	88.88	-387.4	-3,773.7	1,123.2	929.7	193.48	5.805		
13,300.0	9,513.0	13,175.6	9,491.0	100.1	99.5	88.88	-387.3	-3,873.7	1,123.2	925.1	198.08	5.671		
13,400.0	9,513.0	13,275.6	9,491.0	102.3	101.8	88.88	-387.2	-3,973.7	1,123.3	920.6	202.69	5.542		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 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)						
13,500.0	9,513.0	13,375.6	9,491.0	104.6	104.1	88.88	-387.1	-4,073.7	1,123.3	916.0	207.31	5.418		
13,600.0	9,513.0	13,475.6	9,491.0	106.9	106.5	88.88	-387.0	-4,173.7	1,123.4	911.4	211.95	5.300		
13,700.0	9,513.0	13,575.6	9,491.0	109.2	108.8	88.88	-386.9	-4,273.7	1,123.4	906.8	216.60	5.187		
13,800.0	9,513.0	13,675.6	9,491.0	111.5	111.1	88.88	-386.8	-4,373.7	1,123.5	902.2	221.26	5.077		
13,900.0	9,513.0	13,775.6	9,491.0	113.8	113.5	88.88	-386.7	-4,473.7	1,123.5	897.6	225.93	4.973		
14,000.0	9,513.0	13,875.6	9,491.0	116.1	115.8	88.88	-386.6	-4,573.7	1,123.6	892.9	230.61	4.872		
14,100.0	9,513.0	13,975.6	9,491.0	118.4	118.2	88.88	-386.5	-4,673.7	1,123.6	888.3	235.30	4.775		
14,200.0	9,513.0	14,075.6	9,491.0	120.7	120.5	88.88	-386.5	-4,773.7	1,123.6	883.7	240.00	4.682		
14,300.0	9,513.0	14,175.6	9,491.0	123.1	122.9	88.88	-386.4	-4,873.7	1,123.7	879.0	244.70	4.592		
14,400.0	9,513.0	14,275.6	9,491.0	125.4	125.2	88.88	-386.3	-4,973.7	1,123.7	874.3	249.42	4.506		
14,500.0	9,513.0	14,375.6	9,491.0	127.7	127.6	88.88	-386.2	-5,073.7	1,123.8	869.7	254.14	4.422		
14,600.0	9,513.0	14,475.6	9,491.0	130.1	130.0	88.88	-386.1	-5,173.6	1,123.8	865.0	258.86	4.341		
14,700.0	9,513.0	14,575.6	9,491.0	132.4	132.3	88.88	-386.0	-5,273.6	1,123.9	860.3	263.60	4.264		
14,800.0	9,513.0	14,675.6	9,491.0	134.8	134.7	88.88	-385.9	-5,373.6	1,123.9	855.6	268.33	4.189		
14,900.0	9,513.0	14,775.6	9,491.0	137.1	137.1	88.88	-385.8	-5,473.6	1,124.0	850.9	273.08	4.116		
15,000.0	9,513.0	14,875.6	9,491.0	139.5	139.5	88.88	-385.7	-5,573.6	1,124.0	846.2	277.83	4.046		
15,100.0	9,513.0	14,975.6	9,491.0	141.8	141.8	88.88	-385.6	-5,673.6	1,124.1	841.5	282.59	3.978		
15,200.0	9,513.0	15,075.6	9,491.0	144.2	144.2	88.88	-385.6	-5,773.6	1,124.1	836.8	287.35	3.912		
15,300.0	9,513.0	15,175.6	9,491.0	146.5	146.6	88.88	-385.5	-5,873.6	1,124.2	832.1	292.11	3.849		
15,400.0	9,513.0	15,275.6	9,491.0	148.9	149.0	88.88	-385.4	-5,973.6	1,124.2	827.4	296.88	3.787		
15,500.0	9,513.0	15,375.6	9,491.0	151.3	151.4	88.88	-385.3	-6,073.6	1,124.3	822.6	301.65	3.727		
15,600.0	9,513.0	15,475.6	9,491.0	153.7	153.8	88.88	-385.2	-6,173.6	1,124.3	817.9	306.43	3.669		
15,700.0	9,513.0	15,575.6	9,491.0	156.0	156.2	88.88	-385.1	-6,273.6	1,124.4	813.2	311.21	3.613		
15,800.0	9,513.0	15,675.6	9,491.0	158.4	158.6	88.88	-385.0	-6,373.6	1,124.4	808.4	316.00	3.558		
15,900.0	9,513.0	15,775.6	9,491.0	160.8	161.0	88.88	-384.9	-6,473.6	1,124.5	803.7	320.79	3.505		
16,000.0	9,513.0	15,875.6	9,491.0	163.2	163.4	88.88	-384.8	-6,573.6	1,124.5	799.0	325.58	3.454		
16,100.0	9,513.0	15,975.6	9,491.0	165.6	165.8	88.88	-384.7	-6,673.6	1,124.6	794.2	330.37	3.404		
16,200.0	9,513.0	16,075.6	9,491.0	167.9	168.2	88.88	-384.7	-6,773.6	1,124.6	789.5	335.17	3.355		
16,300.0	9,513.0	16,175.6	9,491.0	170.3	170.6	88.88	-384.6	-6,873.6	1,124.7	784.7	339.97	3.308		
16,400.0	9,513.0	16,275.6	9,491.0	172.7	173.0	88.88	-384.5	-6,973.6	1,124.7	780.0	344.78	3.262		
16,500.0	9,513.0	16,375.6	9,491.0	175.1	175.4	88.88	-384.4	-7,073.6	1,124.8	775.2	349.58	3.218		
16,600.0	9,513.0	16,475.6	9,491.0	177.5	177.8	88.88	-384.3	-7,173.6	1,124.8	770.4	354.39	3.174		
16,700.0	9,513.0	16,575.6	9,491.0	179.9	180.2	88.88	-384.2	-7,273.6	1,124.9	765.7	359.20	3.132		
16,800.0	9,513.0	16,675.6	9,491.0	182.3	182.6	88.88	-384.1	-7,373.6	1,124.9	760.9	364.02	3.090		
16,900.0	9,513.0	16,775.6	9,491.0	184.7	185.0	88.88	-384.0	-7,473.6	1,125.0	756.2	368.83	3.050		
17,000.0	9,513.0	16,875.6	9,491.0	187.1	187.4	88.88	-383.9	-7,573.6	1,125.0	751.4	373.65	3.011		
17,100.0	9,513.0	16,975.6	9,491.0	189.5	189.8	88.88	-383.8	-7,673.6	1,125.1	746.6	378.47	2.973		
17,200.0	9,513.0	17,075.6	9,491.0	191.9	192.2	88.88	-383.8	-7,773.6	1,125.1	741.8	383.30	2.935		
17,300.0	9,513.0	17,175.6	9,491.0	194.3	194.7	88.88	-383.7	-7,873.6	1,125.2	737.1	388.12	2.899		
17,400.0	9,513.0	17,275.6	9,491.0	196.7	197.1	88.88	-383.6	-7,973.6	1,125.2	732.3	392.95	2.864		
17,500.0	9,513.0	17,375.6	9,491.0	199.1	199.5	88.88	-383.5	-8,073.6	1,125.3	727.5	397.78	2.829		
17,600.0	9,513.0	17,475.6	9,491.0	201.5	201.9	88.88	-383.4	-8,173.6	1,125.3	722.7	402.61	2.795		
17,700.0	9,513.0	17,575.6	9,491.0	203.9	204.3	88.88	-383.3	-8,273.6	1,125.4	718.0	407.44	2.762		
17,800.0	9,513.0	17,675.6	9,491.0	206.3	206.7	88.88	-383.2	-8,373.6	1,125.4	713.2	412.27	2.730		
17,900.0	9,513.0	17,775.6	9,491.0	208.7	209.2	88.88	-383.1	-8,473.6	1,125.5	708.4	417.11	2.698		
18,000.0	9,513.0	17,875.6	9,491.0	211.1	211.6	88.88	-383.0	-8,573.6	1,125.5	703.6	421.94	2.668		
18,100.0	9,513.0	17,975.6	9,491.0	213.6	214.0	88.88	-382.9	-8,673.6	1,125.6	698.8	426.78	2.637		
18,200.0	9,513.0	18,075.6	9,491.0	216.0	216.4	88.88	-382.9	-8,773.6	1,125.6	694.0	431.62	2.608		
18,300.0	9,513.0	18,175.6	9,491.0	218.4	218.8	88.88	-382.8	-8,873.6	1,125.7	689.2	436.46	2.579		
18,400.0	9,513.0	18,275.6	9,491.0	220.8	221.3	88.88	-382.7	-8,973.6	1,125.7	684.4	441.30	2.551		
18,500.0	9,513.0	18,375.6	9,491.0	223.2	223.7	88.88	-382.6	-9,073.6	1,125.8	679.6	446.15	2.523		
18,600.0	9,513.0	18,475.6	9,491.0	225.6	226.1	88.88	-382.5	-9,173.6	1,125.8	674.8	450.99	2.496		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Ted Paup 3231 - Ted Paup 3231 Fed Com #205H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 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	
18,700.0	9,513.0	18,575.6	9,491.0	228.0	228.5	88.88	-382.4	-9,273.6	1,125.9	670.0	455.84	2.470	
18,800.0	9,513.0	18,675.6	9,491.0	230.5	231.0	88.88	-382.3	-9,373.6	1,125.9	665.3	460.68	2.444	
18,900.0	9,513.0	18,775.6	9,491.0	232.9	233.4	88.88	-382.2	-9,473.6	1,126.0	660.5	465.53	2.419	
19,000.0	9,513.0	18,875.6	9,491.0	235.3	235.8	88.88	-382.1	-9,573.6	1,126.0	655.7	470.38	2.394	
19,100.0	9,513.0	18,975.6	9,491.0	237.7	238.2	88.88	-382.0	-9,673.6	1,126.1	650.9	475.23	2.370	
19,200.0	9,513.0	19,075.6	9,491.0	240.1	240.7	88.88	-381.9	-9,773.6	1,126.1	646.1	480.08	2.346	
19,300.0	9,513.0	19,175.6	9,491.0	242.6	243.1	88.88	-381.9	-9,873.6	1,126.2	641.2	484.94	2.322	
19,400.0	9,513.0	19,275.6	9,491.0	245.0	245.5	88.88	-381.8	-9,973.6	1,126.2	636.4	489.79	2.299	
19,500.0	9,513.0	19,375.6	9,491.0	247.4	247.9	88.88	-381.7	-10,073.6	1,126.3	631.6	494.64	2.277	
19,600.0	9,513.0	19,475.6	9,491.0	249.8	250.4	88.88	-381.6	-10,173.6	1,126.3	626.8	499.50	2.255	
19,700.0	9,513.0	19,575.6	9,491.0	252.2	252.8	88.88	-381.5	-10,273.6	1,126.4	622.0	504.35	2.233	
19,800.0	9,513.0	19,675.6	9,491.0	254.7	255.2	88.88	-381.4	-10,373.6	1,126.4	617.2	509.21	2.212	
19,900.0	9,513.0	19,775.6	9,491.0	257.1	257.7	88.88	-381.3	-10,473.6	1,126.5	612.4	514.07	2.191	
20,000.0	9,513.0	19,875.6	9,491.0	259.5	260.1	88.88	-381.2	-10,573.6	1,126.5	607.6	518.93	2.171	
20,100.0	9,513.0	19,975.6	9,491.0	261.9	262.5	88.88	-381.1	-10,673.6	1,126.6	602.8	523.79	2.151	
20,101.5	9,513.0	19,977.1	9,491.0	262.0	262.6	88.88	-381.1	-10,675.2	1,126.6	602.7	523.86	2.151	
20,175.2	9,513.0	20,040.1	9,491.0	263.8	263.8	88.88	-381.1	-10,738.1	1,126.7	600.0	526.66	2.139 SF	

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3292.5usft

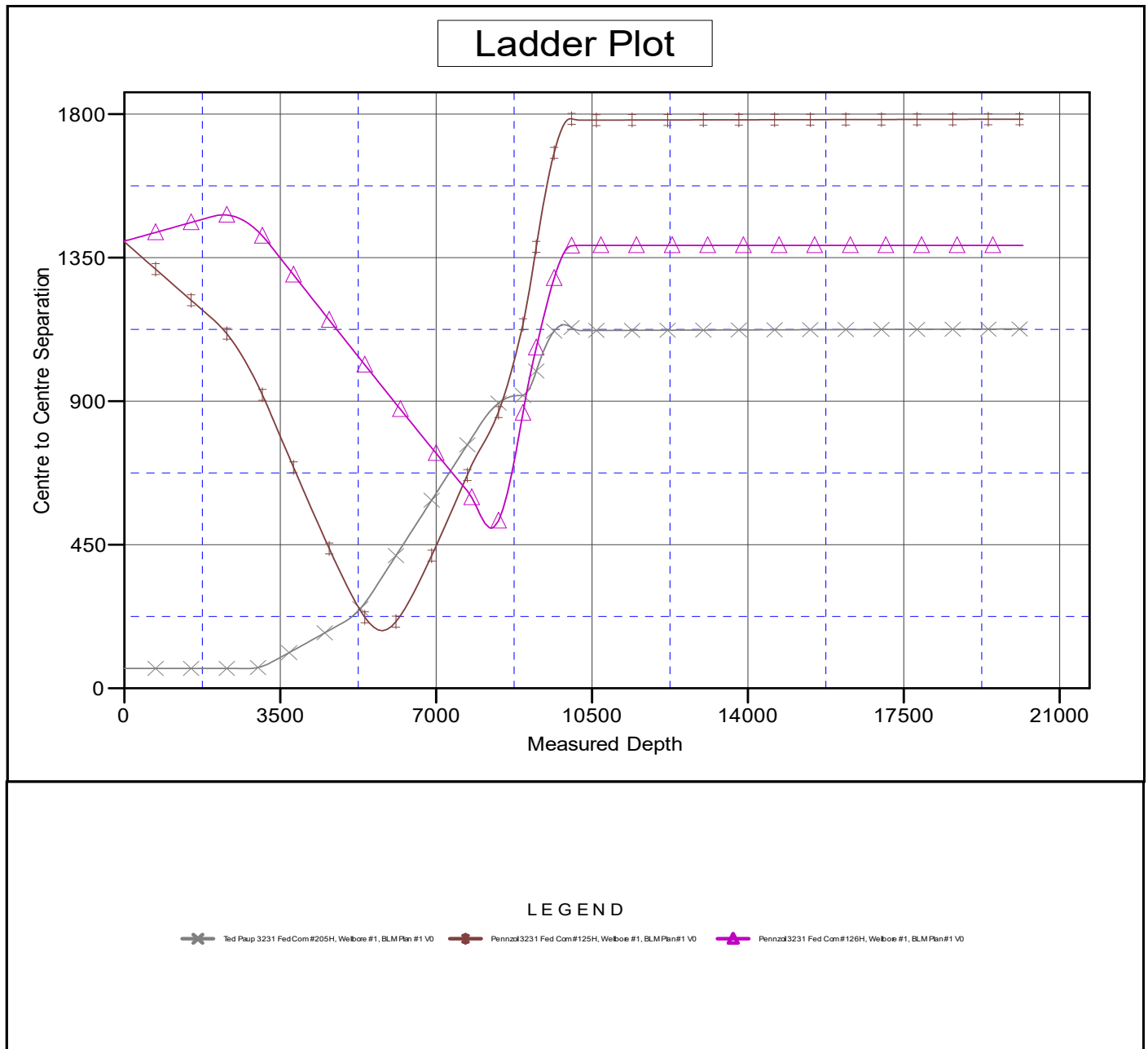
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Ted Paup 3231 Fed Com #206H

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

Grid Convergence at Surface is: 0.13°



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

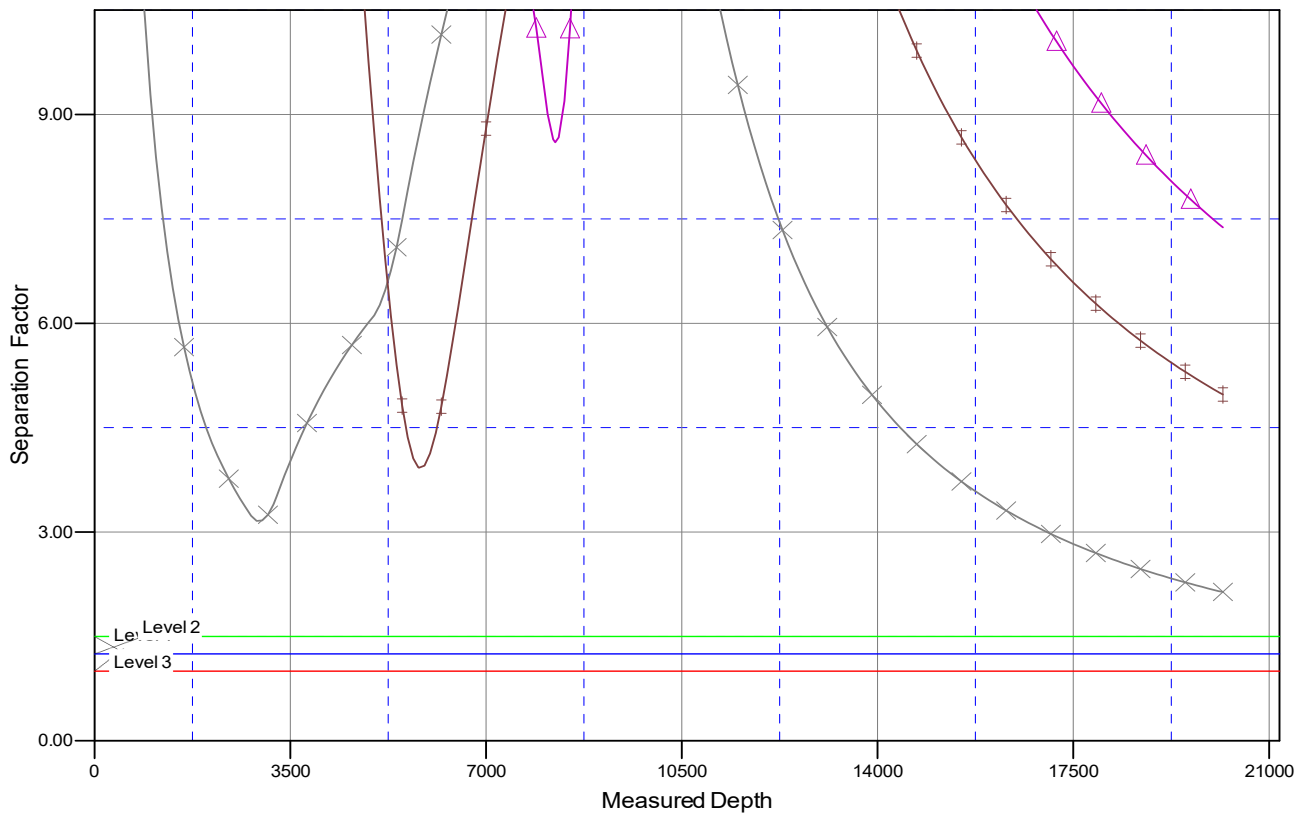
Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3292.5usft
Reference Site:	Ted Paup 3231	MD Reference:	KB @ 3292.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3292.5usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Ted Paup 3231 Fed Com #206H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.13°

Separation Factor Plot



LEGEND

Ted Paup 3231 FedCom#205H, Wellbore #1, BLM Plan #1 VO
 Pennz3231 Fed Com#125H, Wellbore #1, BLM Plan #1 VO
 Pennz3231 Fed Com#126H, Wellbore #1, BLM Plan #1 VO



SURVEY PROGRAM

WELL DETAILS: Ted Paup 3231 Fed Com #206H

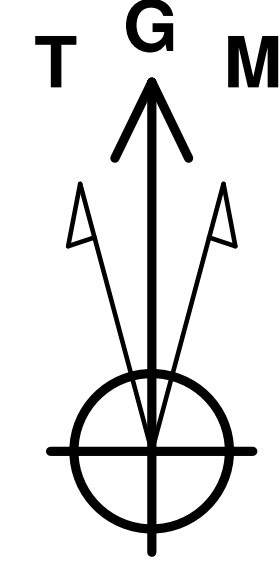
Depth From	Depth To	Survey/Plan	Tool				GL @ 3264.0	KB @ 3292.5usft		
0.0	20175.2	BLM Plan #1 (Wellbore #1)	MWD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
				0.0	0.0	558574.40	575856.35	32° 32' 7.400 N	104° 5' 13.886 W	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP - Ted Paup 3231 Fed Com #206H	8797.0	-1257.5	-2.4	557317.00	575854.00	32° 31' 54.957 N	104° 5' 13.948 W
FPP - Ted Paup 3231 Fed Com #206H	9513.0	-1510.7	-375.1	557063.80	575481.25	32° 31' 52.460 N	104° 5' 18.308 W
BHL - Ted Paup 3231 Fed Com #206H	9513.0	-1507.5	-10749.8	557066.87	565106.15	32° 31' 52.710 N	104° 7' 19.498 W

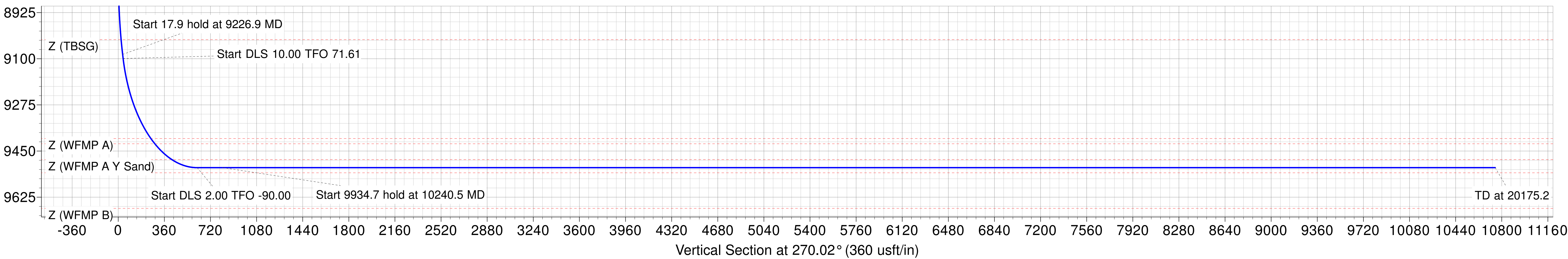
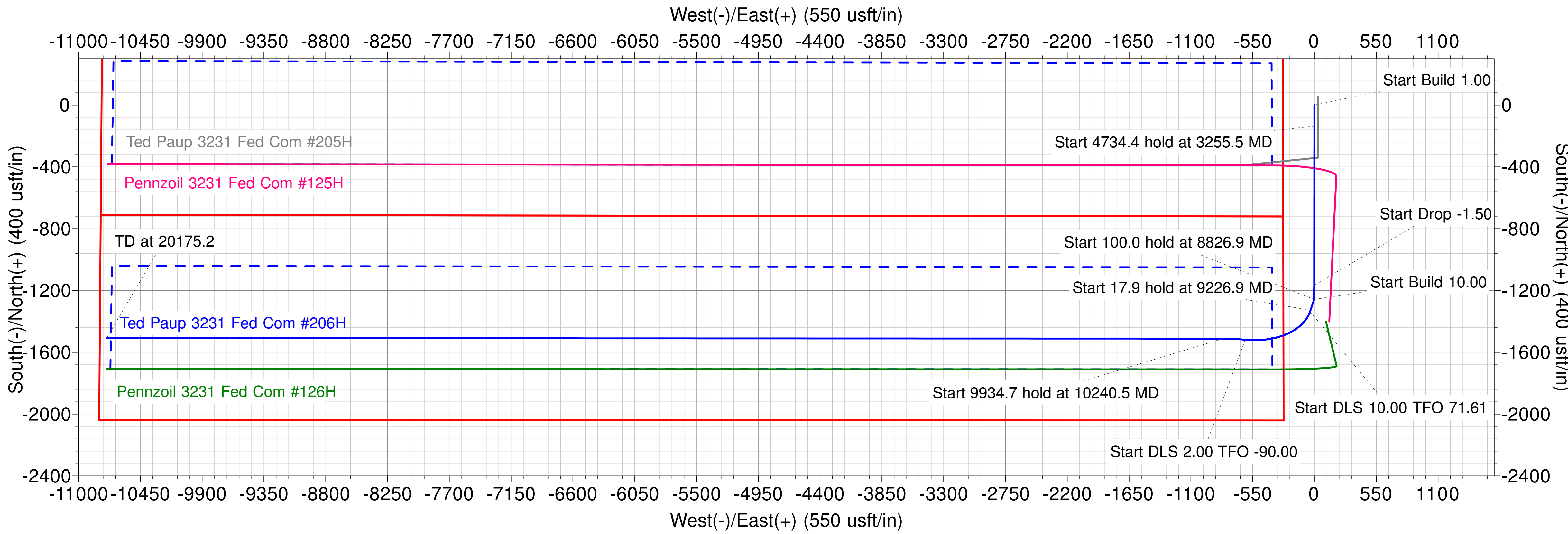
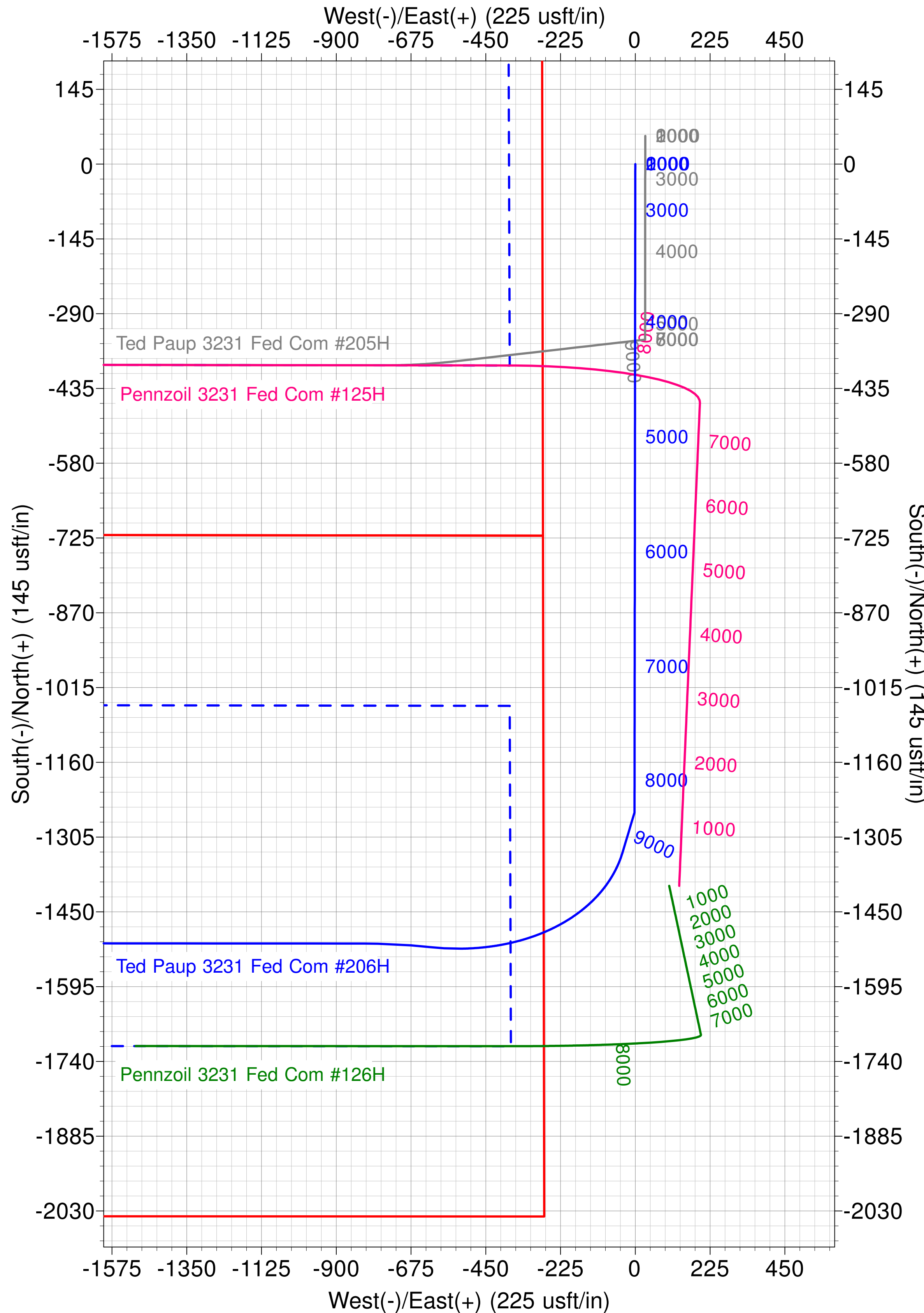
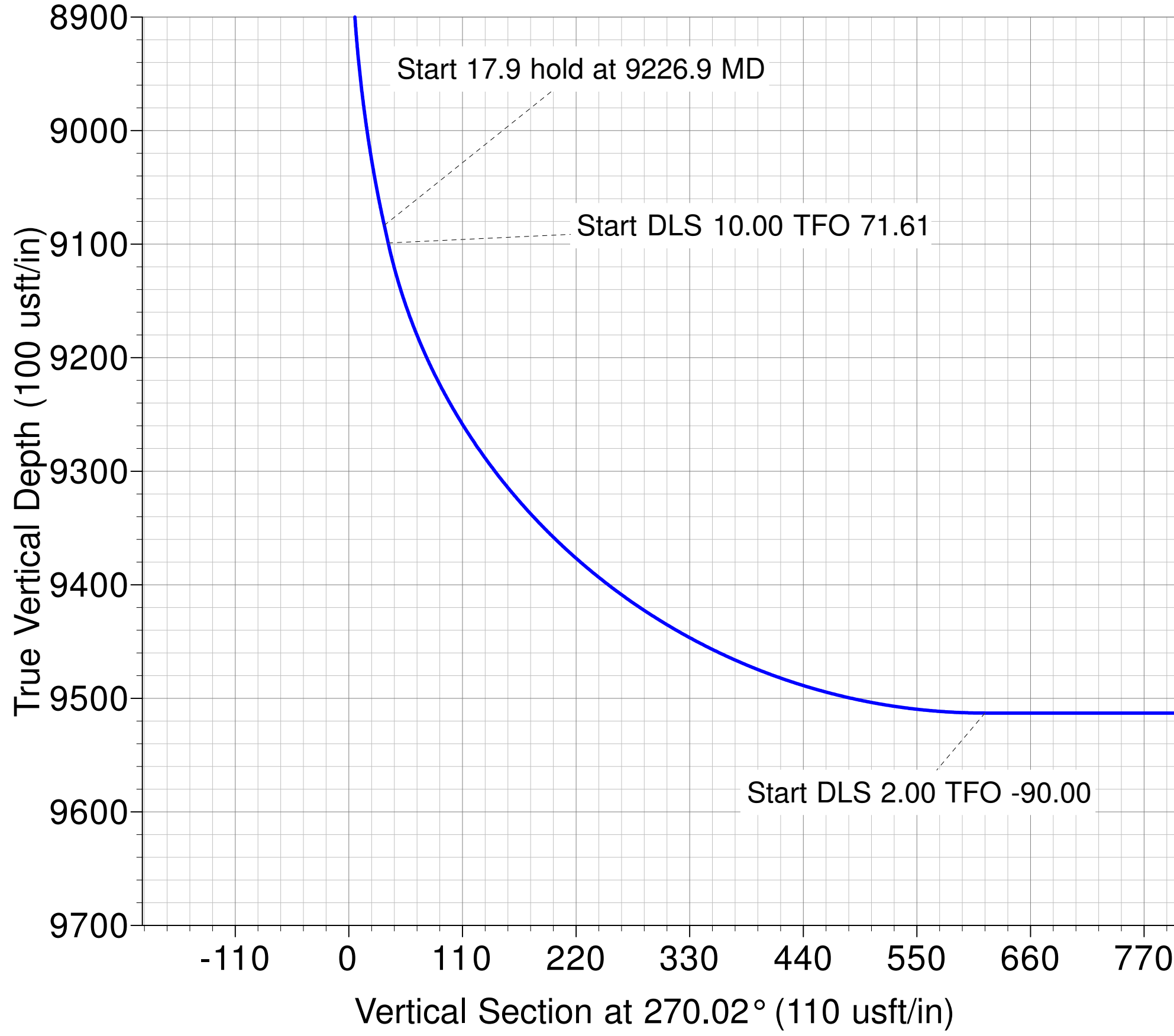
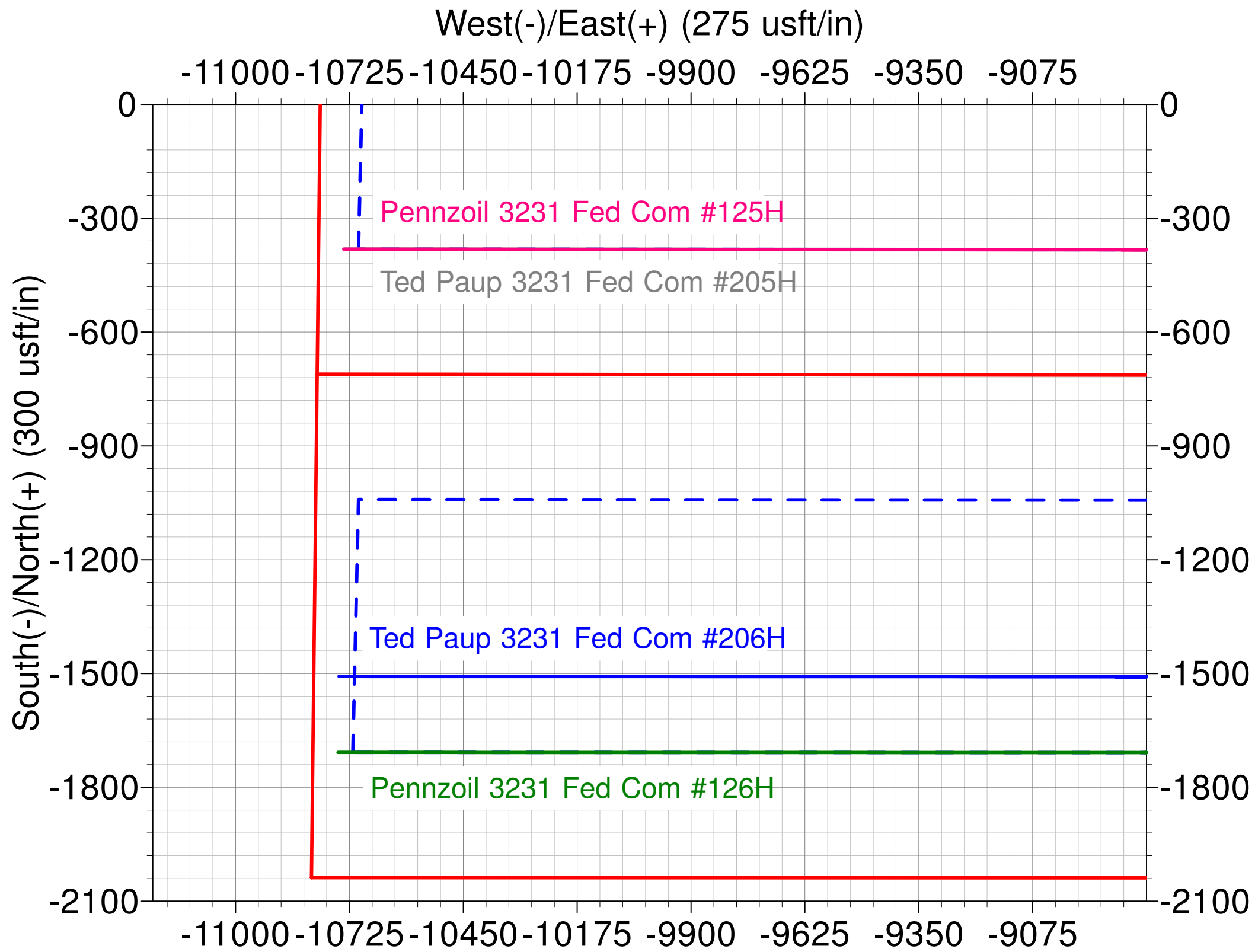
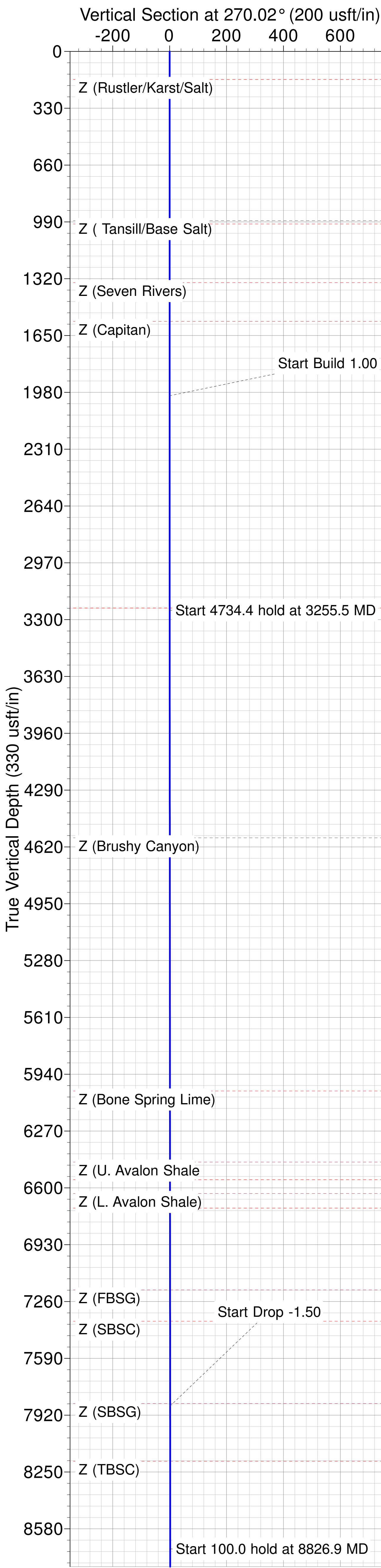
SECTION DETIALS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	Start Build 1.00
3255.5	12.56	180.11	3245.5	-137.0	-0.3	1.00	180.11	0.2	Start 4734.4 hold at 3255.5 MD
7989.9	12.56	180.11	7866.7	-1166.2	-2.2	0.00	0.00	1.8	Start Drop -1.50
8826.9	0.00	0.00	8697.0	-1257.5	-2.4	1.50	180.00	1.9	Start 100.0 hold at 8826.9 MD
8926.9	0.00	0.00	8797.0	-1257.5	-2.4	0.00	0.00	1.9	Start Build 10.00
9226.9	30.00	205.00	9083.5	-1327.1	-34.8	10.00	205.00	34.3	Start 17.9 hold at 9226.9 MD
9244.9	30.00	205.00	9099.0	-1335.2	-38.6	0.00	0.00	38.1	Start DLS 10.00 TFO 71.61
10041.6	90.00	274.00	9513.0	-1518.5	-616.5	10.00	71.61	615.9	Start DLS 2.00 TFO -90.00
10240.5	90.00	270.02	9513.0	-1511.5	-815.1	2.00	-90.00	814.6	Start 9934.7 hold at 10240.5 MD
20175.2	90.00	270.02	9513.0	-1507.5	-10749.8	0.00	0.00	10749.3	TD at 20175.2



Azimuths to Grid North
True North: -0.13°
Magnetic North: 6.79°

Magnetic Field
Strength: 47783.5snT
Dip Angle: 60.23°
Date: 3/27/2020
Model: IGRF2015



Matador Production Company

Ranger/Arrowhead

Ted Paup 3231

Ted Paup 3231 Fed Com #206H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

27 March, 2020

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Company:	Matador Production Company	TVD Reference:	KB @ 3292.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3292.5usft
Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Ranger/Arrowhead		
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		Using geodetic scale factor

Site		Ted Paup 3231			
Site Position:		Northing:	558,574.40 usft	Latitude:	32° 32' 7.400 N
From:	Lat/Long	Easting:	575,856.35 usft	Longitude:	104° 5' 13.886 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	Ted Paup 3231 Fed Com #206H					
Well Position	+N/-S	0.0 usft	Northing:	558,574.40 usft	Latitude:	32° 32' 7.400 N
	+E/-W	0.0 usft	Easting:	575,856.35 usft	Longitude:	104° 5' 13.886 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,264.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/25/2020	6.92	60.23	47,783.51142453

Design	BLM Plan #1				
Audit Notes:					
Version:	1	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	270.02	

Plan Survey Tool Program	Date	3/27/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,175.2	BLM Plan #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	

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Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,255.5	12.56	180.11	3,245.5	-137.0	-0.3	1.00	1.00	0.00	180.11	
7,989.9	12.56	180.11	7,866.7	-1,166.2	-2.2	0.00	0.00	0.00	0.00	
8,826.9	0.00	0.00	8,697.0	-1,257.5	-2.4	1.50	-1.50	0.00	180.00	
8,926.9	0.00	0.00	8,797.0	-1,257.5	-2.4	0.00	0.00	0.00	0.00	VP - Ted Paup 3231 F
9,226.9	30.00	205.00	9,083.5	-1,327.1	-34.8	10.00	10.00	0.00	205.00	
9,244.9	30.00	205.00	9,099.0	-1,335.2	-38.6	0.00	0.00	0.00	0.00	
10,041.6	90.00	274.00	9,513.0	-1,518.5	-616.5	10.00	7.53	8.66	71.61	FPP - Ted Paup 3231
10,240.5	90.00	270.02	9,513.0	-1,511.5	-815.1	2.00	0.00	-2.00	-90.00	
20,175.2	90.00	270.02	9,513.0	-1,507.5	-10,749.8	0.00	0.00	0.00	0.00	BHL - Ted Paup 3231

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3292.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3292.5usft
Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
162.5	0.00	0.00	162.5	0.0	0.0	0.0	0.00	0.00	0.00
Z (Rustler/Karst/Salt)									
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
982.5	0.00	0.00	982.5	0.0	0.0	0.0	0.00	0.00	0.00
Z (Tansill/Base Salt)									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,002.5	0.00	0.00	1,002.5	0.0	0.0	0.0	0.00	0.00	0.00
Z (Yates)									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,342.5	0.00	0.00	1,342.5	0.0	0.0	0.0	0.00	0.00	0.00
Z (Seven Rivers)									
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,567.5	0.00	0.00	1,567.5	0.0	0.0	0.0	0.00	0.00	0.00
Z (Capitan)									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
2,100.0	1.00	180.11	2,100.0	-0.9	0.0	0.0	1.00	1.00	0.00
2,200.0	2.00	180.11	2,200.0	-3.5	0.0	0.0	1.00	1.00	0.00
2,300.0	3.00	180.11	2,299.9	-7.9	0.0	0.0	1.00	1.00	0.00
2,400.0	4.00	180.11	2,399.7	-14.0	0.0	0.0	1.00	1.00	0.00
2,500.0	5.00	180.11	2,499.4	-21.8	0.0	0.0	1.00	1.00	0.00
2,600.0	6.00	180.11	2,598.9	-31.4	-0.1	0.0	1.00	1.00	0.00
2,700.0	7.00	180.11	2,698.3	-42.7	-0.1	0.1	1.00	1.00	0.00
2,800.0	8.00	180.11	2,797.4	-55.8	-0.1	0.1	1.00	1.00	0.00
2,900.0	9.00	180.11	2,896.3	-70.5	-0.1	0.1	1.00	1.00	0.00
3,000.0	10.00	180.11	2,994.9	-87.0	-0.2	0.1	1.00	1.00	0.00
3,100.0	11.00	180.11	3,093.3	-105.3	-0.2	0.2	1.00	1.00	0.00
3,200.0	12.00	180.11	3,191.2	-125.2	-0.2	0.2	1.00	1.00	0.00
3,242.2	12.42	180.11	3,232.5	-134.1	-0.3	0.2	1.00	1.00	0.00
Z (Cherry Canyon)									
3,255.5	12.56	180.11	3,245.5	-137.0	-0.3	0.2	1.00	1.00	0.00
Start 4734.4 hold at 3255.5 MD									
3,300.0	12.56	180.11	3,288.9	-146.7	-0.3	0.2	0.00	0.00	0.00
3,400.0	12.56	180.11	3,386.5	-168.4	-0.3	0.3	0.00	0.00	0.00
3,500.0	12.56	180.11	3,484.1	-190.2	-0.4	0.3	0.00	0.00	0.00
3,600.0	12.56	180.11	3,581.7	-211.9	-0.4	0.3	0.00	0.00	0.00
3,700.0	12.56	180.11	3,679.3	-233.6	-0.4	0.4	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3292.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3292.5usft
Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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)
3,800.0	12.56	180.11	3,777.0	-255.4	-0.5	0.4	0.00	0.00	0.00
3,900.0	12.56	180.11	3,874.6	-277.1	-0.5	0.4	0.00	0.00	0.00
4,000.0	12.56	180.11	3,972.2	-298.8	-0.6	0.5	0.00	0.00	0.00
4,100.0	12.56	180.11	4,069.8	-320.6	-0.6	0.5	0.00	0.00	0.00
4,200.0	12.56	180.11	4,167.4	-342.3	-0.6	0.5	0.00	0.00	0.00
4,300.0	12.56	180.11	4,265.0	-364.1	-0.7	0.6	0.00	0.00	0.00
4,400.0	12.56	180.11	4,362.6	-385.8	-0.7	0.6	0.00	0.00	0.00
4,500.0	12.56	180.11	4,460.2	-407.5	-0.8	0.6	0.00	0.00	0.00
4,600.0	12.56	180.11	4,557.8	-429.3	-0.8	0.7	0.00	0.00	0.00
4,609.9	12.56	180.11	4,567.5	-431.4	-0.8	0.7	0.00	0.00	0.00
Z (Brushy Canyon)									
4,700.0	12.56	180.11	4,655.4	-451.0	-0.8	0.7	0.00	0.00	0.00
4,800.0	12.56	180.11	4,753.0	-472.7	-0.9	0.7	0.00	0.00	0.00
4,900.0	12.56	180.11	4,850.7	-494.5	-0.9	0.8	0.00	0.00	0.00
5,000.0	12.56	180.11	4,948.3	-516.2	-1.0	0.8	0.00	0.00	0.00
5,100.0	12.56	180.11	5,045.9	-538.0	-1.0	0.8	0.00	0.00	0.00
5,200.0	12.56	180.11	5,143.5	-559.7	-1.0	0.9	0.00	0.00	0.00
5,300.0	12.56	180.11	5,241.1	-581.4	-1.1	0.9	0.00	0.00	0.00
5,400.0	12.56	180.11	5,338.7	-603.2	-1.1	0.9	0.00	0.00	0.00
5,500.0	12.56	180.11	5,436.3	-624.9	-1.2	1.0	0.00	0.00	0.00
5,600.0	12.56	180.11	5,533.9	-646.6	-1.2	1.0	0.00	0.00	0.00
5,700.0	12.56	180.11	5,631.5	-668.4	-1.2	1.0	0.00	0.00	0.00
5,800.0	12.56	180.11	5,729.1	-690.1	-1.3	1.0	0.00	0.00	0.00
5,900.0	12.56	180.11	5,826.7	-711.9	-1.3	1.1	0.00	0.00	0.00
6,000.0	12.56	180.11	5,924.3	-733.6	-1.4	1.1	0.00	0.00	0.00
6,100.0	12.56	180.11	6,022.0	-755.3	-1.4	1.1	0.00	0.00	0.00
6,115.9	12.56	180.11	6,037.5	-758.8	-1.4	1.2	0.00	0.00	0.00
Z (Bone Spring Lime)									
6,200.0	12.56	180.11	6,119.6	-777.1	-1.5	1.2	0.00	0.00	0.00
6,300.0	12.56	180.11	6,217.2	-798.8	-1.5	1.2	0.00	0.00	0.00
6,400.0	12.56	180.11	6,314.8	-820.6	-1.5	1.2	0.00	0.00	0.00
6,500.0	12.56	180.11	6,412.4	-842.3	-1.6	1.3	0.00	0.00	0.00
6,539.0	12.56	180.11	6,450.5	-850.8	-1.6	1.3	0.00	0.00	0.00
Z (U. Avalon Shale)									
6,600.0	12.56	180.11	6,510.0	-864.0	-1.6	1.3	0.00	0.00	0.00
6,643.5	12.56	180.11	6,552.5	-873.5	-1.6	1.3	0.00	0.00	0.00
Z (Avalon Carb)									
6,700.0	12.56	180.11	6,607.6	-885.8	-1.7	1.3	0.00	0.00	0.00
6,725.5	12.56	180.11	6,632.5	-891.3	-1.7	1.4	0.00	0.00	0.00
Z (L. Avalon Shale)									
6,800.0	12.56	180.11	6,705.2	-907.5	-1.7	1.4	0.00	0.00	0.00
6,812.6	12.56	180.11	6,717.5	-910.2	-1.7	1.4	0.00	0.00	0.00
Z (FSBC)									
6,900.0	12.56	180.11	6,802.8	-929.2	-1.7	1.4	0.00	0.00	0.00
7,000.0	12.56	180.11	6,900.4	-951.0	-1.8	1.4	0.00	0.00	0.00
7,100.0	12.56	180.11	6,998.0	-972.7	-1.8	1.5	0.00	0.00	0.00
7,200.0	12.56	180.11	7,095.7	-994.5	-1.9	1.5	0.00	0.00	0.00
7,299.2	12.56	180.11	7,192.5	-1,016.0	-1.9	1.5	0.00	0.00	0.00
Z (FBSG)									
7,300.0	12.56	180.11	7,193.3	-1,016.2	-1.9	1.5	0.00	0.00	0.00
7,400.0	12.56	180.11	7,290.9	-1,037.9	-1.9	1.6	0.00	0.00	0.00
7,485.7	12.56	180.11	7,374.5	-1,056.6	-2.0	1.6	0.00	0.00	0.00
Z (SBSC)									

Planning Report

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Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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)
7,500.0	12.56	180.11	7,388.5	-1,059.7	-2.0	1.6	0.00	0.00	0.00
7,600.0	12.56	180.11	7,486.1	-1,081.4	-2.0	1.6	0.00	0.00	0.00
7,700.0	12.56	180.11	7,583.7	-1,103.1	-2.1	1.7	0.00	0.00	0.00
7,800.0	12.56	180.11	7,681.3	-1,124.9	-2.1	1.7	0.00	0.00	0.00
7,900.0	12.56	180.11	7,778.9	-1,146.6	-2.1	1.7	0.00	0.00	0.00
7,975.4	12.56	180.11	7,852.5	-1,163.0	-2.2	1.8	0.00	0.00	0.00
Z (SBSG)									
7,989.9	12.56	180.11	7,866.7	-1,166.2	-2.2	1.8	0.00	0.00	0.00
Start Drop -1.50									
8,000.0	12.40	180.11	7,876.5	-1,168.3	-2.2	1.8	1.50	-1.50	0.00
8,100.0	10.90	180.11	7,974.5	-1,188.5	-2.2	1.8	1.50	-1.50	0.00
8,200.0	9.40	180.11	8,072.9	-1,206.2	-2.3	1.8	1.50	-1.50	0.00
8,300.0	7.90	180.11	8,171.8	-1,221.2	-2.3	1.9	1.50	-1.50	0.00
8,315.9	7.67	180.11	8,187.5	-1,223.4	-2.3	1.9	1.50	-1.50	0.00
Z (TBSC)									
8,400.0	6.40	180.11	8,271.0	-1,233.7	-2.3	1.9	1.50	-1.50	0.00
8,500.0	4.90	180.11	8,370.5	-1,243.5	-2.3	1.9	1.50	-1.50	0.00
8,600.0	3.40	180.11	8,470.2	-1,250.8	-2.3	1.9	1.50	-1.50	0.00
8,700.0	1.90	180.11	8,570.1	-1,255.4	-2.3	1.9	1.50	-1.50	0.00
8,800.0	0.40	180.11	8,670.1	-1,257.4	-2.4	1.9	1.50	-1.50	0.00
8,826.9	0.00	0.00	8,697.0	-1,257.5	-2.4	1.9	1.50	-1.50	0.00
Start 100.0 hold at 8826.9 MD									
8,900.0	0.00	0.00	8,770.1	-1,257.5	-2.4	1.9	0.00	0.00	0.00
8,926.9	0.00	0.00	8,797.0	-1,257.5	-2.4	1.9	0.00	0.00	0.00
Start Build 10.00									
9,000.0	7.31	205.00	8,869.9	-1,261.7	-4.3	3.9	10.00	10.00	0.00
9,100.0	17.31	205.00	8,967.5	-1,281.0	-13.3	12.9	10.00	10.00	0.00
9,164.1	23.72	205.00	9,027.5	-1,301.4	-22.8	22.4	10.00	10.00	0.00
Z (TBSC)									
9,200.0	27.31	205.00	9,059.9	-1,315.4	-29.3	28.9	10.00	10.00	0.00
9,226.9	30.00	205.00	9,083.5	-1,327.1	-34.8	34.3	10.00	10.00	0.00
Start 17.9 hold at 9226.9 MD									
9,244.9	30.00	205.00	9,099.0	-1,335.2	-38.6	38.1	0.00	0.00	0.00
Start DLS 10.00 TFO 71.61									
9,300.0	32.13	214.87	9,146.3	-1,359.7	-52.8	52.3	10.00	3.86	17.90
9,400.0	37.60	229.58	9,228.4	-1,401.4	-91.3	90.8	10.00	5.47	14.71
9,500.0	44.47	240.70	9,303.9	-1,438.5	-145.2	144.7	10.00	6.87	11.11
9,600.0	52.17	249.26	9,370.4	-1,469.7	-212.9	212.4	10.00	7.70	8.56
9,655.1	56.64	253.22	9,402.5	-1,484.0	-255.3	254.8	10.00	8.12	7.19
Z (WFMP A)									
9,693.0	59.79	255.71	9,422.5	-1,492.7	-286.4	285.9	10.00	8.30	6.57
Z (WFMP A X Sand)									
9,700.0	60.38	256.15	9,426.0	-1,494.1	-292.2	291.7	10.00	8.37	6.32
9,800.0	68.88	261.98	9,468.8	-1,511.1	-380.8	380.3	10.00	8.50	5.83
9,841.4	72.45	264.19	9,482.5	-1,515.8	-419.6	419.0	10.00	8.64	5.33
Z (WFMP A Y Sand)									
9,900.0	77.56	267.17	9,497.7	-1,520.0	-476.0	475.5	10.00	8.71	5.09
10,000.0	86.34	272.02	9,511.7	-1,520.7	-574.9	574.4	10.00	8.77	4.85
10,041.6	90.00	274.00	9,513.0	-1,518.5	-616.5	615.9	10.00	8.80	4.75
Start DLS 2.00 TFO -90.00									
10,100.0	90.00	272.83	9,513.0	-1,515.0	-674.7	674.2	2.00	0.00	-2.00
10,200.0	90.00	270.83	9,513.0	-1,511.8	-774.7	774.1	2.00	0.00	-2.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Company:	Matador Production Company	TVD Reference:	KB @ 3292.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3292.5usft
Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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)
10,240.5	90.00	270.02	9,513.0	-1,511.5	-815.1	814.6	2.00	0.00	-2.00
Start 9934.7 hold at 10240.5 MD									
10,300.0	90.00	270.02	9,513.0	-1,511.5	-874.7	874.1	0.00	0.00	0.00
10,400.0	90.00	270.02	9,513.0	-1,511.4	-974.7	974.1	0.00	0.00	0.00
10,500.0	90.00	270.02	9,513.0	-1,511.4	-1,074.7	1,074.1	0.00	0.00	0.00
10,600.0	90.00	270.02	9,513.0	-1,511.4	-1,174.7	1,174.1	0.00	0.00	0.00
10,700.0	90.00	270.02	9,513.0	-1,511.3	-1,274.7	1,274.1	0.00	0.00	0.00
10,800.0	90.00	270.02	9,513.0	-1,511.3	-1,374.7	1,374.1	0.00	0.00	0.00
10,900.0	90.00	270.02	9,513.0	-1,511.2	-1,474.7	1,474.1	0.00	0.00	0.00
11,000.0	90.00	270.02	9,513.0	-1,511.2	-1,574.7	1,574.1	0.00	0.00	0.00
11,100.0	90.00	270.02	9,513.0	-1,511.1	-1,674.7	1,674.1	0.00	0.00	0.00
11,200.0	90.00	270.02	9,513.0	-1,511.1	-1,774.7	1,774.1	0.00	0.00	0.00
11,300.0	90.00	270.02	9,513.0	-1,511.1	-1,874.7	1,874.1	0.00	0.00	0.00
11,400.0	90.00	270.02	9,513.0	-1,511.0	-1,974.7	1,974.1	0.00	0.00	0.00
11,500.0	90.00	270.02	9,513.0	-1,511.0	-2,074.7	2,074.1	0.00	0.00	0.00
11,600.0	90.00	270.02	9,513.0	-1,510.9	-2,174.7	2,174.1	0.00	0.00	0.00
11,700.0	90.00	270.02	9,513.0	-1,510.9	-2,274.7	2,274.1	0.00	0.00	0.00
11,800.0	90.00	270.02	9,513.0	-1,510.9	-2,374.7	2,374.1	0.00	0.00	0.00
11,900.0	90.00	270.02	9,513.0	-1,510.8	-2,474.7	2,474.1	0.00	0.00	0.00
12,000.0	90.00	270.02	9,513.0	-1,510.8	-2,574.7	2,574.1	0.00	0.00	0.00
12,100.0	90.00	270.02	9,513.0	-1,510.7	-2,674.7	2,674.1	0.00	0.00	0.00
12,200.0	90.00	270.02	9,513.0	-1,510.7	-2,774.7	2,774.1	0.00	0.00	0.00
12,300.0	90.00	270.02	9,513.0	-1,510.7	-2,874.7	2,874.1	0.00	0.00	0.00
12,400.0	90.00	270.02	9,513.0	-1,510.6	-2,974.7	2,974.1	0.00	0.00	0.00
12,500.0	90.00	270.02	9,513.0	-1,510.6	-3,074.7	3,074.1	0.00	0.00	0.00
12,600.0	90.00	270.02	9,513.0	-1,510.5	-3,174.7	3,174.1	0.00	0.00	0.00
12,700.0	90.00	270.02	9,513.0	-1,510.5	-3,274.7	3,274.1	0.00	0.00	0.00
12,800.0	90.00	270.02	9,513.0	-1,510.5	-3,374.7	3,374.1	0.00	0.00	0.00
12,900.0	90.00	270.02	9,513.0	-1,510.4	-3,474.7	3,474.1	0.00	0.00	0.00
13,000.0	90.00	270.02	9,513.0	-1,510.4	-3,574.7	3,574.1	0.00	0.00	0.00
13,100.0	90.00	270.02	9,513.0	-1,510.3	-3,674.7	3,674.1	0.00	0.00	0.00
13,200.0	90.00	270.02	9,513.0	-1,510.3	-3,774.7	3,774.1	0.00	0.00	0.00
13,300.0	90.00	270.02	9,513.0	-1,510.3	-3,874.7	3,874.1	0.00	0.00	0.00
13,400.0	90.00	270.02	9,513.0	-1,510.2	-3,974.7	3,974.1	0.00	0.00	0.00
13,500.0	90.00	270.02	9,513.0	-1,510.2	-4,074.7	4,074.1	0.00	0.00	0.00
13,600.0	90.00	270.02	9,513.0	-1,510.1	-4,174.7	4,174.1	0.00	0.00	0.00
13,700.0	90.00	270.02	9,513.0	-1,510.1	-4,274.7	4,274.1	0.00	0.00	0.00
13,800.0	90.00	270.02	9,513.0	-1,510.1	-4,374.7	4,374.1	0.00	0.00	0.00
13,900.0	90.00	270.02	9,513.0	-1,510.0	-4,474.7	4,474.1	0.00	0.00	0.00
14,000.0	90.00	270.02	9,513.0	-1,510.0	-4,574.7	4,574.1	0.00	0.00	0.00
14,100.0	90.00	270.02	9,513.0	-1,509.9	-4,674.7	4,674.1	0.00	0.00	0.00
14,200.0	90.00	270.02	9,513.0	-1,509.9	-4,774.7	4,774.1	0.00	0.00	0.00
14,300.0	90.00	270.02	9,513.0	-1,509.9	-4,874.7	4,874.1	0.00	0.00	0.00
14,400.0	90.00	270.02	9,513.0	-1,509.8	-4,974.7	4,974.1	0.00	0.00	0.00
14,500.0	90.00	270.02	9,513.0	-1,509.8	-5,074.7	5,074.1	0.00	0.00	0.00
14,600.0	90.00	270.02	9,513.0	-1,509.7	-5,174.7	5,174.1	0.00	0.00	0.00
14,700.0	90.00	270.02	9,513.0	-1,509.7	-5,274.7	5,274.1	0.00	0.00	0.00
14,800.0	90.00	270.02	9,513.0	-1,509.6	-5,374.7	5,374.1	0.00	0.00	0.00
14,900.0	90.00	270.02	9,513.0	-1,509.6	-5,474.7	5,474.1	0.00	0.00	0.00
15,000.0	90.00	270.02	9,513.0	-1,509.6	-5,574.7	5,574.1	0.00	0.00	0.00
15,100.0	90.00	270.02	9,513.0	-1,509.5	-5,674.7	5,674.1	0.00	0.00	0.00
15,200.0	90.00	270.02	9,513.0	-1,509.5	-5,774.7	5,774.1	0.00	0.00	0.00
15,300.0	90.00	270.02	9,513.0	-1,509.4	-5,874.7	5,874.1	0.00	0.00	0.00
15,400.0	90.00	270.02	9,513.0	-1,509.4	-5,974.7	5,974.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Company:	Matador Production Company	TVD Reference:	KB @ 3292.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3292.5usft
Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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)	
15,500.0	90.00	270.02	9,513.0	-1,509.4	-6,074.7	6,074.1	0.00	0.00	0.00	
15,600.0	90.00	270.02	9,513.0	-1,509.3	-6,174.7	6,174.1	0.00	0.00	0.00	
15,700.0	90.00	270.02	9,513.0	-1,509.3	-6,274.7	6,274.1	0.00	0.00	0.00	
15,800.0	90.00	270.02	9,513.0	-1,509.2	-6,374.7	6,374.1	0.00	0.00	0.00	
15,900.0	90.00	270.02	9,513.0	-1,509.2	-6,474.7	6,474.1	0.00	0.00	0.00	
16,000.0	90.00	270.02	9,513.0	-1,509.2	-6,574.7	6,574.1	0.00	0.00	0.00	
16,100.0	90.00	270.02	9,513.0	-1,509.1	-6,674.7	6,674.1	0.00	0.00	0.00	
16,200.0	90.00	270.02	9,513.0	-1,509.1	-6,774.7	6,774.1	0.00	0.00	0.00	
16,300.0	90.00	270.02	9,513.0	-1,509.0	-6,874.7	6,874.1	0.00	0.00	0.00	
16,400.0	90.00	270.02	9,513.0	-1,509.0	-6,974.7	6,974.1	0.00	0.00	0.00	
16,500.0	90.00	270.02	9,513.0	-1,509.0	-7,074.7	7,074.1	0.00	0.00	0.00	
16,600.0	90.00	270.02	9,513.0	-1,508.9	-7,174.7	7,174.1	0.00	0.00	0.00	
16,700.0	90.00	270.02	9,513.0	-1,508.9	-7,274.7	7,274.1	0.00	0.00	0.00	
16,800.0	90.00	270.02	9,513.0	-1,508.8	-7,374.7	7,374.1	0.00	0.00	0.00	
16,900.0	90.00	270.02	9,513.0	-1,508.8	-7,474.7	7,474.1	0.00	0.00	0.00	
17,000.0	90.00	270.02	9,513.0	-1,508.8	-7,574.7	7,574.1	0.00	0.00	0.00	
17,100.0	90.00	270.02	9,513.0	-1,508.7	-7,674.7	7,674.1	0.00	0.00	0.00	
17,200.0	90.00	270.02	9,513.0	-1,508.7	-7,774.7	7,774.1	0.00	0.00	0.00	
17,300.0	90.00	270.02	9,513.0	-1,508.6	-7,874.7	7,874.1	0.00	0.00	0.00	
17,400.0	90.00	270.02	9,513.0	-1,508.6	-7,974.7	7,974.1	0.00	0.00	0.00	
17,500.0	90.00	270.02	9,513.0	-1,508.6	-8,074.7	8,074.1	0.00	0.00	0.00	
17,600.0	90.00	270.02	9,513.0	-1,508.5	-8,174.7	8,174.1	0.00	0.00	0.00	
17,700.0	90.00	270.02	9,513.0	-1,508.5	-8,274.7	8,274.1	0.00	0.00	0.00	
17,800.0	90.00	270.02	9,513.0	-1,508.4	-8,374.7	8,374.1	0.00	0.00	0.00	
17,900.0	90.00	270.02	9,513.0	-1,508.4	-8,474.7	8,474.1	0.00	0.00	0.00	
18,000.0	90.00	270.02	9,513.0	-1,508.4	-8,574.7	8,574.1	0.00	0.00	0.00	
18,100.0	90.00	270.02	9,513.0	-1,508.3	-8,674.7	8,674.1	0.00	0.00	0.00	
18,200.0	90.00	270.02	9,513.0	-1,508.3	-8,774.7	8,774.1	0.00	0.00	0.00	
18,300.0	90.00	270.02	9,513.0	-1,508.2	-8,874.7	8,874.1	0.00	0.00	0.00	
18,400.0	90.00	270.02	9,513.0	-1,508.2	-8,974.7	8,974.1	0.00	0.00	0.00	
18,500.0	90.00	270.02	9,513.0	-1,508.2	-9,074.7	9,074.1	0.00	0.00	0.00	
20,175.2	90.00	270.02	9,513.0	-1,507.5	-10,749.8	10,749.3	0.00	0.00	0.00	
TD at 20175.2										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
VP - Ted Paup 3231 Fec - hit/miss target - Shape - Point	0.00	0.00	8,797.0	-1,257.5	-2.4	557,317.00	575,854.00	32° 31' 54.957 N	104° 5' 13.948 W	
BHL - Ted Paup 3231 Fe - plan hits target center - Point	0.00	0.00	9,513.0	-1,507.5	-10,749.8	557,066.88	565,106.15	32° 31' 52.710 N	104° 7' 19.498 W	
FPP - Ted Paup 3231 Fe - plan misses target center by 43.4usft at 9809.2usft MD (9472.1 TVD, -1512.2 N, -389.4 E) - Point	0.00	0.00	9,513.0	-1,510.7	-375.1	557,063.80	575,481.26	32° 31' 52.460 N	104° 5' 18.308 W	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ted Paup 3231 Fed Com #206H
Company:	Matador Production Company	TVD Reference:	KB @ 3292.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3292.5usft
Site:	Ted Paup 3231	North Reference:	Grid
Well:	Ted Paup 3231 Fed Com #206H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
162.5	162.5	Z (Rustler/Karst/Salt)				
982.5	982.5	Z (Tansill/Base Salt)				
1,002.5	1,002.5	Z (Yates)				
1,342.5	1,342.5	Z (Seven Rivers)				
1,567.5	1,567.5	Z (Capitan)				
3,242.2	3,232.5	Z (Cherry Canyon)				
4,609.9	4,567.5	Z (Brushy Canyon)				
6,115.9	6,037.5	Z (Bone Spring Lime)				
6,539.0	6,450.5	Z (U. Avalon Shale)				
6,643.5	6,552.5	Z (Avalon Carb)				
6,725.5	6,632.5	Z (L. Avalon Shale)				
6,812.6	6,717.5	Z (FSBC)				
7,299.2	7,192.5	Z (FBSG)				
7,485.7	7,374.5	Z (SBSC)				
7,975.4	7,852.5	Z (SBSC)				
8,315.9	8,187.5	Z (TBSC)				
9,164.1	9,027.5	Z (TBSC)				
9,655.1	9,402.5	Z (WFMP A)				
9,693.0	9,422.5	Z (WFMP A X Sand)				
9,841.4	9,482.5	Z (WFMP A Y Sand)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	Start Build 1.00	
3,255.5	3,245.5	-137.0	-0.3	Start 4734.4 hold at 3255.5 MD	
7,989.9	7,866.7	-1,166.2	-2.2	Start Drop -1.50	
8,826.9	8,697.0	-1,257.5	-2.4	Start 100.0 hold at 8826.9 MD	
8,926.9	8,797.0	-1,257.5	-2.4	Start Build 10.00	
9,226.9	9,083.5	-1,327.1	-34.8	Start 17.9 hold at 9226.9 MD	
9,244.9	9,099.0	-1,335.2	-38.6	Start DLS 10.00 TFO 71.61	
10,041.6	9,513.0	-1,518.5	-616.5	Start DLS 2.00 TFO -90.00	
10,240.5	9,513.0	-1,511.5	-815.1	Start 9934.7 hold at 10240.5 MD	
20,175.2	9,513.0	-1,507.5	-10,749.8	TD at 20175.2	



TEC-LOCK WEDGE

5.500" 20 LB/FT (.361"Wall) with 5.875" SPECIAL CLEARANCE OD
BEN P110 CY

Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	P110 CY	
Mill/Specification:	BEN	
Yield Strength:	125,000	psi
Tensile Strength:	135,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	13,010	psi

Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in ²
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	13,010	psi
Maximum Bend:	101.2	°/100ft

Operational Data

Minimum Makeup Torque:	15,000	ft*lbf
Optimum Makeup Torque:	18,700	ft*lbf
Maximum Makeup Torque:	41,200	ft*lbf
Minimum Yield:	45,800	ft*lbf
Makeup Loss:	5.97	in

Notes Operational Torque is equivalent to the Maximum Make-Up Torque