

Well Name: NINA CORTELL FED COM	Well Location: T22S / R32E / SEC 10 / SESE /	County or Parish/State:
Well Number: 137H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM086147	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002551489	Well Status: Approved Application for Permit to Drill	Operator: MATADOR PRODUCTION COMPANY

Notice of Intent

Sundry ID: 2742130

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 07/20/2023	Time Sundry Submitted: 04:40
Date proposed operation will begin: 06/20/2024	

Procedure Description: BLM Bond NMB001079 Surety Bond No.: RLB0015172 - Matador respectfully requests the option to amend the well design of the Nina Cortell Fed Com 137H make the following changes to the current APD: - Change well name from Nina Cortell Fed Com #223H to Nina Cortell Fed Com #137H - Change target zone from Wolfcamp to Bone Spring - Change BHL from 60' FNL & 1652' FEL to 110' FNL & 2307' FEL. All perforations will be within the setback requirements as previously approved. - Amend Casing and Cementing plan by changing Intermediate 1 casing from 7-5/8" to 9-5/8" and revising set depth as described below. - Amend pressure control requirements from 10M to 5M with the change from Wolfcamp to Bone Springs.

NOI Attachments

Procedure Description

- Nina_Cortell_Fed_Com_137H_Directional_Wall_Plot_v3_20230720155908.pdf
- LO_NINA_CORTELL_FED_COM_137H_REV3_S_20230720155908.pdf
- Nina_Cortell_Fed_Com_137H_Directional_AC_Report_v3_20230720155908.pdf
- Nina_Cortell_Fed_Com_137H_Sundry_20230720155908.pdf
- Nina_Cortell_Fed_Com_137H_Directional_Well_Plan_v3_20230720155908.pdf

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Conditions of Approval

Additional

NINA_CORTELL_FED_COM137H___Sundry_COA_20230906134946.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: NICKY FITZGERALD	Signed on: JUL 20, 2023 03:46 PM
Name: MATADOR PRODUCTION COMPANY	
Title: Regulatory Consultant	
Street Address: 5400 LBJ FREEWAY STE 1500	
City: DALLAS	State: TX
Phone: (972) 371-5448	
Email address: nicky.fitzgerald@matadorresources.com	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 09/06/2023
Signature: Chris Walls	

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

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.

5. Lease Serial No.	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No.	
10. Field and Pool or Exploratory Area	
11. Country or Parish, State	

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		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

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 perfonned 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 recompleation 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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title
Signature	Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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	

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)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SESE / 244 FSL / 1260 FEL / TWSP: 22S / RANGE: 32E / SECTION: 10 / LAT: 32.3996669 / LONG: -103.6580912 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 100 FSL / 1651 FEL / TWSP: 22S / RANGE: 32E / SECTION: 10 / LAT: 32.3992671 / LONG: -103.6593581 (TVD: 12285 feet, MD: 12325 feet)

PPP: SWSE / 0 FNL / 1659 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.413501 / LONG: -103.6593856 (TVD: 12487 feet, MD: 17600 feet)

BHL: LOT 2 / 60 FNL / 1652 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4278311 / LONG: -103.6594138 (TVD: 12408 feet, MD: 22784 feet)

CONFIDENTIAL

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
WELL NAME & NO.:	Nina Cortell Fed Com 137H
SURFACE HOLE FOOTAGE:	244'/S & 1260'/E
BOTTOM HOLE FOOTAGE:	110'/N & 2307'/E
SURFACE HOLE LOCATION:	P, Section 10, T.22 S., R.32 E.
COUNTY:	Lea County, New Mexico

COA

H2S	☒ Yes	☐ No	
Potash	☐ None	☒ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☒ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit

SEE THE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.

This well was previously known as NINA CORTELL FED COM 223H.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet **43 CFR 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING DESIGN

1. The **13-3/8** inch surface casing shall be set at approximately **975** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of

six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Note: Operator has requested to have the option to drill either 17.5" or 20" surface hole. Both hole sizes meet 0.422" casing clearance requirements specified in title 43 CFR 3172. This request was approved.

Note: Operator has proposed to set the intermediate casing at 5,039 ft. which it will be in the Bell canyon formation. BLM recommends setting intermediate casing in the base of the BX BLM and at the top of the Lamar at approximately 4,875 ft.

- 2. The 9-5/8 inch intermediate casing shall be set in a competent bed at approximately 4,875 ft. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

Option 1 (Single Stage):

Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2 (Two-stage):

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - **Cement to surface.** If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ Operator is responsible to report the following within two miles of mineworking to BLM Geologist jrutley@blm.gov:
 - Any fluid flow outside of casing in the Salado Formation.
 - Any well collision events.
 - Sustained annuli pressures 500 psi above maximum allowable wellhead operating pressure (MAWOP) observed in monitored annuli.
 - Sustained mud losses occur through the Salado interval for projects within one mile of mineworking and WIPP Boundary.

Note: Intermediate casing must be kept fluid-filled to meet CFO's collapse requirement.

3. Operator has proposed to set **5-1/2 inch** production casing at approximately **21,659 ft**. The minimum required fill of cement behind the **5-1/2 inch** production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

Note: Excess cement for production casing is below CFO's recommendation of %25. More cement might be needed.

Note: operator has requested to have the option to drill 8.5" hole (instead of 8.75") throughout the 5.5" production casing section. This request was approved. Adjust cement volume accordingly.

Note: Target has changed from Wolfcamp to Bone Spring.

C. PRESSURE CONTROL

1. Variance approved to use **flex line** from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a **multi-bowl wellhead assembly**. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. Before drilling out surface casing shoe, the BOP/BOPE and annular preventer shall be pressure-tested in accordance with 43 CFR 3172.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per 43 CFR part 3170 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be

recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR part 3170 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3170 subpart 3172.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

SA 09/06/2023



SURVEY PROGRAM

WELL DETAILS: Nina Cortell Fed Com #137H (Previous #223H)

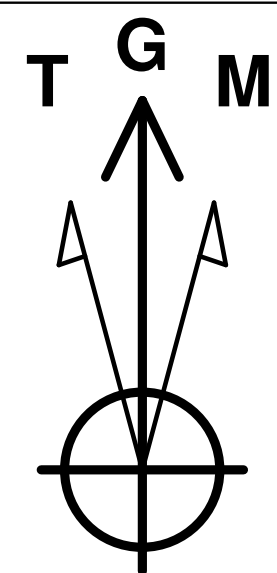
Depth From	Depth To	Survey/Plan	Tool			GL @ 3789.0	KB @ 3817.5usft (Original Well Elev)				
0.0	21659.1	BLM Plan #1 (Wellbore #1)	MWD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
				0.0	0.0	509727.63	708561.17	32° 23' 58.358 N	103° 39' 27.374 W		

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP - Nina Cortell Fed Com #137H	10877.0	-203.9	-1044.6	509523.74	707516.70	32° 23' 56.406 N	103° 39' 39.571 W
BHL - Nina Cortell Fed Com #137H	11450.0	10185.9	-1127.2	519913.51	707434.01	32° 25' 39.222 N	103° 39' 39.773 W
BPP1 - Nina Cortell #137H	11450.0	5022.8	-1085.9	514750.22	707475.34	32° 24' 48.127 N	103° 39' 39.670 W
FTP - Nina Cortell #137H	11110.9	-154.0	-1044.7	509573.69	707516.55	32° 23' 56.900 N	103° 39' 39.569 W

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

To convert a Magnetic Direction to a Grid Direction, Add 6.17°
 To convert a Magnetic Direction to a True Direction, Add 6.53° East
 To convert a True Direction to a Grid Direction, Subtract 0.36°

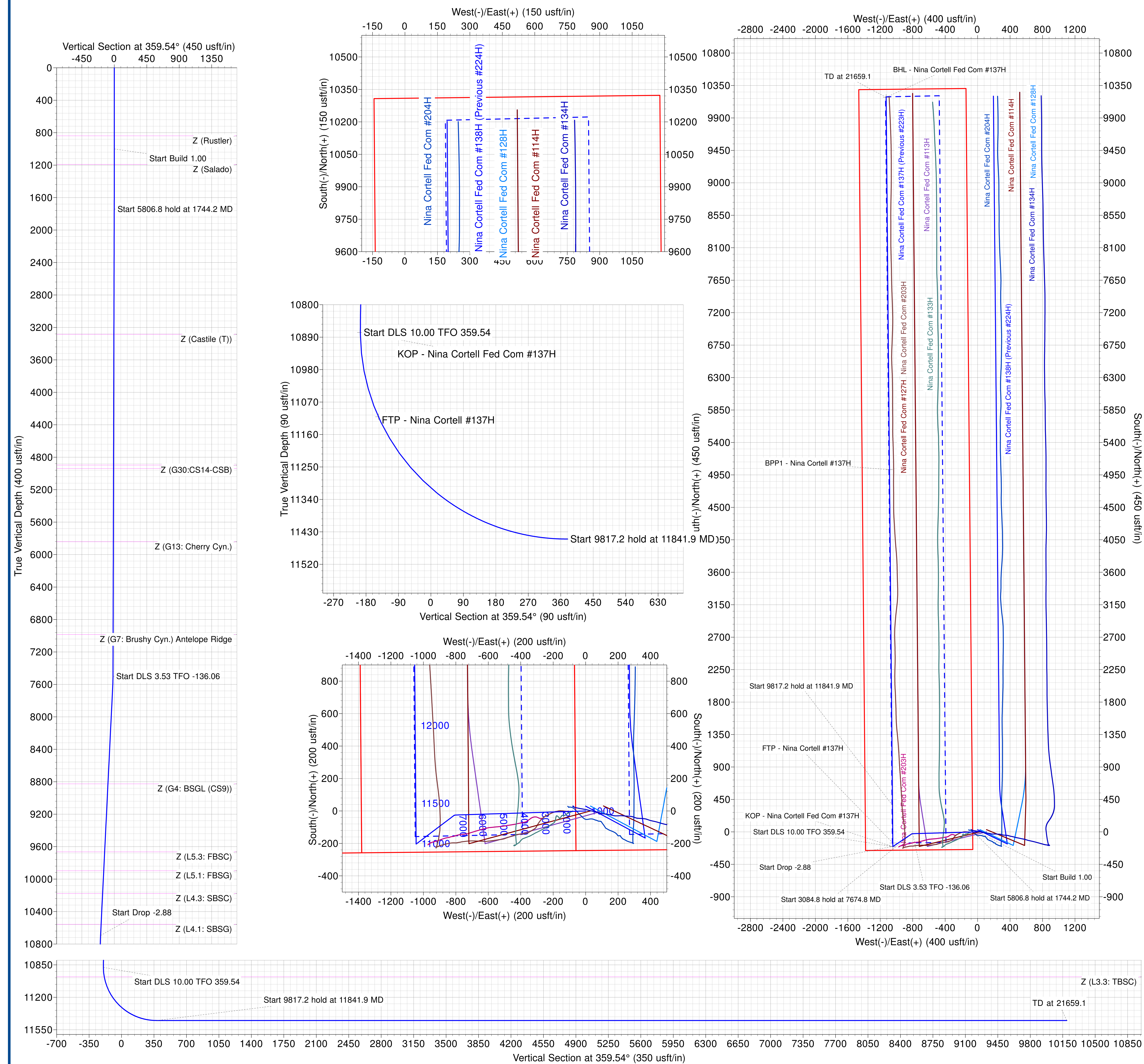


Azimuths to Grid North
True North: -0.36°
Magnetic North: 6.17°

Magnetic Field
Strength: 47578.8nT
Dip Angle: 60.15°
Date: 11/5/2021
Model: IGRF2015

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	Start Build 1.00
1744.2	7.44	268.21	1742.1	-1.5	-48.2	1.00	268.21	-1.1	Start 5806.8 hold at 1744.2 MD
7551.0	7.44	268.21	7500.0	-25.0	-800.0	0.00	0.00	-18.6	Start DLS 3.53 TFO -136.06
7674.8	5.25	232.94	7623.1	-28.7	-812.5	3.53	-136.06	-22.1	Start 3084.8 hold at 7674.8 MD
10759.5	5.25	232.94	10694.8	-198.9	-1037.9	0.00	0.00	-190.5	Start Drop -2.88
10941.9	0.00	0.00	10877.0	-203.9	-1044.6	2.88	180.00	-195.5	Start DLS 10.00 TFO 359.54
11841.9	90.00	359.54	11450.0	369.0	-1049.1	10.00	359.54	377.4	Start 9817.2 hold at 11841.9 MD
21659.1	90.00	359.54	11450.0	10185.9	-1127.2	0.00	0.00	10194.6	TD at 21659.1



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 30-025-51489		² Pool Code 5695		³ Pool Name BILBREY BASIN; BONE SPRING	
⁴ Property Code 320841		⁵ Property Name NINA CORTELL FED COM			⁶ Well Number 137H
⁷ OGRID No. 228937		⁸ Operator Name MATADOR PRODUCTION COMPANY			⁹ Elevation 3789'

¹⁰Surface Location

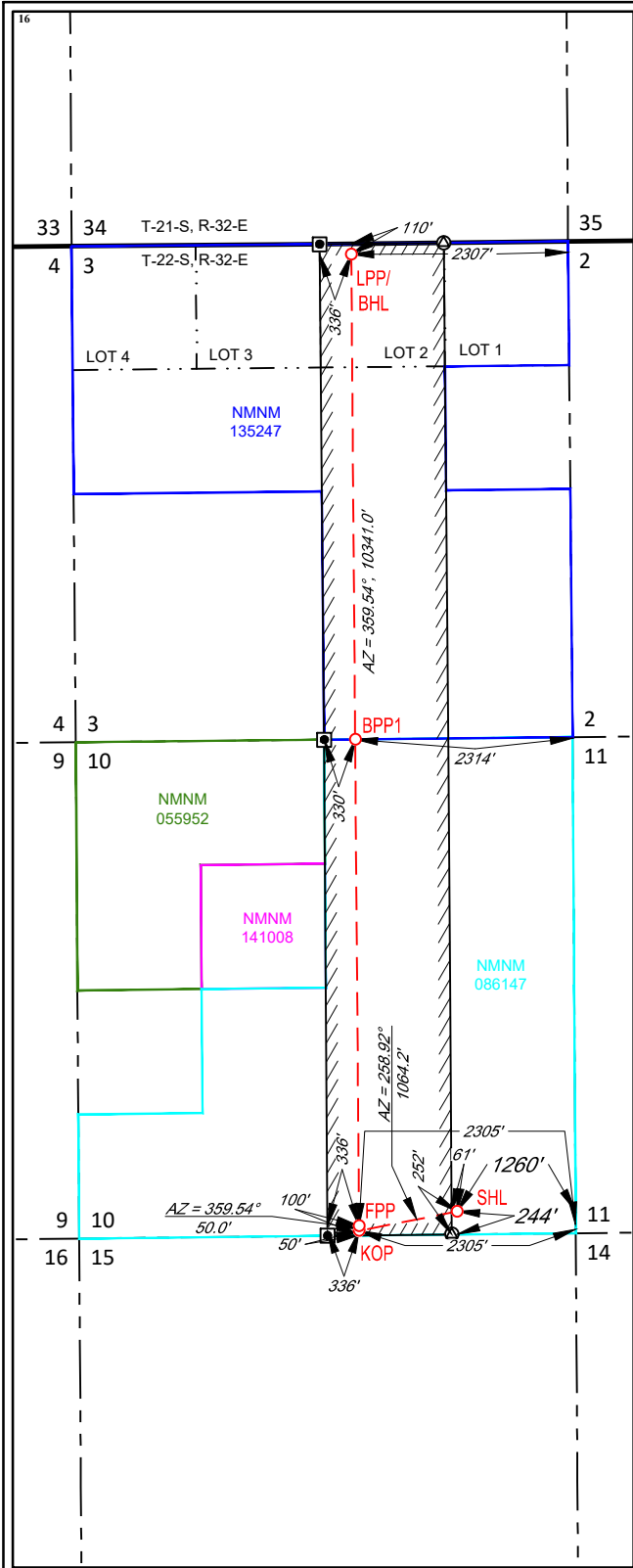
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	10	22-S	32-E	-	244'	SOUTH	1260'	EAST	LEA

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	3	22-S	32-E	-	110'	NORTH	2307'	EAST	LEA

¹² Dedicated Acres 319.92	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

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.



NEW MEXICO EAST
NAD 1983
SURFACE LOCATION (SHL)
244' FSL - SEC. 10
1260' FEL - SEC. 10
X=749744 Y=509788
LAT.: N 32.3996669
LONG.: W 103.6580912
KICK OFF POINT (KOP)
50' FSL - SEC. 10
2305' FEL - SEC. 10
X=748699 Y=509584
LAT.: N 32.3991227
LONG.: W 103.6614790
FIRST PERF. POINT (FPP)
100' FSL - SEC. 10
2305' FEL - SEC. 10
X=748699 Y=509634
LAT.: N 32.3992602
LONG.: W 103.6614793
BLM PERF. POINT (BPP1)
±0' FSL - SEC. 3
2314' FEL - SEC. 3
X=748657 Y=514812
LAT.: N 32.4134935
LONG.: W 103.6615085
LAST PERF. POINT (LPP)
BOTTOM HOLE LOCATION (BHL)
110' FNL - SEC. 3
2307' FEL - SEC. 3
X=748616 Y=519974
LAT.: N 32.4276843
LONG.: W 103.6615377

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.
Nicky Fitzgerald 10/20/2023
Signature Date
Nicky Fitzgerald
Printed Name
nicky.fitzgerald@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.
03/21/2023
Date of Survey
Signature and Seal of Professional Surveyor

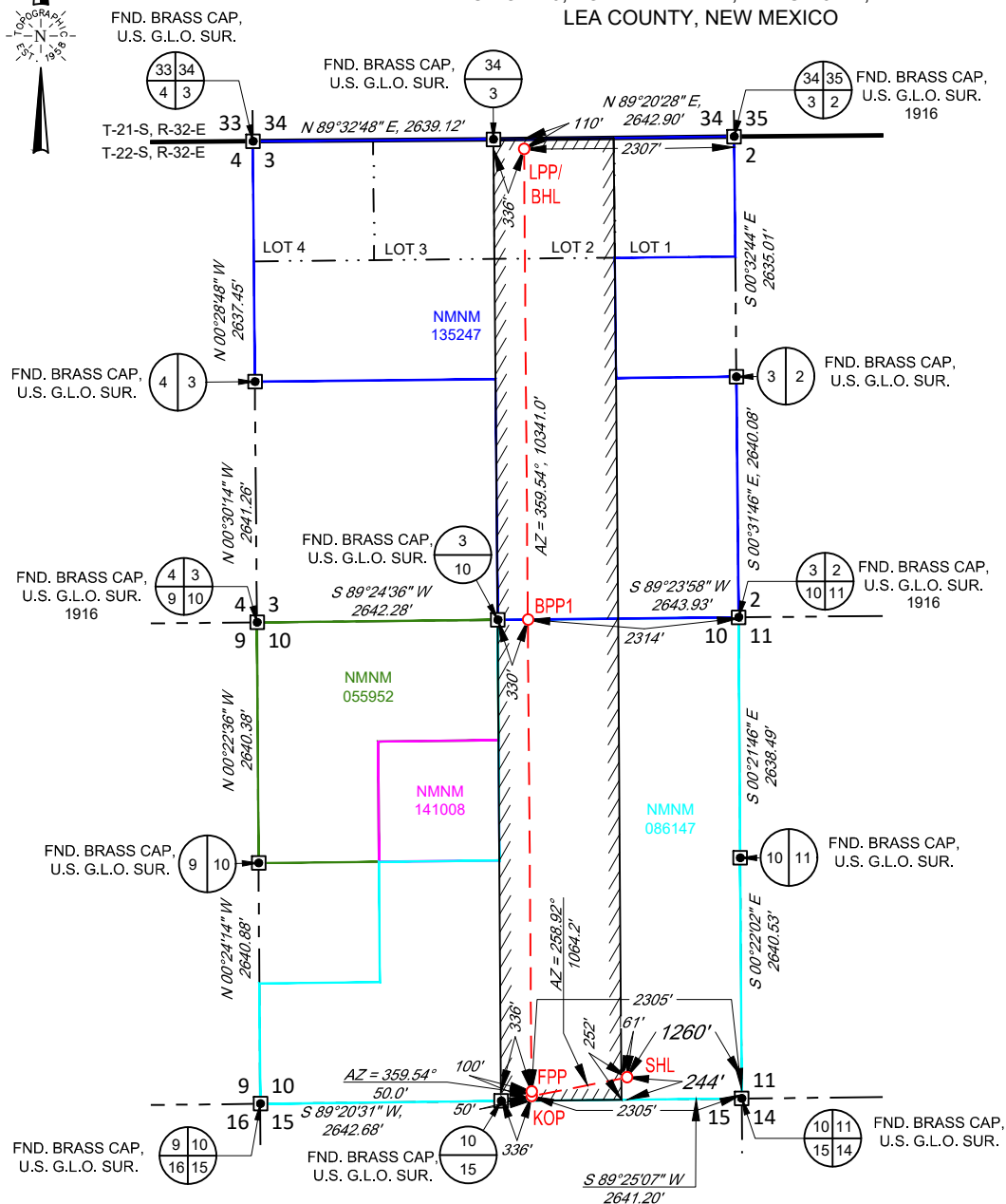
Certificate Number

NEW MEXICO EAST
NAD 1927
SURFACE LOCATION (SHL)
X=708561 Y=509728
LAT.: N 32.3995440
LONG.: W 103.6576040
KICK OFF POINT (KOP)
X=707517 Y=509623
LAT.: N 32.3989998
LONG.: W 103.6609917
FIRST PERF. POINT (FPP)
X=707516 Y=509573
LAT.: N 32.3991373
LONG.: W 103.6609920
BLM PERF. POINT (BPP1)
X=707475 Y=514751
LAT.: N 32.4133706
LONG.: W 103.6610208
LAST PERF. POINT (LPP)
BOTTOM HOLE LOCATION (BHL)
X=707434 Y=519913
LAT.: N 32.4275615
LONG.: W 103.6610494



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

SECTION 10, TOWNSHIP 22-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



NEW MEXICO EAST
NAD 1983

SURFACE LOCATION (SHL)

244' FSL - SEC. 10
1260' FEL - SEC. 10
X=749744 Y=509788
LAT.: N 32.3996669
LONG.: W 103.6580912

KICK OFF POINT (KOP)

50' FSL - SEC. 10
2305' FEL - SEC. 10
X=748699 Y=509584
LAT.: N 32.3991227
LONG.: W 103.6614790

FIRST PERF. POINT (FPP)

100' FSL - SEC. 10
2305' FEL - SEC. 10
X=748699 Y=509634
LAT.: N 32.3992602
LONG.: W 103.6614793

BLM PERF. POINT (BPP1)

±0' FSL - SEC. 3
2314' FEL - SEC. 3
X=748657 Y=514812
LAT.: N 32.4134935
LONG.: W 103.6615085

LAST PERF. POINT (LPP)

BOTTOM HOLE LOCATION (BHL)

110' FNL - SEC. 3
2307' FEL - SEC. 3
X=748616 Y=519974
LAT.: N 32.4276843
LONG.: W 103.6615377

LEASE NAME & WELL NO.: NINA CORTELL FED COM 137H

SECTION 10 TWP 22-S RGE 32-E SURVEY N.M.P.M.

COUNTY LEA STATE NM

DESCRIPTION 244' FSL & 1260' FEL

DISTANCE & DIRECTION

FROM INT. OF US-180 W/US-62 W & NM-176 W. GO SOUTHWEST ON US-180 W/US-62 W ±1.2 MILES. THENCE SOUTH (LEFT) ON CAMPBELL RD. ±10.5 MILES, THENCE NORTHEAST (LEFT) ON A LEASE RD. ±2.8 MILES, THENCE SOUTH (RIGHT) ON A LEASE RD. ±1.1 MILES, THENCE EAST (LEFT) ON A PROPOSED RD. ±6591 FEET TO A POINT ±308 FEET NORTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

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



Angel M. Baeza, P.S. No. 25116

April 5, 2023



481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

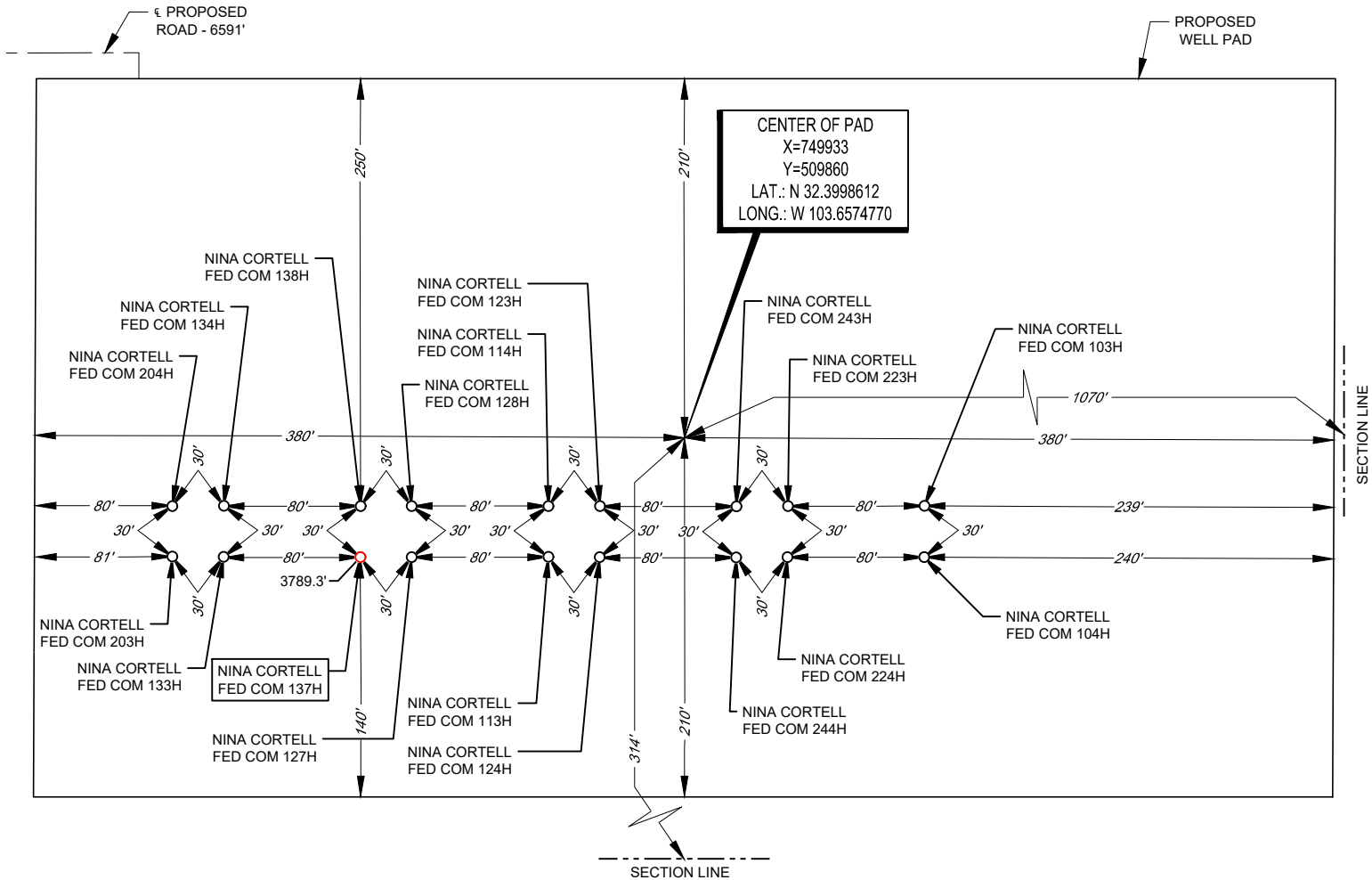


LEGEND

----- SECTION LINE
 - - - - - PROPOSED ROAD

SECTION 10, TOWNSHIP 22-S, RANGE 32-E, N.M.P.M.
 LEA COUNTY, NEW MEXICO

DETAIL VIEW
 SCALE: 1" = 100'



LEASE NAME & WELL NO.: NINA CORTELL FED COM 137H
 137H LATITUDE N 32.3996669 137H LONGITUDE W 103.6580912

CENTER OF PAD IS 314' FSL & 1070' FEL



Angel M. Baeza, P.S. No. 25116

April 5, 2023

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



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



481 WINSOFT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 TEXAS FIRM REGISTRATION NO. 10042504
 WWW.TOPOGRAPHIC.COM

Matador Production Company

Antelope Ridge

Nina Cortell

Nina Cortell Fed Com #137H (Previous #223H)

Wellbore #1

BLM Plan #1

Anticollision Report

13 July, 2023

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
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	7/13/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	21,659.1	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						
Nina Cortell						
Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #	1,000.0	1,000.0	110.0	103.3	16.403	CC, ES
Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #	7,200.0	7,212.6	232.1	177.0	4.216	SF
Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #	1,000.0	1,000.0	114.2	107.5	17.025	CC, ES
Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #	21,659.1	20,223.9	2,200.6	1,920.3	7.850	SF
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	1,000.0	1,000.0	30.2	23.4	4.495	CC, ES
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	8,400.0	8,402.7	197.7	134.5	3.128	SF
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	1,000.0	1,000.0	42.6	35.9	6.354	CC
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	1,100.0	1,100.0	43.3	35.8	5.833	ES
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	21,659.1	21,146.4	1,725.8	1,391.3	5.159	SF
Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1	2,464.5	2,459.2	24.0	6.9	1.400	Level 3, CC, ES
Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1	2,500.0	2,494.4	24.4	7.0	1.398	Level 3, SF
Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1	1,666.3	1,668.4	16.8	5.5	1.489	Level 3, CC, ES, SF
Nina Cortell Fed Com #138H (Previous #224H) - Wellbor	1,000.0	1,001.0	29.9	23.2	4.455	CC
Nina Cortell Fed Com #138H (Previous #224H) - Wellbor	1,200.0	1,201.0	30.2	22.1	3.718	ES
Nina Cortell Fed Com #138H (Previous #224H) - Wellbor	1,400.0	1,400.7	33.3	23.8	3.496	SF
Nina Cortell Fed Com #203H - Sidetrack - Sidetrack	3,083.7	3,073.0	59.9	38.7	2.829	CC
Nina Cortell Fed Com #203H - Sidetrack - Sidetrack	3,100.0	3,089.0	60.0	38.7	2.821	ES
Nina Cortell Fed Com #203H - Sidetrack - Sidetrack	11,100.0	11,077.5	137.0	64.8	1.897	SF
Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1	3,744.8	3,735.5	27.6	0.6	1.021	Level 2, CC
Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1	11,058.2	11,038.0	79.3	-0.5	0.994	Level 1, ES, SF
Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1	1,915.1	1,914.3	14.5	1.5	1.119	Level 2, CC, ES, SF

Offset Design												Offset Site Error:		0.0 usft
Nina Cortell - Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #1												Offset Well Error:		0.0 usft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft) +E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	89.47	1.0	110.0	110.0					
100.0	100.0	100.0	100.0	0.1	0.1	89.47	1.0	110.0	110.0	109.8	0.26	429.335		
200.0	200.0	200.0	200.0	0.5	0.5	89.47	1.0	110.0	110.0	109.1	0.97	113.066		
300.0	300.0	300.0	300.0	0.8	0.8	89.47	1.0	110.0	110.0	108.4	1.69	65.106		
400.0	400.0	400.0	400.0	1.2	1.2	89.47	1.0	110.0	110.0	107.6	2.41	45.715		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #113H - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
500.0	500.0	500.0	500.0	1.6	1.6	89.47	1.0	110.0	110.0	106.9	3.12	35.224	16.403 CC, ES		
600.0	600.0	600.0	600.0	1.9	1.9	89.47	1.0	110.0	110.0	106.2	3.84	28.649			
700.0	700.0	700.0	700.0	2.3	2.3	89.47	1.0	110.0	110.0	105.5	4.56	24.143			
800.0	800.0	800.0	800.0	2.6	2.6	89.47	1.0	110.0	110.0	104.8	5.27	20.861			
900.0	900.0	900.0	900.0	3.0	3.0	89.47	1.0	110.0	110.0	104.0	5.99	18.365			
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	89.47	1.0	110.0	110.0	103.3	6.71	16.403			
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-178.75	1.0	110.0	110.9	103.5	7.42	14.955			
1,200.0	1,200.0	1,200.0	1,200.0	4.0	4.1	-178.78	1.0	110.0	113.5	105.4	8.12	13.985			
1,300.0	1,299.9	1,300.1	1,299.9	4.4	4.4	-178.82	1.0	110.0	117.9	109.1	8.82	13.362			
1,400.0	1,399.7	1,400.3	1,399.7	4.7	4.8	-178.88	1.0	110.0	124.0	114.5	9.53	13.012			
1,500.0	1,499.4	1,499.4	1,499.4	5.1	5.1	-178.95	1.0	110.0	131.8	121.6	10.23	12.882			
1,600.0	1,598.9	1,601.3	1,601.3	5.5	5.5	-178.93	0.8	109.2	140.6	129.6	10.94	12.852			
1,700.0	1,698.3	1,703.4	1,703.4	5.8	5.8	-178.74	0.1	106.6	149.3	137.7	11.63	12.837			
1,744.2	1,742.1	1,748.6	1,748.5	6.0	6.0	-178.61	-0.4	104.8	153.2	141.3	11.94	12.830			
1,800.0	1,797.4	1,805.7	1,805.6	6.2	6.2	-178.42	-1.2	102.2	157.9	145.5	12.33	12.801			
1,900.0	1,896.6	1,908.2	1,907.9	6.6	6.5	-177.96	-2.9	96.0	164.8	151.8	13.03	12.649			
2,000.0	1,995.8	2,011.0	2,010.3	7.0	6.9	-177.36	-5.1	88.1	170.1	156.4	13.73	12.387			
2,100.0	2,094.9	2,113.8	2,112.7	7.4	7.3	-176.63	-7.8	78.4	173.7	159.2	14.43	12.031			
2,200.0	2,194.1	2,216.8	2,214.9	7.8	7.6	-175.74	-11.0	66.9	175.6	160.4	15.14	11.597			
2,300.0	2,293.2	2,319.2	2,316.4	8.1	8.0	-174.68	-14.6	53.7	175.8	160.0	15.84	11.096			
2,400.0	2,392.4	2,419.1	2,415.3	8.5	8.4	-173.59	-18.3	40.3	175.6	159.0	16.56	10.599			
2,500.0	2,491.5	2,519.0	2,514.3	8.9	8.8	-172.50	-22.1	26.9	175.4	158.1	17.29	10.146			
2,600.0	2,590.7	2,619.0	2,613.3	9.3	9.2	-171.40	-25.8	13.5	175.3	157.3	18.02	9.730			
2,700.0	2,689.9	2,718.9	2,712.3	9.7	9.5	-170.31	-29.5	0.1	175.2	156.5	18.75	9.347			
2,721.3	2,710.9	2,740.2	2,733.3	9.8	9.6	-170.07	-30.3	-2.7	175.2	156.3	18.90	9.270			
2,800.0	2,789.0	2,818.9	2,811.2	10.1	9.9	-169.21	-33.2	-13.3	175.3	155.8	19.48	8.995			
2,900.0	2,888.2	2,918.8	2,910.2	10.5	10.3	-168.11	-37.0	-26.7	175.3	155.1	20.22	8.670			
3,000.0	2,987.3	3,018.8	3,009.2	10.9	10.7	-167.02	-40.7	-40.1	175.5	154.5	20.97	8.370			
3,100.0	3,086.5	3,118.7	3,108.1	11.4	11.1	-165.93	-44.4	-53.5	175.7	154.0	21.72	8.091			
3,200.0	3,185.6	3,218.6	3,207.1	11.8	11.5	-164.84	-48.1	-66.9	176.0	153.5	22.47	7.833			
3,300.0	3,284.8	3,318.6	3,306.1	12.2	11.9	-163.75	-51.9	-80.3	176.3	153.1	23.22	7.592			
3,400.0	3,384.0	3,418.5	3,405.1	12.6	12.3	-162.67	-55.6	-93.7	176.7	152.7	23.98	7.368			
3,500.0	3,483.1	3,518.5	3,504.0	13.0	12.7	-161.59	-59.3	-107.1	177.2	152.4	24.75	7.160			
3,600.0	3,582.3	3,618.4	3,603.0	13.4	13.1	-160.52	-63.0	-120.5	177.7	152.2	25.51	6.965			
3,700.0	3,681.4	3,718.4	3,702.0	13.8	13.5	-159.46	-66.8	-133.9	178.3	152.0	26.29	6.783			
3,800.0	3,780.6	3,818.3	3,800.9	14.2	13.9	-158.41	-70.5	-147.3	178.9	151.9	27.06	6.612			
3,900.0	3,879.7	3,918.3	3,899.9	14.6	14.4	-157.36	-74.2	-160.7	179.6	151.8	27.84	6.453			
4,000.0	3,978.9	4,018.2	3,998.9	15.0	14.8	-156.32	-77.9	-174.1	180.4	151.8	28.62	6.303			
4,100.0	4,078.1	4,118.1	4,097.8	15.4	15.2	-155.29	-81.7	-187.5	181.2	151.8	29.41	6.163			
4,200.0	4,177.2	4,218.1	4,196.8	15.8	15.6	-154.27	-85.4	-200.9	182.1	151.9	30.20	6.031			
4,300.0	4,276.4	4,318.0	4,295.8	16.2	16.0	-153.26	-89.1	-214.3	183.1	152.1	31.00	5.906			
4,400.0	4,375.5	4,418.0	4,394.8	16.7	16.4	-152.26	-92.8	-227.7	184.1	152.3	31.79	5.790			
4,500.0	4,474.7	4,517.9	4,493.7	17.1	16.8	-151.27	-96.6	-241.1	185.1	152.5	32.59	5.680			
4,600.0	4,573.9	4,617.9	4,592.7	17.5	17.2	-150.29	-100.3	-254.5	186.2	152.8	33.40	5.576			
4,700.0	4,673.0	4,717.8	4,691.7	17.9	17.6	-149.33	-104.0	-267.9	187.4	153.2	34.21	5.478			
4,800.0	4,772.2	4,817.7	4,790.6	18.3	18.1	-148.37	-107.7	-281.3	188.6	153.6	35.02	5.386			
4,900.0	4,871.3	4,917.7	4,889.6	18.7	18.5	-147.43	-111.5	-294.7	189.9	154.1	35.83	5.299			
5,000.0	4,970.5	5,017.6	4,988.6	19.1	18.9	-146.51	-115.2	-308.1	191.2	154.6	36.65	5.217			
5,100.0	5,069.6	5,117.6	5,087.6	19.5	19.3	-145.59	-118.9	-321.5	192.6	155.1	37.47	5.139			
5,200.0	5,168.8	5,217.5	5,186.5	19.9	19.7	-144.69	-122.6	-334.9	194.0	155.7	38.29	5.066			
5,300.0	5,268.0	5,317.5	5,285.5	20.4	20.1	-143.80	-126.4	-348.3	195.4	156.3	39.12	4.997			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #113H - 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				
5,400.0	5,367.1	5,417.4	5,384.5	20.8	20.5	-142.93	-130.1	-361.7	197.0	157.0	39.94	4.931				
5,500.0	5,466.3	5,517.4	5,483.4	21.2	21.0	-142.06	-133.8	-375.1	198.5	157.7	40.77	4.869				
5,600.0	5,565.4	5,617.3	5,582.4	21.6	21.4	-141.22	-137.5	-388.5	200.1	158.5	41.60	4.810				
5,700.0	5,664.6	5,717.2	5,681.4	22.0	21.8	-140.38	-141.3	-401.9	201.8	159.3	42.44	4.754				
5,800.0	5,763.7	5,817.2	5,780.4	22.4	22.2	-139.56	-145.0	-415.3	203.4	160.2	43.27	4.701				
5,900.0	5,862.9	5,917.1	5,879.3	22.8	22.6	-138.75	-148.7	-428.7	205.2	161.0	44.11	4.651				
6,000.0	5,962.1	6,017.1	5,978.3	23.2	23.1	-137.96	-152.4	-442.1	206.9	162.0	44.95	4.603				
6,100.0	6,061.2	6,117.0	6,077.3	23.7	23.5	-137.18	-156.2	-455.5	208.7	162.9	45.79	4.558				
6,200.0	6,160.4	6,217.0	6,176.2	24.1	23.9	-136.41	-159.9	-468.9	210.6	163.9	46.63	4.515				
6,300.0	6,259.5	6,316.9	6,275.2	24.5	24.3	-135.66	-163.6	-482.3	212.5	165.0	47.48	4.475				
6,400.0	6,358.7	6,416.8	6,374.2	24.9	24.7	-134.92	-167.3	-495.7	214.4	166.0	48.32	4.436				
6,500.0	6,457.8	6,516.8	6,473.2	25.3	25.1	-134.19	-171.1	-509.1	216.3	167.1	49.17	4.400				
6,600.0	6,557.0	6,616.7	6,572.1	25.7	25.6	-133.48	-174.8	-522.5	218.3	168.3	50.01	4.365				
6,700.0	6,656.2	6,716.7	6,671.1	26.1	26.0	-132.78	-178.5	-535.9	220.3	169.5	50.86	4.332				
6,800.0	6,755.3	6,816.6	6,770.1	26.5	26.4	-132.09	-182.2	-549.3	222.4	170.7	51.71	4.300				
6,900.0	6,854.5	6,916.6	6,869.0	27.0	26.8	-131.42	-185.9	-562.7	224.5	171.9	52.56	4.270				
7,000.0	6,953.6	7,016.5	6,968.0	27.4	27.2	-130.75	-189.7	-576.1	226.6	173.2	53.41	4.242				
7,100.0	7,052.8	7,115.3	7,065.8	27.8	27.7	-130.17	-193.3	-589.1	228.8	174.6	54.25	4.218				
7,200.0	7,152.0	7,212.6	7,162.5	28.2	28.0	-130.07	-196.3	-599.9	232.1	177.0	55.04	4.216 SF				
7,300.0	7,251.1	7,309.8	7,259.3	28.6	28.4	-130.52	-198.6	-608.3	236.4	180.7	55.77	4.240				
7,400.0	7,350.3	7,406.8	7,356.1	29.0	28.8	-131.46	-200.3	-614.4	242.0	185.6	56.43	4.288				
7,500.0	7,449.4	7,503.4	7,452.6	29.4	29.1	-132.86	-201.3	-618.0	248.9	191.8	57.04	4.363				
7,551.0	7,500.0	7,552.5	7,501.7	29.7	29.3	-133.72	-201.6	-618.9	252.9	195.6	57.32	4.413				
7,600.0	7,548.6	7,609.7	7,548.6	29.8	29.5	-123.73	-201.7	-619.3	256.4	198.8	57.60	4.452				
7,674.8	7,623.1	7,673.8	7,623.1	30.1	29.7	-101.06	-201.7	-619.3	259.4	201.4	57.97	4.474				
7,700.0	7,648.2	7,701.1	7,648.2	30.2	29.7	-101.56	-201.7	-619.3	259.8	201.7	58.11	4.471				
7,800.0	7,747.7	7,801.5	7,747.7	30.6	30.1	-103.51	-201.7	-619.3	261.8	203.2	58.65	4.464				
7,900.0	7,847.3	7,901.9	7,847.3	31.0	30.4	-105.44	-201.7	-619.3	264.1	204.9	59.19	4.463				
8,000.0	7,946.9	8,002.3	7,946.9	31.3	30.7	-107.33	-201.7	-619.3	266.7	207.0	59.73	4.466				
8,100.0	8,046.5	8,102.8	8,046.5	31.7	31.0	-109.18	-201.7	-619.3	269.6	209.3	60.27	4.473				
8,200.0	8,146.1	8,203.2	8,146.1	32.1	31.3	-110.99	-201.7	-619.3	272.8	211.9	60.82	4.485				
8,300.0	8,245.6	8,303.6	8,245.6	32.4	31.7	-112.75	-201.7	-619.3	276.2	214.8	61.37	4.500				
8,400.0	8,345.2	8,404.0	8,345.2	32.8	32.0	-114.48	-201.7	-619.3	279.9	217.9	61.93	4.519				
8,500.0	8,444.8	8,504.4	8,444.8	33.2	32.3	-116.15	-201.7	-619.3	283.8	221.3	62.50	4.541				
8,600.0	8,544.4	8,604.9	8,544.4	33.6	32.6	-117.78	-201.7	-619.3	288.0	224.9	63.07	4.566				
8,700.0	8,644.0	8,705.3	8,644.0	33.9	32.9	-119.37	-201.7	-619.3	292.3	228.7	63.65	4.593				
8,800.0	8,743.5	8,805.7	8,743.5	34.3	33.3	-120.90	-201.7	-619.3	297.0	232.7	64.23	4.623				
8,900.0	8,843.1	8,906.1	8,843.1	34.7	33.6	-122.39	-201.7	-619.3	301.8	237.0	64.82	4.656				
9,000.0	8,942.7	9,006.5	8,942.7	35.1	33.9	-123.83	-201.7	-619.3	306.8	241.4	65.42	4.690				
9,100.0	9,042.3	9,107.0	9,042.3	35.4	34.2	-125.22	-201.7	-619.3	312.0	246.0	66.02	4.726				
9,200.0	9,141.9	9,207.4	9,141.9	35.8	34.6	-126.57	-201.7	-619.3	317.4	250.8	66.63	4.763				
9,300.0	9,241.4	9,307.8	9,241.4	36.2	34.9	-127.87	-201.7	-619.3	322.9	255.7	67.25	4.802				
9,400.0	9,341.0	9,408.2	9,341.0	36.6	35.2	-129.13	-201.7	-619.3	328.7	260.8	67.87	4.842				
9,500.0	9,440.6	9,491.4	9,440.6	36.9	35.5	-130.34	-201.7	-619.3	334.5	266.1	68.44	4.888				
9,600.0	9,540.2	9,608.9	9,557.7	37.3	35.9	-132.97	-193.9	-620.4	338.5	269.2	69.22	4.890				
9,700.0	9,639.8	9,722.0	9,666.7	37.7	36.2	-138.98	-164.6	-624.5	338.0	268.3	69.64	4.853				
9,742.2	9,681.8	9,764.9	9,706.2	37.8	36.3	-142.16	-148.0	-626.8	337.7	267.9	69.78	4.840				
9,800.0	9,739.3	9,818.7	9,753.7	38.1	36.5	-146.81	-123.2	-630.3	338.6	268.6	69.93	4.841				
9,900.0	9,838.9	9,898.1	9,819.2	38.4	36.6	-154.84	-78.7	-636.6	346.9	277.0	69.83	4.967				
10,000.0	9,938.5	9,962.2	9,867.0	38.8	36.8	-162.05	-36.6	-642.5	367.7	299.0	68.65	5.356				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #113H - 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			
10,100.0	10,038.1	10,013.7	9,901.9	39.2	36.9	-168.05	1.0	-647.8	402.8	336.6	66.12	6.091			
10,200.0	10,137.7	10,055.5	9,927.6	39.6	36.9	-172.89	33.6	-652.3	451.2	388.6	62.68	7.199			
10,300.0	10,237.2	10,089.7	9,946.7	39.9	37.0	-176.76	61.6	-656.3	510.7	451.8	58.95	8.664			
10,400.0	10,336.8	10,118.0	9,961.3	40.3	37.0	-179.87	85.7	-659.7	578.8	523.4	55.37	10.453			
10,500.0	10,436.4	10,150.0	9,976.3	40.7	37.1	176.75	113.6	-663.6	653.4	600.7	52.64	12.412			
10,600.0	10,536.0	10,161.8	9,981.4	41.1	37.1	175.55	124.2	-665.1	732.6	683.2	49.39	14.834			
10,700.0	10,635.6	10,179.0	9,988.5	41.4	37.1	173.83	139.7	-667.3	815.6	768.6	47.03	17.342			
10,759.5	10,694.8	10,200.0	9,996.5	41.7	37.1	171.81	158.9	-670.0	866.6	820.2	46.39	18.683			
10,800.0	10,735.2	10,200.0	9,996.5	41.8	37.1	172.09	158.9	-670.0	901.3	856.0	45.32	19.889			
10,900.0	10,835.1	10,200.0	9,996.5	42.2	37.1	172.72	158.9	-670.0	987.2	944.4	42.88	23.021			
10,941.9	10,877.0	10,200.0	9,996.5	42.3	37.1	45.92	158.9	-670.0	1,023.3	981.4	41.94	24.399			
10,950.0	10,885.1	10,214.3	10,001.6	42.3	37.2	44.27	172.2	-671.8	1,030.0	987.6	42.36	24.317			
11,000.0	10,935.0	10,221.6	10,004.0	42.5	37.2	38.62	179.0	-672.8	1,072.0	1,030.5	41.50	25.830			
11,050.0	10,984.4	10,229.8	10,006.7	42.6	37.2	34.01	186.7	-673.9	1,112.7	1,072.1	40.64	27.383			
11,100.0	11,033.1	10,250.0	10,012.7	42.8	37.2	29.80	205.7	-676.5	1,152.1	1,111.9	40.18	28.675			
11,150.0	11,080.5	10,250.0	10,012.7	42.9	37.2	27.13	205.7	-676.5	1,189.3	1,150.4	38.92	30.555			
11,200.0	11,126.4	10,250.0	10,012.7	43.0	37.2	24.91	205.7	-676.5	1,224.9	1,187.2	37.69	32.504			
11,250.0	11,170.4	10,270.6	10,018.2	43.1	37.3	22.57	225.4	-679.3	1,258.2	1,221.1	37.12	33.897			
11,300.0	11,212.2	10,282.3	10,020.9	43.2	37.3	20.85	236.6	-680.9	1,289.4	1,253.1	36.25	35.567			
11,350.0	11,251.4	10,300.0	10,024.7	43.3	37.3	19.33	253.8	-683.3	1,318.2	1,282.6	35.56	37.068			
11,400.0	11,287.8	10,300.0	10,024.7	43.4	37.3	18.33	253.8	-683.3	1,344.5	1,310.1	34.41	39.073			
11,450.0	11,321.0	10,320.0	10,028.3	43.4	37.4	17.23	273.2	-686.0	1,368.2	1,334.4	33.81	40.462			
11,500.0	11,350.9	10,333.2	10,030.3	43.5	37.4	16.40	286.2	-687.8	1,389.2	1,356.1	33.09	41.983			
11,550.0	11,377.2	10,350.0	10,032.4	43.5	37.5	15.68	302.7	-690.2	1,407.5	1,375.0	32.49	43.317			
11,600.0	11,399.6	10,350.0	10,032.4	43.6	37.5	15.25	302.7	-690.2	1,423.1	1,391.4	31.68	44.917			
11,650.0	11,418.1	10,374.3	10,034.6	43.6	37.5	14.70	326.7	-693.5	1,435.6	1,404.2	31.35	45.787			
11,700.0	11,432.5	10,400.0	10,035.8	43.6	37.6	14.27	352.1	-697.1	1,445.4	1,414.3	31.09	46.497			
11,750.0	11,442.6	10,400.0	10,035.8	43.7	37.6	14.11	352.1	-697.1	1,451.9	1,421.3	30.65	47.370			
11,800.0	11,448.4	10,418.5	10,035.9	43.8	37.6	13.90	370.4	-699.7	1,455.6	1,425.1	30.51	47.711			
11,841.9	11,450.0	10,455.5	10,035.8	43.8	37.8	13.71	407.1	-704.6	1,456.0	1,425.5	30.56	47.650			
11,900.0	11,450.0	10,507.1	10,035.6	43.9	38.0	13.49	458.3	-710.6	1,454.8	1,424.1	30.66	47.446			
12,000.0	11,450.0	10,596.2	10,035.3	44.2	38.3	13.20	547.1	-718.8	1,453.2	1,422.2	30.96	46.943			
12,100.0	11,450.0	10,685.8	10,034.9	44.5	38.7	13.01	636.4	-724.3	1,452.4	1,421.0	31.38	46.277			
12,165.6	11,450.0	10,744.6	10,034.7	44.8	39.0	12.95	695.3	-726.3	1,452.2	1,420.5	31.74	45.760			
12,200.0	11,450.0	10,775.5	10,034.6	44.9	39.2	12.93	726.1	-726.9	1,452.2	1,420.3	31.93	45.481			
12,300.0	11,450.0	10,873.4	10,034.2	45.4	39.8	12.93	824.1	-727.7	1,452.6	1,420.0	32.62	44.526			
12,400.0	11,450.0	10,973.4	10,033.8	45.9	40.4	12.93	924.1	-728.5	1,453.0	1,419.6	33.40	43.504			
12,500.0	11,450.0	11,073.4	10,033.4	46.5	41.1	12.92	1,024.1	-729.3	1,453.4	1,419.1	34.24	42.444			
12,600.0	11,450.0	11,173.4	10,033.0	47.2	41.8	12.92	1,124.1	-730.1	1,453.8	1,418.6	35.15	41.363			
12,700.0	11,450.0	11,273.4	10,032.6	47.9	42.6	12.92	1,224.1	-730.9	1,454.2	1,418.0	36.11	40.272			
12,800.0	11,450.0	11,373.4	10,032.2	48.7	43.4	12.91	1,324.1	-731.6	1,454.5	1,417.4	37.12	39.182			
12,900.0	11,450.0	11,473.4	10,031.8	49.5	44.3	12.91	1,424.1	-732.4	1,454.9	1,416.7	38.19	38.101			
13,000.0	11,450.0	11,573.4	10,031.5	50.3	45.3	12.91	1,524.0	-733.2	1,455.3	1,416.0	39.29	37.037			
13,100.0	11,450.0	11,673.4	10,031.1	51.2	46.2	12.91	1,624.0	-734.0	1,455.7	1,415.2	40.44	35.995			
13,200.0	11,450.0	11,773.4	10,030.7	52.2	47.3	12.90	1,724.0	-734.8	1,456.1	1,414.4	41.63	34.979			
13,300.0	11,450.0	11,873.4	10,030.3	53.1	48.3	12.90	1,824.0	-735.5	1,456.5	1,413.6	42.85	33.992			
13,400.0	11,450.0	11,973.4	10,029.9	54.1	49.4	12.90	1,924.0	-736.3	1,456.8	1,412.7	44.10	33.037			
13,500.0	11,450.0	12,073.4	10,029.5	55.1	50.5	12.89	2,024.0	-737.1	1,457.2	1,411.8	45.38	32.113			
13,600.0	11,450.0	12,173.4	10,029.1	56.2	51.6	12.89	2,124.0	-737.9	1,457.6	1,410.9	46.68	31.223			
13,700.0	11,450.0	12,273.4	10,028.7	57.3	52.8	12.89	2,224.0	-738.7	1,458.0	1,410.0	48.02	30.365			
13,800.0	11,450.0	12,373.4	10,028.3	58.4	54.0	12.89	2,324.0	-739.4	1,458.4	1,409.0	49.37	29.541			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #113H - 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			
13,900.0	11,450.0	12,473.4	10,027.9	59.5	55.2	12.88	2,424.0	-740.2	1,458.8	1,408.0	50.74	28.749			
14,000.0	11,450.0	12,573.4	10,027.6	60.7	56.5	12.88	2,524.0	-741.0	1,459.1	1,407.0	52.13	27.988			
14,100.0	11,450.0	12,673.4	10,027.2	61.9	57.7	12.88	2,624.0	-741.8	1,459.5	1,406.0	53.54	27.258			
14,200.0	11,450.0	12,773.4	10,026.8	63.1	59.0	12.88	2,724.0	-742.5	1,459.9	1,404.9	54.97	26.558			
14,300.0	11,450.0	12,873.4	10,026.4	64.3	60.3	12.87	2,824.0	-743.3	1,460.3	1,403.9	56.41	25.886			
14,400.0	11,450.0	12,973.4	10,026.0	65.5	61.6	12.87	2,924.0	-744.1	1,460.7	1,402.8	57.87	25.242			
14,500.0	11,450.0	13,073.4	10,025.6	66.8	62.9	12.87	3,024.0	-744.9	1,461.1	1,401.7	59.33	24.624			
14,600.0	11,450.0	13,173.4	10,025.2	68.1	64.3	12.86	3,124.0	-745.7	1,461.4	1,400.6	60.81	24.031			
14,700.0	11,450.0	13,273.4	10,024.8	69.4	65.7	12.86	3,224.0	-746.4	1,461.8	1,399.5	62.30	23.463			
14,800.0	11,450.0	13,373.4	10,024.4	70.7	67.0	12.86	3,324.0	-747.2	1,462.2	1,398.4	63.80	22.917			
14,900.0	11,450.0	13,473.4	10,024.1	72.0	68.4	12.86	3,424.0	-748.0	1,462.6	1,397.3	65.31	22.393			
15,000.0	11,450.0	13,573.4	10,023.7	73.4	69.8	12.85	3,524.0	-748.8	1,463.0	1,396.1	66.83	21.890			
15,100.0	11,450.0	13,673.4	10,023.3	74.7	71.2	12.85	3,624.0	-749.6	1,463.4	1,395.0	68.36	21.406			
15,200.0	11,450.0	13,773.4	10,022.9	76.1	72.6	12.85	3,723.9	-750.3	1,463.7	1,393.8	69.90	20.942			
15,300.0	11,450.0	13,873.4	10,022.5	77.4	74.1	12.84	3,823.9	-751.1	1,464.1	1,392.7	71.44	20.495			
15,400.0	11,450.0	13,973.4	10,022.1	78.8	75.5	12.84	3,923.9	-751.9	1,464.5	1,391.5	72.99	20.065			
15,500.0	11,450.0	14,073.4	10,021.7	80.2	77.0	12.84	4,023.9	-752.7	1,464.9	1,390.3	74.54	19.652			
15,600.0	11,450.0	14,173.4	10,021.3	81.6	78.4	12.84	4,123.9	-753.5	1,465.3	1,389.2	76.10	19.254			
15,700.0	11,450.0	14,273.4	10,020.9	83.0	79.9	12.83	4,223.9	-754.2	1,465.7	1,388.0	77.67	18.870			
15,800.0	11,450.0	14,373.4	10,020.5	84.5	81.4	12.83	4,323.9	-755.0	1,466.0	1,386.8	79.24	18.501			
15,900.0	11,450.0	14,473.4	10,020.2	85.9	82.8	12.83	4,423.9	-755.8	1,466.4	1,385.6	80.82	18.144			
16,000.0	11,450.0	14,573.4	10,019.8	87.3	84.3	12.82	4,523.9	-756.6	1,466.8	1,384.4	82.40	17.801			
16,100.0	11,450.0	14,673.4	10,019.4	88.8	85.8	12.82	4,623.9	-757.3	1,467.2	1,383.2	83.99	17.469			
16,200.0	11,450.0	14,773.4	10,019.0	90.2	87.3	12.82	4,723.9	-758.1	1,467.6	1,382.0	85.58	17.149			
16,300.0	11,450.0	14,873.4	10,018.6	91.7	88.8	12.82	4,823.9	-758.9	1,468.0	1,380.8	87.17	16.840			
16,400.0	11,450.0	14,973.4	10,018.2	93.2	90.3	12.81	4,923.9	-759.7	1,468.3	1,379.6	88.77	16.541			
16,500.0	11,450.0	15,073.4	10,017.8	94.6	91.8	12.81	5,023.9	-760.5	1,468.7	1,378.4	90.37	16.252			
16,600.0	11,450.0	15,173.4	10,017.4	96.1	93.3	12.81	5,123.9	-761.2	1,469.1	1,377.1	91.98	15.973			
16,700.0	11,450.0	15,273.4	10,017.0	97.6	94.9	12.81	5,223.9	-762.0	1,469.5	1,375.9	93.58	15.702			
16,800.0	11,450.0	15,373.4	10,016.7	99.1	96.4	12.80	5,323.9	-762.8	1,469.9	1,374.7	95.19	15.441			
16,900.0	11,450.0	15,473.4	10,016.3	100.6	97.9	12.80	5,423.9	-763.6	1,470.3	1,373.5	96.81	15.187			
17,000.0	11,450.0	15,573.4	10,015.9	102.1	99.5	12.80	5,523.9	-764.4	1,470.6	1,372.2	98.42	14.942			
17,100.0	11,450.0	15,673.4	10,015.5	103.6	101.0	12.79	5,623.9	-765.1	1,471.0	1,371.0	100.04	14.704			
17,200.0	11,450.0	15,773.4	10,015.1	105.1	102.5	12.79	5,723.9	-765.9	1,471.4	1,369.8	101.66	14.473			
17,300.0	11,450.0	15,873.4	10,014.7	106.6	104.1	12.79	5,823.9	-766.7	1,471.8	1,368.5	103.29	14.249			
17,400.0	11,450.0	15,973.4	10,014.3	108.1	105.6	12.79	5,923.8	-767.5	1,472.2	1,367.3	104.91	14.032			
17,500.0	11,450.0	16,073.4	10,013.9	109.6	107.2	12.78	6,023.8	-768.3	1,472.6	1,366.0	106.54	13.822			
17,600.0	11,450.0	16,173.4	10,013.5	111.2	108.8	12.78	6,123.8	-769.0	1,472.9	1,364.8	108.17	13.617			
17,700.0	11,450.0	16,273.4	10,013.1	112.7	110.3	12.78	6,223.8	-769.8	1,473.3	1,363.5	109.80	13.418			
17,800.0	11,450.0	16,373.4	10,012.8	114.2	111.9	12.77	6,323.8	-770.6	1,473.7	1,362.3	111.44	13.225			
17,900.0	11,450.0	16,473.4	10,012.4	115.8	113.4	12.77	6,423.8	-771.4	1,474.1	1,361.0	113.07	13.037			
18,000.0	11,450.0	16,573.4	10,012.0	117.3	115.0	12.77	6,523.8	-772.2	1,474.5	1,359.8	114.71	12.854			
18,100.0	11,450.0	16,673.4	10,011.6	118.9	116.6	12.77	6,623.8	-772.9	1,474.9	1,358.5	116.35	12.677			
18,200.0	11,450.0	16,773.4	10,011.2	120.4	118.1	12.76	6,723.8	-773.7	1,475.3	1,357.3	117.99	12.504			
18,300.0	11,450.0	16,873.4	10,010.8	121.9	119.7	12.76	6,823.8	-774.5	1,475.6	1,356.0	119.63	12.335			
18,400.0	11,450.0	16,973.4	10,010.4	123.5	121.3	12.76	6,923.8	-775.3	1,476.0	1,354.8	121.27	12.171			
18,500.0	11,450.0	17,073.4	10,010.0	125.1	122.9	12.76	7,023.8	-776.0	1,476.4	1,353.5	122.91	12.012			
18,600.0	11,450.0	17,173.4	10,009.6	126.6	124.5	12.75	7,123.8	-776.8	1,476.8	1,352.2	124.56	11.856			
18,700.0	11,450.0	17,273.4	10,009.2	128.2	126.0	12.75	7,223.8	-777.6	1,477.2	1,351.0	126.20	11.705			
18,800.0	11,450.0	17,373.4	10,008.9	129.7	127.6	12.75	7,323.8	-778.4	1,477.6	1,349.7	127.85	11.557			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #113H - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
18,900.0	11,450.0	17,473.4	10,008.5	131.3	129.2	12.74	7,423.8	-779.2	1,477.9	1,348.4	129.50	11.413				
19,000.0	11,450.0	17,573.4	10,008.1	132.9	130.8	12.74	7,523.8	-779.9	1,478.3	1,347.2	131.15	11.272				
19,100.0	11,450.0	17,673.4	10,007.7	134.4	132.4	12.74	7,623.8	-780.7	1,478.7	1,345.9	132.80	11.135				
19,200.0	11,450.0	17,773.4	10,007.3	136.0	134.0	12.74	7,723.8	-781.5	1,479.1	1,344.6	134.45	11.001				
19,300.0	11,450.0	17,873.4	10,006.9	137.6	135.6	12.73	7,823.8	-782.3	1,479.5	1,343.4	136.10	10.870				
19,400.0	11,450.0	17,973.4	10,006.5	139.1	137.2	12.73	7,923.8	-783.1	1,479.9	1,342.1	137.76	10.742				
19,500.0	11,450.0	18,073.4	10,006.1	140.7	138.8	12.73	8,023.8	-783.8	1,480.2	1,340.8	139.41	10.618				
19,600.0	11,450.0	18,173.4	10,005.7	142.3	140.4	12.73	8,123.7	-784.6	1,480.6	1,339.6	141.07	10.496				
19,700.0	11,450.0	18,273.4	10,005.4	143.9	142.0	12.72	8,223.7	-785.4	1,481.0	1,338.3	142.72	10.377				
19,800.0	11,450.0	18,373.4	10,005.0	145.5	143.6	12.72	8,323.7	-786.2	1,481.4	1,337.0	144.38	10.260				
19,900.0	11,450.0	18,473.4	10,004.6	147.1	145.2	12.72	8,423.7	-787.0	1,481.8	1,335.7	146.04	10.147				
20,000.0	11,450.0	18,573.4	10,004.2	148.6	146.8	12.71	8,523.7	-787.7	1,482.2	1,334.5	147.70	10.035				
20,100.0	11,450.0	18,673.4	10,003.8	150.2	148.4	12.71	8,623.7	-788.5	1,482.5	1,333.2	149.35	9.926				
20,200.0	11,450.0	18,773.4	10,003.4	151.8	150.0	12.71	8,723.7	-789.3	1,482.9	1,331.9	151.01	9.820				
20,300.0	11,450.0	18,873.4	10,003.0	153.4	151.6	12.71	8,823.7	-790.1	1,483.3	1,330.6	152.67	9.716				
20,400.0	11,450.0	18,973.4	10,002.6	155.0	153.2	12.70	8,923.7	-790.9	1,483.7	1,329.4	154.33	9.614				
20,500.0	11,450.0	19,073.4	10,002.2	156.6	154.8	12.70	9,023.7	-791.6	1,484.1	1,328.1	156.00	9.514				
20,600.0	11,450.0	19,173.4	10,001.8	158.2	156.4	12.70	9,123.7	-792.4	1,484.5	1,326.8	157.66	9.416				
20,700.0	11,450.0	19,273.4	10,001.5	159.8	158.0	12.70	9,223.7	-793.2	1,484.8	1,325.5	159.32	9.320				
20,800.0	11,450.0	19,373.4	10,001.1	161.4	159.6	12.69	9,323.7	-794.0	1,485.2	1,324.2	160.98	9.226				
20,900.0	11,450.0	19,473.4	10,000.7	163.0	161.2	12.69	9,423.7	-794.7	1,485.6	1,323.0	162.65	9.134				
21,000.0	11,450.0	19,573.4	10,000.3	164.6	162.9	12.69	9,523.7	-795.5	1,486.0	1,321.7	164.31	9.044				
21,100.0	11,450.0	19,673.4	9,999.9	166.2	164.5	12.68	9,623.7	-796.3	1,486.4	1,320.4	165.97	8.955				
21,200.0	11,450.0	19,773.4	9,999.5	167.8	166.1	12.68	9,723.7	-797.1	1,486.8	1,319.1	167.64	8.869				
21,300.0	11,450.0	19,873.4	9,999.1	169.4	167.7	12.68	9,823.7	-797.9	1,487.2	1,317.8	169.30	8.784				
21,400.0	11,450.0	19,973.4	9,998.7	171.0	169.3	12.68	9,923.7	-798.6	1,487.5	1,316.6	170.97	8.701				
21,500.0	11,450.0	20,073.4	9,998.3	172.6	170.9	12.67	10,023.7	-799.4	1,487.9	1,315.3	172.64	8.619				
21,600.0	11,450.0	20,173.4	9,998.0	174.2	172.6	12.67	10,123.7	-800.2	1,488.3	1,314.0	174.30	8.539				
21,659.1	11,450.0	20,232.5	9,997.7	175.1	173.5	12.67	10,182.8	-800.7	1,488.5	1,313.4	175.17	8.498				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #114H - 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	74.21	31.1	109.9	114.2						
100.0	100.0	100.0	100.0	0.1	0.1	74.21	31.1	109.9	114.2	114.0	0.26	445.624			
200.0	200.0	200.0	200.0	0.5	0.5	74.21	31.1	109.9	114.2	113.2	0.97	117.356			
300.0	300.0	300.0	300.0	0.8	0.8	74.21	31.1	109.9	114.2	112.5	1.69	67.576			
400.0	400.0	400.0	400.0	1.2	1.2	74.21	31.1	109.9	114.2	111.8	2.41	47.449			
500.0	500.0	500.0	500.0	1.6	1.6	74.21	31.1	109.9	114.2	111.1	3.12	36.560			
600.0	600.0	600.0	600.0	1.9	1.9	74.21	31.1	109.9	114.2	110.4	3.84	29.736			
700.0	700.0	700.0	700.0	2.3	2.3	74.21	31.1	109.9	114.2	109.7	4.56	25.059			
800.0	800.0	800.0	800.0	2.6	2.6	74.21	31.1	109.9	114.2	108.9	5.27	21.653			
900.0	900.0	900.0	900.0	3.0	3.0	74.21	31.1	109.9	114.2	108.2	5.99	19.062			
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	74.21	31.1	109.9	114.2	107.5	6.71	17.025	CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	166.11	31.1	109.9	115.1	107.6	7.42	15.514			
1,200.0	1,200.0	1,200.0	1,200.0	4.0	4.1	166.41	31.1	109.9	117.6	109.5	8.12	14.487			
1,300.0	1,299.9	1,300.1	1,299.9	4.4	4.4	166.88	31.1	109.9	121.9	113.0	8.82	13.811			
1,400.0	1,399.7	1,400.3	1,399.7	4.7	4.8	167.49	31.1	109.9	127.8	118.3	9.53	13.411			
1,500.0	1,499.4	1,499.4	1,499.4	5.1	5.1	168.19	31.1	109.9	135.5	125.2	10.23	13.237			
1,600.0	1,598.9	1,597.0	1,597.0	5.5	5.5	169.13	30.7	110.7	145.5	134.6	10.92	13.325			
1,700.0	1,698.3	1,694.0	1,693.9	5.8	5.8	170.41	29.7	112.9	158.7	147.1	11.60	13.685			
1,744.2	1,742.1	1,736.6	1,736.6	6.0	6.0	171.05	29.0	114.3	165.5	153.6	11.89	13.915			
1,800.0	1,797.4	1,790.3	1,790.2	6.2	6.1	171.88	28.0	116.6	174.7	162.5	12.27	14.244			
1,900.0	1,896.6	1,886.1	1,885.8	6.6	6.5	173.39	25.6	121.7	192.4	179.5	12.93	14.876			
2,000.0	1,995.8	1,981.2	1,980.7	7.0	6.8	174.88	22.5	128.2	211.6	198.0	13.60	15.562			
2,100.0	2,094.9	2,075.8	2,074.8	7.4	7.1	176.31	18.9	136.1	232.3	218.1	14.26	16.294			
2,200.0	2,194.1	2,169.6	2,168.1	7.8	7.5	177.68	14.6	145.3	254.5	239.6	14.91	17.070			
2,300.0	2,293.2	2,262.7	2,260.5	8.1	7.8	178.99	9.6	155.9	278.3	262.7	15.56	17.885			
2,400.0	2,392.4	2,357.7	2,354.6	8.5	8.2	-179.78	4.1	167.7	303.3	287.1	16.23	18.689			
2,500.0	2,491.5	2,454.3	2,450.2	8.9	8.5	-178.70	-1.6	179.9	328.6	311.7	16.92	19.420			
2,600.0	2,590.7	2,550.9	2,545.8	9.3	8.9	-177.78	-7.3	192.1	354.0	336.4	17.62	20.095			
2,700.0	2,689.9	2,647.5	2,641.5	9.7	9.3	-176.98	-12.9	204.3	379.4	361.1	18.31	20.721			
2,800.0	2,789.0	2,744.0	2,737.1	10.1	9.6	-176.28	-18.6	216.4	404.9	385.9	19.01	21.301			
2,900.0	2,888.2	2,840.6	2,832.8	10.5	10.0	-175.67	-24.3	228.6	430.5	410.8	19.71	21.840			
3,000.0	2,987.3	2,937.2	2,928.4	10.9	10.4	-175.12	-30.0	240.8	456.1	435.6	20.41	22.343			
3,100.0	3,086.5	3,033.8	3,024.1	11.4	10.8	-174.63	-35.7	253.0	481.7	460.6	21.12	22.812			
3,200.0	3,185.6	3,130.4	3,119.7	11.8	11.1	-174.19	-41.3	265.2	507.3	485.5	21.82	23.250			
3,300.0	3,284.8	3,227.0	3,215.3	12.2	11.5	-173.80	-47.0	277.4	533.0	510.5	22.53	23.661			
3,400.0	3,384.0	3,323.5	3,311.0	12.6	11.9	-173.44	-52.7	289.5	558.7	535.5	23.23	24.047			
3,500.0	3,483.1	3,420.1	3,406.6	13.0	12.3	-173.11	-58.4	301.7	584.4	560.5	23.94	24.409			
3,600.0	3,582.3	3,516.7	3,502.3	13.4	12.7	-172.81	-64.1	313.9	610.2	585.5	24.65	24.750			
3,700.0	3,681.4	3,613.3	3,597.9	13.8	13.1	-172.53	-69.8	326.1	635.9	610.6	25.36	25.072			
3,800.0	3,780.6	3,709.9	3,693.6	14.2	13.5	-172.27	-75.4	338.3	661.7	635.6	26.08	25.376			
3,900.0	3,879.7	3,806.5	3,789.2	14.6	13.9	-172.04	-81.1	350.5	687.5	660.7	26.79	25.664			
4,000.0	3,978.9	3,903.1	3,884.9	15.0	14.3	-171.82	-86.8	362.6	713.3	685.8	27.50	25.936			
4,100.0	4,078.1	3,999.6	3,980.5	15.4	14.7	-171.61	-92.5	374.8	739.1	710.8	28.21	26.195			
4,200.0	4,177.2	4,103.8	4,076.1	15.8	15.1	-171.42	-98.2	387.0	764.9	735.9	28.96	26.415			
4,300.0	4,276.4	4,207.2	4,171.8	16.2	15.5	-171.25	-103.8	399.2	790.7	761.0	29.70	26.625			
4,400.0	4,375.5	4,289.4	4,267.4	16.7	15.8	-171.08	-109.5	411.4	816.5	786.1	30.36	26.895			
4,500.0	4,474.7	4,386.0	4,363.1	17.1	16.2	-170.92	-115.2	423.5	842.3	811.2	31.07	27.107			
4,600.0	4,573.9	4,482.6	4,458.7	17.5	16.6	-170.78	-120.9	435.7	868.1	836.3	31.79	27.309			
4,700.0	4,673.0	4,579.1	4,554.4	17.9	17.0	-170.64	-126.6	447.9	894.0	861.5	32.51	27.502			
4,800.0	4,772.2	4,675.7	4,650.0	18.3	17.4	-170.51	-132.3	460.1	919.8	886.6	33.22	27.686			
4,900.0	4,871.3	4,772.3	4,745.6	18.7	17.8	-170.38	-137.9	472.3	945.6	911.7	33.94	27.862			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #114H - 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			
5,000.0	4,970.5	4,868.9	4,841.3	19.1	18.2	-170.27	-143.6	484.5	971.5	936.8	34.66	28.031			
5,100.0	5,069.6	4,965.5	4,936.9	19.5	18.6	-170.15	-149.3	496.6	997.3	962.0	35.38	28.192			
5,200.0	5,168.8	5,062.1	5,032.6	19.9	19.0	-170.05	-155.0	508.8	1,023.2	987.1	36.09	28.348			
5,300.0	5,268.0	5,158.6	5,128.2	20.4	19.4	-169.95	-160.7	521.0	1,049.1	1,012.2	36.81	28.497			
5,400.0	5,367.1	5,255.2	5,223.9	20.8	19.8	-169.85	-166.3	533.2	1,074.9	1,037.4	37.53	28.640			
5,500.0	5,466.3	5,352.2	5,319.9	21.2	20.2	-169.76	-172.0	545.4	1,100.8	1,062.5	38.26	28.774			
5,600.0	5,565.4	5,486.8	5,453.5	21.6	20.8	-169.68	-178.9	560.2	1,125.0	1,085.7	39.27	28.847			
5,700.0	5,664.6	5,623.6	5,589.8	22.0	21.3	-169.67	-183.9	570.9	1,145.9	1,105.6	40.25	28.869			
5,800.0	5,763.7	5,762.2	5,728.2	22.4	21.8	-169.73	-186.8	577.2	1,163.3	1,122.2	41.18	28.248			
5,900.0	5,862.9	5,903.1	5,862.9	22.8	22.3	-169.86	-187.7	578.9	1,177.4	1,135.3	42.06	27.991			
6,000.0	5,962.1	6,003.9	5,962.1	23.2	22.6	-169.97	-187.7	578.9	1,190.2	1,147.4	42.77	27.827			
6,100.0	6,061.2	6,104.8	6,061.2	23.7	22.9	-170.07	-187.7	578.9	1,202.9	1,159.4	43.48	27.668			
6,200.0	6,160.4	6,205.6	6,160.4	24.1	23.2	-170.18	-187.7	578.9	1,215.7	1,171.5	44.19	27.513			
6,300.0	6,259.5	6,306.5	6,259.5	24.5	23.6	-170.28	-187.7	578.9	1,228.5	1,183.6	44.89	27.364			
6,400.0	6,358.7	6,407.3	6,358.7	24.9	23.9	-170.38	-187.7	578.9	1,241.2	1,195.6	45.60	27.218			
6,500.0	6,457.8	6,508.1	6,457.8	25.3	24.2	-170.48	-187.7	578.9	1,254.0	1,207.7	46.31	27.077			
6,600.0	6,557.0	6,609.0	6,557.0	25.7	24.6	-170.58	-187.7	578.9	1,266.8	1,219.8	47.02	26.940			
6,700.0	6,656.2	6,709.8	6,656.2	26.1	24.9	-170.67	-187.7	578.9	1,279.6	1,231.8	47.73	26.806			
6,800.0	6,755.3	6,789.3	6,755.3	26.5	25.1	-170.77	-187.7	578.9	1,292.4	1,244.0	48.37	26.717			
6,900.0	6,854.5	6,888.5	6,854.5	27.0	25.5	-170.86	-187.7	578.9	1,305.1	1,256.1	49.08	26.593			
7,000.0	6,953.6	6,987.7	6,953.6	27.4	25.8	-170.95	-187.7	578.9	1,317.9	1,268.1	49.78	26.473			
7,100.0	7,052.8	7,086.8	7,052.8	27.8	26.1	-171.04	-187.7	578.9	1,330.7	1,280.2	50.49	26.356			
7,200.0	7,152.0	7,186.0	7,152.0	28.2	26.4	-171.12	-187.7	578.9	1,343.5	1,292.3	51.20	26.241			
7,300.0	7,251.1	7,285.1	7,251.1	28.6	26.8	-171.21	-187.7	578.9	1,356.3	1,304.4	51.91	26.130			
7,400.0	7,350.3	7,384.3	7,350.3	29.0	27.1	-171.29	-187.7	578.9	1,369.1	1,316.5	52.61	26.022			
7,500.0	7,449.4	7,483.4	7,449.4	29.4	27.4	-171.37	-187.7	578.9	1,381.9	1,328.6	53.32	25.916			
7,551.0	7,500.0	7,534.0	7,500.0	29.7	27.6	-171.41	-187.7	578.9	1,388.5	1,334.8	53.68	25.863			
7,600.0	7,548.6	7,582.7	7,548.6	29.8	27.8	-160.45	-187.7	578.9	1,394.2	1,340.1	54.03	25.802			
7,674.8	7,623.1	7,657.1	7,623.1	30.1	28.0	-136.30	-187.7	578.9	1,400.5	1,345.9	54.56	25.670			
7,700.0	7,648.2	7,682.2	7,648.2	30.2	28.1	-136.36	-187.7	578.9	1,402.2	1,347.4	54.74	25.617			
7,800.0	7,747.7	7,781.8	7,747.7	30.6	28.4	-136.62	-187.7	578.9	1,408.8	1,353.4	55.44	25.412			
7,900.0	7,847.3	7,881.3	7,847.3	31.0	28.8	-136.87	-187.7	578.9	1,415.5	1,359.4	56.14	25.212			
8,000.0	7,946.9	7,980.9	7,946.9	31.3	29.1	-137.13	-187.7	578.9	1,422.2	1,365.4	56.85	25.018			
8,100.0	8,046.5	8,080.5	8,046.5	31.7	29.4	-137.38	-187.7	578.9	1,429.0	1,371.4	57.55	24.828			
8,200.0	8,146.1	8,180.1	8,146.1	32.1	29.8	-137.62	-187.7	578.9	1,435.7	1,377.5	58.26	24.643			
8,300.0	8,245.6	8,279.7	8,245.6	32.4	30.1	-137.87	-187.7	578.9	1,442.5	1,383.5	58.97	24.464			
8,400.0	8,345.2	8,379.2	8,345.2	32.8	30.4	-138.11	-187.7	578.9	1,449.3	1,389.7	59.67	24.288			
8,500.0	8,444.8	8,478.8	8,444.8	33.2	30.8	-138.35	-187.7	578.9	1,456.2	1,395.8	60.38	24.117			
8,600.0	8,544.4	8,578.4	8,544.4	33.6	31.1	-138.59	-187.7	578.9	1,463.0	1,402.0	61.09	23.950			
8,700.0	8,644.0	8,678.0	8,644.0	33.9	31.5	-138.82	-187.7	578.9	1,469.9	1,408.1	61.79	23.788			
8,800.0	8,743.5	8,777.6	8,743.5	34.3	31.8	-139.06	-187.7	578.9	1,476.8	1,414.3	62.50	23.629			
8,900.0	8,843.1	8,877.1	8,843.1	34.7	32.1	-139.29	-187.7	578.9	1,483.8	1,420.6	63.21	23.474			
9,000.0	8,942.7	8,976.7	8,942.7	35.1	32.5	-139.52	-187.7	578.9	1,490.8	1,426.8	63.92	23.323			
9,100.0	9,042.3	9,076.3	9,042.3	35.4	32.8	-139.74	-187.7	578.9	1,497.7	1,433.1	64.63	23.175			
9,200.0	9,141.9	9,175.9	9,141.9	35.8	33.1	-139.97	-187.7	578.9	1,504.8	1,439.4	65.34	23.031			
9,300.0	9,241.4	9,275.5	9,241.4	36.2	33.5	-140.19	-187.7	578.9	1,511.8	1,445.7	66.05	22.890			
9,400.0	9,341.0	9,375.0	9,341.0	36.6	33.8	-140.41	-187.7	578.9	1,518.8	1,452.1	66.76	22.752			
9,500.0	9,440.6	9,474.6	9,440.6	36.9	34.2	-140.63	-187.7	578.9	1,525.9	1,458.5	67.47	22.618			
9,600.0	9,540.2	9,575.3	9,541.2	37.3	34.5	-140.95	-185.0	579.0	1,533.0	1,464.8	68.18	22.486			
9,700.0	9,639.8	9,672.0	9,636.2	37.7	34.8	-141.80	-167.6	579.4	1,540.2	1,471.4	68.84	22.374			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #114H - 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			
9,800.0	9,739.3	9,759.0	9,718.1	38.1	35.1	-143.05	-138.6	580.2	1,548.2	1,478.8	69.42	22.301			
9,900.0	9,838.9	9,834.3	9,784.8	38.4	35.2	-144.48	-103.6	581.1	1,557.9	1,488.0	69.91	22.284			
10,000.0	9,938.5	9,898.1	9,837.3	38.8	35.4	-145.91	-67.4	582.1	1,570.3	1,500.0	70.28	22.342			
10,100.0	10,038.1	9,950.0	9,876.7	39.2	35.5	-147.22	-33.8	582.9	1,586.2	1,515.7	70.51	22.497			
10,200.0	10,137.7	10,000.0	9,911.8	39.6	35.5	-148.57	1.8	583.9	1,606.0	1,535.4	70.61	22.744			
10,300.0	10,237.2	10,033.8	9,933.6	39.9	35.6	-149.54	27.6	584.5	1,630.1	1,559.6	70.49	23.126			
10,400.0	10,336.8	10,065.4	9,952.7	40.3	35.6	-150.48	52.8	585.2	1,658.7	1,588.5	70.22	23.622			
10,500.0	10,436.4	10,100.0	9,971.9	40.7	35.6	-151.54	81.6	586.0	1,691.9	1,622.0	69.86	24.218			
10,600.0	10,536.0	10,115.5	9,979.9	41.1	35.6	-152.02	94.8	586.3	1,729.4	1,660.2	69.23	24.982			
10,700.0	10,635.6	10,135.4	9,989.7	41.4	35.7	-152.65	112.2	586.8	1,771.2	1,702.7	68.54	25.843			
10,759.5	10,694.8	10,150.0	9,996.5	41.7	35.7	-153.11	125.0	587.1	1,798.1	1,730.0	68.12	26.398			
10,800.0	10,735.2	10,150.0	9,996.5	41.8	35.7	-153.39	125.0	587.1	1,816.9	1,749.2	67.72	26.829			
10,900.0	10,835.1	10,169.2	10,004.9	42.2	35.7	-154.65	142.3	587.6	1,863.2	1,796.4	66.86	27.868			
10,941.9	10,877.0	10,175.8	10,007.7	42.3	35.7	77.82	148.3	587.7	1,882.6	1,816.1	66.45	28.330			
10,950.0	10,885.1	10,177.0	10,008.2	42.3	35.7	77.83	149.4	587.7	1,886.3	1,819.9	66.37	28.420			
11,000.0	10,935.0	10,185.4	10,011.6	42.5	35.7	75.05	157.1	587.9	1,909.5	1,843.6	65.88	28.986			
11,050.0	10,984.4	10,200.0	10,017.2	42.6	35.7	72.16	170.5	588.3	1,932.5	1,867.1	65.43	29.536			
11,100.0	11,033.1	10,200.0	10,017.2	42.8	35.7	69.75	170.5	588.3	1,955.3	1,890.5	64.83	30.160			
11,150.0	11,080.5	10,215.6	10,022.9	42.9	35.7	67.07	185.0	588.7	1,977.6	1,913.2	64.39	30.713			
11,200.0	11,126.4	10,227.0	10,026.7	43.0	35.7	64.65	195.7	589.0	1,999.1	1,935.2	63.91	31.283			
11,250.0	11,170.4	10,250.0	10,033.9	43.1	35.7	62.19	217.6	589.5	2,019.9	1,956.4	63.53	31.794			
11,300.0	11,212.2	10,250.0	10,033.9	43.2	35.7	60.33	217.6	589.5	2,039.5	1,976.5	62.97	32.389			
11,350.0	11,251.4	10,250.0	10,033.9	43.3	35.7	58.60	217.6	589.5	2,058.1	1,995.7	62.43	32.965			
11,400.0	11,287.8	10,277.3	10,041.3	43.4	35.8	56.71	243.9	590.2	2,075.1	2,013.0	62.17	33.378			
11,450.0	11,321.0	10,300.0	10,046.4	43.4	35.8	55.10	266.0	590.8	2,090.9	2,029.0	61.89	33.785			
11,500.0	11,350.9	10,300.0	10,046.4	43.5	35.8	53.91	266.0	590.8	2,104.9	2,043.4	61.47	34.245			
11,550.0	11,377.2	10,318.6	10,050.0	43.5	35.9	52.74	284.2	591.3	2,117.3	2,056.1	61.24	34.575			
11,600.0	11,399.6	10,332.7	10,052.3	43.6	35.9	51.80	298.2	591.6	2,127.9	2,066.9	61.02	34.870			
11,650.0	11,418.1	10,350.0	10,054.7	43.6	35.9	51.02	315.3	592.1	2,136.8	2,075.9	60.89	35.094			
11,700.0	11,432.5	10,350.0	10,054.7	43.6	35.9	50.47	315.3	592.1	2,143.8	2,083.1	60.71	35.313			
11,750.0	11,442.6	10,376.0	10,057.3	43.7	36.0	50.04	341.1	592.8	2,148.6	2,087.9	60.74	35.373			
11,800.0	11,448.4	10,400.0	10,058.6	43.8	36.1	49.80	365.1	593.4	2,151.7	2,090.9	60.82	35.379			
11,841.9	11,450.0	10,400.0	10,058.6	43.8	36.1	49.73	365.1	593.4	2,152.6	2,091.8	60.85	35.378			
11,900.0	11,450.0	10,424.0	10,058.9	43.9	36.1	49.75	389.1	594.0	2,153.6	2,092.5	61.03	35.288			
12,000.0	11,450.0	10,565.0	10,058.0	44.2	36.7	49.76	530.1	594.6	2,154.9	2,093.1	61.75	34.895			
12,100.0	11,450.0	10,665.0	10,057.3	44.5	37.1	49.75	630.1	593.8	2,155.4	2,092.9	62.44	34.519			
12,200.0	11,450.0	10,765.0	10,056.5	44.9	37.6	49.73	730.1	593.0	2,155.8	2,092.6	63.23	34.094			
12,300.0	11,450.0	10,865.0	10,055.8	45.4	38.2	49.72	830.1	592.2	2,156.3	2,092.2	64.13	33.624			
12,400.0	11,450.0	10,965.0	10,055.1	45.9	38.9	49.70	930.0	591.5	2,156.8	2,091.6	65.13	33.116			
12,500.0	11,450.0	11,065.0	10,054.4	46.5	39.5	49.69	1,030.0	590.7	2,157.2	2,091.0	66.22	32.575			
12,600.0	11,450.0	11,165.0	10,053.7	47.2	40.3	49.68	1,130.0	589.9	2,157.7	2,090.3	67.41	32.008			
12,700.0	11,450.0	11,265.0	10,053.0	47.9	41.1	49.66	1,230.0	589.1	2,158.2	2,089.5	68.68	31.422			
12,800.0	11,450.0	11,365.0	10,052.3	48.7	42.0	49.65	1,330.0	588.3	2,158.6	2,088.6	70.04	30.820			
12,900.0	11,450.0	11,465.0	10,051.6	49.5	42.8	49.64	1,430.0	587.6	2,159.1	2,087.6	71.47	30.209			
13,000.0	11,450.0	11,565.0	10,050.9	50.3	43.8	49.62	1,530.0	586.8	2,159.6	2,086.6	72.98	29.593			
13,100.0	11,450.0	11,665.0	10,050.2	51.2	44.8	49.61	1,630.0	586.0	2,160.1	2,085.5	74.55	28.974			
13,200.0	11,450.0	11,765.0	10,049.5	52.2	45.8	49.59	1,730.0	585.2	2,160.5	2,084.3	76.19	28.358			
13,300.0	11,450.0	11,865.0	10,048.8	53.1	46.9	49.58	1,830.0	584.4	2,161.0	2,083.1	77.88	27.746			
13,400.0	11,450.0	11,965.0	10,048.1	54.1	47.9	49.57	1,930.0	583.7	2,161.5	2,081.8	79.64	27.141			
13,500.0	11,450.0	12,065.0	10,047.4	55.1	49.1	49.55	2,030.0	582.9	2,161.9	2,080.5	81.44	26.546			
13,600.0	11,450.0	12,165.0	10,046.7	56.2	50.2	49.54	2,130.0	582.1	2,162.4	2,079.1	83.30	25.960			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #1														Offset Well Error:	0.0 usft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
13,700.0	11,450.0	12,265.0	10,046.0	57.3	51.4	49.52	2,229.9	581.3	2,162.9	2,077.7	85.20	25.387			
13,800.0	11,450.0	12,365.0	10,045.3	58.4	52.6	49.51	2,329.9	580.6	2,163.3	2,076.2	87.14	24.827			
13,900.0	11,450.0	12,465.0	10,044.6	59.5	53.8	49.50	2,429.9	579.8	2,163.8	2,074.7	89.12	24.280			
14,000.0	11,450.0	12,565.0	10,043.9	60.7	55.1	49.48	2,529.9	579.0	2,164.3	2,073.1	91.14	23.748			
14,100.0	11,450.0	12,665.0	10,043.2	61.9	56.3	49.47	2,629.9	578.2	2,164.7	2,071.6	93.19	23.230			
14,200.0	11,450.0	12,765.0	10,042.5	63.1	57.6	49.45	2,729.9	577.4	2,165.2	2,069.9	95.27	22.726			
14,300.0	11,450.0	12,865.0	10,041.8	64.3	59.0	49.44	2,829.9	576.7	2,165.7	2,068.3	97.39	22.237			
14,400.0	11,450.0	12,965.0	10,041.1	65.5	60.3	49.43	2,929.9	575.9	2,166.2	2,066.6	99.53	21.763			
14,500.0	11,450.0	13,065.0	10,040.4	66.8	61.6	49.41	3,029.9	575.1	2,166.6	2,064.9	101.70	21.304			
14,600.0	11,450.0	13,165.0	10,039.7	68.1	63.0	49.40	3,129.9	574.3	2,167.1	2,063.2	103.90	20.858			
14,700.0	11,450.0	13,265.0	10,039.0	69.4	64.3	49.38	3,229.9	573.5	2,167.6	2,061.5	106.11	20.427			
14,800.0	11,450.0	13,364.9	10,038.2	70.7	65.7	49.37	3,329.9	572.8	2,168.0	2,059.7	108.35	20.009			
14,900.0	11,450.0	13,464.9	10,037.5	72.0	67.1	49.36	3,429.8	572.0	2,168.5	2,057.9	110.61	19.605			
15,000.0	11,450.0	13,564.9	10,036.8	73.4	68.5	49.34	3,529.8	571.2	2,169.0	2,056.1	112.89	19.213			
15,100.0	11,450.0	13,664.9	10,036.1	74.7	70.0	49.33	3,629.8	570.4	2,169.4	2,054.3	115.18	18.835			
15,200.0	11,450.0	13,764.9	10,035.4	76.1	71.4	49.32	3,729.8	569.7	2,169.9	2,052.4	117.50	18.468			
15,300.0	11,450.0	13,864.9	10,034.7	77.4	72.8	49.30	3,829.8	568.9	2,170.4	2,050.6	119.82	18.113			
15,400.0	11,450.0	13,964.9	10,034.0	78.8	74.3	49.29	3,929.8	568.1	2,170.9	2,048.7	122.17	17.770			
15,500.0	11,450.0	14,064.9	10,033.3	80.2	75.7	49.27	4,029.8	567.3	2,171.3	2,046.8	124.52	17.437			
15,600.0	11,450.0	14,164.9	10,032.6	81.6	77.2	49.26	4,129.8	566.5	2,171.8	2,044.9	126.89	17.115			
15,700.0	11,450.0	14,264.9	10,031.9	83.0	78.7	49.25	4,229.8	565.8	2,172.3	2,043.0	129.27	16.804			
15,800.0	11,450.0	14,364.9	10,031.2	84.5	80.1	49.23	4,329.8	565.0	2,172.8	2,041.1	131.67	16.502			
15,900.0	11,450.0	14,464.9	10,030.5	85.9	81.6	49.22	4,429.8	564.2	2,173.2	2,039.2	134.07	16.209			
16,000.0	11,450.0	14,564.9	10,029.8	87.3	83.1	49.21	4,529.8	563.4	2,173.7	2,037.2	136.49	15.926			
16,100.0	11,450.0	14,664.9	10,029.1	88.8	84.6	49.19	4,629.8	562.6	2,174.2	2,035.3	138.91	15.652			
16,200.0	11,450.0	14,764.9	10,028.4	90.2	86.1	49.18	4,729.7	561.9	2,174.6	2,033.3	141.34	15.386			
16,300.0	11,450.0	14,864.9	10,027.7	91.7	87.6	49.16	4,829.7	561.1	2,175.1	2,031.3	143.78	15.128			
16,400.0	11,450.0	14,964.9	10,027.0	93.2	89.2	49.15	4,929.7	560.3	2,175.6	2,029.4	146.23	14.877			
16,500.0	11,450.0	15,064.9	10,026.3	94.6	90.7	49.14	5,029.7	559.5	2,176.1	2,027.4	148.69	14.635			
16,600.0	11,450.0	15,164.9	10,025.6	96.1	92.2	49.12	5,129.7	558.8	2,176.5	2,025.4	151.16	14.399			
16,700.0	11,450.0	15,264.9	10,024.9	97.6	93.7	49.11	5,229.7	558.0	2,177.0	2,023.4	153.63	14.171			
16,800.0	11,450.0	15,364.9	10,024.2	99.1	95.3	49.10	5,329.7	557.2	2,177.5	2,021.4	156.11	13.949			
16,900.0	11,450.0	15,464.9	10,023.5	100.6	96.8	49.08	5,429.7	556.4	2,178.0	2,019.4	158.59	13.733			
17,000.0	11,450.0	15,564.9	10,022.8	102.1	98.3	49.07	5,529.7	555.6	2,178.4	2,017.3	161.08	13.524			
17,100.0	11,450.0	15,664.9	10,022.1	103.6	99.9	49.05	5,629.7	554.9	2,178.9	2,015.3	163.58	13.320			
17,200.0	11,450.0	15,764.9	10,021.4	105.1	101.4	49.04	5,729.7	554.1	2,179.4	2,013.3	166.08	13.123			
17,300.0	11,450.0	15,864.9	10,020.7	106.6	103.0	49.03	5,829.7	553.3	2,179.8	2,011.3	168.59	12.930			
17,400.0	11,450.0	15,964.9	10,019.9	108.1	104.5	49.01	5,929.6	552.5	2,180.3	2,009.2	171.10	12.743			
17,500.0	11,450.0	16,064.9	10,019.2	109.6	106.1	49.00	6,029.6	551.7	2,180.8	2,007.2	173.61	12.561			
17,600.0	11,450.0	16,164.9	10,018.5	111.2	107.7	48.99	6,129.6	551.0	2,181.3	2,005.1	176.13	12.384			
17,700.0	11,450.0	16,264.9	10,017.8	112.7	109.2	48.97	6,229.6	550.2	2,181.7	2,003.1	178.66	12.212			
17,800.0	11,450.0	16,364.9	10,017.1	114.2	110.8	48.96	6,329.6	549.4	2,182.2	2,001.0	181.18	12.044			
17,900.0	11,450.0	16,464.9	10,016.4	115.8	112.4	48.94	6,429.6	548.6	2,182.7	1,999.0	183.71	11.881			
18,000.0	11,450.0	16,564.9	10,015.7	117.3	113.9	48.93	6,529.6	547.9	2,183.2	1,996.9	186.25	11.722			
18,100.0	11,450.0	16,664.9	10,015.0	118.9	115.5	48.92	6,629.6	547.1	2,183.6	1,994.9	188.79	11.567			
18,200.0	11,450.0	16,764.9	10,014.3	120.4	117.1	48.90	6,729.6	546.3	2,184.1	1,992.8	191.33	11.416			
18,300.0	11,450.0	16,864.9	10,013.6	121.9	118.7	48.89	6,829.6	545.5	2,184.6	1,990.7	193.87	11.268			
18,400.0	11,450.0	16,964.9	10,012.9	123.5	120.3	48.88	6,929.6	544.7	2,185.1	1,988.6	196.42	11.124			
18,500.0	11,450.0	17,064.9	10,012.2	125.1	121.8	48.86	7,029.6	544.0	2,185.5	1,986.6	198.97	10.984			
18,600.0	11,450.0	17,164.9	10,011.5	126.6	123.4	48.85	7,129.6	543.2	2,186.0	1,984.5	201.52	10.847			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #114H - 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	11,450.0	17,264.9	10,010.8	128.2	125.0	48.84	7,229.5	542.4	2,186.5	1,982.4	204.08	10.714			
18,800.0	11,450.0	17,364.9	10,010.1	129.7	126.6	48.82	7,329.5	541.6	2,187.0	1,980.3	206.64	10.584			
18,900.0	11,450.0	17,464.8	10,009.4	131.3	128.2	48.81	7,429.5	540.8	2,187.4	1,978.3	209.19	10.457			
19,000.0	11,450.0	17,564.8	10,008.7	132.9	129.8	48.79	7,529.5	540.1	2,187.9	1,976.2	211.76	10.332			
19,100.0	11,450.0	17,664.8	10,008.0	134.4	131.4	48.78	7,629.5	539.3	2,188.4	1,974.1	214.32	10.211			
19,200.0	11,450.0	17,764.8	10,007.3	136.0	133.0	48.77	7,729.5	538.5	2,188.9	1,972.0	216.89	10.092			
19,300.0	11,450.0	17,864.8	10,006.6	137.6	134.6	48.75	7,829.5	537.7	2,189.3	1,969.9	219.45	9.976			
19,400.0	11,450.0	17,964.8	10,005.9	139.1	136.2	48.74	7,929.5	537.0	2,189.8	1,967.8	222.02	9.863			
19,500.0	11,450.0	18,064.8	10,005.2	140.7	137.8	48.73	8,029.5	536.2	2,190.3	1,965.7	224.59	9.752			
19,600.0	11,450.0	18,164.8	10,004.5	142.3	139.4	48.71	8,129.5	535.4	2,190.8	1,963.6	227.17	9.644			
19,700.0	11,450.0	18,264.8	10,003.8	143.9	141.0	48.70	8,229.5	534.6	2,191.3	1,961.5	229.74	9.538			
19,800.0	11,450.0	18,364.8	10,003.1	145.5	142.6	48.69	8,329.5	533.8	2,191.7	1,959.4	232.31	9.434			
19,900.0	11,450.0	18,464.8	10,002.4	147.1	144.2	48.67	8,429.4	533.1	2,192.2	1,957.3	234.89	9.333			
20,000.0	11,450.0	18,564.8	10,001.6	148.6	145.8	48.66	8,529.4	532.3	2,192.7	1,955.2	237.47	9.234			
20,100.0	11,450.0	18,664.8	10,000.9	150.2	147.4	48.65	8,629.4	531.5	2,193.2	1,953.1	240.05	9.136			
20,200.0	11,450.0	18,764.8	10,000.2	151.8	149.0	48.63	8,729.4	530.7	2,193.6	1,951.0	242.63	9.041			
20,300.0	11,450.0	18,864.8	9,999.5	153.4	150.6	48.62	8,829.4	530.0	2,194.1	1,948.9	245.21	8.948			
20,400.0	11,450.0	18,964.8	9,998.8	155.0	152.2	48.60	8,929.4	529.2	2,194.6	1,946.8	247.79	8.857			
20,500.0	11,450.0	19,064.8	9,998.1	156.6	153.8	48.59	9,029.4	528.4	2,195.1	1,944.7	250.38	8.767			
20,600.0	11,450.0	19,164.8	9,997.4	158.2	155.4	48.58	9,129.4	527.6	2,195.6	1,942.6	252.96	8.679			
20,700.0	11,450.0	19,264.8	9,996.7	159.8	157.1	48.56	9,229.4	526.8	2,196.0	1,940.5	255.55	8.594			
20,800.0	11,450.0	19,364.8	9,996.0	161.4	158.7	48.55	9,329.4	526.1	2,196.5	1,938.4	258.13	8.509			
20,900.0	11,450.0	19,464.8	9,995.3	163.0	160.3	48.54	9,429.4	525.3	2,197.0	1,936.3	260.72	8.427			
21,000.0	11,450.0	19,564.8	9,994.6	164.6	161.9	48.52	9,529.4	524.5	2,197.5	1,934.2	263.31	8.346			
21,100.0	11,450.0	19,664.8	9,993.9	166.2	163.5	48.51	9,629.4	523.7	2,197.9	1,932.1	265.89	8.266			
21,200.0	11,450.0	19,764.8	9,993.2	167.8	165.1	48.50	9,729.3	522.9	2,198.4	1,929.9	268.48	8.188			
21,300.0	11,450.0	19,864.8	9,992.5	169.4	166.8	48.48	9,829.3	522.2	2,198.9	1,927.8	271.07	8.112			
21,400.0	11,450.0	19,964.8	9,991.8	171.0	168.4	48.47	9,929.3	521.4	2,199.4	1,925.7	273.66	8.037			
21,500.0	11,450.0	20,064.8	9,991.1	172.6	170.0	48.46	10,029.3	520.6	2,199.9	1,923.6	276.25	7.963			
21,600.0	11,450.0	20,164.8	9,990.4	174.2	171.6	48.44	10,129.3	519.8	2,200.3	1,921.5	278.84	7.891			
21,659.1	11,450.0	20,223.9	9,990.0	175.1	172.5	48.43	10,188.4	519.4	2,200.6	1,920.3	280.32	7.850 SF			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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	89.50	0.3	30.2	30.2						
100.0	100.0	100.0	100.0	0.1	0.1	89.50	0.3	30.2	30.2	29.9	0.26	117.660			
200.0	200.0	200.0	200.0	0.5	0.5	89.50	0.3	30.2	30.2	29.2	0.97	30.986			
300.0	300.0	300.0	300.0	0.8	0.8	89.50	0.3	30.2	30.2	28.5	1.69	17.842			
400.0	400.0	400.0	400.0	1.2	1.2	89.50	0.3	30.2	30.2	27.8	2.41	12.528			
500.0	500.0	500.0	500.0	1.6	1.6	89.50	0.3	30.2	30.2	27.0	3.12	9.653			
600.0	600.0	600.0	600.0	1.9	1.9	89.50	0.3	30.2	30.2	26.3	3.84	7.851			
700.0	700.0	700.0	700.0	2.3	2.3	89.50	0.3	30.2	30.2	25.6	4.56	6.616			
800.0	800.0	800.0	800.0	2.6	2.6	89.50	0.3	30.2	30.2	24.9	5.27	5.717			
900.0	900.0	900.0	900.0	3.0	3.0	89.50	0.3	30.2	30.2	24.2	5.99	5.033			
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	89.50	0.3	30.2	30.2	23.4	6.71	4.495 CC, ES			
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-178.75	0.3	30.2	31.0	23.6	7.42	4.184			
1,200.0	1,200.0	1,200.0	1,200.0	4.0	4.1	-178.84	0.3	30.2	33.6	25.5	8.12	4.145			
1,300.0	1,299.9	1,300.1	1,299.9	4.4	4.4	-178.98	0.3	30.2	38.0	29.2	8.82	4.308			
1,400.0	1,399.7	1,400.3	1,399.7	4.7	4.8	-179.12	0.3	30.2	44.1	34.6	9.53	4.629			
1,500.0	1,499.4	1,499.4	1,499.4	5.1	5.1	-179.25	0.3	30.2	52.0	41.7	10.23	5.077			
1,600.0	1,598.9	1,599.9	1,599.9	5.5	5.5	-179.17	0.0	29.3	60.7	49.8	10.93	5.552			
1,700.0	1,698.3	1,700.7	1,700.6	5.8	5.8	-178.77	-0.7	26.8	69.5	57.9	11.62	5.978			
1,744.2	1,742.1	1,745.2	1,745.2	6.0	6.0	-178.52	-1.1	25.1	73.4	61.5	11.93	6.151			
1,800.0	1,797.4	1,801.5	1,801.4	6.2	6.2	-178.16	-1.8	22.5	78.1	65.7	12.32	6.337			
1,900.0	1,896.6	1,902.7	1,902.3	6.6	6.5	-177.35	-3.4	16.5	85.1	72.1	13.01	6.541			
2,000.0	1,995.8	2,004.0	2,003.4	7.0	6.9	-176.34	-5.5	8.8	90.5	76.8	13.71	6.600			
2,100.0	2,094.9	2,105.5	2,104.4	7.4	7.2	-175.11	-8.1	-0.7	94.2	79.8	14.41	6.538			
2,200.0	2,194.1	2,207.0	2,205.2	7.8	7.6	-173.62	-11.1	-11.9	96.3	81.2	15.11	6.373			
2,300.0	2,293.2	2,308.6	2,305.9	8.1	8.0	-171.82	-14.6	-24.8	96.8	81.0	15.81	6.121			
2,400.0	2,392.4	2,408.4	2,404.7	8.5	8.4	-169.90	-18.2	-38.3	96.7	80.2	16.54	5.847			
2,430.6	2,422.7	2,439.0	2,435.0	8.7	8.5	-169.31	-19.3	-42.4	96.7	79.9	16.76	5.769			
2,500.0	2,491.5	2,508.3	2,503.7	8.9	8.7	-167.97	-21.8	-51.7	96.7	79.5	17.27	5.601			
2,600.0	2,590.7	2,608.3	2,602.7	9.3	9.1	-166.05	-25.4	-65.1	96.9	78.9	18.01	5.379			
2,700.0	2,689.9	2,708.2	2,701.7	9.7	9.5	-164.13	-29.0	-78.5	97.1	78.4	18.75	5.179			
2,800.0	2,789.0	2,808.2	2,800.6	10.1	9.9	-162.22	-32.6	-92.0	97.5	78.0	19.50	4.998			
2,900.0	2,888.2	2,908.1	2,899.6	10.5	10.3	-160.33	-36.3	-105.4	97.9	77.7	20.26	4.834			
3,000.0	2,987.3	3,008.1	2,998.6	10.9	10.7	-158.46	-39.9	-118.8	98.5	77.4	21.02	4.685			
3,100.0	3,086.5	3,108.0	3,097.6	11.4	11.1	-156.61	-43.5	-132.3	99.1	77.3	21.79	4.550			
3,200.0	3,185.6	3,208.0	3,196.5	11.8	11.5	-154.79	-47.1	-145.7	99.9	77.3	22.56	4.427			
3,300.0	3,284.8	3,307.9	3,295.5	12.2	11.9	-153.00	-50.7	-159.1	100.8	77.4	23.35	4.316			
3,400.0	3,384.0	3,407.9	3,394.5	12.6	12.3	-151.24	-54.4	-172.6	101.7	77.6	24.14	4.215			
3,500.0	3,483.1	3,507.8	3,493.5	13.0	12.7	-149.52	-58.0	-186.0	102.8	77.9	24.93	4.123			
3,600.0	3,582.3	3,607.8	3,592.4	13.4	13.1	-147.83	-61.6	-199.4	103.9	78.2	25.73	4.039			
3,700.0	3,681.4	3,707.7	3,691.4	13.8	13.5	-146.18	-65.2	-212.9	105.2	78.6	26.54	3.963			
3,800.0	3,780.6	3,807.7	3,790.4	14.2	13.9	-144.57	-68.8	-226.3	106.5	79.1	27.35	3.894			
3,900.0	3,879.7	3,907.6	3,889.4	14.6	14.3	-143.00	-72.5	-239.7	107.9	79.7	28.16	3.831			
4,000.0	3,978.9	4,007.6	3,988.3	15.0	14.7	-141.47	-76.1	-253.1	109.4	80.4	28.98	3.774			
4,100.0	4,078.1	4,107.5	4,087.3	15.4	15.1	-139.98	-79.7	-266.6	110.9	81.1	29.80	3.722			
4,200.0	4,177.2	4,207.4	4,186.3	15.8	15.5	-138.54	-83.3	-280.0	112.6	81.9	30.63	3.675			
4,300.0	4,276.4	4,307.4	4,285.3	16.2	15.9	-137.14	-86.9	-293.4	114.3	82.8	31.46	3.632			
4,400.0	4,375.5	4,407.3	4,384.2	16.7	16.4	-135.78	-90.5	-306.9	116.0	83.7	32.30	3.593			
4,500.0	4,474.7	4,507.3	4,483.2	17.1	16.8	-134.46	-94.2	-320.3	117.9	84.7	33.13	3.558			
4,600.0	4,573.9	4,607.2	4,582.2	17.5	17.2	-133.18	-97.8	-333.7	119.8	85.8	33.97	3.525			
4,700.0	4,673.0	4,707.2	4,681.2	17.9	17.6	-131.94	-101.4	-347.2	121.7	86.9	34.81	3.496			
4,800.0	4,772.2	4,807.1	4,780.1	18.3	18.0	-130.74	-105.0	-360.6	123.7	88.1	35.65	3.470			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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			
4,900.0	4,871.3	4,907.1	4,879.1	18.7	18.4	-129.58	-108.6	-374.0	125.8	89.3	36.49	3.446			
5,000.0	4,970.5	5,007.0	4,978.1	19.1	18.8	-128.46	-112.3	-387.5	127.9	90.5	37.34	3.425			
5,100.0	5,069.6	5,107.0	5,077.1	19.5	19.3	-127.38	-115.9	-400.9	130.0	91.8	38.18	3.405			
5,200.0	5,168.8	5,206.9	5,176.0	19.9	19.7	-126.33	-119.5	-414.3	132.2	93.2	39.03	3.388			
5,300.0	5,268.0	5,306.9	5,275.0	20.4	20.1	-125.31	-123.1	-427.7	134.5	94.6	39.88	3.372			
5,400.0	5,367.1	5,406.8	5,374.0	20.8	20.5	-124.33	-126.7	-441.2	136.7	96.0	40.72	3.358			
5,500.0	5,466.3	5,506.8	5,473.0	21.2	20.9	-123.38	-130.4	-454.6	139.1	97.5	41.57	3.345			
5,600.0	5,565.4	5,606.7	5,571.9	21.6	21.3	-122.47	-134.0	-468.0	141.4	99.0	42.42	3.334			
5,700.0	5,664.6	5,706.7	5,670.9	22.0	21.8	-121.58	-137.6	-481.5	143.8	100.5	43.27	3.324			
5,800.0	5,763.7	5,806.6	5,769.9	22.4	22.2	-120.72	-141.2	-494.9	146.2	102.1	44.12	3.315			
5,900.0	5,862.9	5,906.5	5,868.9	22.8	22.6	-119.89	-144.8	-508.3	148.7	103.7	44.97	3.307			
6,000.0	5,962.1	6,006.5	5,967.8	23.2	23.0	-119.09	-148.4	-521.8	151.2	105.4	45.81	3.300			
6,100.0	6,061.2	6,106.4	6,066.8	23.7	23.4	-118.31	-152.1	-535.2	153.7	107.0	46.66	3.294			
6,200.0	6,160.4	6,206.4	6,165.8	24.1	23.8	-117.56	-155.7	-548.6	156.2	108.7	47.51	3.289			
6,300.0	6,259.5	6,306.3	6,264.7	24.5	24.3	-116.83	-159.3	-562.1	158.8	110.5	48.36	3.284			
6,400.0	6,358.7	6,406.3	6,363.7	24.9	24.7	-116.13	-162.9	-575.5	161.4	112.2	49.21	3.280			
6,500.0	6,457.8	6,506.2	6,462.7	25.3	25.1	-115.45	-166.5	-588.9	164.0	114.0	50.06	3.277			
6,600.0	6,557.0	6,606.2	6,561.7	25.7	25.5	-114.79	-170.2	-602.4	166.7	115.8	50.90	3.274			
6,700.0	6,656.2	6,706.1	6,660.6	26.1	25.9	-114.15	-173.8	-615.8	169.3	117.6	51.75	3.272			
6,800.0	6,755.3	6,806.1	6,759.6	26.5	26.4	-113.53	-177.4	-629.2	172.0	119.4	52.60	3.271			
6,900.0	6,854.5	6,906.0	6,858.6	27.0	26.8	-112.93	-181.0	-642.6	174.7	121.3	53.44	3.269			
7,000.0	6,953.6	7,006.0	6,957.6	27.4	27.2	-112.35	-184.6	-656.1	177.4	123.2	54.29	3.268			
7,100.0	7,052.8	7,105.9	7,056.5	27.8	27.6	-111.78	-188.3	-669.5	180.2	125.0	55.13	3.268			
7,200.0	7,152.0	7,205.9	7,155.5	28.2	28.0	-111.24	-191.9	-682.9	182.9	127.0	55.98	3.268			
7,300.0	7,251.1	7,305.2	7,254.0	28.6	28.4	-111.08	-195.2	-695.1	185.9	129.1	56.80	3.272			
7,400.0	7,350.3	7,404.4	7,352.7	29.0	28.8	-111.70	-197.8	-704.8	189.2	131.6	57.58	3.286			
7,500.0	7,449.4	7,503.4	7,451.5	29.4	29.2	-113.05	-199.7	-712.1	192.9	134.6	58.30	3.309			
7,551.0	7,500.0	7,553.8	7,501.8	29.7	29.4	-114.00	-200.4	-714.8	195.1	136.4	58.65	3.326			
7,600.0	7,548.6	7,602.2	7,550.1	29.8	29.6	-104.11	-201.0	-716.8	196.6	137.6	58.97	3.334			
7,674.8	7,623.1	7,676.0	7,623.8	30.1	29.8	-81.49	-201.5	-718.7	196.7	137.2	59.44	3.309			
7,700.0	7,648.2	7,700.8	7,648.7	30.2	29.9	-82.05	-201.6	-719.1	196.3	136.7	59.59	3.294			
7,800.0	7,747.7	7,800.2	7,747.7	30.6	30.2	-84.62	-201.7	-719.3	195.1	135.0	60.13	3.245			
7,900.0	7,847.3	7,900.6	7,847.3	31.0	30.5	-87.30	-201.7	-719.3	194.5	133.8	60.67	3.205			
8,000.0	7,946.9	8,001.0	7,946.9	31.3	30.8	-89.98	-201.7	-719.3	194.3	133.1	61.19	3.175			
8,000.6	7,947.5	8,000.4	7,947.5	31.3	30.8	-90.00	-201.7	-719.3	194.3	133.1	61.19	3.175			
8,100.0	8,046.5	8,101.4	8,046.5	31.7	31.2	-92.67	-201.7	-719.3	194.5	132.8	61.70	3.152			
8,200.0	8,146.1	8,201.8	8,146.1	32.1	31.5	-95.35	-201.7	-719.3	195.1	132.9	62.20	3.137			
8,300.0	8,245.6	8,302.3	8,245.6	32.4	31.8	-98.00	-201.7	-719.3	196.2	133.5	62.70	3.129			
8,400.0	8,345.2	8,402.7	8,345.2	32.8	32.1	-100.62	-201.7	-719.3	197.7	134.5	63.19	3.128 SF			
8,500.0	8,444.8	8,503.1	8,444.8	33.2	32.4	-103.19	-201.7	-719.3	199.6	135.9	63.68	3.134			
8,600.0	8,544.4	8,603.5	8,544.4	33.6	32.7	-105.71	-201.7	-719.3	201.9	137.7	64.17	3.146			
8,700.0	8,644.0	8,703.9	8,644.0	33.9	33.1	-108.17	-201.7	-719.3	204.5	139.9	64.67	3.163			
8,800.0	8,743.5	8,804.4	8,743.5	34.3	33.4	-110.57	-201.7	-719.3	207.6	142.4	65.17	3.185			
8,900.0	8,843.1	8,904.8	8,843.1	34.7	33.7	-112.89	-201.7	-719.3	211.0	145.3	65.67	3.213			
9,000.0	8,942.7	9,005.2	8,942.7	35.1	34.0	-115.13	-201.7	-719.3	214.7	148.5	66.19	3.244			
9,100.0	9,042.3	9,105.6	9,042.3	35.4	34.4	-117.29	-201.7	-719.3	218.8	152.1	66.71	3.280			
9,200.0	9,141.9	9,206.0	9,141.9	35.8	34.7	-119.38	-201.7	-719.3	223.1	155.9	67.25	3.318			
9,300.0	9,241.4	9,306.5	9,241.4	36.2	35.0	-121.38	-201.7	-719.3	227.8	160.0	67.79	3.360			
9,400.0	9,341.0	9,406.9	9,341.0	36.6	35.3	-123.30	-201.7	-719.3	232.7	164.4	68.35	3.405			
9,500.0	9,440.6	9,507.3	9,440.6	36.9	35.7	-125.14	-201.7	-719.3	237.9	169.0	68.92	3.452			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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	
9,600.0	9,540.2	9,607.7	9,540.2	37.3	36.0	-126.89	-201.7	-719.3	243.3	173.8	69.49	3.501		
9,700.0	9,639.8	9,708.1	9,639.8	37.7	36.3	-128.58	-201.7	-719.3	248.9	178.8	70.08	3.551		
9,800.0	9,739.3	9,808.6	9,739.3	38.1	36.6	-130.18	-201.7	-719.3	254.7	184.0	70.68	3.604		
9,900.0	9,838.9	9,909.0	9,838.9	38.4	37.0	-131.72	-201.7	-719.3	260.7	189.4	71.29	3.657		
10,000.0	9,938.5	10,009.4	9,938.5	38.8	37.3	-133.18	-201.7	-719.3	266.9	195.0	71.90	3.712		
10,100.0	10,038.1	10,109.8	10,038.1	39.2	37.6	-134.58	-201.7	-719.3	273.3	200.8	72.53	3.768		
10,200.0	10,137.7	10,189.8	10,137.7	39.6	37.9	-135.91	-201.7	-719.3	279.8	206.7	73.09	3.828		
10,300.0	10,237.2	10,289.3	10,237.2	39.9	38.2	-137.18	-201.7	-719.3	286.5	212.7	73.73	3.886		
10,400.0	10,336.8	10,390.1	10,338.0	40.3	38.6	-138.55	-201.0	-719.3	293.2	218.8	74.39	3.942		
10,500.0	10,436.4	10,490.7	10,437.5	40.7	38.9	-142.34	-187.2	-719.4	299.6	224.7	74.89	4.000		
10,600.0	10,536.0	10,582.2	10,524.7	41.1	39.1	-148.38	-159.7	-719.6	308.4	233.3	75.05	4.109		
10,700.0	10,635.6	10,661.7	10,596.1	41.4	39.3	-155.29	-124.8	-719.9	324.0	249.4	74.62	4.342		
10,759.5	10,694.8	10,703.3	10,631.3	41.7	39.4	-159.33	-102.8	-720.1	338.1	264.2	73.93	4.574		
10,800.0	10,735.2	10,729.3	10,652.5	41.8	39.5	-162.05	-87.7	-720.2	349.7	276.5	73.23	4.776		
10,900.0	10,835.1	10,787.2	10,697.0	42.2	39.6	-168.12	-50.8	-720.5	383.8	313.0	70.72	5.426		
10,941.9	10,877.0	10,809.0	10,712.8	42.3	39.6	62.56	-35.7	-720.6	400.3	330.9	69.38	5.770		
10,950.0	10,885.1	10,813.1	10,715.7	42.3	39.6	62.30	-32.8	-720.6	403.6	334.5	69.10	5.841		
11,000.0	10,935.0	10,838.3	10,733.1	42.5	39.6	57.99	-14.5	-720.7	424.8	357.4	67.34	6.308		
11,050.0	10,984.4	10,863.5	10,749.6	42.6	39.7	54.02	4.5	-720.9	446.4	380.9	65.50	6.815		
11,100.0	11,033.1	10,888.7	10,765.3	42.8	39.7	50.41	24.2	-721.0	468.1	404.5	63.60	7.359		
11,150.0	11,080.5	10,913.9	10,780.1	42.9	39.7	47.17	44.5	-721.2	489.4	427.8	61.68	7.935		
11,200.0	11,126.4	10,939.1	10,794.0	43.0	39.7	44.29	65.5	-721.4	510.2	450.5	59.75	8.539		
11,250.0	11,170.4	10,964.2	10,807.0	43.1	39.8	41.76	87.1	-721.5	530.1	472.3	57.84	9.165		
11,300.0	11,212.2	10,989.4	10,819.0	43.2	39.8	39.54	109.2	-721.7	549.0	493.0	55.95	9.811		
11,350.0	11,251.4	11,014.5	10,830.0	43.3	39.8	37.62	131.8	-721.9	566.6	512.5	54.10	10.472		
11,400.0	11,287.8	11,039.7	10,840.0	43.4	39.8	35.97	154.9	-722.1	582.9	530.5	52.34	11.136		
11,450.0	11,321.0	11,064.8	10,849.0	43.4	39.8	34.55	178.3	-722.3	597.7	547.0	50.68	11.793		
11,500.0	11,350.9	11,089.9	10,856.9	43.5	39.9	33.35	202.2	-722.4	610.9	561.7	49.13	12.435		
11,550.0	11,377.2	11,115.1	10,863.8	43.5	39.9	32.35	226.3	-722.6	622.4	574.7	47.72	13.044		
11,600.0	11,399.6	11,140.2	10,869.6	43.6	39.9	31.54	250.8	-722.8	632.3	585.8	46.48	13.604		
11,650.0	11,418.1	11,165.3	10,874.4	43.6	39.9	30.89	275.4	-723.0	640.3	594.9	45.43	14.095		
11,700.0	11,432.5	11,200.0	10,879.1	43.6	40.0	30.35	309.8	-723.3	646.7	601.8	44.86	14.415		
11,750.0	11,442.6	11,215.6	10,880.6	43.7	40.0	30.07	325.3	-723.4	651.0	607.0	44.00	14.794		
11,800.0	11,448.4	11,250.0	10,882.3	43.8	40.1	29.86	359.7	-723.7	653.6	609.8	43.78	14.930		
11,841.9	11,450.0	11,267.0	10,882.5	43.8	40.1	29.83	369.7	-723.8	654.2	610.6	43.59	15.009		
11,900.0	11,450.0	11,318.1	10,882.3	43.9	40.2	29.82	427.8	-724.2	654.3	610.6	43.75	14.957		
12,000.0	11,450.0	11,418.1	10,881.9	44.2	40.5	29.81	527.7	-725.0	654.6	610.5	44.13	14.835		
12,100.0	11,450.0	11,518.1	10,881.6	44.5	40.9	29.79	627.7	-725.8	654.9	610.3	44.60	14.683		
12,200.0	11,450.0	11,618.1	10,881.3	44.9	41.4	29.78	727.7	-726.6	655.2	610.0	45.17	14.504		
12,300.0	11,450.0	11,718.1	10,881.0	45.4	41.9	29.77	827.7	-727.4	655.5	609.7	45.84	14.300		
12,400.0	11,450.0	11,818.1	10,880.6	45.9	42.5	29.75	927.7	-728.1	655.8	609.2	46.59	14.075		
12,500.0	11,450.0	11,918.1	10,880.3	46.5	43.1	29.74	1,027.7	-728.9	656.1	608.7	47.43	13.833		
12,600.0	11,450.0	12,018.1	10,880.0	47.2	43.8	29.72	1,127.7	-729.7	656.4	608.0	48.34	13.577		
12,700.0	11,450.0	12,118.1	10,879.6	47.9	44.6	29.71	1,227.7	-730.5	656.7	607.3	49.33	13.311		
12,800.0	11,450.0	12,218.1	10,879.3	48.7	45.4	29.70	1,327.7	-731.3	657.0	606.6	50.39	13.036		
12,900.0	11,450.0	12,318.1	10,879.0	49.5	46.3	29.68	1,427.7	-732.1	657.3	605.7	51.52	12.757		
13,000.0	11,450.0	12,418.1	10,878.6	50.3	47.1	29.67	1,527.7	-732.9	657.5	604.8	52.71	12.475		
13,100.0	11,450.0	12,518.1	10,878.3	51.2	48.1	29.66	1,627.7	-733.6	657.8	603.9	53.96	12.192		
13,200.0	11,450.0	12,618.1	10,878.0	52.2	49.0	29.64	1,727.7	-734.4	658.1	602.9	55.26	11.911		
13,300.0	11,450.0	12,718.1	10,877.6	53.1	50.1	29.63	1,827.7	-735.2	658.4	601.8	56.60	11.632		
13,400.0	11,450.0	12,818.1	10,877.3	54.1	51.1	29.62	1,927.7	-736.0	658.7	600.7	58.00	11.357		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
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		
13,500.0	11,450.0	12,918.1	10,877.0	55.1	52.2	29.60	2,027.7	-736.8	659.0	599.6	59.44	11.088		
13,600.0	11,450.0	13,018.1	10,876.6	56.2	53.3	29.59	2,127.7	-737.6	659.3	598.4	60.91	10.824		
13,700.0	11,450.0	13,118.1	10,876.3	57.3	54.4	29.58	2,227.7	-738.4	659.6	597.2	62.43	10.566		
13,800.0	11,450.0	13,218.1	10,876.0	58.4	55.5	29.56	2,327.7	-739.1	659.9	595.9	63.98	10.315		
13,900.0	11,450.0	13,318.1	10,875.6	59.5	56.7	29.55	2,427.7	-739.9	660.2	594.6	65.56	10.070		
14,000.0	11,450.0	13,418.1	10,875.3	60.7	57.9	29.53	2,527.7	-740.7	660.5	593.3	67.17	9.834		
14,100.0	11,450.0	13,518.1	10,875.0	61.9	59.2	29.52	2,627.7	-741.5	660.8	592.0	68.80	9.604		
14,200.0	11,450.0	13,618.1	10,874.6	63.1	60.4	29.51	2,727.7	-742.3	661.1	590.6	70.46	9.382		
14,300.0	11,450.0	13,718.1	10,874.3	64.3	61.7	29.49	2,827.6	-743.1	661.4	589.2	72.15	9.167		
14,400.0	11,450.0	13,818.1	10,874.0	65.5	62.9	29.48	2,927.6	-743.9	661.7	587.8	73.86	8.959		
14,500.0	11,450.0	13,918.1	10,873.7	66.8	64.2	29.47	3,027.6	-744.6	661.9	586.4	75.58	8.758		
14,600.0	11,450.0	14,018.1	10,873.3	68.1	65.6	29.45	3,127.6	-745.4	662.2	584.9	77.33	8.564		
14,700.0	11,450.0	14,118.1	10,873.0	69.4	66.9	29.44	3,227.6	-746.2	662.5	583.4	79.09	8.377		
14,800.0	11,450.0	14,218.1	10,872.7	70.7	68.2	29.43	3,327.6	-747.0	662.8	582.0	80.87	8.196		
14,900.0	11,450.0	14,318.1	10,872.3	72.0	69.6	29.41	3,427.6	-747.8	663.1	580.5	82.66	8.022		
15,000.0	11,450.0	14,418.1	10,872.0	73.4	71.0	29.40	3,527.6	-748.6	663.4	578.9	84.47	7.854		
15,100.0	11,450.0	14,518.1	10,871.7	74.7	72.4	29.39	3,627.6	-749.3	663.7	577.4	86.29	7.691		
15,200.0	11,450.0	14,618.1	10,871.3	76.1	73.7	29.37	3,727.6	-750.1	664.0	575.9	88.13	7.534		
15,300.0	11,450.0	14,718.1	10,871.0	77.4	75.2	29.36	3,827.6	-750.9	664.3	574.3	89.97	7.383		
15,400.0	11,450.0	14,818.1	10,870.7	78.8	76.6	29.35	3,927.6	-751.7	664.6	572.8	91.83	7.237		
15,500.0	11,450.0	14,918.1	10,870.3	80.2	78.0	29.33	4,027.6	-752.5	664.9	571.2	93.70	7.096		
15,600.0	11,450.0	15,018.1	10,870.0	81.6	79.4	29.32	4,127.6	-753.3	665.2	569.6	95.57	6.960		
15,700.0	11,450.0	15,118.1	10,869.7	83.0	80.9	29.31	4,227.6	-754.1	665.5	568.0	97.46	6.828		
15,800.0	11,450.0	15,218.1	10,869.3	84.5	82.3	29.29	4,327.6	-754.8	665.8	566.4	99.35	6.701		
15,900.0	11,450.0	15,318.1	10,869.0	85.9	83.8	29.28	4,427.6	-755.6	666.1	564.8	101.25	6.578		
16,000.0	11,450.0	15,418.1	10,868.7	87.3	85.2	29.27	4,527.6	-756.4	666.4	563.2	103.16	6.459		
16,100.0	11,450.0	15,518.1	10,868.3	88.8	86.7	29.25	4,627.6	-757.2	666.7	561.6	105.07	6.345		
16,200.0	11,450.0	15,618.1	10,868.0	90.2	88.2	29.24	4,727.6	-758.0	666.9	559.9	107.00	6.233		
16,300.0	11,450.0	15,718.0	10,867.7	91.7	89.7	29.23	4,827.6	-758.8	667.2	558.3	108.92	6.126		
16,400.0	11,450.0	15,818.0	10,867.4	93.2	91.2	29.21	4,927.6	-759.6	667.5	556.7	110.86	6.022		
16,500.0	11,450.0	15,918.0	10,867.0	94.6	92.7	29.20	5,027.6	-760.3	667.8	555.0	112.79	5.921		
16,600.0	11,450.0	16,018.0	10,866.7	96.1	94.2	29.19	5,127.6	-761.1	668.1	553.4	114.74	5.823		
16,700.0	11,450.0	16,118.0	10,866.4	97.6	95.7	29.17	5,227.5	-761.9	668.4	551.7	116.69	5.728		
16,800.0	11,450.0	16,218.0	10,866.0	99.1	97.2	29.16	5,327.5	-762.7	668.7	550.1	118.64	5.637		
16,900.0	11,450.0	16,318.0	10,865.7	100.6	98.7	29.15	5,427.5	-763.5	669.0	548.4	120.60	5.548		
17,000.0	11,450.0	16,418.0	10,865.4	102.1	100.2	29.13	5,527.5	-764.3	669.3	546.7	122.56	5.461		
17,100.0	11,450.0	16,518.0	10,865.0	103.6	101.7	29.12	5,627.5	-765.1	669.6	545.1	124.52	5.377		
17,200.0	11,450.0	16,618.0	10,864.7	105.1	103.3	29.11	5,727.5	-765.8	669.9	543.4	126.49	5.296		
17,300.0	11,450.0	16,718.0	10,864.4	106.6	104.8	29.10	5,827.5	-766.6	670.2	541.7	128.46	5.217		
17,400.0	11,450.0	16,818.0	10,864.0	108.1	106.3	29.08	5,927.5	-767.4	670.5	540.0	130.44	5.140		
17,500.0	11,450.0	16,918.0	10,863.7	109.6	107.9	29.07	6,027.5	-768.2	670.8	538.4	132.41	5.066		
17,600.0	11,450.0	17,018.0	10,863.4	111.2	109.4	29.06	6,127.5	-769.0	671.1	536.7	134.39	4.993		
17,700.0	11,450.0	17,118.0	10,863.0	112.7	111.0	29.04	6,227.5	-769.8	671.4	535.0	136.38	4.923		
17,800.0	11,450.0	17,218.0	10,862.7	114.2	112.5	29.03	6,327.5	-770.6	671.7	533.3	138.36	4.854		
17,900.0	11,450.0	17,318.0	10,862.4	115.8	114.1	29.02	6,427.5	-771.3	672.0	531.6	140.35	4.788		
18,000.0	11,450.0	17,418.0	10,862.0	117.3	115.6	29.00	6,527.5	-772.1	672.2	529.9	142.34	4.723		
18,100.0	11,450.0	17,518.0	10,861.7	118.9	117.2	28.99	6,627.5	-772.9	672.5	528.2	144.33	4.660		
18,200.0	11,450.0	17,618.0	10,861.4	120.4	118.8	28.98	6,727.5	-773.7	672.8	526.5	146.33	4.598		
18,300.0	11,450.0	17,718.0	10,861.1	121.9	120.3	28.96	6,827.5	-774.5	673.1	524.8	148.32	4.538		
18,400.0	11,450.0	17,818.0	10,860.7	123.5	121.9	28.95	6,927.5	-775.3	673.4	523.1	150.32	4.480		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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			
18,500.0	11,450.0	17,918.0	10,860.4	125.1	123.5	28.94	7,027.5	-776.1	673.7	521.4	152.32	4.423			
18,600.0	11,450.0	18,018.0	10,860.1	126.6	125.0	28.93	7,127.5	-776.8	674.0	519.7	154.32	4.368			
18,700.0	11,450.0	18,118.0	10,859.7	128.2	126.6	28.91	7,227.5	-777.6	674.3	518.0	156.33	4.313			
18,800.0	11,450.0	18,218.0	10,859.4	129.7	128.2	28.90	7,327.5	-778.4	674.6	516.3	158.33	4.261			
18,900.0	11,450.0	18,318.0	10,859.1	131.3	129.7	28.89	7,427.5	-779.2	674.9	514.6	160.34	4.209			
19,000.0	11,450.0	18,418.0	10,858.7	132.9	131.3	28.87	7,527.4	-780.0	675.2	512.9	162.34	4.159			
19,100.0	11,450.0	18,518.0	10,858.4	134.4	132.9	28.86	7,627.4	-780.8	675.5	511.1	164.35	4.110			
19,200.0	11,450.0	18,618.0	10,858.1	136.0	134.5	28.85	7,727.4	-781.5	675.8	509.4	166.36	4.062			
19,300.0	11,450.0	18,718.0	10,857.7	137.6	136.1	28.84	7,827.4	-782.3	676.1	507.7	168.37	4.015			
19,400.0	11,450.0	18,818.0	10,857.4	139.1	137.7	28.82	7,927.4	-783.1	676.4	506.0	170.38	3.970			
19,500.0	11,450.0	18,918.0	10,857.1	140.7	139.3	28.81	8,027.4	-783.9	676.7	504.3	172.39	3.925			
19,600.0	11,450.0	19,018.0	10,856.7	142.3	140.8	28.80	8,127.4	-784.7	677.0	502.6	174.41	3.882			
19,700.0	11,450.0	19,118.0	10,856.4	143.9	142.4	28.78	8,227.4	-785.5	677.3	500.8	176.42	3.839			
19,800.0	11,450.0	19,218.0	10,856.1	145.5	144.0	28.77	8,327.4	-786.3	677.6	499.1	178.44	3.797			
19,900.0	11,450.0	19,318.0	10,855.7	147.1	145.6	28.76	8,427.4	-787.0	677.9	497.4	180.45	3.756			
20,000.0	11,450.0	19,418.0	10,855.4	148.6	147.2	28.75	8,527.4	-787.8	678.2	495.7	182.47	3.717			
20,100.0	11,450.0	19,518.0	10,855.1	150.2	148.8	28.73	8,627.4	-788.6	678.4	494.0	184.48	3.678			
20,200.0	11,450.0	19,618.0	10,854.8	151.8	150.4	28.72	8,727.4	-789.4	678.7	492.2	186.50	3.639			
20,300.0	11,450.0	19,718.0	10,854.4	153.4	152.0	28.71	8,827.4	-790.2	679.0	490.5	188.52	3.602			
20,400.0	11,450.0	19,818.0	10,854.1	155.0	153.6	28.69	8,927.4	-791.0	679.3	488.8	190.54	3.565			
20,500.0	11,450.0	19,918.0	10,853.8	156.6	155.2	28.68	9,027.4	-791.8	679.6	487.1	192.56	3.530			
20,600.0	11,450.0	20,018.0	10,853.4	158.2	156.8	28.67	9,127.4	-792.5	679.9	485.4	194.57	3.494			
20,700.0	11,450.0	20,118.0	10,853.1	159.8	158.4	28.66	9,227.4	-793.3	680.2	483.6	196.59	3.460			
20,800.0	11,450.0	20,218.0	10,852.8	161.4	160.0	28.64	9,327.4	-794.1	680.5	481.9	198.61	3.426			
20,900.0	11,450.0	20,318.0	10,852.4	163.0	161.6	28.63	9,427.4	-794.9	680.8	480.2	200.63	3.393			
21,000.0	11,450.0	20,418.0	10,852.1	164.6	163.2	28.62	9,527.4	-795.7	681.1	478.5	202.65	3.361			
21,100.0	11,450.0	20,518.0	10,851.8	166.2	164.9	28.61	9,627.4	-796.5	681.4	476.7	204.67	3.329			
21,200.0	11,450.0	20,618.0	10,851.4	167.8	166.5	28.59	9,727.4	-797.3	681.7	475.0	206.70	3.298			
21,300.0	11,450.0	20,718.0	10,851.1	169.4	168.1	28.58	9,827.4	-798.0	682.0	473.3	208.72	3.268			
21,400.0	11,450.0	20,818.0	10,850.8	171.0	169.7	28.57	9,927.3	-798.8	682.3	471.6	210.74	3.238			
21,500.0	11,450.0	20,918.0	10,850.4	172.6	171.3	28.55	10,027.3	-799.6	682.6	469.8	212.76	3.208			
21,600.0	11,450.0	21,018.0	10,850.1	174.2	172.9	28.54	10,127.3	-800.4	682.9	468.1	214.78	3.179			
21,659.1	11,450.0	21,077.1	10,849.9	175.1	173.9	28.53	10,186.4	-800.9	683.1	467.1	215.98	3.163			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #128H - 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	44.67	30.3	30.0	42.6						
100.0	100.0	100.0	100.0	0.1	0.1	44.67	30.3	30.0	42.6	42.4	0.26	166.304			
200.0	200.0	200.0	200.0	0.5	0.5	44.67	30.3	30.0	42.6	41.7	0.97	43.797			
300.0	300.0	300.0	300.0	0.8	0.8	44.67	30.3	30.0	42.6	40.9	1.69	25.219			
400.0	400.0	400.0	400.0	1.2	1.2	44.67	30.3	30.0	42.6	40.2	2.41	17.708			
500.0	500.0	500.0	500.0	1.6	1.6	44.67	30.3	30.0	42.6	39.5	3.12	13.644			
600.0	600.0	600.0	600.0	1.9	1.9	44.67	30.3	30.0	42.6	38.8	3.84	11.097			
700.0	700.0	700.0	700.0	2.3	2.3	44.67	30.3	30.0	42.6	38.1	4.56	9.352			
800.0	800.0	800.0	800.0	2.6	2.6	44.67	30.3	30.0	42.6	37.4	5.27	8.081			
900.0	900.0	900.0	900.0	3.0	3.0	44.67	30.3	30.0	42.6	36.6	5.99	7.114			
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	44.67	30.3	30.0	42.6	35.9	6.71	6.354 CC			
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	137.25	30.3	30.0	43.3	35.8	7.42	5.833 ES			
1,200.0	1,200.0	1,200.0	1,200.0	4.0	4.1	139.49	30.3	30.0	45.2	37.1	8.12	5.570			
1,300.0	1,299.9	1,300.1	1,299.9	4.4	4.4	142.81	30.3	30.0	48.6	39.8	8.82	5.510			
1,400.0	1,399.7	1,400.3	1,399.7	4.7	4.8	146.73	30.3	30.0	53.6	44.1	9.53	5.625			
1,500.0	1,499.4	1,500.6	1,499.4	5.1	5.1	150.78	30.3	30.0	60.3	50.1	10.24	5.891			
1,600.0	1,598.9	1,601.1	1,598.9	5.5	5.5	154.64	30.3	30.0	68.9	57.9	10.95	6.287			
1,700.0	1,698.3	1,701.7	1,698.3	5.8	5.9	158.10	30.3	30.0	79.2	67.6	11.67	6.792			
1,744.2	1,742.1	1,742.1	1,742.1	6.0	6.0	159.49	30.3	30.0	84.4	72.5	11.97	7.055			
1,800.0	1,797.4	1,802.6	1,797.4	6.2	6.2	161.08	30.3	30.0	91.2	78.9	12.38	7.369			
1,900.0	1,896.6	1,903.4	1,896.6	6.6	6.6	163.40	30.3	30.0	103.6	90.5	13.10	7.909			
2,000.0	1,995.8	1,995.8	1,995.8	7.0	6.9	165.23	30.3	30.0	116.1	102.3	13.78	8.421			
2,100.0	2,094.9	2,093.4	2,093.4	7.4	7.3	166.91	30.0	30.6	129.2	114.7	14.47	8.928			
2,200.0	2,194.1	2,190.5	2,190.5	7.8	7.6	168.72	28.8	32.8	143.7	128.6	15.15	9.488			
2,300.0	2,293.2	2,287.1	2,287.0	8.1	7.9	170.57	26.9	36.3	159.6	143.8	15.81	10.093			
2,400.0	2,392.4	2,383.3	2,383.0	8.5	8.2	172.41	24.3	41.3	177.0	160.5	16.48	10.740			
2,500.0	2,491.5	2,478.8	2,478.2	8.9	8.6	174.20	20.9	47.6	195.8	178.7	17.14	11.426			
2,600.0	2,590.7	2,573.7	2,572.7	9.3	8.9	175.91	16.8	55.3	216.2	198.4	17.79	12.151			
2,700.0	2,689.9	2,667.9	2,666.4	9.7	9.2	177.53	12.0	64.3	238.1	219.6	18.44	12.911			
2,800.0	2,789.0	2,761.4	2,759.2	10.1	9.6	179.05	6.5	74.5	261.5	242.4	19.08	13.705			
2,900.0	2,888.2	2,856.5	2,853.4	10.5	9.9	-179.52	0.4	86.1	286.2	266.4	19.74	14.494			
3,000.0	2,987.3	2,953.2	2,949.1	10.9	10.3	-178.29	-5.9	98.0	311.2	290.7	20.43	15.228			
3,100.0	3,086.5	3,049.8	3,044.8	11.4	10.6	-177.24	-12.3	109.8	336.3	315.1	21.13	15.916			
3,200.0	3,185.6	3,146.4	3,140.5	11.8	11.0	-176.33	-18.6	121.7	361.4	339.6	21.82	16.563			
3,300.0	3,284.8	3,243.1	3,236.1	12.2	11.4	-175.54	-24.9	133.6	386.7	364.2	22.52	17.172			
3,400.0	3,384.0	3,339.7	3,331.8	12.6	11.7	-174.85	-31.2	145.5	412.0	388.8	23.22	17.745			
3,500.0	3,483.1	3,436.3	3,427.5	13.0	12.1	-174.24	-37.6	157.3	437.4	413.5	23.92	18.285			
3,600.0	3,582.3	3,532.9	3,523.2	13.4	12.5	-173.69	-43.9	169.2	462.8	438.2	24.62	18.795			
3,700.0	3,681.4	3,629.6	3,618.9	13.8	12.8	-173.21	-50.2	181.1	488.2	462.9	25.33	19.277			
3,800.0	3,780.6	3,726.2	3,714.6	14.2	13.2	-172.77	-56.6	192.9	513.7	487.7	26.03	19.733			
3,900.0	3,879.7	3,822.8	3,810.3	14.6	13.6	-172.37	-62.9	204.8	539.2	512.5	26.74	20.165			
4,000.0	3,978.9	3,919.5	3,906.0	15.0	14.0	-172.01	-69.2	216.7	564.7	537.3	27.45	20.575			
4,100.0	4,078.1	4,016.1	4,001.7	15.4	14.4	-171.67	-75.5	228.5	590.3	562.1	28.16	20.964			
4,200.0	4,177.2	4,112.7	4,097.3	15.8	14.8	-171.37	-81.9	240.4	615.8	587.0	28.87	21.333			
4,300.0	4,276.4	4,209.3	4,193.0	16.2	15.1	-171.09	-88.2	252.3	641.4	611.8	29.58	21.685			
4,400.0	4,375.5	4,306.0	4,288.7	16.7	15.5	-170.83	-94.5	264.1	667.0	636.7	30.29	22.020			
4,500.0	4,474.7	4,402.6	4,384.4	17.1	15.9	-170.60	-100.8	276.0	692.6	661.6	31.00	22.340			
4,600.0	4,573.9	4,500.8	4,480.1	17.5	16.3	-170.37	-107.2	287.9	718.2	686.5	31.72	22.641			
4,700.0	4,673.0	4,604.1	4,575.8	17.9	16.7	-170.17	-113.5	299.7	743.8	711.4	32.46	22.915			
4,800.0	4,772.2	4,707.5	4,671.5	18.3	17.1	-169.97	-119.8	311.6	769.5	736.3	33.20	23.176			
4,900.0	4,871.3	4,789.1	4,767.2	18.7	17.5	-169.79	-126.1	323.5	795.1	761.2	33.86	23.482			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #1													Offset Well Error:	0.0 usft
Survey Program: 0-MWD														
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	4,970.5	4,885.7	4,862.9	19.1	17.9	-169.62	-132.5	335.3	820.7	786.2	34.58	23.737		
5,100.0	5,069.6	4,982.4	4,958.5	19.5	18.3	-169.47	-138.8	347.2	846.4	811.1	35.29	23.982		
5,200.0	5,168.8	5,079.0	5,054.2	19.9	18.7	-169.32	-145.1	359.1	872.0	836.0	36.01	24.217		
5,300.0	5,268.0	5,175.6	5,149.9	20.4	19.1	-169.17	-151.4	370.9	897.7	861.0	36.73	24.443		
5,400.0	5,367.1	5,272.3	5,245.6	20.8	19.4	-169.04	-157.8	382.8	923.4	885.9	37.44	24.660		
5,500.0	5,466.3	5,368.9	5,341.3	21.2	19.8	-168.92	-164.1	394.7	949.0	910.9	38.16	24.869		
5,600.0	5,565.4	5,466.7	5,438.1	21.6	20.2	-168.80	-170.5	406.7	974.7	935.8	38.89	25.063		
5,700.0	5,664.6	5,595.2	5,565.7	22.0	20.8	-168.69	-177.8	420.4	998.7	958.8	39.88	25.042		
5,800.0	5,763.7	5,725.6	5,695.6	22.4	21.3	-168.67	-183.2	430.5	1,019.6	978.8	40.84	24.966		
5,900.0	5,862.9	5,857.8	5,827.6	22.8	21.7	-168.73	-186.5	436.7	1,037.3	995.5	41.76	24.840		
6,000.0	5,962.1	5,991.3	5,961.0	23.2	22.2	-168.87	-187.7	438.9	1,051.7	1,009.1	42.63	24.670		
6,100.0	6,061.2	6,108.6	6,061.2	23.7	22.6	-169.01	-187.7	438.9	1,064.5	1,021.1	43.40	24.527		
6,200.0	6,160.4	6,209.4	6,160.4	24.1	22.9	-169.14	-187.7	438.9	1,077.2	1,033.1	44.11	24.420		
6,300.0	6,259.5	6,289.8	6,259.5	24.5	23.2	-169.27	-187.7	438.9	1,089.9	1,045.2	44.75	24.354		
6,400.0	6,358.7	6,388.9	6,358.7	24.9	23.5	-169.39	-187.7	438.9	1,102.6	1,057.2	45.46	24.256		
6,500.0	6,457.8	6,488.1	6,457.8	25.3	23.8	-169.52	-187.7	438.9	1,115.4	1,069.2	46.17	24.160		
6,600.0	6,557.0	6,587.2	6,557.0	25.7	24.2	-169.64	-187.7	438.9	1,128.1	1,081.3	46.87	24.068		
6,700.0	6,656.2	6,686.4	6,656.2	26.1	24.5	-169.75	-187.7	438.9	1,140.9	1,093.3	47.58	23.978		
6,800.0	6,755.3	6,785.6	6,755.3	26.5	24.8	-169.87	-187.7	438.9	1,153.6	1,105.3	48.29	23.890		
6,900.0	6,854.5	6,884.7	6,854.5	27.0	25.1	-169.98	-187.7	438.9	1,166.4	1,117.4	49.00	23.805		
7,000.0	6,953.6	6,983.9	6,953.6	27.4	25.5	-170.09	-187.7	438.9	1,179.1	1,129.4	49.71	23.722		
7,100.0	7,052.8	7,083.0	7,052.8	27.8	25.8	-170.20	-187.7	438.9	1,191.9	1,141.5	50.42	23.642		
7,200.0	7,152.0	7,182.2	7,152.0	28.2	26.1	-170.30	-187.7	438.9	1,204.7	1,153.5	51.13	23.563		
7,300.0	7,251.1	7,281.3	7,251.1	28.6	26.5	-170.40	-187.7	438.9	1,217.4	1,165.6	51.83	23.487		
7,400.0	7,350.3	7,380.5	7,350.3	29.0	26.8	-170.50	-187.7	438.9	1,230.2	1,177.7	52.55	23.413		
7,500.0	7,449.4	7,479.7	7,449.4	29.4	27.1	-170.60	-187.7	438.9	1,243.0	1,189.7	53.26	23.340		
7,551.0	7,500.0	7,530.2	7,500.0	29.7	27.3	-170.65	-187.7	438.9	1,249.5	1,195.9	53.62	23.304		
7,600.0	7,548.6	7,578.9	7,548.6	29.8	27.5	-159.70	-187.7	438.9	1,255.2	1,201.2	53.97	23.259		
7,674.8	7,623.1	7,653.3	7,623.1	30.1	27.7	-135.58	-187.7	438.9	1,261.5	1,207.0	54.50	23.149		
7,700.0	7,648.2	7,678.4	7,648.2	30.2	27.8	-135.65	-187.7	438.9	1,263.1	1,208.5	54.67	23.104		
7,800.0	7,747.7	7,778.0	7,747.7	30.6	28.1	-135.94	-187.7	438.9	1,269.7	1,214.3	55.38	22.928		
7,900.0	7,847.3	7,877.6	7,847.3	31.0	28.5	-136.22	-187.7	438.9	1,276.3	1,220.2	56.08	22.758		
8,000.0	7,946.9	7,977.1	7,946.9	31.3	28.8	-136.51	-187.7	438.9	1,283.0	1,226.2	56.79	22.592		
8,100.0	8,046.5	8,076.7	8,046.5	31.7	29.2	-136.79	-187.7	438.9	1,289.6	1,232.1	57.50	22.430		
8,200.0	8,146.1	8,176.3	8,146.1	32.1	29.5	-137.06	-187.7	438.9	1,296.3	1,238.1	58.20	22.273		
8,300.0	8,245.6	8,275.9	8,245.6	32.4	29.8	-137.34	-187.7	438.9	1,303.1	1,244.2	58.91	22.119		
8,400.0	8,345.2	8,375.5	8,345.2	32.8	30.2	-137.61	-187.7	438.9	1,309.8	1,250.2	59.62	21.970		
8,500.0	8,444.8	8,475.0	8,444.8	33.2	30.5	-137.87	-187.7	438.9	1,316.6	1,256.3	60.33	21.825		
8,600.0	8,544.4	8,574.6	8,544.4	33.6	30.9	-138.14	-187.7	438.9	1,323.4	1,262.4	61.03	21.683		
8,700.0	8,644.0	8,674.2	8,644.0	33.9	31.2	-138.40	-187.7	438.9	1,330.3	1,268.5	61.74	21.545		
8,800.0	8,743.5	8,773.8	8,743.5	34.3	31.5	-138.66	-187.7	438.9	1,337.2	1,274.7	62.45	21.411		
8,900.0	8,843.1	8,873.4	8,843.1	34.7	31.9	-138.92	-187.7	438.9	1,344.1	1,280.9	63.16	21.280		
9,000.0	8,942.7	8,972.9	8,942.7	35.1	32.2	-139.17	-187.7	438.9	1,351.0	1,287.1	63.87	21.152		
9,100.0	9,042.3	9,072.5	9,042.3	35.4	32.6	-139.43	-187.7	438.9	1,357.9	1,293.4	64.58	21.027		
9,200.0	9,141.9	9,172.1	9,141.9	35.8	32.9	-139.68	-187.7	438.9	1,364.9	1,299.6	65.29	20.905		
9,300.0	9,241.4	9,271.7	9,241.4	36.2	33.2	-139.92	-187.7	438.9	1,371.9	1,305.9	66.00	20.786		
9,400.0	9,341.0	9,371.3	9,341.0	36.6	33.6	-140.17	-187.7	438.9	1,379.0	1,312.2	66.71	20.670		
9,500.0	9,440.6	9,470.8	9,440.6	36.9	33.9	-140.41	-187.7	438.9	1,386.0	1,318.6	67.42	20.557		
9,600.0	9,540.2	9,570.4	9,540.2	37.3	34.3	-140.65	-187.7	438.9	1,393.1	1,325.0	68.13	20.446		
9,700.0	9,639.8	9,670.0	9,639.8	37.7	34.6	-140.89	-187.7	438.9	1,400.2	1,331.4	68.85	20.338		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #128H - 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			
9,800.0	9,739.3	9,769.6	9,739.3	38.1	35.0	-141.12	-187.7	438.9	1,407.3	1,337.8	69.56	20.233			
9,900.0	9,838.9	9,869.2	9,838.9	38.4	35.3	-141.35	-187.7	438.9	1,414.5	1,344.2	70.27	20.130			
10,000.0	9,938.5	9,968.7	9,938.5	38.8	35.7	-141.58	-187.7	438.9	1,421.7	1,350.7	70.98	20.029			
10,100.0	10,038.1	10,068.3	10,038.1	39.2	36.0	-141.81	-187.7	438.9	1,428.8	1,357.2	71.69	19.930			
10,200.0	10,137.7	10,167.9	10,137.7	39.6	36.3	-142.04	-187.7	438.9	1,436.1	1,363.7	72.40	19.834			
10,300.0	10,237.2	10,267.5	10,237.2	39.9	36.7	-142.26	-187.7	438.9	1,443.3	1,370.2	73.12	19.740			
10,400.0	10,336.8	10,367.1	10,336.8	40.3	37.0	-142.48	-187.7	438.9	1,450.6	1,376.7	73.83	19.648			
10,500.0	10,436.4	10,450.0	10,419.8	40.7	37.3	-142.69	-187.0	439.0	1,458.1	1,383.6	74.46	19.583			
10,600.0	10,536.0	10,519.1	10,488.4	41.1	37.6	-143.13	-179.6	440.4	1,467.5	1,392.5	74.98	19.573			
10,700.0	10,635.6	10,582.1	10,549.8	41.4	37.8	-143.80	-165.7	443.0	1,479.3	1,403.9	75.41	19.618			
10,759.5	10,694.8	10,617.5	10,583.5	41.7	37.9	-144.29	-155.1	444.9	1,487.7	1,412.1	75.62	19.674			
10,800.0	10,735.2	10,640.6	10,605.1	41.8	37.9	-144.74	-147.1	446.4	1,493.6	1,417.9	75.74	19.722			
10,900.0	10,835.1	10,700.0	10,659.0	42.2	38.1	-145.96	-122.5	451.0	1,507.7	1,431.7	75.98	19.842			
10,941.9	10,877.0	10,716.4	10,673.3	42.3	38.1	86.59	-114.8	452.4	1,513.4	1,437.4	75.98	19.918			
10,950.0	10,885.1	10,720.5	10,676.9	42.3	38.1	86.86	-112.8	452.8	1,514.5	1,438.5	75.99	19.931			
11,000.0	10,935.0	10,750.0	10,702.1	42.5	38.2	85.64	-97.7	455.6	1,521.7	1,445.6	76.04	20.011			
11,050.0	10,984.4	10,770.9	10,719.5	42.6	38.3	84.54	-86.2	457.7	1,529.3	1,453.3	75.99	20.126			
11,100.0	11,033.1	10,800.0	10,742.9	42.8	38.3	83.33	-69.3	460.8	1,537.5	1,461.5	75.99	20.232			
11,150.0	11,080.5	10,821.2	10,759.4	42.9	38.4	82.22	-56.2	463.3	1,545.9	1,470.0	75.90	20.369			
11,200.0	11,126.4	10,850.0	10,781.0	43.0	38.4	81.06	-37.5	466.7	1,554.6	1,478.7	75.87	20.491			
11,250.0	11,170.4	10,871.4	10,796.4	43.1	38.5	80.00	-22.9	469.4	1,563.4	1,487.6	75.75	20.639			
11,300.0	11,212.2	10,900.0	10,816.1	43.2	38.5	78.92	-2.5	473.2	1,572.2	1,496.5	75.71	20.767			
11,350.0	11,251.4	10,921.3	10,830.2	43.3	38.6	77.94	13.3	476.1	1,581.0	1,505.4	75.59	20.914			
11,400.0	11,287.8	10,950.0	10,848.0	43.4	38.6	76.99	35.3	480.2	1,589.6	1,514.1	75.57	21.036			
11,450.0	11,321.0	10,971.2	10,860.5	43.4	38.6	76.13	52.1	483.3	1,598.1	1,522.6	75.48	21.172			
11,500.0	11,350.9	11,000.0	10,876.5	43.5	38.7	75.33	75.7	487.7	1,606.2	1,530.7	75.50	21.275			
11,550.0	11,377.2	11,020.8	10,887.2	43.5	38.7	74.60	93.3	491.0	1,614.0	1,538.6	75.46	21.388			
11,600.0	11,399.6	11,050.0	10,901.2	43.6	38.7	73.97	118.4	495.6	1,621.5	1,545.9	75.54	21.464			
11,650.0	11,418.1	11,070.4	10,910.2	43.6	38.8	73.40	136.4	498.9	1,628.5	1,552.9	75.58	21.546			
11,700.0	11,432.5	11,100.0	10,922.1	43.6	38.8	72.95	163.1	503.9	1,635.0	1,559.3	75.74	21.586			
11,750.0	11,442.6	11,119.8	10,929.2	43.7	38.8	72.53	181.2	507.3	1,641.0	1,565.1	75.87	21.630			
11,800.0	11,448.4	11,150.0	10,938.9	43.8	38.9	72.28	209.4	512.5	1,646.5	1,570.4	76.12	21.631			
11,841.9	11,450.0	11,165.1	10,943.2	43.8	38.9	72.04	223.6	515.1	1,650.7	1,574.4	76.29	21.638			
11,900.0	11,450.0	11,200.0	10,951.6	43.9	39.0	72.38	256.9	521.3	1,656.8	1,580.2	76.64	21.619			
12,000.0	11,450.0	11,250.0	10,960.0	44.2	39.1	72.76	305.4	530.3	1,669.7	1,592.5	77.16	21.638			
12,100.0	11,450.0	11,300.0	10,964.0	44.5	39.3	72.99	354.3	539.3	1,685.3	1,607.6	77.68	21.696			
12,200.0	11,450.0	11,442.7	10,964.1	44.9	39.8	73.24	495.1	562.9	1,702.3	1,623.7	78.61	21.655			
12,300.0	11,450.0	11,674.7	10,963.3	45.4	40.8	73.46	725.8	586.3	1,712.8	1,632.6	80.21	21.354			
12,400.0	11,450.0	11,887.3	10,962.6	45.9	42.0	73.50	938.3	591.4	1,715.7	1,633.7	82.00	20.924			
12,500.0	11,450.0	11,987.3	10,962.3	46.5	42.6	73.49	1,038.3	590.6	1,715.8	1,632.6	83.22	20.618			
12,600.0	11,450.0	12,087.3	10,962.0	47.2	43.3	73.48	1,138.3	589.8	1,715.9	1,631.4	84.54	20.297			
12,700.0	11,450.0	12,187.3	10,961.6	47.9	44.0	73.47	1,238.3	589.1	1,716.0	1,630.1	85.96	19.963			
12,800.0	11,450.0	12,287.3	10,961.3	48.7	44.8	73.46	1,338.3	588.3	1,716.1	1,628.6	87.48	19.618			
12,900.0	11,450.0	12,387.3	10,961.0	49.5	45.6	73.45	1,438.3	587.5	1,716.2	1,627.2	89.08	19.266			
13,000.0	11,450.0	12,487.3	10,960.7	50.3	46.5	73.44	1,538.3	586.7	1,716.3	1,625.6	90.77	18.908			
13,100.0	11,450.0	12,587.3	10,960.3	51.2	47.4	73.43	1,638.3	586.0	1,716.4	1,623.9	92.54	18.548			
13,200.0	11,450.0	12,687.3	10,960.0	52.2	48.4	73.42	1,738.3	585.2	1,716.6	1,622.2	94.39	18.186			
13,300.0	11,450.0	12,787.3	10,959.7	53.1	49.4	73.41	1,838.3	584.4	1,716.7	1,620.4	96.31	17.825			
13,400.0	11,450.0	12,887.3	10,959.4	54.1	50.4	73.40	1,938.3	583.6	1,716.8	1,618.5	98.29	17.466			
13,500.0	11,450.0	12,987.3	10,959.1	55.1	51.5	73.39	2,038.3	582.8	1,716.9	1,616.5	100.34	17.111			
13,600.0	11,450.0	13,087.3	10,958.7	56.2	52.5	73.38	2,138.2	582.1	1,717.0	1,614.5	102.44	16.760			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #128H - 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				
13,700.0	11,450.0	13,187.3	10,958.4	57.3	53.7	73.36	2,238.2	581.3	1,717.1	1,612.5	104.61	16.415				
13,800.0	11,450.0	13,287.3	10,958.1	58.4	54.8	73.35	2,338.2	580.5	1,717.2	1,610.4	106.82	16.076				
13,900.0	11,450.0	13,387.3	10,957.8	59.5	56.0	73.34	2,438.2	579.7	1,717.3	1,608.2	109.08	15.743				
14,000.0	11,450.0	13,487.3	10,957.4	60.7	57.2	73.33	2,538.2	578.9	1,717.4	1,606.0	111.39	15.418				
14,100.0	11,450.0	13,587.3	10,957.1	61.9	58.4	73.32	2,638.2	578.2	1,717.5	1,603.8	113.74	15.100				
14,200.0	11,450.0	13,687.3	10,956.8	63.1	59.6	73.31	2,738.2	577.4	1,717.6	1,601.5	116.14	14.790				
14,300.0	11,450.0	13,787.3	10,956.5	64.3	60.9	73.30	2,838.2	576.6	1,717.7	1,599.2	118.57	14.487				
14,400.0	11,450.0	13,887.3	10,956.1	65.5	62.2	73.29	2,938.2	575.8	1,717.8	1,596.8	121.03	14.193				
14,500.0	11,450.0	13,987.3	10,955.8	66.8	63.5	73.28	3,038.2	575.0	1,718.0	1,594.4	123.53	13.907				
14,600.0	11,450.0	14,087.3	10,955.5	68.1	64.8	73.27	3,138.2	574.3	1,718.1	1,592.0	126.07	13.628				
14,700.0	11,450.0	14,187.3	10,955.2	69.4	66.1	73.26	3,238.2	573.5	1,718.2	1,589.5	128.63	13.358				
14,800.0	11,450.0	14,287.3	10,954.8	70.7	67.4	73.25	3,338.2	572.7	1,718.3	1,587.1	131.22	13.095				
14,900.0	11,450.0	14,387.3	10,954.5	72.0	68.8	73.24	3,438.2	571.9	1,718.4	1,584.6	133.83	12.840				
15,000.0	11,450.0	14,487.3	10,954.2	73.4	70.2	73.23	3,538.2	571.2	1,718.5	1,582.0	136.47	12.592				
15,100.0	11,450.0	14,587.3	10,953.9	74.7	71.5	73.22	3,638.2	570.4	1,718.6	1,579.5	139.14	12.352				
15,200.0	11,450.0	14,687.3	10,953.6	76.1	72.9	73.21	3,738.2	569.6	1,718.7	1,576.9	141.82	12.119				
15,300.0	11,450.0	14,787.3	10,953.2	77.4	74.3	73.20	3,838.2	568.8	1,718.8	1,574.3	144.53	11.892				
15,400.0	11,450.0	14,887.3	10,952.9	78.8	75.8	73.19	3,938.2	568.0	1,718.9	1,571.7	147.26	11.673				
15,500.0	11,450.0	14,987.3	10,952.6	80.2	77.2	73.18	4,038.2	567.3	1,719.0	1,569.0	150.00	11.460				
15,600.0	11,450.0	15,087.3	10,952.3	81.6	78.6	73.17	4,138.2	566.5	1,719.1	1,566.4	152.76	11.254				
15,700.0	11,450.0	15,187.3	10,951.9	83.0	80.0	73.16	4,238.2	565.7	1,719.3	1,563.7	155.54	11.053				
15,800.0	11,450.0	15,287.3	10,951.6	84.5	81.5	73.15	4,338.2	564.9	1,719.4	1,561.0	158.34	10.859				
15,900.0	11,450.0	15,387.3	10,951.3	85.9	83.0	73.14	4,438.2	564.1	1,719.5	1,558.3	161.15	10.670				
16,000.0	11,450.0	15,487.3	10,951.0	87.3	84.4	73.13	4,538.1	563.4	1,719.6	1,555.6	163.97	10.487				
16,100.0	11,450.0	15,587.3	10,950.6	88.8	85.9	73.12	4,638.1	562.6	1,719.7	1,552.9	166.81	10.310				
16,200.0	11,450.0	15,687.3	10,950.3	90.2	87.4	73.11	4,738.1	561.8	1,719.8	1,550.1	169.66	10.137				
16,300.0	11,450.0	15,787.3	10,950.0	91.7	88.8	73.10	4,838.1	561.0	1,719.9	1,547.4	172.52	9.970				
16,400.0	11,450.0	15,887.3	10,949.7	93.2	90.3	73.09	4,938.1	560.2	1,720.0	1,544.6	175.39	9.807				
16,500.0	11,450.0	15,987.3	10,949.4	94.6	91.8	73.08	5,038.1	559.5	1,720.1	1,541.9	178.27	9.649				
16,600.0	11,450.0	16,087.3	10,949.0	96.1	93.3	73.07	5,138.1	558.7	1,720.2	1,539.1	181.17	9.495				
16,700.0	11,450.0	16,187.3	10,948.7	97.6	94.8	73.06	5,238.1	557.9	1,720.3	1,536.3	184.07	9.346				
16,800.0	11,450.0	16,287.3	10,948.4	99.1	96.4	73.05	5,338.1	557.1	1,720.5	1,533.5	186.98	9.201				
16,900.0	11,450.0	16,387.3	10,948.1	100.6	97.9	73.04	5,438.1	556.4	1,720.6	1,530.7	189.91	9.060				
17,000.0	11,450.0	16,487.3	10,947.7	102.1	99.4	73.03	5,538.1	555.6	1,720.7	1,527.8	192.84	8.923				
17,100.0	11,450.0	16,587.3	10,947.4	103.6	100.9	73.02	5,638.1	554.8	1,720.8	1,525.0	195.77	8.790				
17,200.0	11,450.0	16,687.3	10,947.1	105.1	102.4	73.01	5,738.1	554.0	1,720.9	1,522.2	198.72	8.660				
17,300.0	11,450.0	16,787.3	10,946.8	106.6	104.0	73.00	5,838.1	553.2	1,721.0	1,519.3	201.67	8.534				
17,400.0	11,450.0	16,887.3	10,946.4	108.1	105.5	72.99	5,938.1	552.5	1,721.1	1,516.5	204.63	8.411				
17,500.0	11,450.0	16,987.3	10,946.1	109.6	107.1	72.98	6,038.1	551.7	1,721.2	1,513.6	207.60	8.291				
17,600.0	11,450.0	17,087.3	10,945.8	111.2	108.6	72.97	6,138.1	550.9	1,721.3	1,510.8	210.57	8.174				
17,700.0	11,450.0	17,187.3	10,945.5	112.7	110.1	72.96	6,238.1	550.1	1,721.4	1,507.9	213.55	8.061				
17,800.0	11,450.0	17,287.3	10,945.2	114.2	111.7	72.95	6,338.1	549.3	1,721.6	1,505.0	216.54	7.950				
17,900.0	11,450.0	17,387.3	10,944.8	115.8	113.2	72.94	6,438.1	548.6	1,721.7	1,502.1	219.53	7.842				
18,000.0	11,450.0	17,487.3	10,944.5	117.3	114.8	72.93	6,538.1	547.8	1,721.8	1,499.2	222.53	7.737				
18,100.0	11,450.0	17,587.3	10,944.2	118.9	116.4	72.92	6,638.1	547.0	1,721.9	1,496.4	225.53	7.635				
18,200.0	11,450.0	17,687.3	10,943.9	120.4	117.9	72.91	6,738.1	546.2	1,722.0	1,493.5	228.54	7.535				
18,300.0	11,450.0	17,787.3	10,943.5	121.9	119.5	72.90	6,838.1	545.5	1,722.1	1,490.6	231.55	7.437				
18,400.0	11,450.0	17,887.3	10,943.2	123.5	121.1	72.89	6,938.1	544.7	1,722.2	1,487.7	234.56	7.342				
18,500.0	11,450.0	17,987.3	10,942.9	125.1	122.6	72.88	7,038.0	543.9	1,722.3	1,484.7	237.58	7.249				
18,600.0	11,450.0	18,087.3	10,942.6	126.6	124.2	72.87	7,138.0	543.1	1,722.4	1,481.8	240.61	7.159				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #128H - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
18,700.0	11,450.0	18,187.3	10,942.2	128.2	125.8	72.86	7,238.0	542.3	1,722.5	1,478.9	243.64	7.070			
18,800.0	11,450.0	18,287.3	10,941.9	129.7	127.3	72.85	7,338.0	541.6	1,722.7	1,476.0	246.67	6.984			
18,900.0	11,450.0	18,387.3	10,941.6	131.3	128.9	72.84	7,438.0	540.8	1,722.8	1,473.1	249.71	6.899			
19,000.0	11,450.0	18,487.3	10,941.3	132.9	130.5	72.83	7,538.0	540.0	1,722.9	1,470.1	252.75	6.817			
19,100.0	11,450.0	18,587.3	10,941.0	134.4	132.1	72.82	7,638.0	539.2	1,723.0	1,467.2	255.79	6.736			
19,200.0	11,450.0	18,687.3	10,940.6	136.0	133.7	72.81	7,738.0	538.4	1,723.1	1,464.3	258.83	6.657			
19,300.0	11,450.0	18,787.3	10,940.3	137.6	135.2	72.80	7,838.0	537.7	1,723.2	1,461.3	261.88	6.580			
19,400.0	11,450.0	18,887.3	10,940.0	139.1	136.8	72.79	7,938.0	536.9	1,723.3	1,458.4	264.94	6.505			
19,500.0	11,450.0	18,987.3	10,939.7	140.7	138.4	72.78	8,038.0	536.1	1,723.4	1,455.4	267.99	6.431			
19,600.0	11,450.0	19,087.3	10,939.3	142.3	140.0	72.77	8,138.0	535.3	1,723.5	1,452.5	271.05	6.359			
19,700.0	11,450.0	19,187.3	10,939.0	143.9	141.6	72.76	8,238.0	534.5	1,723.7	1,449.5	274.11	6.288			
19,800.0	11,450.0	19,287.3	10,938.7	145.5	143.2	72.75	8,338.0	533.8	1,723.8	1,446.6	277.18	6.219			
19,900.0	11,450.0	19,387.3	10,938.4	147.1	144.8	72.74	8,438.0	533.0	1,723.9	1,443.6	280.24	6.151			
20,000.0	11,450.0	19,487.3	10,938.0	148.6	146.4	72.73	8,538.0	532.2	1,724.0	1,440.7	283.31	6.085			
20,100.0	11,450.0	19,587.3	10,937.7	150.2	148.0	72.72	8,638.0	531.4	1,724.1	1,437.7	286.38	6.020			
20,200.0	11,450.0	19,687.3	10,937.4	151.8	149.6	72.71	8,738.0	530.7	1,724.2	1,434.8	289.45	5.957			
20,300.0	11,450.0	19,787.3	10,937.1	153.4	151.2	72.69	8,838.0	529.9	1,724.3	1,431.8	292.53	5.895			
20,400.0	11,450.0	19,887.3	10,936.8	155.0	152.8	72.68	8,938.0	529.1	1,724.4	1,428.8	295.61	5.834			
20,500.0	11,450.0	19,987.3	10,936.4	156.6	154.4	72.67	9,038.0	528.3	1,724.5	1,425.9	298.69	5.774			
20,600.0	11,450.0	20,087.3	10,936.1	158.2	156.0	72.66	9,138.0	527.5	1,724.7	1,422.9	301.77	5.715			
20,700.0	11,450.0	20,187.3	10,935.8	159.8	157.6	72.65	9,238.0	526.8	1,724.8	1,419.9	304.85	5.658			
20,800.0	11,450.0	20,287.3	10,935.5	161.4	159.2	72.64	9,338.0	526.0	1,724.9	1,416.9	307.94	5.601			
20,900.0	11,450.0	20,387.3	10,935.1	163.0	160.8	72.63	9,437.9	525.2	1,725.0	1,414.0	311.02	5.546			
21,000.0	11,450.0	20,487.3	10,934.8	164.6	162.4	72.62	9,537.9	524.4	1,725.1	1,411.0	314.11	5.492			
21,100.0	11,450.0	20,587.3	10,934.5	166.2	164.0	72.61	9,637.9	523.6	1,725.2	1,408.0	317.20	5.439			
21,200.0	11,450.0	20,687.3	10,934.2	167.8	165.6	72.60	9,737.9	522.9	1,725.3	1,405.0	320.30	5.387			
21,300.0	11,450.0	20,787.3	10,933.8	169.4	167.2	72.59	9,837.9	522.1	1,725.4	1,402.0	323.39	5.335			
21,400.0	11,450.0	20,887.3	10,933.5	171.0	168.9	72.58	9,937.9	521.3	1,725.5	1,399.1	326.48	5.285			
21,500.0	11,450.0	20,987.3	10,933.2	172.6	170.5	72.57	10,037.9	520.5	1,725.7	1,396.1	329.58	5.236			
21,600.0	11,450.0	21,087.3	10,932.9	174.2	172.1	72.56	10,137.9	519.7	1,725.8	1,393.1	332.68	5.188			
21,659.1	11,450.0	21,146.4	10,932.7	175.1	173.0	72.56	10,197.0	519.3	1,725.8	1,391.3	334.51	5.159 SF			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1												Offset Site Error:		0.0 usft	
Survey Program:		161-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	1.0	1.0	0.0	0.0	-90.60	-0.8	-79.8	79.9								
100.0	100.0	100.9	100.9	0.1	0.1	-90.55	-0.8	-79.9	79.9	79.6	0.28	288.385					
200.0	200.0	200.9	200.9	0.5	0.4	-90.41	-0.6	-80.1	80.1	79.2	0.87	92.389					
300.0	300.0	300.7	300.7	0.8	0.7	-90.34	-0.5	-80.3	80.3	78.8	1.58	50.825					
400.0	400.0	401.2	401.1	1.2	1.1	-90.35	-0.5	-80.5	80.5	78.2	2.29	35.195					
500.0	500.0	501.1	501.1	1.6	1.4	-90.35	-0.5	-80.3	80.3	77.3	2.98	26.894					
552.8	552.8	553.8	553.8	1.8	1.6	-90.40	-0.6	-80.2	80.2	76.9	3.36	23.909					
600.0	600.0	601.0	601.0	1.9	1.8	-90.46	-0.6	-80.3	80.3	76.6	3.69	21.760					
700.0	700.0	701.1	701.1	2.3	2.1	-90.55	-0.8	-80.2	80.2	75.8	4.40	18.252					
800.0	800.0	801.1	801.1	2.6	2.5	-90.59	-0.8	-80.0	80.0	74.9	5.10	15.675					
900.0	900.0	901.1	901.1	3.0	2.8	-90.60	-0.8	-79.9	79.9	74.1	5.81	13.756					
956.7	956.7	958.0	958.0	3.2	3.0	-90.59	-0.8	-79.8	79.8	73.6	6.21	12.841					
1,000.0	1,000.0	1,000.9	1,000.9	3.4	3.2	-90.64	-0.9	-79.9	79.9	73.3	6.52	12.251					
1,100.0	1,100.0	1,100.9	1,100.9	3.7	3.5	1.00	-1.1	-80.0	79.2	71.9	7.22	10.966					
1,200.0	1,200.0	1,200.1	1,200.1	4.0	3.9	0.67	-1.6	-80.4	76.9	69.0	7.91	9.723					
1,300.0	1,299.9	1,298.5	1,298.4	4.4	4.2	-0.12	-2.7	-82.5	74.8	66.2	8.60	8.691					
1,400.0	1,399.7	1,396.9	1,396.8	4.7	4.6	-1.51	-4.6	-86.7	72.9	63.6	9.29	7.847					
1,500.0	1,499.4	1,495.0	1,494.6	5.1	4.9	-3.53	-7.3	-92.9	71.6	61.6	9.98	7.175					
1,600.0	1,598.9	1,593.7	1,592.8	5.5	5.3	-6.24	-10.9	-101.7	71.4	60.7	10.67	6.686					
1,700.0	1,698.3	1,694.2	1,692.8	5.8	5.6	-9.74	-15.3	-111.0	70.0	58.6	11.39	6.146					
1,744.2	1,742.1	1,739.0	1,737.4	6.0	5.8	-11.61	-17.3	-114.6	68.4	56.7	11.71	5.842					
1,800.0	1,797.4	1,795.4	1,793.6	6.2	6.0	-14.28	-19.9	-118.5	65.7	53.6	12.12	5.426					
1,900.0	1,896.6	1,896.1	1,894.1	6.6	6.4	-19.92	-24.3	-124.0	59.9	47.1	12.84	4.666					
2,000.0	1,995.8	1,997.0	1,994.9	7.0	6.7	-26.22	-27.3	-128.0	52.8	39.2	13.57	3.890					
2,100.0	2,094.9	2,097.0	2,094.9	7.4	7.1	-33.10	-28.2	-130.7	44.4	30.1	14.31	3.101					
2,200.0	2,194.1	2,196.5	2,194.3	7.8	7.5	-41.29	-28.1	-133.8	36.3	21.2	15.05	2.409					
2,300.0	2,293.2	2,295.8	2,293.5	8.1	7.8	-51.08	-27.3	-138.1	29.6	13.8	15.82	1.871					
2,400.0	2,392.4	2,395.2	2,392.8	8.5	8.2	-65.20	-27.2	-143.0	25.1	8.5	16.63	1.508					
2,464.5	2,456.4	2,459.2	2,456.7	8.8	8.4	-78.35	-28.1	-145.6	24.0	6.9	17.17	1.400 Level 3, CC, ES					
2,500.0	2,491.5	2,494.4	2,491.8	8.9	8.5	-86.50	-29.0	-146.7	24.4	7.0	17.46	1.398 Level 3, SF					
2,600.0	2,590.7	2,593.3	2,590.7	9.3	8.9	-106.43	-32.9	-149.6	29.4	11.2	18.20	1.618					
2,700.0	2,689.9	2,693.0	2,690.2	9.7	9.3	-120.33	-36.8	-152.0	37.2	18.3	18.91	1.969					
2,800.0	2,789.0	2,792.6	2,789.8	10.1	9.6	-130.11	-39.7	-154.2	45.7	26.1	19.60	2.334					
2,900.0	2,888.2	2,892.2	2,889.3	10.5	10.0	-135.63	-43.1	-157.4	54.8	34.5	20.30	2.699					
3,000.0	2,987.3	2,991.8	2,988.8	10.9	10.3	-139.38	-46.5	-160.9	63.9	42.9	21.02	3.040					
3,100.0	3,086.5	3,091.1	3,088.0	11.4	10.7	-144.37	-47.7	-162.6	73.4	51.7	21.70	3.383					
3,200.0	3,185.6	3,190.5	3,187.4	11.8	11.0	-150.12	-46.5	-162.9	83.6	61.2	22.36	3.739					
3,300.0	3,284.8	3,290.7	3,287.6	12.2	11.4	-155.54	-43.8	-163.0	93.8	70.8	23.02	4.076					
3,400.0	3,384.0	3,391.9	3,388.7	12.6	11.7	-160.12	-40.1	-164.6	103.1	79.4	23.69	4.352					
3,500.0	3,483.1	3,492.8	3,489.5	13.0	12.1	-163.79	-36.2	-168.0	111.1	86.7	24.38	4.558					
3,600.0	3,582.3	3,592.7	3,589.2	13.4	12.4	-166.64	-32.7	-172.4	118.7	93.6	25.07	4.734					
3,700.0	3,681.4	3,690.9	3,687.3	13.8	12.8	-168.74	-30.2	-176.4	126.9	101.1	25.77	4.924					
3,800.0	3,780.6	3,788.4	3,784.8	14.2	13.1	-169.60	-30.1	-179.4	136.5	110.1	26.46	5.159					
3,900.0	3,879.7	3,886.3	3,882.5	14.6	13.5	-168.87	-34.0	-181.7	147.5	120.4	27.18	5.429					
4,000.0	3,978.9	3,984.2	3,980.0	15.0	13.8	-166.73	-42.1	-183.9	159.6	131.6	27.90	5.718					
4,100.0	4,078.1	4,082.7	4,078.0	15.4	14.2	-164.11	-52.6	-185.9	172.4	143.7	28.65	6.017					
4,200.0	4,177.2	4,184.2	4,178.9	15.8	14.5	-162.06	-62.5	-188.4	185.0	155.5	29.43	6.285					
4,300.0	4,276.4	4,288.1	4,282.6	16.2	14.9	-160.93	-69.7	-192.2	195.7	165.5	30.23	6.475					
4,400.0	4,375.5	4,392.1	4,386.3	16.7	15.3	-160.34	-74.8	-197.8	204.3	173.3	31.00	6.590					
4,500.0	4,474.7	4,496.1	4,489.8	17.1	15.7	-159.65	-79.6	-205.8	210.7	178.9	31.77	6.631					
4,600.0	4,573.9	4,597.1	4,590.1	17.5	16.1	-158.49	-85.7	-215.5	215.7	183.1	32.54	6.628					

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		161-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			
4,700.0	4,673.0	4,695.6	4,688.0	17.9	16.5	-157.36	-92.0	-224.9	220.9	187.6	33.31	6.633			
4,800.0	4,772.2	4,797.1	4,789.0	18.3	16.8	-156.61	-97.2	-233.8	226.5	192.4	34.08	6.647			
4,900.0	4,871.3	4,898.7	4,889.9	18.7	17.2	-155.78	-102.3	-244.0	230.9	196.1	34.85	6.626			
5,000.0	4,970.5	4,997.5	4,988.1	19.1	17.6	-154.96	-107.5	-254.2	235.3	199.7	35.62	6.605			
5,100.0	5,069.6	5,094.4	5,084.4	19.5	18.0	-154.40	-112.0	-263.0	240.6	204.2	36.38	6.613			
5,200.0	5,168.8	5,193.2	5,182.9	19.9	18.4	-154.13	-116.0	-270.6	246.8	209.7	37.13	6.647			
5,300.0	5,268.0	5,292.4	5,281.8	20.4	18.7	-153.94	-119.8	-277.9	253.3	215.4	37.88	6.687			
5,400.0	5,367.1	5,391.3	5,380.4	20.8	19.1	-153.81	-123.5	-284.9	260.1	221.5	38.63	6.733			
5,500.0	5,466.3	5,491.6	5,480.3	21.2	19.5	-153.72	-127.1	-291.7	267.1	227.7	39.39	6.781			
5,600.0	5,565.4	5,592.4	5,580.8	21.6	19.9	-153.63	-130.7	-298.9	273.6	233.4	40.14	6.815			
5,700.0	5,664.6	5,690.3	5,678.5	22.0	20.2	-153.58	-134.0	-305.9	280.1	239.2	40.88	6.851			
5,800.0	5,763.7	5,786.8	5,774.7	22.4	20.6	-153.74	-136.7	-311.4	287.7	246.1	41.60	6.916			
5,900.0	5,862.9	5,885.8	5,873.5	22.8	21.0	-153.99	-139.4	-316.1	296.2	253.9	42.33	6.997			
6,000.0	5,962.1	5,986.3	5,973.9	23.2	21.3	-154.18	-142.3	-321.1	304.5	261.4	43.08	7.068			
6,100.0	6,061.2	6,083.0	6,070.4	23.7	21.7	-154.43	-144.7	-325.7	312.9	269.1	43.79	7.146			
6,200.0	6,160.4	6,181.2	6,168.6	24.1	22.0	-154.90	-146.5	-328.9	322.3	277.8	44.50	7.243			
6,300.0	6,259.5	6,281.0	6,268.3	24.5	22.4	-155.33	-148.3	-332.2	331.8	286.6	45.22	7.337			
6,400.0	6,358.7	6,380.3	6,367.6	24.9	22.8	-155.75	-150.1	-335.4	341.3	295.3	45.95	7.428			
6,500.0	6,457.8	6,481.1	6,468.3	25.3	23.1	-156.15	-151.9	-338.9	350.7	304.0	46.68	7.512			
6,600.0	6,557.0	6,580.3	6,567.4	25.7	23.5	-156.52	-153.5	-342.4	359.9	312.5	47.40	7.592			
6,700.0	6,656.2	6,679.9	6,666.9	26.1	23.8	-156.89	-155.2	-345.8	369.2	321.1	48.12	7.672			
6,800.0	6,755.3	6,780.3	6,767.2	26.5	24.2	-157.24	-156.8	-349.4	378.4	329.5	48.85	7.745			
6,900.0	6,854.5	6,880.5	6,867.4	27.0	24.6	-157.57	-158.3	-353.2	387.4	337.8	49.58	7.813			
7,000.0	6,953.6	6,980.6	6,967.4	27.4	24.9	-157.90	-159.7	-357.1	396.2	345.9	50.31	7.875			
7,100.0	7,052.8	7,079.6	7,066.3	27.8	25.3	-158.20	-161.1	-361.0	405.1	354.1	51.03	7.938			
7,200.0	7,152.0	7,179.2	7,165.8	28.2	25.7	-158.49	-162.7	-364.7	414.1	362.4	51.75	8.002			
7,300.0	7,251.1	7,279.4	7,266.0	28.6	26.0	-158.75	-164.3	-368.8	422.9	370.5	52.49	8.058			
7,400.0	7,350.3	7,378.8	7,365.3	29.0	26.4	-159.01	-165.8	-372.7	431.8	378.6	53.21	8.115			
7,500.0	7,449.4	7,477.6	7,463.9	29.4	26.8	-159.27	-167.2	-376.5	440.7	386.8	53.93	8.173			
7,551.0	7,500.0	7,527.8	7,514.2	29.7	26.9	-159.41	-167.9	-378.3	445.4	391.1	54.29	8.204			
7,600.0	7,548.6	7,577.1	7,563.4	29.8	27.1	-148.62	-168.6	-380.1	449.2	394.6	54.65	8.220			
7,674.8	7,623.1	7,652.4	7,638.6	30.1	27.4	-124.80	-169.6	-383.0	452.3	397.2	55.19	8.197			
7,700.0	7,648.2	7,677.8	7,664.0	30.2	27.5	-124.96	-169.9	-383.9	452.9	397.5	55.37	8.179			
7,800.0	7,747.7	7,777.3	7,763.4	30.6	27.8	-125.54	-171.7	-387.9	454.9	398.8	56.07	8.112			
7,900.0	7,847.3	7,875.7	7,861.7	31.0	28.2	-125.91	-175.0	-392.1	457.1	400.4	56.78	8.051			
8,000.0	7,946.9	7,976.8	7,962.6	31.3	28.6	-126.17	-179.3	-396.6	459.5	402.0	57.51	7.990			
8,100.0	8,046.5	8,070.5	8,056.1	31.7	28.9	-126.46	-182.9	-400.2	462.3	404.2	58.18	7.946			
8,200.0	8,146.1	8,168.9	8,154.4	32.1	29.3	-126.89	-186.1	-402.8	466.2	407.3	58.88	7.917			
8,300.0	8,245.6	8,268.0	8,253.4	32.4	29.6	-127.34	-189.1	-405.3	470.2	410.6	59.59	7.891			
8,400.0	8,345.2	8,366.7	8,352.1	32.8	30.0	-127.79	-192.2	-407.5	474.5	414.2	60.29	7.870			
8,500.0	8,444.8	8,471.1	8,456.4	33.2	30.4	-128.32	-194.7	-410.0	478.4	417.3	61.04	7.836			
8,600.0	8,544.4	8,572.0	8,557.2	33.6	30.7	-128.88	-196.6	-413.0	481.7	419.9	61.76	7.800			
8,700.0	8,644.0	8,670.9	8,656.1	33.9	31.1	-129.39	-198.6	-415.9	485.1	422.7	62.46	7.767			
8,800.0	8,743.5	8,771.3	8,756.4	34.3	31.5	-129.89	-200.9	-418.8	488.7	425.5	63.17	7.735			
8,900.0	8,843.1	8,873.8	8,858.9	34.7	31.8	-130.45	-202.6	-422.1	491.9	428.0	63.90	7.697			
9,000.0	8,942.7	8,973.0	8,958.0	35.1	32.2	-130.98	-204.3	-425.6	494.7	430.1	64.60	7.658			
9,100.0	9,042.3	9,070.4	9,055.3	35.4	32.6	-131.40	-206.7	-428.6	498.2	432.9	65.30	7.630			
9,200.0	9,141.9	9,170.7	9,155.8	35.8	32.9	-131.82	-209.4	-431.6	501.9	435.9	66.01	7.603			
9,300.0	9,241.4	9,267.6	9,252.4	36.2	33.3	-132.44	-210.1	-434.2	505.6	438.9	66.69	7.582			
9,400.0	9,341.0	9,364.5	9,349.3	36.6	33.6	-133.14	-210.1	-435.7	510.3	442.9	67.35	7.576			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program:		161-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				
9,500.0	9,440.6	9,462.0	9,446.8	36.9	33.9	-133.88	-209.8	-436.9	515.3	447.3	68.02	7.577				
9,600.0	9,540.2	9,560.9	9,545.7	37.3	34.3	-134.61	-209.5	-437.7	520.9	452.2	68.70	7.582				
9,700.0	9,639.8	9,661.7	9,646.5	37.7	34.6	-135.27	-209.9	-438.7	526.4	457.0	69.40	7.585				
9,800.0	9,739.3	9,761.7	9,746.4	38.1	35.0	-135.82	-211.1	-440.0	531.8	461.7	70.11	7.586				
9,900.0	9,838.9	9,860.1	9,844.8	38.4	35.4	-136.30	-212.8	-441.3	537.4	466.6	70.80	7.590				
10,000.0	9,938.5	9,957.9	9,942.7	38.8	35.7	-136.88	-213.4	-442.1	543.3	471.8	71.47	7.601				
10,100.0	10,038.1	10,054.9	10,039.6	39.2	36.0	-137.56	-212.9	-442.4	549.7	477.6	72.12	7.622				
10,200.0	10,137.7	10,153.1	10,137.8	39.6	36.4	-138.19	-212.9	-442.3	556.5	483.7	72.79	7.646				
10,300.0	10,237.2	10,248.8	10,233.5	39.9	36.7	-138.74	-213.4	-441.9	563.9	490.4	73.42	7.680				
10,400.0	10,336.8	10,346.6	10,331.3	40.3	37.0	-139.27	-214.1	-441.0	571.8	497.7	74.08	7.718				
10,500.0	10,436.4	10,439.2	10,423.9	40.7	37.3	-139.80	-214.4	-439.4	580.5	505.8	74.67	7.774				
10,600.0	10,536.0	10,544.9	10,529.6	41.1	37.6	-140.50	-213.5	-437.4	589.3	513.9	75.41	7.815				
10,700.0	10,635.6	10,644.3	10,628.9	41.4	37.9	-141.16	-212.5	-436.1	597.8	521.7	76.08	7.857				
10,759.5	10,694.8	10,703.4	10,688.1	41.7	38.1	-141.51	-212.3	-435.3	602.8	526.3	76.47	7.882				
10,800.0	10,735.2	10,744.3	10,728.9	41.8	38.3	-141.77	-212.2	-434.8	605.9	529.1	76.75	7.894				
10,900.0	10,835.1	10,847.2	10,831.9	42.2	38.6	-142.11	-212.3	-433.8	610.5	533.0	77.47	7.881				
10,941.9	10,877.0	10,890.9	10,875.6	42.3	38.8	90.78	-212.2	-433.6	611.1	533.3	77.77	7.858				
10,950.0	10,885.1	10,899.3	10,884.0	42.3	38.8	91.23	-212.2	-433.5	611.1	533.3	77.82	7.852				
11,000.0	10,935.0	10,948.4	10,933.0	42.5	38.9	91.43	-211.8	-433.4	611.3	533.2	78.15	7.823				
11,050.0	10,984.4	10,996.0	10,980.6	42.6	39.1	91.97	-211.2	-433.1	611.9	533.4	78.47	7.798				
11,100.0	11,033.1	11,043.0	11,027.7	42.8	39.2	92.83	-210.6	-432.6	612.9	534.1	78.80	7.778				
11,150.0	11,080.5	11,089.0	11,073.6	42.9	39.4	93.95	-209.9	-432.0	614.4	535.3	79.13	7.765				
11,200.0	11,126.4	11,134.2	11,118.8	43.0	39.5	95.29	-209.2	-431.3	616.9	537.5	79.47	7.763				
11,250.0	11,170.4	11,177.8	11,162.4	43.1	39.7	96.77	-208.5	-430.6	620.6	540.8	79.82	7.775				
11,300.0	11,212.2	11,219.2	11,203.8	43.2	39.8	98.28	-207.8	-429.9	625.8	545.6	80.16	7.806				
11,350.0	11,251.4	11,258.1	11,242.7	43.3	39.9	99.71	-207.2	-429.2	632.9	552.4	80.50	7.862				
11,400.0	11,287.8	11,294.2	11,278.8	43.4	40.1	100.95	-206.8	-428.5	642.3	561.4	80.83	7.946				
11,450.0	11,321.0	11,325.6	11,310.2	43.4	40.2	101.79	-206.4	-427.8	654.4	573.2	81.12	8.066				
11,500.0	11,350.9	11,361.4	11,346.0	43.5	40.3	102.77	-206.0	-427.0	669.3	587.8	81.48	8.214				
11,550.0	11,377.2	11,418.5	11,403.0	43.5	40.5	105.10	-203.0	-426.5	686.4	604.4	81.97	8.374				
11,600.0	11,399.6	11,548.0	11,529.4	43.6	40.9	111.86	-177.1	-429.2	704.0	622.1	81.89	8.597				
11,650.0	11,418.1	11,608.3	11,585.3	43.6	41.0	113.63	-154.6	-430.6	721.6	640.0	81.62	8.841				
11,700.0	11,432.5	11,655.9	11,627.8	43.6	41.1	114.38	-133.3	-431.1	741.1	659.7	81.37	9.108				
11,750.0	11,442.6	11,698.5	11,664.8	43.7	41.2	114.60	-112.1	-430.6	763.1	682.0	81.08	9.412				
11,800.0	11,448.4	11,743.5	11,702.4	43.8	41.3	114.66	-87.5	-429.0	787.4	706.8	80.64	9.765				
11,841.9	11,450.0	12,362.7	11,981.7	43.8	42.9	131.87	431.9	-457.5	797.3	726.8	70.50	11.309				
11,900.0	11,450.0	12,411.8	11,983.6	43.9	43.1	132.27	480.6	-464.0	793.4	722.9	70.54	11.248				
12,000.0	11,450.0	12,490.9	11,985.6	44.2	43.4	132.74	559.2	-472.0	788.3	717.5	70.76	11.141				
12,078.6	11,450.0	12,542.0	11,986.5	44.4	43.6	132.89	610.3	-474.5	786.9	715.9	71.04	11.076				
12,100.0	11,450.0	12,560.0	11,986.7	44.5	43.7	132.91	628.3	-474.7	787.0	715.8	71.17	11.058				
12,200.0	11,450.0	12,668.0	11,987.2	44.9	44.2	132.93	736.3	-475.5	787.4	715.3	72.08	10.923				
12,300.0	11,450.0	12,771.0	11,984.7	45.4	44.8	132.73	839.3	-475.1	786.6	713.4	73.23	10.741				
12,400.0	11,450.0	12,865.6	11,980.6	45.9	45.4	132.38	933.7	-473.1	785.8	711.3	74.48	10.550				
12,413.6	11,450.0	12,877.2	11,980.2	46.0	45.4	132.34	945.3	-472.9	785.8	711.1	74.64	10.528				
12,500.0	11,450.0	12,953.3	11,978.8	46.5	45.9	132.16	1,021.4	-471.4	786.5	710.8	75.61	10.401				
12,600.0	11,450.0	13,054.9	11,978.1	47.2	46.6	132.00	1,122.9	-469.8	787.7	710.8	76.93	10.239				
12,700.0	11,450.0	13,160.4	11,977.3	47.9	47.4	131.87	1,228.4	-468.8	788.5	710.1	78.37	10.061				
12,800.0	11,450.0	13,264.7	11,976.5	48.7	48.2	131.79	1,332.8	-468.8	788.6	708.8	79.84	9.877				
12,898.3	11,450.0	13,361.9	11,975.4	49.5	49.0	131.70	1,430.0	-468.9	788.4	707.1	81.28	9.700				
12,900.0	11,450.0	13,363.6	11,975.4	49.5	49.0	131.70	1,431.6	-468.9	788.4	707.1	81.31	9.697				
13,000.0	11,450.0	13,462.1	11,974.2	50.3	49.9	131.56	1,530.2	-468.3	788.6	705.8	82.86	9.517				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		161-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			
13,100.0	11,450.0	13,563.3	11,973.0	51.2	50.8	131.44	1,631.4	-467.9	788.7	704.2	84.52	9.332			
13,200.0	11,450.0	13,660.3	11,972.6	52.2	51.7	131.39	1,728.4	-468.1	788.9	702.8	86.09	9.164			
13,300.0	11,450.0	13,763.6	11,973.1	53.1	52.7	131.42	1,831.6	-468.9	789.3	701.5	87.78	8.992			
13,400.0	11,450.0	13,870.8	11,972.2	54.1	53.8	131.36	1,938.8	-469.6	788.8	699.2	89.67	8.797			
13,500.0	11,450.0	13,981.9	11,970.8	55.1	55.0	131.34	2,049.9	-471.5	787.2	695.6	91.68	8.586			
13,600.0	11,450.0	14,084.7	11,969.5	56.2	56.1	131.38	2,152.6	-474.7	784.7	691.2	93.51	8.392			
13,700.0	11,450.0	14,176.9	11,968.2	57.3	57.1	131.39	2,244.8	-477.2	782.3	687.2	95.17	8.220			
13,759.8	11,450.0	14,223.6	11,967.6	57.9	57.6	131.36	2,291.5	-477.6	781.8	685.8	96.02	8.143			
13,800.0	11,450.0	14,255.5	11,967.3	58.4	58.0	131.32	2,323.4	-477.3	782.1	685.5	96.61	8.095			
13,900.0	11,450.0	14,354.1	11,967.1	59.5	59.1	131.22	2,422.0	-476.3	783.3	684.7	98.58	7.946			
14,000.0	11,450.0	14,464.7	11,966.6	60.7	60.4	131.14	2,532.6	-476.0	783.8	682.9	100.87	7.771			
14,100.0	11,450.0	14,569.5	11,966.1	61.9	61.7	131.13	2,637.4	-477.2	783.2	680.3	102.98	7.606			
14,200.0	11,450.0	14,680.9	11,964.0	63.1	63.0	130.99	2,748.7	-477.7	782.3	676.9	105.43	7.420			
14,300.0	11,450.0	14,789.9	11,960.4	64.3	64.4	130.86	2,857.7	-480.0	779.1	671.2	107.85	7.224			
14,400.0	11,450.0	14,906.8	11,956.0	65.5	65.9	130.74	2,974.4	-483.6	775.0	664.5	110.49	7.014			
14,500.0	11,450.0	14,978.3	11,953.6	66.8	66.8	130.68	3,045.8	-485.7	771.2	659.2	111.95	6.889			
14,600.0	11,450.0	15,069.4	11,952.7	68.1	68.0	130.63	3,137.0	-486.4	770.5	656.6	113.91	6.764			
14,673.4	11,450.0	15,137.6	11,951.7	69.0	68.9	130.56	3,205.1	-486.7	770.0	654.6	115.43	6.671			
14,700.0	11,450.0	15,160.0	11,951.4	69.4	69.2	130.53	3,227.5	-486.5	770.1	654.2	115.92	6.644			
14,800.0	11,450.0	15,260.5	11,949.8	70.7	70.5	130.31	3,327.9	-484.7	771.1	652.7	118.35	6.515			
14,900.0	11,450.0	15,371.4	11,946.4	72.0	72.0	130.00	3,438.8	-483.0	770.8	649.6	121.24	6.358			
15,000.0	11,450.0	15,475.3	11,943.3	73.4	73.4	129.78	3,542.6	-483.0	769.6	645.8	123.83	6.215			
15,085.4	11,450.0	15,549.7	11,942.5	74.5	74.4	129.74	3,617.1	-483.6	769.0	643.5	125.50	6.127			
15,100.0	11,450.0	15,562.4	11,942.6	74.7	74.5	129.74	3,629.7	-483.7	769.0	643.2	125.77	6.114			
15,200.0	11,450.0	15,658.1	11,944.1	76.1	75.9	129.85	3,725.5	-485.0	769.6	641.8	127.80	6.022			
15,300.0	11,450.0	15,767.4	11,947.0	77.4	77.4	130.11	3,834.7	-487.9	769.9	639.8	130.06	5.919			
15,349.3	11,450.0	15,813.8	11,948.3	78.1	78.0	130.25	3,881.0	-489.5	769.8	638.8	130.95	5.878			
15,400.0	11,450.0	15,862.2	11,949.9	78.8	78.7	130.39	3,929.4	-491.1	769.9	638.0	131.88	5.838			
15,500.0	11,450.0	15,943.5	11,952.7	80.2	79.8	130.59	4,010.6	-492.5	771.4	638.1	133.35	5.785			
15,600.0	11,450.0	16,056.4	11,955.1	81.6	81.4	130.68	4,123.5	-492.4	773.5	637.5	135.98	5.688			
15,700.0	11,450.0	16,144.4	11,955.2	83.0	82.7	130.57	4,211.5	-490.8	775.5	637.5	138.06	5.617			
15,800.0	11,450.0	16,244.4	11,954.9	84.5	84.1	130.37	4,311.4	-487.8	778.2	637.5	140.67	5.532			
15,900.0	11,450.0	16,348.8	11,953.8	85.9	85.6	130.12	4,415.8	-484.5	780.5	637.0	143.53	5.438			
16,000.0	11,450.0	16,453.1	11,952.4	87.3	87.1	129.88	4,520.0	-482.0	782.1	635.7	146.38	5.343			
16,100.0	11,450.0	16,549.7	11,952.1	88.8	88.5	129.75	4,616.6	-480.3	783.9	635.0	148.85	5.266			
16,200.0	11,450.0	16,652.1	11,952.5	90.2	90.0	129.67	4,719.0	-478.9	785.8	634.3	151.46	5.188			
16,300.0	11,450.0	16,754.9	11,953.6	91.7	91.5	129.69	4,821.8	-478.9	787.1	633.1	153.96	5.112			
16,400.0	11,450.0	16,852.1	11,954.4	93.2	92.9	129.68	4,919.0	-478.6	788.5	632.2	156.31	5.044			
16,500.0	11,450.0	16,947.7	11,955.5	94.6	94.3	129.68	5,014.6	-477.9	790.4	631.8	158.62	4.983			
16,600.0	11,450.0	17,046.1	11,957.0	96.1	95.8	129.68	5,113.0	-476.9	792.7	631.7	161.02	4.923			
16,700.0	11,450.0	17,154.9	11,959.8	97.6	97.4	129.82	5,221.7	-477.3	794.7	631.1	163.59	4.858			
16,800.0	11,450.0	17,262.8	11,962.6	99.1	99.0	130.03	5,329.6	-479.5	795.4	629.4	166.00	4.792			
16,900.0	11,450.0	17,345.2	11,965.0	100.6	100.2	130.20	5,411.9	-480.9	796.7	629.1	167.61	4.753			
17,000.0	11,450.0	17,480.5	11,970.2	102.1	102.3	130.64	5,547.0	-485.2	797.5	626.9	170.55	4.676			
17,100.0	11,450.0	17,579.6	11,971.9	103.6	103.8	130.92	5,645.9	-490.1	795.4	622.9	172.55	4.610			
17,200.0	11,450.0	17,669.3	11,972.5	105.1	105.2	131.04	5,735.6	-492.6	794.4	619.9	174.51	4.552			
17,284.0	11,450.0	17,750.8	11,974.0	106.4	106.4	131.20	5,817.0	-494.9	794.1	617.8	176.25	4.506			
17,300.0	11,450.0	17,761.4	11,974.2	106.6	106.6	131.22	5,827.7	-495.1	794.1	617.7	176.44	4.501			
17,400.0	11,450.0	17,839.0	11,975.1	108.1	107.7	131.20	5,905.2	-494.5	796.1	618.0	178.14	4.469			
17,500.0	11,450.0	17,948.6	11,975.4	109.6	109.4	131.04	6,014.8	-491.5	798.9	617.7	181.27	4.407			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		161-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			
17,600.0	11,450.0	18,052.6	11,974.3	111.2	111.0	130.81	6,118.7	-488.7	800.8	616.5	184.32	4.345			
17,700.0	11,450.0	18,153.7	11,972.8	112.7	112.5	130.58	6,219.8	-486.3	802.3	615.0	187.27	4.284			
17,800.0	11,450.0	18,258.6	11,973.6	114.2	114.1	130.55	6,324.7	-485.7	803.8	613.8	190.01	4.230			
17,900.0	11,450.0	18,371.2	11,971.4	115.8	115.9	130.36	6,437.3	-484.9	803.7	610.4	193.32	4.157			
18,000.0	11,450.0	18,469.3	11,968.1	117.3	117.4	130.09	6,535.3	-483.8	803.0	606.7	196.29	4.091			
18,100.0	11,450.0	18,568.2	11,966.2	118.9	118.9	129.93	6,634.2	-483.4	802.7	603.6	199.10	4.032			
18,200.0	11,450.0	18,684.3	11,964.0	120.4	120.7	129.80	6,750.3	-484.2	801.6	599.2	202.40	3.961			
18,300.0	11,450.0	18,780.7	11,962.0	121.9	122.2	129.74	6,846.6	-486.0	799.5	594.5	204.98	3.900			
18,400.0	11,450.0	18,885.2	11,960.7	123.5	123.8	129.75	6,951.0	-488.6	797.3	589.7	207.68	3.839			
18,500.0	11,450.0	18,984.5	11,958.0	125.1	125.4	129.65	7,050.3	-490.3	794.9	584.5	210.44	3.777			
18,600.0	11,450.0	19,078.0	11,954.8	126.6	126.9	129.45	7,143.8	-490.6	793.0	579.8	213.23	3.719			
18,700.0	11,450.0	19,176.0	11,952.2	128.2	128.4	129.29	7,241.7	-491.1	791.6	575.5	216.07	3.664			
18,800.0	11,450.0	19,270.1	11,951.1	129.7	129.9	129.24	7,335.9	-492.1	790.7	572.1	218.59	3.617			
18,900.0	11,450.0	19,368.0	11,951.1	131.3	131.4	129.25	7,433.7	-493.3	790.3	569.2	221.09	3.575			
19,000.0	11,450.0	19,467.2	11,952.6	132.9	133.0	129.41	7,532.9	-495.5	790.2	566.8	223.36	3.538			
19,100.0	11,450.0	19,566.2	11,954.9	134.4	134.5	129.64	7,631.8	-498.5	790.0	564.6	225.46	3.504			
19,103.0	11,450.0	19,569.1	11,955.0	134.5	134.6	129.65	7,634.7	-498.6	790.0	564.5	225.51	3.503			
19,200.0	11,450.0	19,661.7	11,958.8	136.0	136.0	129.99	7,727.2	-502.1	790.3	563.1	227.16	3.479			
19,300.0	11,450.0	19,757.7	11,960.6	137.6	137.5	130.10	7,823.1	-503.3	791.1	561.7	229.36	3.449			
19,400.0	11,450.0	19,855.8	11,961.6	139.1	139.1	130.12	7,921.2	-503.3	792.4	560.6	231.85	3.418			
19,500.0	11,450.0	19,954.3	11,963.4	140.7	140.6	130.22	8,019.7	-504.0	793.6	559.5	234.18	3.389			
19,600.0	11,450.0	20,050.8	11,964.3	142.3	142.2	130.19	8,116.2	-503.1	795.6	558.9	236.71	3.361			
19,700.0	11,450.0	20,149.3	11,966.3	143.9	143.7	130.27	8,214.7	-503.2	797.4	558.3	239.07	3.335			
19,800.0	11,450.0	20,253.5	11,969.2	145.5	145.4	130.40	8,318.9	-503.4	799.7	558.1	241.54	3.311			
19,900.0	11,450.0	20,378.5	11,968.6	147.1	147.4	130.33	8,443.9	-503.6	799.9	554.7	245.17	3.262			
20,000.0	11,450.0	20,478.7	11,965.8	148.6	148.9	130.17	8,544.0	-504.2	798.2	550.0	248.17	3.216			
20,100.0	11,450.0	20,584.5	11,962.5	150.2	150.6	129.98	8,649.7	-504.9	796.3	544.9	251.41	3.167			
20,200.0	11,450.0	20,689.4	11,957.9	151.8	152.3	129.70	8,754.5	-505.2	793.9	539.0	254.84	3.115			
20,300.0	11,450.0	20,799.4	11,951.6	153.4	154.1	129.36	8,864.4	-506.2	790.1	531.6	258.55	3.056			
20,400.0	11,450.0	20,897.0	11,945.5	155.0	155.6	129.02	8,961.7	-507.1	786.1	524.2	261.95	3.001			
20,500.0	11,450.0	20,994.5	11,940.7	156.6	157.2	128.77	9,059.1	-508.5	782.5	517.3	265.15	2.951			
20,600.0	11,450.0	21,099.8	11,937.4	158.2	158.9	128.69	9,164.3	-511.6	778.8	510.7	268.15	2.905			
20,700.0	11,450.0	21,213.5	11,931.6	159.8	160.7	128.48	9,277.8	-515.3	773.8	502.2	271.60	2.849			
20,800.0	11,450.0	21,320.2	11,924.3	161.4	162.4	128.20	9,384.2	-519.2	767.3	492.2	275.10	2.789			
20,900.0	11,450.0	21,427.1	11,916.7	163.0	164.1	127.93	9,490.8	-524.0	760.0	481.4	278.54	2.728			
21,000.0	11,450.0	21,510.4	11,911.5	164.6	165.5	127.76	9,573.7	-527.7	753.3	471.8	281.41	2.677			
21,100.0	11,450.0	21,599.8	11,907.9	166.2	166.9	127.66	9,663.1	-531.1	748.4	464.2	284.15	2.634			
21,200.0	11,450.0	21,697.4	11,905.1	167.8	168.5	127.63	9,760.5	-534.6	744.4	457.5	286.88	2.595			
21,300.0	11,450.0	21,814.8	11,900.8	169.4	170.4	127.55	9,877.8	-539.6	739.5	449.3	290.13	2.549			
21,400.0	11,450.0	21,929.9	11,894.4	171.0	172.3	127.43	9,992.5	-546.3	732.1	438.8	293.34	2.496			
21,500.0	11,450.0	22,037.8	11,887.1	172.6	174.0	127.29	10,099.8	-553.8	723.1	426.6	296.49	2.439			
21,587.6	11,450.0	22,057.0	11,885.7	174.0	174.3	127.26	10,118.9	-555.2	718.0	420.5	297.49	2.413			
21,600.0	11,450.0	22,057.0	11,885.7	174.2	174.3	127.26	10,118.9	-555.2	718.1	420.8	297.30	2.415			
21,659.1	11,450.0	22,057.0	11,885.7	175.1	174.3	127.26	10,118.9	-555.2	721.5	426.2	295.34	2.443			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 174-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	1.0	1.0	0.0	0.0	-69.94	29.3	-80.1	85.3					
100.0	100.0	101.3	101.3	0.1	0.2	-69.92	29.2	-79.9	85.1	84.8	0.28	302.386		
200.0	200.0	201.7	201.7	0.5	0.4	-69.85	29.1	-79.4	84.5	83.7	0.85	99.684		
300.0	300.0	301.6	301.6	0.8	0.7	-69.62	29.2	-78.5	83.7	82.2	1.56	53.556		
400.0	400.0	401.9	401.8	1.2	1.1	-69.33	29.3	-77.6	82.9	80.6	2.28	36.344		
500.0	500.0	501.9	501.9	1.6	1.4	-68.93	29.4	-76.4	81.9	78.9	3.00	27.308		
600.0	600.0	601.6	601.6	1.9	1.8	-68.46	29.7	-75.3	81.0	77.3	3.71	21.810		
700.0	700.0	701.5	701.5	2.3	2.2	-68.25	29.8	-74.6	80.4	75.9	4.43	18.146		
800.0	800.0	801.5	801.5	2.6	2.5	-68.14	29.7	-74.0	79.8	74.6	5.14	15.504		
900.0	900.0	901.2	901.2	3.0	2.9	-68.23	29.4	-73.7	79.3	73.5	5.85	13.554		
938.3	938.3	939.4	939.3	3.1	3.0	-68.29	29.3	-73.7	79.3	73.2	6.12	12.952		
1,000.0	1,000.0	1,000.8	1,000.7	3.4	3.2	-68.46	29.2	-73.9	79.4	72.9	6.55	12.132		
1,100.0	1,100.0	1,100.8	1,100.8	3.7	3.5	22.88	28.4	-74.6	79.0	71.7	7.23	10.918		
1,200.0	1,200.0	1,201.9	1,201.8	4.0	3.9	22.70	27.1	-74.7	76.2	68.3	7.93	9.618		
1,300.0	1,299.9	1,303.6	1,303.5	4.4	4.2	23.14	25.1	-72.9	69.9	61.2	8.63	8.093		
1,400.0	1,399.7	1,405.0	1,404.8	4.7	4.6	25.08	22.6	-68.0	58.9	49.6	9.34	6.312		
1,500.0	1,499.4	1,505.6	1,505.0	5.1	5.0	31.21	20.2	-59.3	43.2	33.2	10.03	4.308		
1,600.0	1,598.9	1,604.2	1,602.7	5.5	5.3	52.69	17.5	-46.8	24.3	13.5	10.73	2.262		
1,666.3	1,664.8	1,668.4	1,666.1	5.7	5.6	97.88	15.5	-36.9	16.8	5.5	11.29	1.489	Level 3, CC, ES, SF	
1,700.0	1,698.3	1,700.6	1,697.9	5.8	5.7	126.52	14.4	-31.5	19.4	7.9	11.51	1.684		
1,744.2	1,742.1	1,742.8	1,739.4	6.0	5.9	149.70	13.1	-24.3	28.3	16.6	11.74	2.410		
1,800.0	1,797.4	1,796.0	1,791.8	6.2	6.1	162.88	11.7	-15.2	42.9	30.8	12.08	3.552		
1,900.0	1,896.6	1,892.0	1,886.3	6.6	6.5	172.58	8.8	0.9	71.1	58.3	12.76	5.572		
2,000.0	1,995.8	1,990.0	1,983.1	7.0	6.9	177.20	5.1	16.0	98.6	85.1	13.48	7.311		
2,100.0	2,094.9	2,086.8	2,079.0	7.4	7.3	179.68	1.6	29.4	124.9	110.8	14.18	8.809		
2,200.0	2,194.1	2,181.7	2,172.9	7.8	7.6	-178.94	-1.4	42.9	151.8	136.9	14.86	10.216		
2,300.0	2,293.2	2,277.6	2,267.6	8.1	8.0	-177.90	-4.5	57.2	179.3	163.8	15.55	11.532		
2,400.0	2,392.4	2,376.7	2,365.7	8.5	8.4	-176.99	-8.2	71.0	206.0	189.7	16.29	12.647		
2,500.0	2,491.5	2,472.7	2,460.7	8.9	8.8	-176.26	-12.0	83.9	232.3	215.3	16.99	13.672		
2,600.0	2,590.7	2,568.7	2,555.7	9.3	9.2	-175.78	-15.3	97.1	258.9	241.2	17.69	14.636		
2,700.0	2,689.9	2,666.2	2,652.4	9.7	9.6	-175.61	-17.6	110.2	285.1	266.6	18.41	15.487		
2,800.0	2,789.0	2,760.7	2,745.9	10.1	10.0	-175.65	-18.9	123.4	311.7	292.6	19.09	16.330		
2,900.0	2,888.2	2,858.8	2,843.1	10.5	10.4	-175.62	-20.7	136.9	338.3	318.5	19.82	17.071		
3,000.0	2,987.3	2,953.8	2,937.2	10.9	10.8	-175.42	-23.4	149.7	364.5	344.0	20.51	17.774		
3,100.0	3,086.5	3,043.7	3,026.0	11.4	11.2	-175.14	-26.8	163.0	392.1	371.0	21.15	18.543		
3,200.0	3,185.6	3,139.0	3,120.1	11.8	11.6	-175.00	-29.6	178.1	420.7	398.9	21.85	19.257		
3,300.0	3,284.8	3,240.4	3,220.3	12.2	12.0	-175.18	-30.2	193.4	448.5	425.8	22.61	19.832		
3,400.0	3,384.0	3,343.5	3,322.3	12.6	12.5	-175.50	-29.5	208.0	475.3	451.9	23.39	20.321		
3,500.0	3,483.1	3,447.1	3,425.1	13.0	12.9	-175.72	-29.3	220.7	500.2	476.0	24.16	20.701		
3,600.0	3,582.3	3,540.8	3,518.1	13.4	13.2	-175.80	-30.0	231.8	524.8	500.0	24.84	21.125		
3,700.0	3,681.4	3,628.1	3,604.7	13.8	13.6	-175.83	-31.0	243.3	550.7	525.2	25.47	21.623		
3,800.0	3,780.6	3,712.6	3,688.2	14.2	14.0	-175.89	-31.7	256.1	578.5	552.4	26.06	22.200		
3,900.0	3,879.7	3,802.9	3,777.3	14.6	14.4	-175.95	-32.6	271.3	608.0	581.3	26.71	22.764		
4,000.0	3,978.9	3,909.9	3,882.8	15.0	14.8	-175.85	-35.3	288.6	636.8	609.2	27.54	23.125		
4,100.0	4,078.1	4,018.8	3,990.5	15.4	15.3	-175.52	-40.6	303.9	663.7	635.3	28.37	23.394		
4,200.0	4,177.2	4,119.3	4,090.1	15.8	15.7	-175.33	-44.4	316.6	689.2	660.1	29.12	23.669		
4,300.0	4,276.4	4,213.1	4,183.1	16.2	16.1	-175.36	-45.6	328.7	714.9	685.1	29.81	23.982		
4,400.0	4,375.5	4,310.8	4,280.0	16.7	16.5	-175.44	-46.3	341.6	740.8	710.3	30.53	24.263		
4,500.0	4,474.7	4,409.7	4,378.0	17.1	16.9	-175.50	-47.1	354.3	766.4	735.1	31.26	24.512		
4,600.0	4,573.9	4,504.2	4,471.7	17.5	17.3	-175.51	-48.5	366.4	791.9	759.9	31.96	24.778		
4,700.0	4,673.0	4,632.7	4,599.4	17.9	17.8	-175.38	-52.3	380.6	815.9	783.0	32.92	24.781		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		174-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			
4,800.0	4,772.2	4,735.0	4,701.3	18.3	18.2	-175.25	-55.5	389.6	837.5	803.9	33.67	24.872			
4,900.0	4,871.3	4,833.7	4,799.6	18.7	18.6	-175.18	-58.2	397.7	858.8	824.4	34.40	24.965			
5,000.0	4,970.5	4,924.6	4,890.1	19.1	18.9	-175.13	-60.2	405.6	880.3	845.2	35.07	25.102			
5,100.0	5,069.6	5,010.8	4,975.9	19.5	19.3	-175.10	-62.2	414.1	903.0	867.3	35.70	25.291			
5,200.0	5,168.8	5,100.9	5,065.4	19.9	19.6	-175.06	-64.3	423.7	926.6	890.2	36.37	25.480			
5,300.0	5,268.0	5,188.0	5,151.9	20.4	20.0	-175.00	-66.7	433.9	951.1	914.1	37.00	25.703			
5,400.0	5,367.1	5,273.7	5,236.9	20.8	20.3	-174.92	-69.7	444.8	976.6	939.0	37.63	25.956			
5,500.0	5,466.3	5,363.2	5,325.4	21.2	20.7	-174.81	-73.3	456.9	1,003.1	964.8	38.28	26.203			
5,600.0	5,565.4	5,451.8	5,413.1	21.6	21.1	-174.69	-77.0	469.6	1,030.3	991.3	38.93	26.464			
5,700.0	5,664.6	5,540.2	5,500.4	22.0	21.5	-174.60	-80.5	482.9	1,058.1	1,018.5	39.58	26.737			
5,800.0	5,763.7	5,626.5	5,585.5	22.4	21.8	-174.52	-83.8	496.6	1,086.8	1,046.6	40.20	27.034			
5,900.0	5,862.9	5,716.4	5,674.2	22.8	22.2	-174.44	-87.3	511.4	1,116.1	1,075.3	40.86	27.315			
6,000.0	5,962.1	5,803.9	5,760.2	23.2	22.6	-174.36	-90.9	526.4	1,146.0	1,104.5	41.50	27.616			
6,100.0	6,061.2	5,891.1	5,846.0	23.7	23.0	-174.28	-94.7	541.9	1,176.6	1,134.4	42.13	27.926			
6,200.0	6,160.4	5,974.7	5,928.1	24.1	23.4	-174.21	-98.2	557.4	1,207.9	1,165.2	42.73	28.268			
6,300.0	6,259.5	6,088.3	6,039.5	24.5	23.9	-174.12	-103.0	578.8	1,239.5	1,195.9	43.63	28.407			
6,400.0	6,358.7	6,223.8	6,173.1	24.9	24.5	-173.96	-109.7	600.0	1,268.0	1,223.3	44.72	28.355			
6,500.0	6,457.8	6,329.5	6,277.6	25.3	25.0	-173.82	-115.2	615.0	1,295.1	1,249.6	45.52	28.453			
6,600.0	6,557.0	6,439.2	6,386.3	25.7	25.4	-173.75	-119.4	629.3	1,321.1	1,274.8	46.35	28.505			
6,700.0	6,656.2	6,539.3	6,485.6	26.1	25.9	-173.72	-122.4	642.0	1,346.6	1,299.5	47.09	28.596			
6,800.0	6,755.3	6,639.1	6,584.5	26.5	26.3	-173.70	-125.4	654.4	1,371.9	1,324.1	47.83	28.681			
6,900.0	6,854.5	6,731.2	6,675.9	27.0	26.7	-173.66	-128.4	665.8	1,397.2	1,348.7	48.52	28.797			
7,000.0	6,953.6	6,820.0	6,763.9	27.4	27.0	-173.64	-131.2	677.3	1,423.0	1,373.8	49.18	28.937			
7,100.0	7,052.8	6,905.2	6,848.3	27.8	27.4	-173.59	-134.4	688.8	1,449.4	1,399.6	49.80	29.102			
7,200.0	7,152.0	6,990.2	6,932.3	28.2	27.7	-173.55	-137.7	701.0	1,476.6	1,426.2	50.43	29.281			
7,300.0	7,251.1	7,081.4	7,022.5	28.6	28.1	-173.48	-141.7	714.6	1,504.4	1,453.3	51.11	29.436			
7,400.0	7,350.3	7,172.2	7,112.2	29.0	28.5	-173.42	-145.9	728.2	1,532.3	1,480.5	51.78	29.591			
7,500.0	7,449.4	7,268.7	7,207.3	29.4	29.0	-173.34	-150.7	743.2	1,560.8	1,508.3	52.51	29.726			
7,551.0	7,500.0	7,343.9	7,281.6	29.7	29.3	-173.29	-153.9	754.1	1,574.8	1,521.7	53.09	29.660			
7,600.0	7,548.6	7,388.8	7,326.0	29.8	29.5	-162.10	-155.8	760.3	1,587.3	1,533.9	53.43	29.711			
7,674.8	7,623.1	7,461.9	7,398.4	30.1	29.8	-137.61	-158.9	770.3	1,604.2	1,550.2	53.97	29.724			
7,700.0	7,648.2	7,485.7	7,422.0	30.2	29.9	-137.64	-159.9	773.6	1,609.4	1,555.3	54.14	29.725			
7,800.0	7,747.7	7,574.2	7,509.5	30.6	30.3	-137.74	-163.7	786.0	1,630.5	1,575.7	54.79	29.758			
7,900.0	7,847.3	7,661.2	7,595.5	31.0	30.6	-137.83	-167.6	798.8	1,652.2	1,596.8	55.43	29.809			
8,000.0	7,946.9	7,745.3	7,678.5	31.3	31.0	-137.90	-171.7	811.7	1,674.5	1,618.5	56.04	29.883			
8,100.0	8,046.5	7,840.8	7,772.7	31.7	31.4	-137.98	-176.5	827.0	1,697.7	1,640.9	56.75	29.917			
8,200.0	8,146.1	7,993.3	7,923.4	32.1	32.1	-138.22	-180.6	849.4	1,719.4	1,661.5	57.92	29.687			
8,300.0	8,245.6	8,162.3	8,091.4	32.4	32.8	-138.55	-182.4	867.7	1,737.0	1,677.9	59.13	29.379			
8,400.0	8,345.2	8,348.7	8,277.4	32.8	33.4	-138.98	-181.7	879.5	1,750.0	1,689.7	60.31	29.018			
8,500.0	8,444.8	8,495.8	8,424.4	33.2	33.9	-139.27	-181.8	882.9	1,759.1	1,697.9	61.21	28.737			
8,600.0	8,544.4	8,599.8	8,528.5	33.6	34.3	-139.45	-182.6	883.9	1,767.1	1,705.2	61.94	28.530			
8,700.0	8,644.0	8,703.1	8,631.7	33.9	34.6	-139.62	-183.6	884.8	1,775.0	1,712.3	62.66	28.327			
8,800.0	8,743.5	8,804.7	8,733.3	34.3	34.9	-139.77	-184.9	885.4	1,782.6	1,719.3	63.37	28.129			
8,900.0	8,843.1	8,907.0	8,835.6	34.7	35.2	-139.92	-186.3	885.9	1,790.2	1,726.1	64.09	27.934			
9,000.0	8,942.7	9,006.9	8,935.5	35.1	35.5	-140.07	-187.6	886.3	1,797.7	1,732.9	64.79	27.745			
9,100.0	9,042.3	9,125.6	9,054.2	35.4	35.9	-140.26	-188.6	886.2	1,804.7	1,739.2	65.55	27.534			
9,200.0	9,141.9	9,234.0	9,162.6	35.8	36.2	-140.48	-187.9	885.3	1,811.0	1,744.7	66.25	27.336			
9,300.0	9,241.4	9,335.9	9,264.5	36.2	36.5	-140.72	-186.2	884.2	1,816.9	1,749.9	66.93	27.145			
9,400.0	9,341.0	9,431.8	9,360.3	36.6	36.8	-140.94	-184.7	883.1	1,822.8	1,755.2	67.60	26.964			
9,500.0	9,440.6	9,530.3	9,458.8	36.9	37.1	-141.14	-183.9	882.3	1,829.1	1,760.8	68.28	26.789			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		174-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			
9,600.0	9,540.2	9,641.8	9,570.3	37.3	37.4	-141.36	-183.2	880.9	1,835.0	1,766.0	68.99	26.599			
9,700.0	9,639.8	9,755.7	9,684.2	37.7	37.7	-141.60	-182.2	878.7	1,840.2	1,770.5	69.70	26.402			
9,800.0	9,739.3	9,855.8	9,784.2	38.1	38.0	-141.81	-181.1	876.3	1,845.0	1,774.6	70.38	26.214			
9,900.0	9,838.9	9,940.9	9,869.3	38.4	38.2	-141.98	-180.2	874.6	1,850.2	1,779.1	71.02	26.049			
10,000.0	9,938.5	10,036.3	9,964.7	38.8	38.5	-142.17	-179.6	873.3	1,856.0	1,784.3	71.70	25.888			
10,100.0	10,038.1	10,142.8	10,071.2	39.2	38.8	-142.35	-179.5	871.7	1,861.8	1,789.4	72.40	25.716			
10,200.0	10,137.7	10,238.5	10,166.9	39.6	39.1	-142.51	-179.7	870.1	1,867.4	1,794.3	73.07	25.556			
10,300.0	10,237.2	10,334.4	10,262.8	39.9	39.4	-142.67	-179.8	868.7	1,873.3	1,799.5	73.74	25.402			
10,400.0	10,336.8	10,422.7	10,351.1	40.3	39.7	-142.82	-179.8	867.8	1,879.5	1,805.1	74.40	25.263			
10,500.0	10,436.4	10,533.8	10,462.2	40.7	40.0	-142.99	-180.4	866.8	1,885.9	1,810.8	75.12	25.105			
10,600.0	10,536.0	10,632.1	10,560.5	41.1	40.3	-143.13	-181.3	865.6	1,892.0	1,816.2	75.81	24.957			
10,700.0	10,635.6	10,701.9	10,630.2	41.4	40.5	-143.22	-182.0	865.3	1,898.9	1,822.5	76.42	24.850			
10,759.5	10,694.8	10,754.4	10,682.8	41.7	40.7	-143.29	-182.6	865.6	1,903.7	1,826.9	76.81	24.783			
10,800.0	10,735.2	10,795.9	10,724.2	41.8	40.8	-143.39	-183.1	865.9	1,906.6	1,829.5	77.10	24.727			
10,900.0	10,835.1	10,904.5	10,832.8	42.2	41.2	-143.50	-184.7	866.4	1,910.7	1,832.9	77.84	24.547			
10,941.9	10,877.0	10,951.7	10,880.1	42.3	41.3	89.45	-185.6	866.4	1,911.1	1,832.9	78.15	24.456			
10,950.0	10,885.1	10,960.8	10,889.2	42.3	41.4	89.91	-185.7	866.4	1,911.1	1,832.9	78.20	24.437			
11,000.0	10,935.0	11,017.1	10,945.4	42.5	41.5	90.06	-186.9	866.2	1,910.9	1,832.4	78.56	24.325			
11,011.0	10,945.9	11,018.8	10,947.1	42.5	41.5	90.07	-186.9	866.3	1,910.9	1,832.3	78.60	24.312			
11,050.0	10,984.4	11,045.5	10,973.9	42.6	41.6	90.19	-187.3	866.3	1,911.1	1,832.2	78.81	24.249			
11,100.0	11,033.1	11,079.3	11,007.6	42.8	41.7	90.38	-187.6	866.7	1,911.6	1,832.6	79.07	24.176			
11,150.0	11,080.5	11,117.7	11,046.0	42.9	41.9	90.64	-187.7	867.3	1,912.7	1,833.3	79.34	24.107			
11,200.0	11,126.4	11,160.9	11,089.2	43.0	42.0	91.01	-187.7	868.2	1,914.0	1,834.4	79.63	24.037			
11,250.0	11,170.4	11,203.6	11,131.9	43.1	42.2	91.44	-187.6	869.0	1,915.8	1,835.9	79.91	23.975			
11,300.0	11,212.2	11,248.1	11,176.3	43.2	42.3	91.95	-187.6	869.9	1,917.9	1,837.8	80.19	23.918			
11,350.0	11,251.4	11,289.8	11,218.1	43.3	42.5	92.45	-187.6	870.7	1,920.7	1,840.2	80.45	23.873			
11,400.0	11,287.8	11,326.9	11,255.1	43.4	42.6	92.87	-187.6	871.4	1,924.1	1,843.4	80.70	23.843			
11,450.0	11,321.0	11,360.6	11,288.9	43.4	42.7	93.19	-187.7	871.9	1,928.4	1,847.4	80.92	23.829			
11,500.0	11,350.9	11,395.3	11,323.6	43.5	42.8	93.50	-187.9	872.5	1,933.6	1,852.5	81.15	23.828			
11,550.0	11,377.2	11,425.0	11,353.2	43.5	42.9	93.61	-188.2	872.9	1,939.9	1,858.6	81.35	23.846			
11,600.0	11,399.6	11,892.4	11,780.3	43.6	44.0	102.69	-47.6	850.6	1,944.0	1,862.4	81.60	23.823			
11,650.0	11,418.1	11,951.7	11,822.2	43.6	44.1	103.29	-5.9	846.1	1,945.1	1,863.4	81.70	23.808			
11,700.0	11,432.5	12,010.8	11,862.4	43.6	44.1	103.88	37.1	841.5	1,947.0	1,865.3	81.77	23.813			
11,750.0	11,442.6	11,993.0	11,850.5	43.7	44.1	103.24	24.0	842.9	1,951.1	1,869.1	82.00	23.795			
11,800.0	11,448.4	11,993.0	11,850.5	43.8	44.1	102.63	24.0	842.9	1,957.3	1,875.2	82.14	23.828			
11,841.9	11,450.0	11,993.0	11,850.5	43.8	44.1	101.94	24.0	842.9	1,964.3	1,882.0	82.24	23.884			
11,900.0	11,450.0	11,993.0	11,850.5	43.9	44.1	101.94	24.0	842.9	1,975.7	1,893.4	82.36	23.989			
12,000.0	11,450.0	11,993.0	11,850.5	44.2	44.1	101.94	24.0	842.9	1,999.3	1,916.7	82.59	24.208			
12,100.0	11,450.0	12,041.0	11,883.1	44.5	44.2	102.89	59.1	842.5	2,023.7	1,941.0	82.79	24.445			
12,200.0	11,450.0	13,056.5	12,018.9	44.9	47.3	106.29	993.8	888.9	2,039.8	1,953.6	86.14	23.680			
12,300.0	11,450.0	13,113.0	12,014.2	45.4	47.6	106.21	1,049.8	883.2	2,028.5	1,941.4	87.06	23.299			
12,400.0	11,450.0	13,172.7	12,009.6	45.9	48.0	106.12	1,109.1	878.3	2,019.2	1,931.1	88.08	22.924			
12,500.0	11,450.0	13,231.4	12,005.8	46.5	48.3	106.04	1,167.6	874.5	2,012.0	1,922.8	89.15	22.568			
12,600.0	11,450.0	13,302.0	12,002.2	47.2	48.8	105.96	1,238.0	871.3	2,006.8	1,916.5	90.35	22.211			
12,700.0	11,450.0	13,384.9	11,998.1	47.9	49.4	105.87	1,320.8	868.5	2,002.9	1,911.2	91.72	21.837			
12,800.0	11,450.0	13,460.5	11,994.4	48.7	50.0	105.78	1,396.2	866.3	1,999.5	1,906.4	93.11	21.476			
12,900.0	11,450.0	13,572.5	11,989.6	49.5	50.9	105.66	1,508.1	863.7	1,997.0	1,902.1	94.86	21.052			
13,000.0	11,450.0	13,655.9	11,985.2	50.3	51.6	105.55	1,591.4	861.6	1,994.0	1,897.5	96.46	20.671			
13,100.0	11,450.0	13,738.6	11,981.9	51.2	52.4	105.46	1,674.0	860.2	1,992.0	1,893.9	98.10	20.305			
13,200.0	11,450.0	13,846.6	11,981.0	52.2	53.4	105.45	1,782.0	857.8	1,990.4	1,890.4	100.01	19.902			
13,300.0	11,450.0	13,919.9	11,980.3	53.1	54.1	105.44	1,855.2	856.2	1,988.9	1,887.2	101.65	19.565			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program:		174-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				
13,334.0	11,450.0	13,940.9	11,980.1	53.5	54.3	105.43	1,876.2	856.0	1,988.8	1,886.6	102.19	19.462				
13,400.0	11,450.0	13,996.0	11,979.5	54.1	54.8	105.41	1,931.3	856.0	1,989.1	1,885.7	103.37	19.242				
13,500.0	11,450.0	14,110.9	11,978.5	55.1	55.9	105.38	2,046.2	855.7	1,989.3	1,883.8	105.55	18.847				
13,600.0	11,450.0	14,242.8	11,974.9	56.2	57.3	105.28	2,178.0	854.3	1,988.4	1,880.4	108.01	18.409				
13,700.0	11,450.0	14,346.8	11,970.7	57.3	58.4	105.17	2,282.0	852.6	1,986.5	1,876.3	110.25	18.018				
13,800.0	11,450.0	14,412.6	11,968.1	58.4	59.2	105.10	2,347.7	852.1	1,985.4	1,873.3	112.09	17.713				
13,811.9	11,450.0	14,420.7	11,967.8	58.5	59.3	105.09	2,355.8	852.1	1,985.4	1,873.1	112.31	17.678				
13,900.0	11,450.0	14,485.7	11,966.6	59.5	60.0	105.05	2,420.7	852.3	1,985.9	1,871.9	114.02	17.416				
14,000.0	11,450.0	14,591.2	11,969.0	60.7	61.2	105.11	2,526.3	852.2	1,987.2	1,870.9	116.34	17.081				
14,100.0	11,450.0	14,718.9	11,970.6	61.9	62.7	105.16	2,653.9	850.8	1,987.3	1,868.3	118.98	16.703				
14,200.0	11,450.0	14,816.0	11,969.6	63.1	63.8	105.13	2,751.0	849.9	1,986.8	1,865.5	121.32	16.376				
14,300.0	11,450.0	14,929.7	11,968.2	64.3	65.2	105.10	2,864.7	848.4	1,986.0	1,862.0	123.92	16.027				
14,400.0	11,450.0	15,032.2	11,966.6	65.5	66.5	105.06	2,967.2	846.7	1,984.7	1,858.3	126.41	15.701				
14,500.0	11,450.0	15,144.1	11,965.7	66.8	67.9	105.04	3,079.1	844.5	1,983.4	1,854.3	129.05	15.369				
14,600.0	11,450.0	15,225.4	11,964.9	68.1	68.9	105.03	3,160.3	842.4	1,981.6	1,850.2	131.33	15.089				
14,640.8	11,450.0	15,248.1	11,964.7	68.6	69.2	105.03	3,183.0	842.2	1,981.4	1,849.3	132.12	14.996				
14,700.0	11,450.0	15,283.0	11,964.5	69.4	69.6	105.02	3,217.9	842.2	1,981.8	1,848.5	133.30	14.867				
14,800.0	11,450.0	15,389.6	11,963.9	70.7	71.0	104.99	3,324.5	842.8	1,982.9	1,847.0	135.96	14.585				
14,900.0	11,450.0	15,472.7	11,963.4	72.0	72.1	104.97	3,407.6	843.5	1,984.3	1,846.0	138.32	14.346				
15,000.0	11,450.0	15,599.4	11,962.4	73.4	73.7	104.93	3,534.3	844.0	1,985.3	1,843.9	141.34	14.046				
15,100.0	11,450.0	15,716.3	11,961.2	74.7	75.3	104.89	3,651.2	843.5	1,985.3	1,841.1	144.24	13.764				
15,196.8	11,450.0	15,804.1	11,960.5	76.0	76.5	104.88	3,739.0	842.5	1,984.9	1,838.2	146.71	13.530				
15,200.0	11,450.0	15,806.5	11,960.5	76.1	76.5	104.88	3,741.4	842.5	1,984.9	1,838.1	146.78	13.523				
15,300.0	11,450.0	15,907.2	11,959.4	77.4	77.9	104.84	3,842.0	842.4	1,985.3	1,835.8	149.50	13.279				
15,353.2	11,450.0	15,959.0	11,957.6	78.2	78.6	104.79	3,893.9	842.3	1,985.2	1,834.2	150.95	13.151				
15,400.0	11,450.0	15,985.7	11,956.8	78.8	79.0	104.76	3,920.5	842.5	1,985.4	1,833.5	151.94	13.067				
15,500.0	11,450.0	16,044.8	11,956.1	80.2	79.8	104.73	3,979.6	843.6	1,987.6	1,833.6	154.05	12.903				
15,600.0	11,450.0	16,129.7	11,956.7	81.6	80.9	104.73	4,064.5	845.8	1,991.1	1,834.6	156.54	12.720				
15,700.0	11,450.0	16,257.4	11,960.9	83.0	82.7	104.82	4,192.1	848.3	1,994.7	1,835.0	159.70	12.490				
15,800.0	11,450.0	16,420.7	11,962.7	84.5	85.0	104.86	4,355.3	847.6	1,995.2	1,831.8	163.42	12.209				
15,900.0	11,450.0	16,533.7	11,960.9	85.9	86.6	104.82	4,468.3	845.8	1,994.0	1,827.5	166.44	11.981				
16,000.0	11,450.0	16,620.7	11,959.4	87.3	87.9	104.78	4,555.3	844.8	1,993.1	1,824.0	169.09	11.787				
16,100.0	11,450.0	16,731.9	11,956.6	88.8	89.5	104.71	4,666.4	843.4	1,992.0	1,819.9	172.14	11.572				
16,200.0	11,450.0	16,814.8	11,954.3	90.2	90.7	104.64	4,749.3	842.5	1,991.1	1,816.3	174.77	11.392				
16,220.8	11,450.0	16,828.5	11,954.1	90.5	90.9	104.64	4,763.0	842.4	1,991.0	1,815.8	175.27	11.360				
16,300.0	11,450.0	16,888.0	11,953.4	91.7	91.7	104.61	4,822.5	842.6	1,991.6	1,814.4	177.24	11.237				
16,400.0	11,450.0	16,992.6	11,953.1	93.2	93.2	104.60	4,927.1	843.1	1,992.8	1,812.6	180.19	11.059				
16,500.0	11,450.0	17,094.1	11,951.9	94.6	94.7	104.55	5,028.6	843.3	1,993.4	1,810.3	183.13	10.885				
16,600.0	11,450.0	17,183.7	11,952.8	96.1	96.0	104.57	5,118.2	843.3	1,994.4	1,808.6	185.84	10.732				
16,700.0	11,450.0	17,311.2	11,954.6	97.6	97.9	104.62	5,245.7	842.6	1,995.0	1,805.9	189.15	10.547				
16,800.0	11,450.0	17,434.4	11,955.0	99.1	99.7	104.64	5,368.8	840.4	1,994.2	1,801.8	192.40	10.365				
16,900.0	11,450.0	17,539.0	11,954.7	100.6	101.3	104.65	5,473.5	838.0	1,992.7	1,797.3	195.40	10.198				
17,000.0	11,450.0	17,645.6	11,954.0	102.1	102.9	104.64	5,580.0	835.5	1,990.9	1,792.5	198.44	10.033				
17,100.0	11,450.0	17,711.3	11,953.8	103.6	103.9	104.64	5,645.7	834.3	1,989.9	1,789.0	200.88	9.906				
17,110.5	11,450.0	17,718.4	11,953.8	103.7	104.0	104.64	5,652.7	834.3	1,989.9	1,788.8	201.14	9.893				
17,200.0	11,450.0	17,802.8	11,954.6	105.1	105.2	104.66	5,737.1	833.7	1,990.2	1,786.5	203.68	9.771				
17,300.0	11,450.0	17,898.9	11,954.9	106.6	106.7	104.66	5,833.2	833.1	1,990.5	1,783.9	206.58	9.636				
17,400.0	11,450.0	18,017.2	11,956.4	108.1	108.5	104.71	5,951.5	832.0	1,990.7	1,780.9	209.81	9.488				
17,500.0	11,450.0	18,135.7	11,959.5	109.6	110.3	104.81	6,070.0	828.6	1,989.3	1,776.3	212.99	9.340				
17,600.0	11,450.0	18,208.0	11,961.3	111.2	111.4	104.87	6,142.2	827.3	1,988.8	1,773.3	215.51	9.228				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		174-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			
17,600.1	11,450.0	18,208.0	11,961.3	111.2	111.4	104.87	6,142.2	827.3	1,988.8	1,773.3	215.51	9.228			
17,700.0	11,450.0	18,297.2	11,963.1	112.7	112.7	104.92	6,231.4	826.6	1,989.4	1,771.1	218.29	9.114			
17,800.0	11,450.0	18,400.9	11,965.5	114.2	114.3	104.99	6,335.1	825.6	1,989.8	1,768.5	221.29	8.992			
17,900.0	11,450.0	18,501.7	11,967.6	115.8	115.9	105.05	6,435.8	824.6	1,990.1	1,765.8	224.26	8.874			
18,000.0	11,450.0	18,585.1	11,967.8	117.3	117.1	105.05	6,519.2	824.5	1,990.8	1,763.8	226.99	8.771			
18,100.0	11,450.0	18,678.3	11,966.1	118.9	118.6	104.99	6,612.4	825.5	1,992.2	1,762.2	229.93	8.664			
18,200.0	11,450.0	18,770.3	11,965.2	120.4	120.0	104.95	6,704.4	826.6	1,993.9	1,761.0	232.83	8.564			
18,300.0	11,450.0	18,872.4	11,965.0	121.9	121.5	104.93	6,806.5	827.8	1,995.7	1,759.8	235.91	8.460			
18,400.0	11,450.0	18,974.8	11,965.5	123.5	123.1	104.93	6,908.9	828.7	1,997.4	1,758.5	238.98	8.358			
18,500.0	11,450.0	19,075.6	11,966.6	125.1	124.7	104.95	7,009.7	829.3	1,999.1	1,757.1	242.00	8.261			
18,600.0	11,450.0	19,182.2	11,967.5	126.6	126.3	104.96	7,116.2	829.9	2,000.6	1,755.4	245.14	8.161			
18,700.0	11,450.0	19,288.0	11,968.0	128.2	128.0	104.97	7,222.1	830.1	2,001.7	1,753.4	248.28	8.062			
18,800.0	11,450.0	19,395.9	11,967.8	129.7	129.7	104.96	7,330.0	830.3	2,002.6	1,751.1	251.47	7.963			
18,900.0	11,450.0	19,514.4	11,966.6	131.3	131.5	104.92	7,448.4	829.9	2,002.8	1,747.9	254.86	7.858			
19,000.0	11,450.0	19,641.5	11,967.7	132.9	133.5	104.96	7,575.5	827.2	2,001.7	1,743.4	258.30	7.750			
19,100.0	11,450.0	19,742.2	11,967.9	134.4	135.1	104.98	7,676.2	824.6	2,000.0	1,738.6	261.35	7.652			
19,200.0	11,450.0	19,838.1	11,969.2	136.0	136.6	105.03	7,772.0	821.9	1,998.4	1,734.1	264.32	7.561			
19,300.0	11,450.0	19,936.7	11,970.2	137.6	138.1	105.07	7,870.6	819.4	1,996.9	1,729.6	267.33	7.470			
19,400.0	11,450.0	20,038.9	11,970.5	139.1	139.7	105.09	7,972.7	817.0	1,995.5	1,725.1	270.42	7.379			
19,500.0	11,450.0	20,149.7	11,970.6	140.7	141.5	105.11	8,083.5	814.0	1,993.7	1,720.1	273.64	7.286			
19,600.0	11,450.0	20,243.7	11,968.4	142.3	142.9	105.06	8,177.4	811.8	1,991.7	1,715.0	276.69	7.198			
19,700.0	11,450.0	20,325.3	11,966.9	143.9	144.2	105.02	8,259.0	810.4	1,990.3	1,710.8	279.54	7.120			
19,787.8	11,450.0	20,396.2	11,967.1	145.3	145.3	105.03	8,329.6	809.5	1,990.0	1,708.0	281.97	7.057			
19,800.0	11,450.0	20,406.6	11,967.2	145.5	145.5	105.04	8,340.4	809.4	1,990.0	1,707.7	282.31	7.049			
19,900.0	11,450.0	20,496.5	11,969.2	147.1	146.9	105.09	8,430.3	808.6	1,990.4	1,705.2	285.17	6.980			
20,000.0	11,450.0	20,603.1	11,971.2	148.6	148.6	105.15	8,536.8	807.7	1,990.8	1,702.5	288.32	6.905			
20,100.0	11,450.0	20,710.9	11,972.3	150.2	150.3	105.18	8,644.6	806.6	1,990.9	1,699.4	291.51	6.830			
20,200.0	11,450.0	20,821.6	11,974.6	151.8	152.1	105.25	8,755.3	804.7	1,990.5	1,695.8	294.71	6.754			
20,300.0	11,450.0	20,927.1	11,978.0	153.4	153.7	105.36	8,860.7	802.0	1,989.7	1,691.9	297.78	6.682			
20,400.0	11,450.0	21,043.8	11,980.6	155.0	155.6	105.45	8,977.2	798.7	1,988.4	1,687.4	301.03	6.605			
20,500.0	11,450.0	21,154.3	11,981.0	156.6	157.4	105.48	9,087.7	795.4	1,986.3	1,682.0	304.25	6.528			
20,600.0	11,450.0	21,249.0	11,979.3	158.2	158.9	105.44	9,182.4	793.0	1,984.2	1,676.9	307.33	6.456			
20,700.0	11,450.0	21,349.1	11,976.8	159.8	160.5	105.39	9,282.4	790.6	1,981.9	1,671.4	310.50	6.383			
20,800.0	11,450.0	21,425.3	11,974.1	161.4	161.7	105.31	9,358.5	789.6	1,980.5	1,667.2	313.35	6.321			
20,900.0	11,450.0	21,528.7	11,968.2	163.0	163.3	105.15	9,461.8	789.4	1,979.7	1,662.9	316.71	6.251			
21,000.0	11,450.0	21,635.3	11,960.8	164.6	165.0	104.94	9,568.1	789.1	1,978.3	1,658.2	320.17	6.179			
21,100.0	11,450.0	21,719.6	11,954.9	166.2	166.4	104.76	9,652.2	789.2	1,977.4	1,654.1	323.24	6.117			
21,148.7	11,450.0	21,758.1	11,953.1	166.9	167.0	104.71	9,690.7	789.3	1,977.3	1,652.6	324.66	6.090			
21,200.0	11,450.0	21,799.7	11,952.2	167.8	167.7	104.68	9,732.2	789.3	1,977.4	1,651.3	326.12	6.063			
21,300.0	11,450.0	21,906.9	11,950.8	169.4	169.4	104.64	9,839.4	789.2	1,977.8	1,648.3	329.42	6.004			
21,400.0	11,450.0	22,022.8	11,949.6	171.0	171.2	104.61	9,955.4	788.1	1,977.3	1,644.5	332.85	5.941			
21,500.0	11,450.0	22,126.0	11,949.1	172.6	172.9	104.60	10,058.5	786.7	1,976.6	1,640.6	336.05	5.882			
21,600.0	11,450.0	22,232.5	11,948.2	174.2	174.6	104.58	10,165.1	784.9	1,975.6	1,636.3	339.31	5.822			
21,659.1	11,450.0	22,275.0	11,947.8	175.1	175.3	104.57	10,207.5	784.2	1,975.0	1,634.1	340.91	5.793			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #138H (Previous #224H) - 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	1.0	1.0	0.0	0.0	-0.24	29.9	-0.1	29.9					
100.0	100.0	101.0	101.0	0.1	0.1	-0.24	29.9	-0.1	29.9	29.6	0.26	115.069		
200.0	200.0	201.0	201.0	0.5	0.5	-0.24	29.9	-0.1	29.9	28.9	0.98	30.615		
300.0	300.0	301.0	301.0	0.8	0.8	-0.24	29.9	-0.1	29.9	28.2	1.69	17.656		
400.0	400.0	401.0	401.0	1.2	1.2	-0.24	29.9	-0.1	29.9	27.5	2.41	12.405		
500.0	500.0	501.0	501.0	1.6	1.6	-0.24	29.9	-0.1	29.9	26.8	3.13	9.562		
600.0	600.0	601.0	601.0	1.9	1.9	-0.24	29.9	-0.1	29.9	26.1	3.84	7.779		
700.0	700.0	701.0	701.0	2.3	2.3	-0.24	29.9	-0.1	29.9	25.3	4.56	6.556		
800.0	800.0	801.0	801.0	2.6	2.6	-0.24	29.9	-0.1	29.9	24.6	5.28	5.666		
900.0	900.0	901.0	901.0	3.0	3.0	-0.24	29.9	-0.1	29.9	23.9	6.00	4.988		
1,000.0	1,000.0	1,001.0	1,001.0	3.4	3.4	-0.24	29.9	-0.1	29.9	23.2	6.71	4.455 CC		
1,100.0	1,100.0	1,101.0	1,101.0	3.7	3.7	93.22	29.9	-0.1	29.9	22.5	7.42	4.035		
1,200.0	1,200.0	1,201.0	1,201.0	4.0	4.1	98.18	29.9	-0.1	30.2	22.1	8.12	3.718 ES		
1,300.0	1,299.9	1,300.9	1,300.9	4.4	4.4	106.13	29.9	-0.1	31.1	22.3	8.83	3.526		
1,400.0	1,399.7	1,400.7	1,400.7	4.7	4.8	116.23	29.9	-0.1	33.3	23.8	9.54	3.496 SF		
1,500.0	1,499.4	1,500.4	1,500.4	5.1	5.1	127.00	29.9	-0.1	37.5	27.2	10.25	3.658		
1,600.0	1,598.9	1,600.1	1,599.9	5.5	5.5	136.96	29.9	-0.1	43.9	33.0	10.96	4.010		
1,700.0	1,698.3	1,700.7	1,699.3	5.8	5.9	145.31	29.9	-0.1	52.8	41.1	11.67	4.524		
1,744.2	1,742.1	1,743.1	1,743.1	6.0	6.0	148.43	29.9	-0.1	57.5	45.5	11.98	4.797		
1,800.0	1,797.4	1,801.6	1,798.4	6.2	6.2	151.83	29.9	-0.1	63.7	51.4	12.39	5.147		
1,900.0	1,896.6	1,902.4	1,897.6	6.6	6.6	156.47	29.9	-0.1	75.4	62.3	13.10	5.758		
2,000.0	1,995.8	2,003.2	1,996.8	7.0	7.0	159.86	29.9	-0.1	87.5	73.7	13.82	6.331		
2,100.0	2,094.9	2,104.1	2,095.9	7.4	7.3	162.42	29.9	-0.1	99.7	85.2	14.53	6.863		
2,200.0	2,194.1	2,204.9	2,195.1	7.8	7.7	164.42	29.9	-0.1	112.2	96.9	15.25	7.355		
2,300.0	2,293.2	2,305.8	2,294.2	8.1	8.0	166.02	29.9	-0.1	124.7	108.7	15.97	7.809		
2,400.0	2,392.4	2,406.6	2,393.4	8.5	8.4	167.32	29.9	-0.1	137.3	120.6	16.69	8.228		
2,500.0	2,491.5	2,492.5	2,492.5	8.9	8.7	168.41	29.9	-0.1	150.0	132.6	17.36	8.641		
2,600.0	2,590.7	2,589.8	2,589.8	9.3	9.0	169.47	29.6	0.5	163.2	145.2	18.04	9.047		
2,700.0	2,689.9	2,686.4	2,686.4	9.7	9.4	170.71	28.5	2.5	177.8	159.1	18.71	9.503		
2,800.0	2,789.0	2,782.6	2,782.5	10.1	9.7	172.05	26.6	6.0	193.8	174.4	19.38	10.002		
2,900.0	2,888.2	2,878.2	2,878.0	10.5	10.0	173.46	24.0	10.9	211.2	191.2	20.03	10.542		
3,000.0	2,987.3	2,973.3	2,972.8	10.9	10.3	174.88	20.7	17.1	230.1	209.4	20.69	11.122		
3,100.0	3,086.5	3,067.8	3,066.8	11.4	10.7	176.29	16.6	24.6	250.4	229.1	21.33	11.738		
3,200.0	3,185.6	3,161.5	3,160.1	11.8	11.0	177.66	11.9	33.5	272.2	250.2	21.97	12.390		
3,300.0	3,284.8	3,254.6	3,252.4	12.2	11.3	178.98	6.5	43.6	295.5	272.9	22.60	13.076		
3,400.0	3,384.0	3,349.2	3,346.2	12.6	11.7	-179.75	0.3	55.1	320.1	296.9	23.25	13.767		
3,500.0	3,483.1	3,445.9	3,441.9	13.0	12.0	-178.61	-6.0	66.9	345.1	321.1	23.94	14.413		
3,600.0	3,582.3	3,542.5	3,537.6	13.4	12.4	-177.63	-12.4	78.8	370.1	345.5	24.63	15.026		
3,700.0	3,681.4	3,639.1	3,633.2	13.8	12.7	-176.77	-18.7	90.6	395.3	369.9	25.33	15.607		
3,800.0	3,780.6	3,735.8	3,728.9	14.2	13.1	-176.02	-25.1	102.5	420.5	394.4	26.02	16.158		
3,900.0	3,879.7	3,832.4	3,824.6	14.6	13.4	-175.35	-31.4	114.3	445.7	419.0	26.72	16.682		
4,000.0	3,978.9	3,929.0	3,920.3	15.0	13.8	-174.75	-37.8	126.2	471.1	443.6	27.42	17.180		
4,100.0	4,078.1	4,025.7	4,016.0	15.4	14.2	-174.22	-44.1	138.1	496.4	468.3	28.12	17.653		
4,200.0	4,177.2	4,122.3	4,111.7	15.8	14.5	-173.73	-50.5	149.9	521.8	493.0	28.82	18.104		
4,300.0	4,276.4	4,218.9	4,207.4	16.2	14.9	-173.29	-56.8	161.8	547.2	517.7	29.53	18.534		
4,400.0	4,375.5	4,315.6	4,303.1	16.7	15.3	-172.89	-63.2	173.6	572.7	542.5	30.23	18.944		
4,500.0	4,474.7	4,412.2	4,398.8	17.1	15.7	-172.52	-69.5	185.5	598.2	567.2	30.94	19.335		
4,600.0	4,573.9	4,508.8	4,494.5	17.5	16.0	-172.19	-75.9	197.3	623.7	592.0	31.65	19.708		
4,700.0	4,673.0	4,605.4	4,590.1	17.9	16.4	-171.88	-82.2	209.2	649.2	616.9	32.35	20.066		
4,800.0	4,772.2	4,702.1	4,685.8	18.3	16.8	-171.59	-88.5	221.0	674.7	641.7	33.06	20.408		
4,900.0	4,871.3	4,801.3	4,781.5	18.7	17.2	-171.32	-94.9	232.9	700.3	666.5	33.78	20.729		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #138H (Previous #224H) - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
5,000.0	4,970.5	4,895.3	4,877.2	19.1	17.6	-171.08	-101.2	244.8	725.9	691.4	34.48	21.049			
5,100.0	5,069.6	5,008.0	4,972.9	19.5	18.0	-170.85	-107.6	256.6	751.4	716.2	35.25	21.315			
5,200.0	5,168.8	5,088.6	5,068.6	19.9	18.3	-170.63	-113.9	268.5	777.0	741.1	35.91	21.639			
5,300.0	5,268.0	5,185.2	5,164.3	20.4	18.7	-170.43	-120.3	280.3	802.6	766.0	36.62	21.917			
5,400.0	5,367.1	5,281.9	5,260.0	20.8	19.1	-170.24	-126.6	292.2	828.2	790.9	37.33	22.184			
5,500.0	5,466.3	5,378.5	5,355.7	21.2	19.5	-170.06	-133.0	304.0	853.8	815.8	38.05	22.441			
5,600.0	5,565.4	5,475.1	5,451.4	21.6	19.9	-169.90	-139.3	315.9	879.5	840.7	38.76	22.688			
5,700.0	5,664.6	5,571.8	5,547.1	22.0	20.3	-169.74	-145.7	327.7	905.1	865.6	39.48	22.926			
5,800.0	5,763.7	5,681.7	5,656.0	22.4	20.7	-169.58	-152.7	340.8	930.4	890.1	40.32	23.074			
5,900.0	5,862.9	5,808.5	5,782.1	22.8	21.2	-169.48	-159.2	352.9	953.2	911.9	41.30	23.081			
6,000.0	5,962.1	5,937.1	5,910.3	23.2	21.7	-169.47	-163.7	361.3	972.8	930.6	42.24	23.032			
6,100.0	6,061.2	6,067.2	6,040.3	23.7	22.2	-169.55	-166.2	365.9	989.3	946.2	43.14	22.934			
6,200.0	6,160.4	6,188.3	6,161.4	24.1	22.6	-169.69	-166.7	366.9	1,002.8	958.9	43.95	22.815			
6,300.0	6,259.5	6,287.5	6,260.5	24.5	22.9	-169.82	-166.7	366.9	1,015.6	970.9	44.66	22.739			
6,400.0	6,358.7	6,386.6	6,359.7	24.9	23.2	-169.95	-166.7	366.9	1,028.3	983.0	45.37	22.665			
6,500.0	6,457.8	6,485.8	6,458.8	25.3	23.6	-170.07	-166.7	366.9	1,041.1	995.0	46.08	22.593			
6,600.0	6,557.0	6,584.9	6,558.0	25.7	23.9	-170.19	-166.7	366.9	1,053.9	1,007.1	46.79	22.523			
6,700.0	6,656.2	6,684.1	6,657.2	26.1	24.2	-170.31	-166.7	366.9	1,066.6	1,019.1	47.50	22.456			
6,800.0	6,755.3	6,783.3	6,756.3	26.5	24.6	-170.43	-166.7	366.9	1,079.4	1,031.2	48.21	22.390			
6,900.0	6,854.5	6,882.4	6,855.5	27.0	24.9	-170.54	-166.7	366.9	1,092.2	1,043.3	48.92	22.326			
7,000.0	6,953.6	6,981.6	6,954.6	27.4	25.2	-170.65	-166.7	366.9	1,105.0	1,055.3	49.63	22.263			
7,100.0	7,052.8	7,080.7	7,053.8	27.8	25.6	-170.76	-166.7	366.9	1,117.7	1,067.4	50.34	22.203			
7,200.0	7,152.0	7,179.9	7,153.0	28.2	25.9	-170.86	-166.7	366.9	1,130.5	1,079.5	51.05	22.144			
7,300.0	7,251.1	7,279.1	7,252.1	28.6	26.3	-170.97	-166.7	366.9	1,143.3	1,091.6	51.77	22.086			
7,400.0	7,350.3	7,378.2	7,351.3	29.0	26.6	-171.07	-166.7	366.9	1,156.1	1,103.6	52.48	22.031			
7,500.0	7,449.4	7,477.4	7,450.4	29.4	26.9	-171.17	-166.7	366.9	1,168.9	1,115.7	53.19	21.976			
7,551.0	7,500.0	7,527.9	7,501.0	29.7	27.1	-171.22	-166.7	366.9	1,175.4	1,121.9	53.55	21.949			
7,600.0	7,548.6	7,576.6	7,549.6	29.8	27.3	-160.26	-166.7	366.9	1,181.1	1,127.2	53.90	21.912			
7,674.8	7,623.1	7,651.0	7,624.1	30.1	27.5	-136.14	-166.7	366.9	1,187.5	1,133.0	54.43	21.815			
7,700.0	7,648.2	7,676.1	7,649.2	30.2	27.6	-136.22	-166.7	366.9	1,189.1	1,134.5	54.61	21.775			
7,800.0	7,747.7	7,775.7	7,748.7	30.6	27.9	-136.52	-166.7	366.9	1,195.8	1,140.5	55.32	21.617			
7,900.0	7,847.3	7,875.3	7,848.3	31.0	28.3	-136.82	-166.7	366.9	1,202.4	1,146.4	56.02	21.463			
8,000.0	7,946.9	7,974.8	7,947.9	31.3	28.6	-137.12	-166.7	366.9	1,209.2	1,152.4	56.73	21.314			
8,100.0	8,046.5	8,074.4	8,047.5	31.7	29.0	-137.41	-166.7	366.9	1,215.9	1,158.5	57.44	21.169			
8,200.0	8,146.1	8,174.0	8,147.1	32.1	29.3	-137.70	-166.7	366.9	1,222.7	1,164.5	58.15	21.027			
8,300.0	8,245.6	8,273.6	8,246.6	32.4	29.7	-137.99	-166.7	366.9	1,229.5	1,170.6	58.85	20.890			
8,400.0	8,345.2	8,373.2	8,346.2	32.8	30.0	-138.27	-166.7	366.9	1,236.3	1,176.7	59.56	20.756			
8,500.0	8,444.8	8,472.7	8,445.8	33.2	30.3	-138.55	-166.7	366.9	1,243.2	1,182.9	60.27	20.626			
8,600.0	8,544.4	8,572.3	8,545.4	33.6	30.7	-138.83	-166.7	366.9	1,250.0	1,189.1	60.98	20.499			
8,700.0	8,644.0	8,671.9	8,645.0	33.9	31.0	-139.11	-166.7	366.9	1,257.0	1,195.3	61.69	20.375			
8,800.0	8,743.5	8,771.5	8,744.5	34.3	31.4	-139.38	-166.7	366.9	1,263.9	1,201.5	62.40	20.255			
8,900.0	8,843.1	8,871.1	8,844.1	34.7	31.7	-139.64	-166.7	366.9	1,270.9	1,207.8	63.11	20.137			
9,000.0	8,942.7	8,970.6	8,943.7	35.1	32.1	-139.91	-166.7	366.9	1,277.9	1,214.1	63.82	20.023			
9,100.0	9,042.3	9,070.2	9,043.3	35.4	32.4	-140.17	-166.7	366.9	1,284.9	1,220.4	64.53	19.911			
9,200.0	9,141.9	9,169.8	9,142.9	35.8	32.7	-140.43	-166.7	366.9	1,292.0	1,226.7	65.24	19.802			
9,300.0	9,241.4	9,269.4	9,242.4	36.2	33.1	-140.69	-166.7	366.9	1,299.1	1,233.1	65.95	19.696			
9,400.0	9,341.0	9,369.0	9,342.0	36.6	33.4	-140.94	-166.7	366.9	1,306.2	1,239.5	66.67	19.593			
9,500.0	9,440.6	9,468.5	9,441.6	36.9	33.8	-141.19	-166.7	366.9	1,313.3	1,245.9	67.38	19.492			
9,600.0	9,540.2	9,568.1	9,541.2	37.3	34.1	-141.44	-166.7	366.9	1,320.5	1,252.4	68.09	19.393			
9,700.0	9,639.8	9,667.7	9,640.8	37.7	34.5	-141.69	-166.7	366.9	1,327.6	1,258.8	68.80	19.297			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
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			
9,800.0	9,739.3	9,767.3	9,740.3	38.1	34.8	-141.93	-166.7	366.9	1,334.9	1,265.3	69.51	19.203			
9,900.0	9,838.9	9,866.9	9,839.9	38.4	35.2	-142.17	-166.7	366.9	1,342.1	1,271.9	70.23	19.111			
10,000.0	9,938.5	9,966.4	9,939.5	38.8	35.5	-142.41	-166.7	366.9	1,349.3	1,278.4	70.94	19.021			
10,100.0	10,038.1	10,066.0	10,039.1	39.2	35.9	-142.65	-166.7	366.9	1,356.6	1,285.0	71.65	18.934			
10,200.0	10,137.7	10,165.6	10,138.7	39.6	36.2	-142.88	-166.7	366.9	1,363.9	1,291.6	72.36	18.848			
10,300.0	10,237.2	10,265.2	10,238.2	39.9	36.6	-143.11	-166.7	366.9	1,371.2	1,298.2	73.08	18.765			
10,400.0	10,336.8	10,364.8	10,337.8	40.3	36.9	-143.34	-166.7	366.9	1,378.6	1,304.8	73.79	18.683			
10,500.0	10,436.4	10,464.3	10,437.4	40.7	37.3	-143.56	-166.7	366.9	1,386.0	1,311.5	74.50	18.603			
10,600.0	10,536.0	10,563.9	10,537.0	41.1	37.6	-143.79	-166.7	366.9	1,393.3	1,318.1	75.22	18.524			
10,700.0	10,635.6	10,663.5	10,636.6	41.4	37.9	-144.01	-166.7	366.9	1,400.8	1,324.8	75.93	18.448			
10,759.5	10,694.8	10,722.8	10,695.8	41.7	38.2	-144.14	-166.7	366.9	1,405.2	1,328.8	76.35	18.403			
10,800.0	10,735.2	10,763.1	10,736.2	41.8	38.3	-144.26	-166.7	366.9	1,407.8	1,331.2	76.64	18.369			
10,900.0	10,835.1	10,863.0	10,836.1	42.2	38.6	-144.43	-166.7	366.9	1,411.6	1,334.3	77.35	18.249			
10,941.9	10,877.0	10,905.3	10,878.4	42.3	38.8	88.49	-166.7	366.9	1,412.0	1,334.3	77.64	18.185			
10,950.0	10,885.1	10,916.3	10,889.4	42.3	38.8	88.94	-166.5	366.9	1,412.0	1,334.2	77.71	18.169			
11,000.0	10,935.0	10,984.7	10,957.5	42.5	39.1	88.93	-161.0	366.1	1,411.5	1,333.3	78.13	18.066			
11,050.0	10,984.4	11,052.7	11,024.1	42.6	39.3	88.90	-147.6	364.3	1,410.2	1,331.7	78.51	17.963			
11,100.0	11,033.1	11,119.9	11,087.9	42.8	39.5	88.86	-126.8	361.4	1,408.3	1,329.4	78.86	17.859			
11,150.0	11,080.5	11,186.0	11,147.8	42.9	39.6	88.82	-99.2	357.6	1,405.7	1,326.5	79.18	17.753			
11,200.0	11,126.4	11,250.9	11,203.2	43.0	39.8	88.77	-65.7	353.0	1,402.5	1,323.0	79.48	17.645			
11,250.0	11,170.4	11,314.4	11,253.2	43.1	39.9	88.72	-27.1	347.8	1,398.7	1,318.9	79.77	17.534			
11,300.0	11,212.2	11,376.3	11,297.7	43.2	40.0	88.69	15.6	341.9	1,394.4	1,314.3	80.05	17.419			
11,350.0	11,251.4	11,436.6	11,336.2	43.3	40.1	88.66	61.5	335.6	1,389.6	1,309.3	80.33	17.300			
11,400.0	11,287.8	11,495.2	11,368.8	43.4	40.2	88.64	109.7	329.0	1,384.4	1,303.8	80.60	17.176			
11,450.0	11,321.0	11,552.2	11,395.5	43.4	40.2	88.64	159.5	322.2	1,378.9	1,298.0	80.88	17.048			
11,500.0	11,350.9	11,607.6	11,416.6	43.5	40.3	88.65	210.3	315.2	1,373.1	1,291.9	81.16	16.918			
11,550.0	11,377.2	11,661.5	11,432.3	43.5	40.4	88.68	261.3	308.3	1,367.1	1,285.6	81.45	16.785			
11,600.0	11,399.6	11,713.9	11,442.9	43.6	40.5	88.73	312.2	301.3	1,360.9	1,279.2	81.73	16.652			
11,650.0	11,418.1	11,765.0	11,448.6	43.6	40.6	88.79	362.5	294.4	1,354.6	1,272.6	82.01	16.518			
11,700.0	11,432.5	11,803.9	11,450.0	43.6	40.7	88.99	401.0	289.1	1,348.3	1,266.1	82.25	16.393			
11,750.0	11,442.6	11,838.7	11,450.0	43.7	40.9	89.26	435.4	284.7	1,342.5	1,260.0	82.49	16.275			
11,800.0	11,448.4	11,867.7	11,450.0	43.8	40.9	89.62	464.3	281.5	1,337.4	1,254.7	82.70	16.171			
11,841.9	11,450.0	11,900.0	11,450.0	43.8	41.0	89.96	496.5	278.5	1,333.7	1,250.8	82.92	16.084			
11,900.0	11,450.0	11,926.4	11,450.0	43.9	41.1	89.96	522.7	276.4	1,329.5	1,246.3	83.18	15.984			
12,000.0	11,450.0	11,985.3	11,450.0	44.2	41.4	89.96	581.6	273.1	1,324.6	1,240.9	83.71	15.824			
12,100.0	11,450.0	12,048.6	11,450.0	44.5	41.6	89.96	644.9	271.5	1,322.8	1,238.5	84.32	15.689			
12,136.7	11,450.0	12,078.2	11,450.0	44.6	41.8	89.96	674.4	271.3	1,322.8	1,238.2	84.61	15.635			
12,200.0	11,450.0	12,141.4	11,450.0	44.9	42.1	89.96	737.7	270.8	1,322.8	1,237.6	85.20	15.526			
12,300.0	11,450.0	12,241.4	11,450.0	45.4	42.6	89.96	837.7	270.0	1,322.8	1,236.6	86.23	15.340			
12,400.0	11,450.0	12,341.4	11,450.0	45.9	43.1	89.96	937.7	269.2	1,322.8	1,235.4	87.38	15.138			
12,500.0	11,450.0	12,441.4	11,450.0	46.5	43.8	89.96	1,037.7	268.4	1,322.8	1,234.1	88.64	14.923			
12,600.0	11,450.0	12,541.4	11,450.0	47.2	44.4	89.96	1,137.7	267.6	1,322.8	1,232.8	90.00	14.697			
12,700.0	11,450.0	12,641.4	11,450.0	47.9	45.2	89.96	1,237.7	266.8	1,322.8	1,231.3	91.46	14.462			
12,800.0	11,450.0	12,741.4	11,450.0	48.7	45.9	89.96	1,337.7	266.0	1,322.8	1,229.7	93.02	14.220			
12,900.0	11,450.0	12,841.4	11,450.0	49.5	46.8	89.96	1,437.7	265.1	1,322.7	1,228.1	94.67	13.973			
13,000.0	11,450.0	12,941.4	11,450.0	50.3	47.6	89.96	1,537.7	264.3	1,322.7	1,226.3	96.40	13.721			
13,100.0	11,450.0	13,041.4	11,450.0	51.2	48.5	89.96	1,637.7	263.5	1,322.7	1,224.5	98.21	13.468			
13,200.0	11,450.0	13,141.4	11,450.0	52.2	49.5	89.96	1,737.6	262.7	1,322.7	1,222.6	100.11	13.213			
13,300.0	11,450.0	13,241.4	11,450.0	53.1	50.5	89.96	1,837.6	261.9	1,322.7	1,220.6	102.07	12.959			
13,400.0	11,450.0	13,341.4	11,450.0	54.1	51.5	89.96	1,937.6	261.1	1,322.7	1,218.6	104.10	12.706			
13,500.0	11,450.0	13,441.4	11,450.0	55.1	52.5	89.96	2,037.6	260.3	1,322.7	1,216.5	106.20	12.455			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #138H (Previous #224H) - 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	11,450.0	13,541.4	11,450.0	56.2	53.6	89.96	2,137.6	259.5	1,322.7	1,214.3	108.36	12.207			
13,700.0	11,450.0	13,641.4	11,450.0	57.3	54.7	89.96	2,237.6	258.7	1,322.7	1,212.1	110.57	11.962			
13,800.0	11,450.0	13,741.4	11,450.0	58.4	55.9	89.96	2,337.6	257.9	1,322.7	1,209.8	112.84	11.721			
13,900.0	11,450.0	13,841.4	11,450.0	59.5	57.0	89.96	2,437.6	257.1	1,322.7	1,207.5	115.16	11.485			
14,000.0	11,450.0	13,941.4	11,450.0	60.7	58.2	89.96	2,537.6	256.3	1,322.7	1,205.1	117.53	11.254			
14,100.0	11,450.0	14,041.4	11,450.0	61.9	59.4	89.96	2,637.6	255.5	1,322.7	1,202.7	119.94	11.027			
14,200.0	11,450.0	14,141.4	11,450.0	63.1	60.6	89.96	2,737.6	254.7	1,322.6	1,200.2	122.40	10.806			
14,300.0	11,450.0	14,241.4	11,450.0	64.3	61.9	89.96	2,837.6	253.9	1,322.6	1,197.7	124.89	10.590			
14,400.0	11,450.0	14,341.4	11,450.0	65.5	63.2	89.96	2,937.6	253.1	1,322.6	1,195.2	127.43	10.380			
14,500.0	11,450.0	14,441.4	11,450.0	66.8	64.4	89.96	3,037.6	252.3	1,322.6	1,192.6	129.99	10.175			
14,600.0	11,450.0	14,541.4	11,450.0	68.1	65.7	89.96	3,137.6	251.5	1,322.6	1,190.0	132.59	9.975			
14,700.0	11,450.0	14,641.4	11,450.0	69.4	67.1	89.96	3,237.6	250.7	1,322.6	1,187.4	135.22	9.781			
14,800.0	11,450.0	14,741.4	11,450.0	70.7	68.4	89.96	3,337.6	249.9	1,322.6	1,184.7	137.89	9.592			
14,900.0	11,450.0	14,841.4	11,450.0	72.0	69.7	89.96	3,437.6	249.1	1,322.6	1,182.0	140.57	9.408			
15,000.0	11,450.0	14,941.4	11,450.0	73.4	71.1	89.96	3,537.6	248.3	1,322.6	1,179.3	143.29	9.230			
15,100.0	11,450.0	15,041.4	11,450.0	74.7	72.5	89.96	3,637.6	247.5	1,322.6	1,176.5	146.03	9.057			
15,200.0	11,450.0	15,141.4	11,450.0	76.1	73.8	89.96	3,737.6	246.7	1,322.6	1,173.8	148.79	8.889			
15,300.0	11,450.0	15,241.4	11,450.0	77.4	75.2	89.96	3,837.6	245.9	1,322.6	1,171.0	151.58	8.725			
15,400.0	11,450.0	15,341.4	11,450.0	78.8	76.6	89.96	3,937.6	245.1	1,322.5	1,168.2	154.38	8.567			
15,500.0	11,450.0	15,441.4	11,450.0	80.2	78.1	89.96	4,037.6	244.3	1,322.5	1,165.3	157.21	8.413			
15,600.0	11,450.0	15,541.4	11,450.0	81.6	79.5	89.96	4,137.6	243.5	1,322.5	1,162.5	160.05	8.263			
15,700.0	11,450.0	15,641.4	11,450.0	83.0	80.9	89.96	4,237.6	242.7	1,322.5	1,159.6	162.92	8.118			
15,800.0	11,450.0	15,741.4	11,450.0	84.5	82.4	89.96	4,337.6	241.9	1,322.5	1,156.7	165.80	7.977			
15,900.0	11,450.0	15,841.4	11,450.0	85.9	83.8	89.96	4,437.6	241.1	1,322.5	1,153.8	168.69	7.840			
16,000.0	11,450.0	15,941.4	11,450.0	87.3	85.3	89.96	4,537.6	240.3	1,322.5	1,150.9	171.60	7.707			
16,100.0	11,450.0	16,041.4	11,450.0	88.8	86.7	89.96	4,637.6	239.5	1,322.5	1,148.0	174.53	7.578			
16,200.0	11,450.0	16,141.4	11,450.0	90.2	88.2	89.96	4,737.6	238.7	1,322.5	1,145.0	177.47	7.452			
16,300.0	11,450.0	16,241.4	11,450.0	91.7	89.7	89.96	4,837.5	237.9	1,322.5	1,142.1	180.42	7.330			
16,400.0	11,450.0	16,341.4	11,450.0	93.2	91.2	89.96	4,937.5	237.1	1,322.5	1,139.1	183.38	7.212			
16,500.0	11,450.0	16,441.4	11,450.0	94.6	92.7	89.96	5,037.5	236.3	1,322.5	1,136.1	186.36	7.096			
16,600.0	11,450.0	16,541.4	11,450.0	96.1	94.1	89.96	5,137.5	235.5	1,322.5	1,133.1	189.34	6.984			
16,700.0	11,450.0	16,641.4	11,450.0	97.6	95.6	89.96	5,237.5	234.7	1,322.4	1,130.1	192.34	6.876			
16,800.0	11,450.0	16,741.4	11,450.0	99.1	97.2	89.96	5,337.5	233.9	1,322.4	1,127.1	195.35	6.770			
16,900.0	11,450.0	16,841.4	11,450.0	100.6	98.7	89.96	5,437.5	233.0	1,322.4	1,124.1	198.37	6.667			
17,000.0	11,450.0	16,941.4	11,450.0	102.1	100.2	89.96	5,537.5	232.2	1,322.4	1,121.0	201.39	6.566			
17,100.0	11,450.0	17,041.4	11,450.0	103.6	101.7	89.96	5,637.5	231.4	1,322.4	1,118.0	204.43	6.469			
17,200.0	11,450.0	17,141.4	11,450.0	105.1	103.2	89.96	5,737.5	230.6	1,322.4	1,114.9	207.48	6.374			
17,300.0	11,450.0	17,241.4	11,450.0	106.6	104.7	89.96	5,837.5	229.8	1,322.4	1,111.9	210.53	6.281			
17,400.0	11,450.0	17,341.4	11,450.0	108.1	106.3	89.96	5,937.5	229.0	1,322.4	1,108.8	213.59	6.191			
17,500.0	11,450.0	17,441.4	11,450.0	109.6	107.8	89.96	6,037.5	228.2	1,322.4	1,105.7	216.66	6.104			
17,600.0	11,450.0	17,541.4	11,450.0	111.2	109.4	89.96	6,137.5	227.4	1,322.4	1,102.6	219.73	6.018			
17,700.0	11,450.0	17,641.4	11,450.0	112.7	110.9	89.96	6,237.5	226.6	1,322.4	1,099.6	222.81	5.935			
17,800.0	11,450.0	17,741.4	11,450.0	114.2	112.4	89.96	6,337.5	225.8	1,322.4	1,096.5	225.90	5.854			
17,900.0	11,450.0	17,841.4	11,450.0	115.8	114.0	89.96	6,437.5	225.0	1,322.4	1,093.4	229.00	5.775			
18,000.0	11,450.0	17,941.4	11,450.0	117.3	115.5	89.96	6,537.5	224.2	1,322.3	1,090.2	232.10	5.697			
18,100.0	11,450.0	18,041.4	11,450.0	118.9	117.1	89.96	6,637.5	223.4	1,322.3	1,087.1	235.21	5.622			
18,200.0	11,450.0	18,141.4	11,450.0	120.4	118.7	89.96	6,737.5	222.6	1,322.3	1,084.0	238.32	5.549			
18,300.0	11,450.0	18,241.4	11,450.0	121.9	120.2	89.96	6,837.5	221.8	1,322.3	1,080.9	241.44	5.477			
18,400.0	11,450.0	18,341.4	11,450.0	123.5	121.8	89.96	6,937.5	221.0	1,322.3	1,077.8	244.56	5.407			
18,500.0	11,450.0	18,441.4	11,450.0	125.1	123.3	89.96	7,037.5	220.2	1,322.3	1,074.6	247.69	5.339			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #138H (Previous #224H) - Wellbore #1 - BLM Plan #1														Offset Well Error:	0.0 usft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
18,600.0	11,450.0	18,541.4	11,450.0	126.6	124.9	89.96	7,137.5	219.4	1,322.3	1,071.5	250.82	5.272			
18,700.0	11,450.0	18,641.4	11,450.0	128.2	126.5	89.96	7,237.5	218.6	1,322.3	1,068.3	253.96	5.207			
18,800.0	11,450.0	18,741.4	11,450.0	129.7	128.1	89.96	7,337.5	217.8	1,322.3	1,065.2	257.10	5.143			
18,900.0	11,450.0	18,841.4	11,450.0	131.3	129.6	89.96	7,437.5	217.0	1,322.3	1,062.0	260.24	5.081			
19,000.0	11,450.0	18,941.4	11,450.0	132.9	131.2	89.96	7,537.5	216.2	1,322.3	1,058.9	263.39	5.020			
19,100.0	11,450.0	19,041.4	11,450.0	134.4	132.8	89.96	7,637.5	215.4	1,322.3	1,055.7	266.55	4.961			
19,200.0	11,450.0	19,141.4	11,450.0	136.0	134.4	89.96	7,737.5	214.6	1,322.3	1,052.5	269.71	4.903			
19,300.0	11,450.0	19,241.4	11,450.0	137.6	135.9	89.96	7,837.5	213.8	1,322.2	1,049.4	272.87	4.846			
19,400.0	11,450.0	19,341.4	11,450.0	139.1	137.5	89.96	7,937.4	213.0	1,322.2	1,046.2	276.03	4.790			
19,500.0	11,450.0	19,441.4	11,450.0	140.7	139.1	89.96	8,037.4	212.2	1,322.2	1,043.0	279.20	4.736			
19,600.0	11,450.0	19,541.4	11,450.0	142.3	140.7	89.96	8,137.4	211.4	1,322.2	1,039.8	282.37	4.683			
19,700.0	11,450.0	19,641.4	11,450.0	143.9	142.3	89.96	8,237.4	210.6	1,322.2	1,036.7	285.55	4.630			
19,800.0	11,450.0	19,741.4	11,450.0	145.5	143.9	89.96	8,337.4	209.8	1,322.2	1,033.5	288.73	4.579			
19,900.0	11,450.0	19,841.4	11,450.0	147.1	145.5	89.96	8,437.4	209.0	1,322.2	1,030.3	291.91	4.529			
20,000.0	11,450.0	19,941.4	11,450.0	148.6	147.1	89.96	8,537.4	208.2	1,322.2	1,027.1	295.09	4.481			
20,100.0	11,450.0	20,041.4	11,450.0	150.2	148.7	89.96	8,637.4	207.4	1,322.2	1,023.9	298.28	4.433			
20,200.0	11,450.0	20,141.4	11,450.0	151.8	150.2	89.96	8,737.4	206.6	1,322.2	1,020.7	301.47	4.386			
20,300.0	11,450.0	20,241.4	11,450.0	153.4	151.8	89.96	8,837.4	205.8	1,322.2	1,017.5	304.66	4.340			
20,400.0	11,450.0	20,341.4	11,450.0	155.0	153.4	89.96	8,937.4	205.0	1,322.2	1,014.3	307.86	4.295			
20,500.0	11,450.0	20,441.4	11,450.0	156.6	155.0	89.96	9,037.4	204.2	1,322.1	1,011.1	311.06	4.250			
20,600.0	11,450.0	20,541.4	11,450.0	158.2	156.6	89.96	9,137.4	203.4	1,322.1	1,007.9	314.26	4.207			
20,700.0	11,450.0	20,641.4	11,450.0	159.8	158.2	89.96	9,237.4	202.6	1,322.1	1,004.7	317.46	4.165			
20,800.0	11,450.0	20,741.4	11,450.0	161.4	159.9	89.96	9,337.4	201.8	1,322.1	1,001.5	320.67	4.123			
20,900.0	11,450.0	20,841.4	11,450.0	163.0	161.5	89.96	9,437.4	201.0	1,322.1	998.2	323.87	4.082			
21,000.0	11,450.0	20,941.4	11,450.0	164.6	163.1	89.96	9,537.4	200.1	1,322.1	995.0	327.08	4.042			
21,100.0	11,450.0	21,041.4	11,450.0	166.2	164.7	89.96	9,637.4	199.3	1,322.1	991.8	330.29	4.003			
21,200.0	11,450.0	21,141.4	11,450.0	167.8	166.3	89.96	9,737.4	198.5	1,322.1	988.6	333.51	3.964			
21,300.0	11,450.0	21,241.4	11,450.0	169.4	167.9	89.96	9,837.4	197.7	1,322.1	985.4	336.72	3.926			
21,400.0	11,450.0	21,341.4	11,450.0	171.0	169.5	89.96	9,937.4	196.9	1,322.1	982.1	339.94	3.889			
21,500.0	11,450.0	21,441.4	11,450.0	172.6	171.1	89.96	10,037.4	196.1	1,322.1	978.9	343.16	3.853			
21,600.0	11,450.0	21,541.4	11,450.0	174.2	172.7	89.96	10,137.4	195.3	1,322.1	975.7	346.38	3.817			
21,659.1	11,450.0	21,600.5	11,450.0	175.1	173.7	89.96	10,196.5	194.9	1,322.1	973.8	348.28	3.796			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack		Offset Site Error:		0.0 usft
Survey Program: 220-MWD, 3018-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	1.0	1.0	0.0	0.0	-90.61	-1.2	-109.9	109.9								
100.0	100.0	101.5	101.5	0.1	0.2	-90.58	-1.1	-109.7	109.7	109.4	0.29	379.574					
200.0	200.0	202.0	202.0	0.5	0.3	-90.51	-1.0	-109.0	109.0	108.2	0.80	135.567					
300.0	300.0	302.4	302.4	0.8	0.6	-90.44	-0.8	-107.8	107.8	106.4	1.49	72.585					
400.0	400.0	402.4	402.3	1.2	1.0	-90.53	-1.0	-106.5	106.6	104.4	2.20	48.407					
500.0	500.0	501.7	501.7	1.6	1.4	-90.70	-1.3	-105.6	105.6	102.7	2.91	36.244					
577.8	577.8	578.8	578.8	1.8	1.6	-90.79	-1.5	-105.3	105.3	101.9	3.46	30.438					
600.0	600.0	600.9	600.8	1.9	1.7	-90.81	-1.5	-105.3	105.4	101.7	3.62	29.135					
700.0	700.0	700.3	700.3	2.3	2.0	-91.08	-2.0	-105.8	105.8	101.5	4.31	24.525					
800.0	800.0	800.0	799.9	2.6	2.4	-91.43	-2.7	-106.6	106.6	101.6	5.01	21.269					
900.0	900.0	899.9	899.9	3.0	2.7	-91.78	-3.3	-107.7	107.7	102.0	5.72	18.843					
1,000.0	1,000.0	1,000.1	1,000.1	3.4	3.1	-92.07	-3.9	-108.6	108.7	102.3	6.42	16.919					
1,100.0	1,100.0	1,100.7	1,100.7	3.7	3.4	-0.34	-4.1	-109.2	108.4	101.3	7.12	15.220					
1,167.6	1,167.6	1,165.5	1,165.4	3.9	3.6	-0.14	-3.7	-110.1	107.8	100.2	7.58	14.218					
1,200.0	1,200.0	1,196.2	1,196.1	4.0	3.7	0.07	-3.4	-111.2	107.9	100.1	7.80	13.843					
1,300.0	1,299.9	1,290.2	1,289.9	4.4	4.1	0.77	-2.2	-118.0	110.7	102.3	8.46	13.091					
1,400.0	1,399.7	1,389.1	1,388.2	4.7	4.4	1.53	-0.9	-128.4	115.1	106.0	9.15	12.590					
1,500.0	1,499.4	1,489.8	1,488.3	5.1	4.8	2.29	0.4	-139.0	117.8	108.0	9.85	11.961					
1,600.0	1,598.9	1,589.8	1,587.8	5.5	5.2	2.81	1.2	-149.2	118.5	107.9	10.56	11.226					
1,700.0	1,698.3	1,690.5	1,688.0	5.8	5.5	3.21	1.6	-159.3	117.2	105.9	11.27	10.396					
1,744.2	1,742.1	1,735.3	1,732.6	6.0	5.7	3.11	1.2	-163.5	115.7	104.2	11.59	9.987					
1,800.0	1,797.4	1,791.3	1,788.4	6.2	5.9	2.68	0.0	-168.5	113.5	101.5	11.99	9.468					
1,900.0	1,896.6	1,891.7	1,888.3	6.6	6.3	1.83	-2.0	-177.3	109.3	96.6	12.71	8.602					
2,000.0	1,995.8	1,992.2	1,988.5	7.0	6.7	0.85	-4.3	-185.5	104.5	91.1	13.43	7.783					
2,100.0	2,094.9	2,091.5	2,087.5	7.4	7.0	-0.34	-6.6	-193.4	99.5	85.3	14.14	7.036					
2,200.0	2,194.1	2,191.0	2,186.5	7.8	7.4	-2.16	-9.9	-202.0	95.4	80.6	14.85	6.423					
2,300.0	2,293.2	2,291.1	2,286.2	8.1	7.8	-4.31	-13.4	-210.7	91.4	75.8	15.58	5.867					
2,400.0	2,392.4	2,391.5	2,386.2	8.5	8.2	-6.90	-17.3	-218.9	87.1	70.8	16.30	5.341					
2,500.0	2,491.5	2,492.1	2,486.4	8.9	8.5	-9.84	-21.1	-226.3	82.1	65.1	17.03	4.821					
2,600.0	2,590.7	2,592.4	2,586.4	9.3	8.9	-13.26	-24.8	-232.8	76.5	58.8	17.76	4.309					
2,700.0	2,689.9	2,690.5	2,684.3	9.7	9.3	-16.98	-28.5	-239.7	71.9	53.4	18.48	3.889					
2,800.0	2,789.0	2,790.8	2,784.1	10.1	9.7	-21.10	-32.4	-247.8	68.6	49.4	19.23	3.567					
2,900.0	2,888.2	2,891.0	2,883.9	10.5	10.0	-26.53	-37.0	-254.9	65.1	45.1	20.00	3.254					
3,000.0	2,987.3	2,991.2	2,983.9	10.9	10.4	-33.52	-41.9	-260.5	61.2	40.4	20.77	2.945					
3,083.7	3,070.4	3,073.0	3,065.4	11.3	10.5	-39.40	-46.4	-266.4	59.9	38.7	21.18	2.829 CC					
3,100.0	3,086.5	3,089.0	3,081.3	11.4	10.5	-40.61	-47.4	-267.6	60.0	38.7	21.26	2.821 ES					
3,200.0	3,185.6	3,188.0	3,179.7	11.8	10.5	-48.86	-54.9	-275.1	61.5	39.7	21.75	2.826					
3,300.0	3,284.8	3,286.7	3,277.7	12.2	10.6	-57.29	-64.0	-282.6	65.6	43.4	22.27	2.947					
3,400.0	3,384.0	3,386.0	3,376.2	12.6	10.7	-65.28	-74.1	-289.6	71.8	48.9	22.83	3.143					
3,500.0	3,483.1	3,485.3	3,474.8	13.0	10.8	-72.37	-84.6	-296.1	79.3	55.9	23.39	3.388					
3,600.0	3,582.3	3,585.4	3,574.1	13.4	10.9	-78.80	-95.0	-301.7	87.4	63.4	23.98	3.646					
3,700.0	3,681.4	3,686.9	3,675.1	13.8	11.0	-83.90	-103.7	-307.7	94.7	70.2	24.58	3.854					
3,800.0	3,780.6	3,788.7	3,776.5	14.2	11.1	-87.81	-109.8	-314.5	100.1	74.9	25.17	3.977					
3,900.0	3,879.7	3,888.6	3,876.0	14.6	11.3	-90.85	-114.5	-321.9	104.5	78.8	25.74	4.060					
4,000.0	3,978.9	3,986.8	3,973.6	15.0	11.4	-92.57	-120.1	-331.1	110.1	83.8	26.30	4.185					
4,100.0	4,078.1	4,085.9	4,071.8	15.4	11.6	-92.84	-127.3	-342.8	117.0	90.1	26.88	4.353					
4,200.0	4,177.2	4,188.3	4,173.1	15.8	11.8	-92.77	-134.1	-355.7	123.2	95.7	27.50	4.478					
4,300.0	4,276.4	4,291.6	4,275.8	16.2	12.0	-93.61	-137.9	-366.9	126.6	98.5	28.14	4.500					
4,400.0	4,375.5	4,392.5	4,376.1	16.7	12.2	-95.17	-139.6	-376.4	128.3	99.5	28.75	4.462					
4,500.0	4,474.7	4,492.8	4,475.9	17.1	12.4	-96.34	-141.0	-386.6	129.7	100.3	29.38	4.415					
4,600.0	4,573.9	4,592.9	4,575.4	17.5	12.6	-96.93	-142.5	-398.0	130.9	100.9	30.01	4.363					

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack		Offset Site Error: 0.0 usft	
Survey Program: 220-MWD, 3018-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				
4,700.0	4,673.0	4,693.4	4,675.3	17.9	12.9	-97.92	-143.4	-408.7	131.9	101.2	30.66	4.302				
4,800.0	4,772.2	4,792.6	4,774.0	18.3	13.1	-98.98	-144.4	-419.0	132.9	101.6	31.30	4.246				
4,900.0	4,871.3	4,890.8	4,871.6	18.7	13.3	-100.07	-146.4	-428.8	135.1	103.1	31.95	4.228				
5,000.0	4,970.5	4,989.8	4,970.2	19.1	13.6	-101.34	-149.3	-437.9	138.3	105.7	32.60	4.243				
5,100.0	5,069.6	5,089.7	5,069.5	19.5	13.8	-102.21	-152.6	-448.0	141.9	108.6	33.27	4.264				
5,200.0	5,168.8	5,189.6	5,168.8	19.9	14.1	-103.04	-156.0	-458.0	145.5	111.5	33.94	4.286				
5,300.0	5,268.0	5,289.7	5,268.5	20.4	14.3	-104.34	-159.0	-466.8	149.1	114.5	34.61	4.308				
5,400.0	5,367.1	5,389.6	5,368.0	20.8	14.6	-105.59	-161.8	-475.6	152.6	117.3	35.28	4.325				
5,500.0	5,466.3	5,488.9	5,466.7	21.2	14.9	-106.43	-165.1	-485.2	156.3	120.4	35.96	4.347				
5,600.0	5,565.4	5,588.4	5,565.6	21.6	15.2	-106.83	-169.1	-495.7	160.6	124.0	36.65	4.382				
5,700.0	5,664.6	5,690.2	5,667.0	22.0	15.5	-107.85	-172.4	-504.9	164.5	127.2	37.35	4.405				
5,800.0	5,763.7	5,791.1	5,767.5	22.4	15.7	-109.32	-173.9	-513.0	167.2	129.2	38.02	4.399				
5,900.0	5,862.9	5,890.7	5,866.9	22.8	16.0	-110.98	-175.0	-520.4	170.0	131.3	38.68	4.395				
6,000.0	5,962.1	5,991.4	5,967.2	23.2	16.3	-112.60	-176.0	-527.9	172.8	133.4	39.35	4.391				
6,100.0	6,061.2	6,089.9	6,065.5	23.7	16.6	-114.14	-177.1	-535.1	175.8	135.8	40.00	4.395				
6,200.0	6,160.4	6,190.9	6,166.2	24.1	16.9	-115.69	-178.3	-542.5	179.0	138.3	40.66	4.402				
6,300.0	6,259.5	6,290.0	6,265.0	24.5	17.2	-117.18	-179.3	-549.7	182.3	140.9	41.31	4.412				
6,400.0	6,358.7	6,389.9	6,364.7	24.9	17.5	-118.56	-180.6	-557.1	185.8	143.8	41.97	4.427				
6,500.0	6,457.8	6,490.2	6,464.7	25.3	17.8	-120.00	-181.5	-564.3	189.2	146.6	42.62	4.440				
6,600.0	6,557.0	6,590.1	6,564.3	25.7	18.1	-121.42	-182.2	-571.4	192.7	149.4	43.27	4.452				
6,700.0	6,656.2	6,689.3	6,663.3	26.1	18.4	-122.71	-183.3	-578.6	196.4	152.5	43.92	4.471				
6,800.0	6,755.3	6,789.3	6,763.0	26.5	18.7	-124.02	-184.3	-585.6	200.4	155.8	44.57	4.496				
6,900.0	6,854.5	6,889.6	6,863.0	27.0	19.0	-125.27	-185.2	-592.8	204.1	158.9	45.22	4.515				
7,000.0	6,953.6	6,989.1	6,962.3	27.4	19.3	-126.50	-185.9	-599.8	208.1	162.2	45.86	4.537				
7,100.0	7,052.8	7,087.5	7,060.5	27.8	19.6	-127.85	-186.6	-606.0	212.4	165.9	46.49	4.569				
7,200.0	7,152.0	7,189.5	7,162.3	28.2	19.9	-129.15	-187.5	-612.4	217.2	170.0	47.14	4.607				
7,300.0	7,251.1	7,293.5	7,265.9	28.6	20.2	-130.14	-187.7	-621.1	220.1	172.3	47.81	4.604				
7,400.0	7,350.3	7,393.0	7,365.0	29.0	20.6	-130.96	-187.5	-630.3	222.1	173.6	48.48	4.582				
7,500.0	7,449.4	7,494.3	7,465.9	29.4	20.9	-131.82	-187.2	-639.5	224.3	175.1	49.14	4.563				
7,551.0	7,500.0	7,545.0	7,516.4	29.7	21.1	-132.27	-186.8	-644.2	225.2	175.7	49.48	4.551				
7,600.0	7,548.6	7,593.4	7,564.6	29.8	21.2	-121.82	-186.4	-648.4	225.4	175.6	49.80	4.527				
7,674.8	7,623.1	7,667.5	7,638.5	30.1	21.5	-98.36	-185.8	-654.7	223.2	172.9	50.28	4.439				
7,700.0	7,648.2	7,692.5	7,663.4	30.2	21.5	-98.60	-185.7	-656.8	221.9	171.5	50.44	4.400				
7,800.0	7,747.7	7,791.6	7,762.0	30.6	21.9	-99.52	-185.3	-665.0	217.1	166.0	51.07	4.250				
7,900.0	7,847.3	7,890.8	7,860.9	31.0	22.2	-100.54	-185.0	-672.9	212.7	161.0	51.70	4.113				
8,000.0	7,946.9	7,990.8	7,960.7	31.3	22.5	-101.66	-184.5	-680.7	208.3	156.0	52.32	3.981				
8,100.0	8,046.5	8,089.9	8,059.5	31.7	22.8	-102.77	-184.3	-688.3	204.3	151.4	52.94	3.859				
8,200.0	8,146.1	8,190.1	8,159.3	32.1	23.2	-103.84	-184.5	-696.3	200.4	146.8	53.57	3.740				
8,300.0	8,245.6	8,289.6	8,258.6	32.4	23.5	-105.00	-184.4	-704.1	196.5	142.3	54.19	3.627				
8,400.0	8,345.2	8,389.2	8,357.8	32.8	23.9	-106.15	-184.7	-711.8	192.9	138.1	54.81	3.520				
8,500.0	8,444.8	8,488.3	8,456.7	33.2	24.2	-107.38	-184.9	-719.3	189.6	134.2	55.42	3.422				
8,600.0	8,544.4	8,588.1	8,556.2	33.6	24.5	-108.51	-185.7	-726.7	186.8	130.7	56.04	3.333				
8,700.0	8,644.0	8,688.1	8,655.9	33.9	24.9	-109.65	-186.5	-734.4	183.8	127.2	56.66	3.244				
8,800.0	8,743.5	8,787.3	8,754.8	34.3	25.2	-110.83	-187.4	-741.9	181.1	123.8	57.28	3.162				
8,900.0	8,843.1	8,885.8	8,853.0	34.7	25.5	-112.15	-188.3	-748.6	179.1	121.3	57.87	3.096				
9,000.0	8,942.7	8,987.1	8,954.1	35.1	25.9	-113.66	-189.0	-755.1	177.5	119.0	58.47	3.036				
9,100.0	9,042.3	9,086.8	9,053.5	35.4	26.2	-114.93	-190.0	-762.5	175.2	116.2	59.08	2.966				
9,200.0	9,141.9	9,184.7	9,151.2	35.8	26.6	-116.13	-191.5	-769.2	173.8	114.1	59.68	2.912				
9,300.0	9,241.4	9,289.5	9,255.7	36.2	26.9	-117.38	-193.0	-777.0	171.9	111.5	60.33	2.849				
9,400.0	9,341.0	9,386.9	9,352.8	36.6	27.3	-118.48	-194.3	-785.2	169.1	108.1	60.94	2.774				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 220-MWD, 3018-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		
9,500.0	9,440.6	9,485.1	9,450.7	36.9	27.6	-119.72	-195.8	-792.1	167.8	106.2	61.54	2.726		
9,600.0	9,540.2	9,590.0	9,555.3	37.3	28.0	-121.16	-196.7	-800.8	165.1	102.9	62.17	2.655		
9,700.0	9,639.8	9,688.2	9,653.1	37.7	28.3	-122.84	-196.4	-809.3	161.7	99.0	62.75	2.577		
9,800.0	9,739.3	9,786.6	9,751.2	38.1	28.7	-124.67	-196.4	-816.5	159.9	96.6	63.30	2.526		
9,900.0	9,838.9	9,889.1	9,853.4	38.4	29.0	-126.30	-197.0	-825.0	157.5	93.5	63.91	2.464		
10,000.0	9,938.5	9,989.3	9,953.1	38.8	29.4	-127.60	-198.2	-834.7	154.0	89.5	64.53	2.387		
10,100.0	10,038.1	10,087.8	10,051.2	39.2	29.8	-128.80	-199.9	-843.6	151.3	86.2	65.15	2.322		
10,200.0	10,137.7	10,186.1	10,149.1	39.6	30.1	-130.17	-201.4	-851.7	149.5	83.8	65.75	2.274		
10,264.7	10,202.1	10,249.3	10,212.1	39.8	30.3	-131.12	-202.4	-856.1	149.1	83.0	66.13	2.255		
10,300.0	10,237.2	10,283.6	10,246.4	39.9	30.4	-131.64	-203.0	-858.2	149.3	82.9	66.33	2.250		
10,400.0	10,336.8	10,384.8	10,347.4	40.3	30.8	-133.08	-205.0	-864.1	150.1	83.2	66.96	2.242		
10,500.0	10,436.4	10,485.7	10,448.0	40.7	31.2	-134.47	-206.9	-871.8	149.3	81.7	67.59	2.208		
10,574.5	10,510.6	10,559.3	10,521.3	41.0	31.4	-135.58	-208.0	-877.0	149.0	81.0	68.04	2.190		
10,600.0	10,536.0	10,584.4	10,546.4	41.1	31.5	-135.96	-208.4	-878.7	149.0	80.8	68.19	2.185		
10,700.0	10,635.6	10,686.0	10,647.8	41.4	31.9	-137.42	-210.3	-885.7	149.0	80.2	68.83	2.165		
10,759.5	10,694.8	10,745.7	10,707.3	41.7	32.1	-138.22	-211.4	-890.5	148.4	79.2	69.21	2.145		
10,800.0	10,735.2	10,785.7	10,747.1	41.8	32.2	-138.57	-212.4	-893.6	147.8	78.4	69.47	2.128		
10,900.0	10,835.1	10,885.4	10,846.5	42.2	32.6	-138.30	-215.4	-901.1	144.0	73.8	70.19	2.052		
10,941.9	10,877.0	10,927.0	10,887.9	42.3	32.7	95.21	-216.7	-904.2	141.3	70.8	70.50	2.005		
10,950.0	10,885.1	10,934.9	10,895.9	42.3	32.8	95.87	-217.0	-904.8	140.8	70.2	70.56	1.995		
11,000.0	10,935.0	10,984.2	10,945.0	42.5	32.9	98.09	-218.4	-908.3	137.7	66.7	71.01	1.940		
11,050.0	10,984.4	11,031.3	10,992.0	42.6	33.1	101.71	-219.6	-911.2	136.1	64.5	71.55	1.902		
11,059.8	10,994.1	11,040.4	11,001.1	42.7	33.1	102.56	-219.7	-911.7	136.1	64.4	71.67	1.898		
11,100.0	11,033.1	11,077.5	11,038.2	42.8	33.3	106.43	-220.3	-913.2	137.0	64.8	72.21	1.897 SF		
11,150.0	11,080.5	11,124.3	11,084.9	42.9	33.4	112.14	-220.7	-914.7	141.1	68.0	73.04	1.931		
11,200.0	11,126.4	11,169.6	11,130.2	43.0	33.6	118.30	-221.3	-916.0	149.0	75.1	73.95	2.015		
11,250.0	11,170.4	11,213.2	11,173.8	43.1	33.7	124.32	-221.8	-917.2	161.7	86.8	74.86	2.160		
11,300.0	11,212.2	11,254.5	11,215.1	43.2	33.9	129.69	-222.3	-918.4	179.4	103.8	75.66	2.372		
11,350.0	11,251.4	11,292.7	11,253.2	43.3	34.0	134.05	-222.8	-919.4	202.4	126.1	76.30	2.653		
11,400.0	11,287.8	11,327.3	11,287.8	43.4	34.1	137.28	-223.4	-920.2	230.4	153.6	76.78	3.001		
11,450.0	11,321.0	11,358.6	11,319.1	43.4	34.2	139.42	-224.1	-920.8	262.9	185.8	77.12	3.409		
11,500.0	11,350.9	11,386.6	11,347.1	43.5	34.3	140.47	-224.7	-921.2	299.3	221.9	77.37	3.868		
11,550.0	11,377.2	11,411.1	11,371.6	43.5	34.4	140.34	-225.3	-921.5	339.0	261.4	77.55	4.371		
11,600.0	11,399.6	11,431.9	11,392.4	43.6	34.4	138.84	-225.8	-921.6	381.4	303.7	77.67	4.910		
11,650.0	11,418.1	11,448.9	11,409.4	43.6	34.5	135.51	-226.2	-921.7	426.0	348.3	77.75	5.479		
11,700.0	11,432.5	11,461.8	11,422.3	43.6	34.5	129.46	-226.5	-921.7	472.4	394.6	77.80	6.072		
11,750.0	11,442.6	11,470.5	11,431.0	43.7	34.5	119.10	-226.8	-921.8	520.1	442.2	77.83	6.682		
11,800.0	11,448.4	11,474.9	11,435.4	43.8	34.6	102.24	-226.9	-921.8	568.5	490.7	77.83	7.305		
11,841.9	11,450.0	11,475.4	11,435.9	43.8	34.6	82.98	-226.9	-921.8	609.5	531.7	77.82	7.833		
11,900.0	11,450.0	12,271.1	12,027.6	43.9	35.8	167.17	188.4	-916.4	638.1	590.3	47.79	13.354		
12,000.0	11,450.0	12,000.0	12,096.9	44.2	35.8	169.92	439.1	-934.9	662.0	622.4	39.64	16.701		
12,100.0	11,450.0	12,724.3	12,106.1	44.5	37.4	170.81	629.6	-945.2	663.7	623.3	40.40	16.428		
12,200.0	11,450.0	12,823.7	12,106.5	44.9	38.0	171.20	728.9	-950.5	663.3	622.5	40.82	16.250		
12,221.5	11,450.0	12,844.5	12,106.6	45.0	38.1	171.29	749.6	-951.7	663.3	622.4	40.91	16.214		
12,300.0	11,450.0	12,916.5	12,107.5	45.4	38.6	171.62	821.5	-956.1	663.7	622.5	41.23	16.099		
12,400.0	11,450.0	13,021.7	12,109.1	45.9	39.3	172.11	926.5	-962.3	664.4	622.7	41.74	15.919		
12,500.0	11,450.0	13,126.7	12,109.5	46.5	40.1	172.47	1,031.3	-967.4	664.3	621.9	42.38	15.675		
12,551.1	11,450.0	13,174.2	12,109.6	46.9	40.5	172.64	1,078.8	-969.7	664.1	621.5	42.67	15.563		
12,600.0	11,450.0	13,221.8	12,110.0	47.2	40.9	172.85	1,126.3	-972.5	664.2	621.3	42.95	15.465		
12,700.0	11,450.0	13,334.5	12,109.5	47.9	41.8	173.41	1,238.7	-980.0	663.0	619.3	43.68	15.179		
12,800.0	11,450.0	13,426.0	12,109.5	48.7	42.7	173.97	1,329.9	-987.2	662.2	618.0	44.18	14.989		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 usft
Survey Program: 220-MWD, 3018-MWD														Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
12,900.0	11,450.0	13,526.7	12,109.4	49.5	43.7	174.66	1,430.3	-996.0	661.4	616.6	44.78	14.770			
12,915.7	11,450.0	13,539.6	12,109.5	49.6	43.8	174.74	1,443.1	-997.0	661.3	616.5	44.86	14.743			
13,000.0	11,450.0	13,613.6	12,110.7	50.3	44.5	175.09	1,517.0	-1,001.6	662.2	616.8	45.39	14.591			
13,100.0	11,450.0	13,727.1	12,111.9	51.2	45.7	175.30	1,630.4	-1,004.9	663.1	616.7	46.45	14.275			
13,200.0	11,450.0	13,834.2	12,110.2	52.2	46.8	175.41	1,737.5	-1,007.0	661.5	613.9	47.55	13.912			
13,300.0	11,450.0	13,928.9	12,109.5	53.1	47.9	175.64	1,832.2	-1,010.5	660.5	612.0	48.42	13.640			
13,380.5	11,450.0	14,004.8	12,109.3	53.9	48.7	175.79	1,907.9	-1,012.9	660.1	610.9	49.16	13.427			
13,400.0	11,450.0	14,022.3	12,109.3	54.1	48.9	175.84	1,925.5	-1,013.6	660.1	610.8	49.32	13.383			
13,500.0	11,450.0	14,110.3	12,110.6	55.1	50.0	176.17	2,013.4	-1,018.0	661.2	611.1	50.13	13.190			
13,600.0	11,450.0	14,205.9	12,113.4	56.2	51.1	176.30	2,108.9	-1,020.1	664.1	612.9	51.16	12.980			
13,700.0	11,450.0	14,330.5	12,115.0	57.3	52.6	176.21	2,233.4	-1,020.0	665.6	612.8	52.71	12.628			
13,800.0	11,450.0	14,452.8	12,110.9	58.4	54.0	175.78	2,355.7	-1,016.3	662.3	607.8	54.51	12.150			
13,900.0	11,450.0	14,526.5	12,109.1	59.5	54.9	175.70	2,429.3	-1,016.1	660.0	604.7	55.28	11.939			
14,000.0	11,450.0	14,630.9	12,108.8	60.7	56.3	175.79	2,533.7	-1,017.9	659.6	603.1	56.54	11.666			
14,057.5	11,450.0	14,682.1	12,108.6	61.4	56.9	175.83	2,584.9	-1,018.8	659.4	602.2	57.13	11.542			
14,100.0	11,450.0	14,720.2	12,108.8	61.9	57.4	175.90	2,623.0	-1,019.9	659.5	602.0	57.55	11.460			
14,200.0	11,450.0	14,811.8	12,110.1	63.1	58.6	176.06	2,714.5	-1,022.3	660.8	602.2	58.60	11.277			
14,300.0	11,450.0	14,900.8	12,112.5	64.3	59.8	175.97	2,803.5	-1,021.9	663.6	603.8	59.76	11.105			
14,400.0	11,450.0	15,049.7	12,110.2	65.5	61.7	174.98	2,952.0	-1,011.7	662.2	599.8	62.44	10.606			
14,500.0	11,450.0	15,187.8	12,101.5	66.8	63.5	173.74	3,089.2	-999.4	657.3	591.9	65.40	10.052			
14,600.0	11,450.0	15,293.9	12,089.5	68.1	64.9	172.62	3,194.1	-988.9	647.3	579.7	67.66	9.567			
14,700.0	11,450.0	15,364.2	12,083.5	69.4	65.9	172.18	3,263.9	-985.2	639.5	570.8	68.62	9.319			
14,800.0	11,450.0	15,435.1	12,080.8	70.7	66.8	172.02	3,334.8	-984.4	636.0	566.6	69.42	9.162			
14,824.1	11,450.0	15,452.1	12,080.7	71.0	67.1	172.02	3,351.8	-984.6	635.9	566.3	69.59	9.137			
14,900.0	11,450.0	15,510.0	12,081.8	72.0	67.9	172.11	3,409.7	-985.9	637.1	566.9	70.18	9.078			
15,000.0	11,450.0	15,595.3	12,085.7	73.4	69.1	172.32	3,494.8	-988.4	641.3	570.2	71.10	9.019			
15,100.0	11,450.0	15,704.2	12,091.5	74.7	70.6	172.54	3,603.5	-990.9	646.4	573.9	72.52	8.914			
15,200.0	11,450.0	15,816.9	12,093.8	76.1	72.3	172.70	3,716.1	-993.4	648.2	574.1	74.07	8.751			
15,300.0	11,450.0	15,908.5	12,096.5	77.4	73.6	173.04	3,807.7	-997.7	650.6	575.6	75.04	8.670			
15,400.0	11,450.0	16,008.5	12,100.5	78.8	75.1	173.60	3,907.4	-1,004.4	654.0	577.9	76.05	8.599			
15,500.0	11,450.0	16,102.1	12,104.2	80.2	76.5	174.17	4,000.6	-1,011.3	657.2	580.3	76.93	8.543			
15,600.0	11,450.0	16,219.7	12,109.1	81.6	78.2	174.74	4,117.9	-1,018.4	661.0	582.6	78.32	8.439			
15,700.0	11,450.0	16,315.3	12,110.8	83.0	79.6	175.11	4,213.4	-1,023.2	662.4	583.0	79.42	8.341			
15,800.0	11,450.0	16,413.8	12,113.5	84.5	81.1	175.49	4,311.7	-1,028.2	664.7	584.2	80.57	8.250			
15,900.0	11,450.0	16,507.4	12,116.4	85.9	82.5	175.84	4,405.1	-1,032.8	667.5	585.9	81.67	8.174			
16,000.0	11,450.0	16,655.6	12,113.1	87.3	84.7	175.88	4,553.2	-1,034.7	664.4	580.4	84.01	7.908			
16,098.3	11,450.0	16,728.1	12,111.7	88.7	85.8	175.83	4,625.6	-1,034.8	662.5	577.5	84.95	7.799			
16,100.0	11,450.0	16,729.3	12,111.7	88.8	85.8	175.83	4,626.9	-1,034.8	662.5	577.5	84.96	7.797			
16,200.0	11,450.0	16,804.1	12,113.1	90.2	87.0	175.79	4,701.7	-1,034.8	664.5	578.5	85.92	7.733			
16,300.0	11,450.0	16,888.9	12,117.4	91.7	88.2	175.83	4,786.3	-1,035.6	669.5	582.4	87.03	7.692			
16,400.0	11,450.0	17,006.0	12,123.2	93.2	90.0	175.76	4,903.3	-1,035.3	674.5	585.6	88.88	7.589			
16,500.0	11,450.0	17,123.7	12,125.9	94.6	91.8	175.64	5,021.0	-1,034.6	677.0	586.2	90.78	7.457			
16,586.3	11,450.0	17,216.4	12,125.9	95.9	93.2	175.66	5,113.6	-1,035.6	676.9	584.7	92.16	7.345			
16,600.0	11,450.0	17,228.7	12,125.9	96.1	93.4	175.66	5,125.9	-1,035.8	676.9	584.6	92.32	7.332			
16,700.0	11,450.0	17,337.0	12,126.3	97.6	95.0	175.77	5,234.2	-1,037.9	677.2	583.3	93.88	7.213			
16,800.0	11,450.0	17,431.9	12,125.2	99.1	96.5	175.89	5,329.0	-1,040.1	676.0	580.8	95.17	7.102			
16,811.2	11,450.0	17,441.3	12,125.2	99.2	96.6	175.90	5,338.5	-1,040.3	675.9	580.7	95.29	7.093			
16,900.0	11,450.0	17,522.3	12,125.9	100.6	97.9	176.07	5,419.4	-1,042.9	676.6	580.2	96.33	7.023			
17,000.0	11,450.0	17,616.1	12,127.6	102.1	99.3	176.27	5,513.2	-1,045.9	678.2	580.6	97.55	6.952			
17,100.0	11,450.0	17,758.2	12,126.7	103.6	101.5	176.19	5,655.2	-1,046.1	677.8	577.9	99.90	6.785			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 220-MWD, 3018-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		
17,200.0	11,450.0	17,841.3	12,124.3	105.1	102.8	176.12	5,738.2	-1,046.1	675.0	573.9	101.11	6.676		
17,300.0	11,450.0	17,935.6	12,123.2	106.6	104.3	176.13	5,832.6	-1,047.1	673.8	571.3	102.47	6.575		
17,400.0	11,450.0	18,036.0	12,122.5	108.1	105.8	176.17	5,933.0	-1,048.4	673.0	569.1	103.94	6.475		
17,500.0	11,450.0	18,142.2	12,120.6	109.6	107.5	176.06	6,039.1	-1,048.1	671.4	565.7	105.62	6.356		
17,600.0	11,450.0	18,231.2	12,119.9	111.2	108.9	176.01	6,128.1	-1,048.3	670.6	563.7	106.93	6.271		
17,700.0	11,450.0	18,334.7	12,119.4	112.7	110.5	176.04	6,231.6	-1,049.5	670.1	561.6	108.47	6.177		
17,780.5	11,450.0	18,412.5	12,119.2	113.9	111.7	176.11	6,309.4	-1,051.0	669.7	560.1	109.57	6.112		
17,800.0	11,450.0	18,428.4	12,119.2	114.2	111.9	176.14	6,325.3	-1,051.4	669.7	560.0	109.77	6.101		
17,900.0	11,450.0	18,520.4	12,120.6	115.8	113.4	176.38	6,417.1	-1,054.9	671.0	560.0	110.94	6.048		
18,000.0	11,450.0	18,626.8	12,121.3	117.3	115.1	176.63	6,523.5	-1,058.6	671.4	559.0	112.41	5.973		
18,100.0	11,450.0	18,761.5	12,121.1	118.9	117.2	176.56	6,658.2	-1,058.8	672.0	557.4	114.61	5.863		
18,200.0	11,450.0	18,851.5	12,116.2	120.4	118.6	176.14	6,747.9	-1,055.0	667.1	550.8	116.23	5.739		
18,282.1	11,450.0	18,912.9	12,115.1	121.7	119.5	175.93	6,809.3	-1,053.1	665.8	548.6	117.21	5.680		
18,300.0	11,450.0	18,926.4	12,115.1	121.9	119.7	175.89	6,822.8	-1,052.7	665.9	548.4	117.42	5.671		
18,400.0	11,450.0	19,015.9	12,116.8	123.5	121.1	175.59	6,912.3	-1,049.8	668.0	549.0	118.91	5.617		
18,500.0	11,450.0	19,145.0	12,117.1	125.1	123.1	175.17	7,041.2	-1,045.8	668.6	547.2	121.40	5.508		
18,600.0	11,450.0	19,258.5	12,113.3	126.6	124.9	175.12	7,154.7	-1,046.5	665.3	542.1	123.22	5.399		
18,700.0	11,450.0	19,369.1	12,107.4	128.2	126.7	175.23	7,265.1	-1,049.2	659.8	534.9	124.83	5.285		
18,800.0	11,450.0	19,447.1	12,104.4	129.7	127.9	175.37	7,343.0	-1,051.7	655.7	529.9	125.82	5.212		
18,900.0	11,450.0	19,545.2	12,102.4	131.3	129.5	175.56	7,441.1	-1,054.8	653.5	526.3	127.15	5.140		
19,000.0	11,450.0	19,642.7	12,100.5	132.9	131.1	175.72	7,538.5	-1,057.6	651.4	522.9	128.49	5.070		
19,049.7	11,450.0	19,681.1	12,100.2	133.6	131.7	175.78	7,576.9	-1,058.5	650.9	522.0	128.96	5.048		
19,100.0	11,450.0	19,720.1	12,100.5	134.4	132.3	175.82	7,615.8	-1,059.3	651.4	522.0	129.43	5.033		
19,200.0	11,450.0	19,812.5	12,102.9	136.0	133.8	175.90	7,708.2	-1,060.8	653.8	523.1	130.70	5.002		
19,300.0	11,450.0	19,918.8	12,105.6	137.6	135.5	175.99	7,814.5	-1,062.4	656.4	524.0	132.33	4.960		
19,400.0	11,450.0	20,026.2	12,107.3	139.1	137.2	176.14	7,921.8	-1,064.9	657.8	523.9	133.90	4.913		
19,500.0	11,450.0	20,140.1	12,106.9	140.7	139.0	176.25	8,035.7	-1,067.1	657.4	521.8	135.64	4.847		
19,600.0	11,450.0	20,243.4	12,105.3	142.3	140.7	176.36	8,139.0	-1,069.3	655.7	518.6	137.15	4.781		
19,700.0	11,450.0	20,351.1	12,102.9	143.9	142.4	176.27	8,246.6	-1,069.2	653.6	514.7	138.89	4.706		
19,800.0	11,450.0	20,447.6	12,099.8	145.5	143.9	176.15	8,343.0	-1,068.9	650.5	510.0	140.45	4.631		
19,900.0	11,450.0	20,549.2	12,097.6	147.1	145.5	176.10	8,444.7	-1,069.2	648.3	506.3	142.05	4.564		
20,000.0	11,450.0	20,653.4	12,094.3	148.6	147.2	176.07	8,548.8	-1,070.0	645.2	501.5	143.68	4.490		
20,100.0	11,450.0	20,748.9	12,091.2	150.2	148.7	175.96	8,644.3	-1,069.7	642.1	496.8	145.22	4.421		
20,193.8	11,450.0	20,825.6	12,089.9	151.7	150.0	175.78	8,720.9	-1,068.4	640.6	494.2	146.46	4.374		
20,200.0	11,450.0	20,830.5	12,089.9	151.8	150.0	175.77	8,725.9	-1,068.3	640.6	494.1	146.54	4.372		
20,300.0	11,450.0	20,925.9	12,090.8	153.4	151.5	175.56	8,821.2	-1,066.6	641.7	493.6	148.15	4.332		
20,400.0	11,450.0	21,039.3	12,090.6	155.0	153.4	175.33	8,934.6	-1,064.9	641.8	491.6	150.22	4.272		
20,456.4	11,450.0	21,088.3	12,090.1	155.9	154.1	175.23	8,983.6	-1,064.3	641.3	490.3	151.01	4.247		
20,500.0	11,450.0	21,123.5	12,090.3	156.6	154.7	175.19	9,018.8	-1,064.0	641.6	490.1	151.52	4.235		
20,600.0	11,450.0	21,222.7	12,092.0	158.2	156.3	175.10	9,117.9	-1,063.7	643.4	490.3	153.13	4.202		
20,700.0	11,450.0	21,335.4	12,092.5	159.8	158.1	175.02	9,230.6	-1,063.7	644.0	488.9	155.06	4.153		
20,800.0	11,450.0	21,448.7	12,090.7	161.4	159.9	174.99	9,343.9	-1,064.4	642.4	485.5	156.92	4.094		
20,900.0	11,450.0	21,550.7	12,087.2	163.0	161.6	174.96	9,445.9	-1,065.1	639.0	480.4	158.55	4.030		
21,000.0	11,450.0	21,633.2	12,086.3	164.6	162.9	175.00	9,528.4	-1,066.4	637.7	478.0	159.67	3.994		
21,100.0	11,450.0	21,740.1	12,085.9	166.2	164.6	175.18	9,635.2	-1,069.2	637.2	476.0	161.20	3.953		
21,200.0	11,450.0	21,843.4	12,084.0	167.8	166.3	175.37	9,738.5	-1,072.4	635.1	472.5	162.62	3.906		
21,300.0	11,450.0	21,941.8	12,083.0	169.4	167.9	175.60	9,836.8	-1,075.8	633.9	470.0	163.90	3.868		
21,400.0	11,450.0	22,054.2	12,080.4	171.0	169.7	175.88	9,949.1	-1,079.9	631.4	466.0	165.42	3.817		
21,500.0	11,450.0	22,157.5	12,076.6	172.6	171.4	176.17	10,052.2	-1,084.3	627.5	460.8	166.74	3.763		
21,600.0	11,450.0	22,265.4	12,071.8	174.2	173.2	176.51	10,159.9	-1,089.1	622.8	454.7	168.09	3.705		
21,659.1	11,450.0	22,292.0	12,070.4	175.1	173.6	176.59	10,186.4	-1,090.2	620.5	452.1	168.36	3.686		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design	Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack												Offset Site Error:	0.0 usft
Survey Program:	220-MWD, 3018-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-MWD											Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
0.0	0.0	1.0	1.0	0.0	0.0	-90.61	-1.2	-109.9	109.9						
100.0	100.0	101.5	101.5	0.1	0.2	-90.58	-1.1	-109.7	109.7	109.4	0.29	379.574			
200.0	200.0	202.0	202.0	0.5	0.3	-90.51	-1.0	-109.0	109.0	108.2	0.80	135.567			
300.0	300.0	302.4	302.4	0.8	0.6	-90.44	-0.8	-107.8	107.8	106.4	1.49	72.585			
400.0	400.0	402.4	402.3	1.2	1.0	-90.53	-1.0	-106.5	106.6	104.4	2.20	48.407			
500.0	500.0	501.7	501.7	1.6	1.4	-90.70	-1.3	-105.6	105.6	102.7	2.91	36.244			
577.8	577.8	578.8	578.8	1.8	1.6	-90.79	-1.5	-105.3	105.3	101.9	3.46	30.438			
600.0	600.0	600.9	600.8	1.9	1.7	-90.81	-1.5	-105.3	105.4	101.7	3.62	29.135			
700.0	700.0	700.3	700.3	2.3	2.0	-91.08	-2.0	-105.8	105.8	101.5	4.31	24.525			
800.0	800.0	800.0	799.9	2.6	2.4	-91.43	-2.7	-106.6	106.6	101.6	5.01	21.269			
900.0	900.0	899.9	899.9	3.0	2.7	-91.78	-3.3	-107.7	107.7	102.0	5.72	18.843			
1,000.0	1,000.0	1,000.1	1,000.1	3.4	3.1	-92.07	-3.9	-108.6	108.7	102.3	6.42	16.919			
1,100.0	1,100.0	1,100.7	1,100.7	3.7	3.4	-0.34	-4.1	-109.2	108.4	101.3	7.12	15.220			
1,167.6	1,167.6	1,165.5	1,165.4	3.9	3.6	-0.14	-3.7	-110.1	107.8	100.2	7.58	14.218			
1,200.0	1,200.0	1,196.2	1,196.1	4.0	3.7	0.07	-3.4	-111.2	107.9	100.1	7.80	13.843			
1,300.0	1,299.9	1,290.2	1,289.9	4.4	4.1	0.77	-2.2	-118.0	110.7	102.3	8.46	13.091			
1,400.0	1,399.7	1,389.1	1,388.2	4.7	4.4	1.53	-0.9	-128.4	115.1	106.0	9.15	12.590			
1,500.0	1,499.4	1,489.8	1,488.3	5.1	4.8	2.29	0.4	-139.0	117.8	108.0	9.85	11.961			
1,600.0	1,598.9	1,589.8	1,587.8	5.5	5.2	2.81	1.2	-149.2	118.5	107.9	10.56	11.226			
1,700.0	1,698.3	1,690.5	1,688.0	5.8	5.5	3.21	1.6	-159.3	117.2	105.9	11.27	10.396			
1,744.2	1,742.1	1,735.3	1,732.6	6.0	5.7	3.11	1.2	-163.5	115.7	104.2	11.59	9.987			
1,800.0	1,797.4	1,791.3	1,788.4	6.2	5.9	2.68	0.0	-168.5	113.5	101.5	11.99	9.468			
1,900.0	1,896.6	1,891.7	1,888.3	6.6	6.3	1.83	-2.0	-177.3	109.3	96.6	12.71	8.602			
2,000.0	1,995.8	1,992.2	1,988.5	7.0	6.7	0.85	-4.3	-185.5	104.5	91.1	13.43	7.783			
2,100.0	2,094.9	2,091.5	2,087.5	7.4	7.0	-0.34	-6.6	-193.4	99.5	85.3	14.14	7.036			
2,200.0	2,194.1	2,191.0	2,186.5	7.8	7.4	-2.16	-9.9	-202.0	95.4	80.6	14.85	6.423			
2,300.0	2,293.2	2,291.1	2,286.2	8.1	7.8	-4.31	-13.4	-210.7	91.4	75.8	15.58	5.867			
2,400.0	2,392.4	2,391.5	2,386.2	8.5	8.2	-6.90	-17.3	-218.9	87.1	70.8	16.30	5.341			
2,500.0	2,491.5	2,492.1	2,486.4	8.9	8.6	-9.84	-21.1	-226.3	82.1	65.1	17.03	4.821			
2,600.0	2,590.7	2,592.4	2,586.4	9.3	8.9	-13.26	-24.8	-232.8	76.5	58.8	17.76	4.309			
2,700.0	2,689.9	2,690.5	2,684.3	9.7	9.3	-16.98	-28.5	-239.7	71.9	53.4	18.48	3.889			
2,800.0	2,789.0	2,790.8	2,784.1	10.1	9.7	-21.10	-32.4	-247.8	68.6	49.4	19.23	3.567			
2,900.0	2,888.2	2,891.0	2,883.9	10.5	10.1	-26.53	-37.0	-254.9	65.1	45.1	20.00	3.254			
3,000.0	2,987.3	2,991.7	2,984.4	10.9	10.4	-33.56	-41.9	-260.5	61.1	40.3	20.79	2.939			
3,100.0	3,086.5	3,092.1	3,084.6	11.4	10.8	-40.53	-45.0	-265.4	56.5	34.8	21.61	2.613			
3,200.0	3,185.6	3,191.7	3,184.0	11.8	11.2	-46.59	-46.5	-271.4	52.3	29.9	22.43	2.334			
3,300.0	3,284.8	3,292.2	3,284.4	12.2	11.5	-53.45	-47.2	-277.1	48.0	24.7	23.28	2.062			
3,400.0	3,384.0	3,392.6	3,384.6	12.6	11.9	-60.46	-45.8	-282.5	42.6	18.4	24.13	1.763			
3,500.0	3,483.1	3,492.6	3,484.2	13.0	12.3	-64.86	-42.5	-290.3	37.0	12.0	24.96	1.482 Level 3			
3,600.0	3,582.3	3,592.1	3,583.3	13.4	12.6	-68.71	-38.3	-299.0	31.1	5.3	25.79	1.205 Level 2			
3,700.0	3,681.4	3,691.1	3,681.8	13.8	13.0	-72.22	-36.2	-309.1	27.9	1.3	26.63	1.048 Level 2			
3,744.8	3,725.8	3,735.5	3,725.9	14.0	13.2	-74.88	-36.4	-313.5	27.6	0.6	27.02	1.021 Level 2, CC			
3,800.0	3,780.6	3,790.6	3,780.7	14.2	13.4	-79.25	-37.2	-318.6	27.8	0.3	27.50	1.010 Level 2			
3,900.0	3,879.7	3,889.7	3,879.5	14.6	13.8	-87.88	-40.0	-327.3	29.8	1.5	28.34	1.051 Level 2			
4,000.0	3,978.9	3,988.6	3,977.6	15.0	14.2	-91.96	-45.7	-337.7	35.3	6.2	29.11	1.211 Level 2			
4,100.0	4,078.1	4,087.8	4,075.9	15.4	14.6	-93.94	-53.7	-348.5	43.0	13.1	29.89	1.439 Level 3			
4,200.0	4,177.2	4,188.3	4,175.6	15.8	15.0	-96.31	-61.5	-358.7	50.7	19.9	30.73	1.649			
4,300.0	4,276.4	4,289.8	4,276.6	16.2	15.3	-99.73	-66.5	-367.8	55.9	24.3	31.57	1.770			
4,400.0	4,375.5	4,390.3	4,376.6	16.7	15.7	-103.58	-69.2	-376.3	59.1	26.7	32.35	1.826			
4,500.0	4,474.7	4,490.7	4,476.6	17.1	16.1	-106.70	-71.2	-385.4	61.7	28.6	33.12	1.863			
4,600.0	4,573.9	4,590.6	4,576.0	17.5	16.5	-108.69	-73.1	-395.5	64.1	30.2	33.90	1.890			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 usft
Survey Program: 220-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					
4,700.0	4,673.0	4,690.4	4,675.3	17.9	16.9	-110.73	-75.0	-405.4	66.7	32.0	34.67	1.922					
4,800.0	4,772.2	4,790.1	4,774.6	18.3	17.3	-113.14	-76.9	-414.5	69.5	34.1	35.42	1.963					
4,900.0	4,871.3	4,889.6	4,873.7	18.7	17.7	-115.76	-79.0	-423.0	73.0	36.9	36.16	2.019					
5,000.0	4,970.5	4,989.9	4,973.6	19.1	18.1	-118.39	-81.0	-431.1	76.8	39.9	36.90	2.081					
5,100.0	5,069.6	5,090.8	5,074.0	19.5	18.4	-119.54	-83.0	-441.5	79.5	41.8	37.67	2.110					
5,200.0	5,168.8	5,191.1	5,173.5	19.9	18.8	-119.85	-84.8	-453.1	81.4	43.0	38.45	2.118					
5,300.0	5,268.0	5,291.0	5,272.7	20.4	19.2	-120.10	-86.7	-464.7	83.4	44.1	39.25	2.124					
5,400.0	5,367.1	5,390.8	5,371.9	20.8	19.6	-120.53	-88.5	-476.0	85.4	45.4	40.03	2.134					
5,500.0	5,466.3	5,490.4	5,471.0	21.2	20.0	-121.34	-90.1	-486.6	87.7	46.9	40.80	2.150					
5,600.0	5,565.4	5,590.3	5,570.3	21.6	20.4	-122.49	-91.8	-496.6	90.4	48.9	41.55	2.176					
5,700.0	5,664.6	5,690.1	5,669.6	22.0	20.8	-123.79	-93.3	-506.3	93.2	50.9	42.30	2.203					
5,800.0	5,763.7	5,790.0	5,769.1	22.4	21.2	-125.35	-94.5	-515.4	96.1	53.1	43.03	2.234					
5,900.0	5,862.9	5,889.8	5,868.5	22.8	21.6	-127.07	-95.5	-524.1	99.2	55.5	43.74	2.268					
6,000.0	5,962.1	5,989.6	5,967.9	23.2	22.0	-128.85	-96.4	-532.6	102.5	58.0	44.44	2.306					
6,100.0	6,061.2	6,089.2	6,067.2	23.7	22.3	-130.70	-97.3	-540.6	106.1	61.0	45.14	2.350					
6,200.0	6,160.4	6,189.0	6,166.8	24.1	22.7	-132.62	-98.0	-548.3	109.9	64.1	45.82	2.399					
6,300.0	6,259.5	6,289.1	6,266.5	24.5	23.1	-134.52	-98.6	-555.8	113.9	67.4	46.50	2.450					
6,400.0	6,358.7	6,390.5	6,367.5	24.9	23.5	-135.63	-99.5	-565.2	117.0	69.8	47.22	2.478					
6,500.0	6,457.8	6,491.1	6,467.5	25.3	23.9	-136.09	-100.8	-575.8	119.3	71.4	47.97	2.487					
6,600.0	6,557.0	6,591.0	6,566.8	25.7	24.3	-136.63	-101.7	-586.5	121.4	72.7	48.72	2.492					
6,700.0	6,656.2	6,690.0	6,665.3	26.1	24.7	-137.25	-102.7	-596.6	123.9	74.4	49.46	2.504					
6,800.0	6,755.3	6,788.9	6,763.7	26.5	25.1	-137.49	-105.0	-606.5	127.3	77.1	50.22	2.535					
6,900.0	6,854.5	6,888.5	6,862.8	27.0	25.4	-137.63	-107.7	-616.3	131.2	80.2	50.99	2.573					
7,000.0	6,953.6	6,988.2	6,962.1	27.4	25.8	-137.95	-110.1	-625.6	135.3	83.6	51.74	2.615					
7,100.0	7,052.8	7,088.0	7,061.4	27.8	26.2	-138.44	-112.4	-634.6	139.5	87.0	52.48	2.659					
7,200.0	7,152.0	7,187.6	7,160.6	28.2	26.6	-139.01	-114.4	-643.2	143.9	90.7	53.22	2.704					
7,300.0	7,251.1	7,286.8	7,259.4	28.6	27.0	-139.57	-116.7	-651.6	148.6	94.7	53.95	2.755					
7,400.0	7,350.3	7,385.8	7,358.1	29.0	27.4	-140.18	-119.0	-659.3	153.8	99.2	54.67	2.814					
7,500.0	7,449.4	7,486.8	7,458.8	29.4	27.8	-140.72	-121.6	-667.3	159.2	103.8	55.41	2.872					
7,551.0	7,500.0	7,538.0	7,509.7	29.7	28.0	-140.86	-122.9	-671.8	161.6	105.8	55.79	2.896					
7,600.0	7,548.6	7,587.0	7,558.5	29.8	28.1	-130.12	-124.2	-676.1	163.1	107.0	56.16	2.904					
7,674.8	7,623.1	7,661.1	7,632.4	30.1	28.4	-106.34	-126.0	-682.4	162.8	106.1	56.70	2.871					
7,700.0	7,648.2	7,686.1	7,657.3	30.2	28.5	-106.51	-126.6	-684.4	162.2	105.3	56.88	2.851					
7,800.0	7,747.7	7,785.7	7,756.5	30.6	28.9	-107.29	-129.0	-692.2	159.9	102.3	57.57	2.777					
7,900.0	7,847.3	7,885.6	7,856.1	31.0	29.3	-108.19	-131.3	-699.8	157.8	99.5	58.26	2.708					
8,000.0	7,946.9	7,984.9	7,955.1	31.3	29.7	-109.19	-133.5	-707.0	156.0	97.0	58.94	2.646					
8,100.0	8,046.5	8,084.9	8,054.8	31.7	30.0	-109.98	-136.4	-714.5	154.4	94.7	59.64	2.588					
8,200.0	8,146.1	8,185.3	8,154.8	32.1	30.4	-110.85	-139.1	-721.9	152.8	92.4	60.34	2.532					
8,300.0	8,245.6	8,288.1	8,257.3	32.4	30.8	-111.94	-140.9	-730.1	150.2	89.2	61.04	2.461					
8,400.0	8,345.2	8,391.0	8,359.6	32.8	31.2	-112.75	-142.2	-741.0	145.2	83.5	61.73	2.353					
8,500.0	8,444.8	8,490.5	8,458.5	33.2	31.6	-113.45	-143.3	-752.4	139.4	77.0	62.44	2.233					
8,600.0	8,544.4	8,589.2	8,556.6	33.6	32.0	-114.35	-144.5	-762.9	134.4	71.3	63.13	2.129					
8,700.0	8,644.0	8,688.0	8,654.9	33.9	32.4	-115.42	-145.8	-772.6	130.3	66.5	63.81	2.041					
8,800.0	8,743.5	8,786.9	8,753.4	34.3	32.8	-116.68	-147.2	-781.4	127.0	62.5	64.46	1.970					
8,900.0	8,843.1	8,885.6	8,851.7	34.7	33.2	-118.11	-148.9	-789.4	124.6	59.5	65.10	1.914					
9,000.0	8,942.7	8,986.5	8,952.3	35.1	33.5	-119.39	-151.1	-797.3	122.7	56.9	65.76	1.866					
9,100.0	9,042.3	9,085.5	9,050.9	35.4	33.9	-120.24	-154.0	-806.0	120.3	53.9	66.45	1.811					
9,200.0	9,141.9	9,186.3	9,151.3	35.8	34.3	-121.46	-156.5	-814.2	118.5	51.3	67.11	1.765					
9,300.0	9,241.4	9,285.0	9,249.7	36.2	34.7	-123.34	-157.7	-821.8	116.5	48.8	67.71	1.721					
9,400.0	9,341.0	9,386.3	9,350.8	36.6	35.1	-125.24	-159.1	-829.6	114.8	46.5	68.34	1.680					

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 usft
Survey Program: 220-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					
9,500.0	9,440.6	9,484.8	9,448.9	36.9	35.4	-126.48	-161.7	-837.6	113.2	44.2	68.99	1.641					
9,600.0	9,540.2	9,586.7	9,550.4	37.3	35.8	-128.05	-163.8	-846.2	111.2	41.6	69.64	1.597					
9,700.0	9,639.8	9,685.7	9,649.0	37.7	36.2	-129.99	-165.2	-854.5	109.2	38.9	70.25	1.554					
9,800.0	9,739.3	9,786.3	9,749.2	38.1	36.6	-131.82	-166.9	-863.1	107.2	36.3	70.88	1.512					
9,900.0	9,838.9	9,886.2	9,848.7	38.4	37.0	-133.16	-169.6	-872.1	105.0	33.5	71.54	1.468	Level 3				
10,000.0	9,938.5	9,985.8	9,947.9	38.8	37.4	-134.41	-172.5	-881.0	102.9	30.7	72.21	1.425	Level 3				
10,100.0	10,038.1	10,085.6	10,047.3	39.2	37.8	-135.75	-175.5	-889.3	101.6	28.7	72.87	1.394	Level 3				
10,200.0	10,137.7	10,185.8	10,147.0	39.6	38.2	-136.99	-178.6	-898.2	99.7	26.2	73.54	1.356	Level 3				
10,300.0	10,237.2	10,286.0	10,246.8	39.9	38.5	-138.41	-181.6	-906.8	98.3	24.1	74.20	1.325	Level 3				
10,400.0	10,336.8	10,385.5	10,345.9	40.3	38.9	-139.93	-184.4	-915.9	96.3	21.4	74.86	1.286	Level 3				
10,500.0	10,436.4	10,484.9	10,444.9	40.7	39.3	-141.64	-187.0	-923.8	95.5	20.0	75.51	1.264	Level 3				
10,600.0	10,536.0	10,585.9	10,545.6	41.1	39.7	-143.74	-189.1	-932.2	94.4	18.3	76.16	1.240	Level 2				
10,700.0	10,635.6	10,686.4	10,645.5	41.4	40.1	-145.56	-191.7	-941.7	92.4	15.5	76.82	1.202	Level 2				
10,759.5	10,694.8	10,745.5	10,704.4	41.7	40.3	-146.63	-193.3	-947.3	91.1	13.9	77.22	1.180	Level 2				
10,800.0	10,735.2	10,785.6	10,744.3	41.8	40.5	-147.06	-194.6	-950.9	90.2	12.7	77.50	1.164	Level 2				
10,900.0	10,835.1	10,883.2	10,841.5	42.2	40.9	-146.53	-198.3	-958.3	86.3	8.1	78.21	1.103	Level 2				
10,941.9	10,877.0	10,924.6	10,882.8	42.3	41.0	87.30	-200.0	-960.7	84.2	5.6	78.53	1.072	Level 2				
10,950.0	10,885.1	10,932.6	10,890.8	42.3	41.0	88.05	-200.3	-961.1	83.7	5.1	78.59	1.065	Level 2				
11,000.0	10,935.0	10,982.0	10,940.1	42.5	41.2	91.64	-202.2	-963.8	81.0	1.9	79.06	1.024	Level 2				
11,050.0	10,984.4	11,030.2	10,988.2	42.6	41.4	98.06	-203.9	-966.0	79.4	-0.3	79.70	0.996	Level 1				
11,058.2	10,992.4	11,038.0	10,996.0	42.7	41.4	99.33	-204.2	-966.3	79.3	-0.5	79.83	0.994	Level 1, ES, SF				
11,100.0	11,033.1	11,077.7	11,035.7	42.8	41.6	106.56	-205.0	-967.5	80.5	-0.1	80.60	0.999	Level 1				
11,150.0	11,080.5	11,124.7	11,082.7	42.9	41.7	116.31	-205.7	-968.6	85.7	3.9	81.79	1.048	Level 2				
11,200.0	11,126.4	11,170.3	11,128.2	43.0	41.9	126.02	-206.3	-969.6	96.1	13.1	83.01	1.158	Level 2				
11,250.0	11,170.4	11,213.9	11,171.9	43.1	42.0	134.43	-206.8	-970.4	112.3	28.2	84.02	1.336	Level 3				
11,300.0	11,212.2	11,255.6	11,213.5	43.2	42.2	141.05	-207.1	-971.0	134.0	49.3	84.75	1.582					
11,350.0	11,251.4	11,294.5	11,252.5	43.3	42.3	145.91	-207.2	-971.3	160.8	75.5	85.24	1.886					
11,400.0	11,287.8	11,330.3	11,288.2	43.4	42.4	149.34	-207.3	-971.4	192.0	106.4	85.58	2.244					
11,450.0	11,321.0	11,362.8	11,320.8	43.4	42.5	151.58	-207.5	-971.5	227.1	141.3	85.82	2.646					
11,500.0	11,350.9	11,391.3	11,349.2	43.5	42.6	152.68	-207.8	-971.6	265.6	179.6	85.98	3.089					
11,550.0	11,377.2	11,416.4	11,374.3	43.5	42.7	152.81	-208.1	-971.6	307.0	220.9	86.11	3.566					
11,600.0	11,399.6	11,438.3	11,396.2	43.6	42.8	151.88	-208.3	-971.6	350.9	264.6	86.20	4.070					
11,650.0	11,418.1	11,456.2	11,414.1	43.6	42.8	149.39	-208.6	-971.5	396.6	310.4	86.27	4.597					
11,700.0	11,432.5	11,469.9	11,427.8	43.6	42.9	144.38	-208.7	-971.5	444.0	357.6	86.32	5.143					
11,750.0	11,442.6	11,468.0	11,425.9	43.7	42.9	129.56	-208.7	-971.5	492.6	406.3	86.25	5.711					
11,800.0	11,448.4	11,468.0	11,425.9	43.8	42.9	102.19	-208.7	-971.5	541.9	455.7	86.22	6.285					
11,841.9	11,450.0	11,468.0	11,425.9	43.8	42.9	71.07	-208.7	-971.5	583.5	497.3	86.21	6.768					
11,900.0	11,450.0	11,468.0	11,425.9	43.9	42.9	71.07	-208.7	-971.5	641.1	554.9	86.21	7.436					
12,000.0	11,450.0	11,468.0	11,425.9	44.2	42.9	71.07	-208.7	-971.5	740.4	654.2	86.20	8.589					
12,100.0	11,450.0	11,468.0	11,425.9	44.5	42.9	71.07	-208.7	-971.5	840.0	753.8	86.20	9.744					
12,200.0	11,450.0	11,468.0	11,425.9	44.9	42.9	71.07	-208.7	-971.5	939.6	853.4	86.20	10.900					
12,300.0	11,450.0	11,468.0	11,425.9	45.4	42.9	71.07	-208.7	-971.5	1,039.3	953.1	86.20	12.057					
12,400.0	11,450.0	11,468.0	11,425.9	45.9	42.9	71.07	-208.7	-971.5	1,139.0	1,052.8	86.20	13.214					
12,500.0	11,450.0	11,468.0	11,425.9	46.5	42.9	71.07	-208.7	-971.5	1,238.8	1,152.6	86.20	14.371					
12,600.0	11,450.0	11,468.0	11,425.9	47.2	42.9	71.07	-208.7	-971.5	1,338.6	1,252.4	86.21	15.528					
12,700.0	11,450.0	11,468.0	11,425.9	47.9	42.9	71.07	-208.7	-971.5	1,438.5	1,352.3	86.21	16.685					
12,800.0	11,450.0	11,473.5	11,431.4	48.7	42.9	74.99	-208.8	-971.5	1,538.3	1,452.1	86.24	17.838					
12,900.0	11,450.0	11,472.2	11,430.1	49.5	42.9	74.06	-208.8	-971.5	1,638.2	1,552.0	86.24	18.995					
13,000.0	11,450.0	11,470.9	11,428.8	50.3	42.9	73.14	-208.8	-971.5	1,738.1	1,651.9	86.25	20.152					
13,100.0	11,450.0	11,469.6	11,427.6	51.2	42.9	72.23	-208.7	-971.5	1,838.0	1,751.8	86.26	21.309					
13,200.0	11,450.0	11,468.4	11,426.3	52.2	42.9	71.33	-208.7	-971.5	1,937.9	1,851.7	86.27	22.465					

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1		Offset Site Error: 0.0 usft	
Survey Program: 220-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				
13,300.0	11,450.0	11,467.1	11,425.0	53.1	42.9	70.44	-208.7	-971.5	2,037.9	1,951.6	86.28	23.620				
13,400.0	11,450.0	11,465.8	11,423.7	54.1	42.9	69.56	-208.7	-971.5	2,137.8	2,051.5	86.29	24.775				
13,500.0	11,450.0	11,464.6	11,422.5	55.1	42.9	68.69	-208.7	-971.5	2,237.7	2,151.4	86.30	25.929				
13,600.0	11,450.0	11,463.3	11,421.2	56.2	42.9	67.83	-208.7	-971.5	2,337.7	2,251.3	86.32	27.082				
13,700.0	11,450.0	11,462.0	11,419.9	57.3	42.9	66.98	-208.6	-971.5	2,437.6	2,351.3	86.33	28.235				
13,800.0	11,450.0	11,460.8	11,418.7	58.4	42.9	66.14	-208.6	-971.5	2,537.6	2,451.2	86.35	29.387				
13,900.0	11,450.0	11,459.5	11,417.4	59.5	42.9	65.31	-208.6	-971.5	2,637.5	2,551.1	86.37	30.537				
14,000.0	11,450.0	11,458.2	11,416.1	60.7	42.9	64.50	-208.6	-971.5	2,737.5	2,651.1	86.39	31.688				
14,100.0	11,450.0	11,456.9	11,414.9	61.9	42.8	63.69	-208.6	-971.5	2,837.4	2,751.0	86.41	32.837				
14,200.0	11,450.0	11,455.7	11,413.6	63.1	42.8	62.89	-208.6	-971.5	2,937.4	2,851.0	86.43	33.985				
14,300.0	11,450.0	11,454.4	11,412.3	64.3	42.8	62.11	-208.5	-971.5	3,037.3	2,950.9	86.45	35.132				
14,400.0	11,450.0	11,453.1	11,411.0	65.5	42.8	61.33	-208.5	-971.5	3,137.3	3,050.8	86.48	36.278				
14,500.0	11,450.0	11,451.9	11,409.8	66.8	42.8	60.57	-208.5	-971.5	3,237.3	3,150.8	86.50	37.423				
14,600.0	11,450.0	11,450.6	11,408.5	68.1	42.8	59.82	-208.5	-971.5	3,337.2	3,250.7	86.53	38.567				
14,700.0	11,450.0	11,449.3	11,407.2	69.4	42.8	59.08	-208.5	-971.5	3,437.2	3,350.7	86.56	39.710				
14,800.0	11,450.0	11,448.0	11,406.0	70.7	42.8	58.35	-208.5	-971.5	3,537.2	3,450.6	86.59	40.852				
14,900.0	11,450.0	11,446.8	11,404.7	72.0	42.8	57.64	-208.5	-971.5	3,637.2	3,550.5	86.62	41.992				
15,000.0	11,450.0	11,445.5	11,403.4	73.4	42.8	56.93	-208.4	-971.5	3,737.1	3,650.5	86.65	43.131				
15,100.0	11,450.0	11,444.2	11,402.1	74.7	42.8	56.23	-208.4	-971.6	3,837.1	3,750.4	86.68	44.269				
15,200.0	11,450.0	11,443.0	11,400.9	76.1	42.8	55.55	-208.4	-971.6	3,937.1	3,850.4	86.71	45.405				
15,300.0	11,450.0	11,441.7	11,399.6	77.4	42.8	54.88	-208.4	-971.6	4,037.0	3,950.3	86.74	46.540				
15,400.0	11,450.0	11,440.4	11,398.3	78.8	42.8	54.22	-208.4	-971.6	4,137.0	4,050.2	86.78	47.674				
15,500.0	11,450.0	11,439.2	11,397.1	80.2	42.8	53.56	-208.4	-971.6	4,237.0	4,150.2	86.81	48.806				
15,600.0	11,450.0	11,437.9	11,395.8	81.6	42.8	52.92	-208.3	-971.6	4,337.0	4,250.1	86.85	49.937				
15,700.0	11,450.0	11,436.6	11,394.5	83.0	42.8	52.29	-208.3	-971.6	4,437.0	4,350.1	86.89	51.066				
15,800.0	11,450.0	11,435.3	11,393.3	84.5	42.8	51.67	-208.3	-971.6	4,536.9	4,450.0	86.92	52.194				
15,900.0	11,450.0	11,434.1	11,392.0	85.9	42.8	51.07	-208.3	-971.6	4,636.9	4,549.9	86.96	53.320				
16,000.0	11,450.0	11,432.8	11,390.7	87.3	42.8	50.47	-208.3	-971.6	4,736.9	4,649.9	87.00	54.444				
16,100.0	11,450.0	11,431.5	11,389.4	88.8	42.8	49.88	-208.3	-971.6	4,836.9	4,749.8	87.05	55.567				
16,200.0	11,450.0	11,430.3	11,388.2	90.2	42.8	49.30	-208.2	-971.6	4,936.9	4,849.8	87.09	56.688				
16,300.0	11,450.0	11,429.0	11,386.9	91.7	42.8	48.73	-208.2	-971.6	5,036.8	4,949.7	87.13	57.808				
16,400.0	11,450.0	11,427.7	11,385.6	93.2	42.8	48.17	-208.2	-971.6	5,136.8	5,049.6	87.17	58.925				
16,500.0	11,450.0	11,426.4	11,384.4	94.6	42.8	47.62	-208.2	-971.6	5,236.8	5,149.6	87.22	60.041				
16,600.0	11,450.0	11,425.2	11,383.1	96.1	42.7	47.08	-208.2	-971.6	5,336.8	5,249.5	87.27	61.156				
16,700.0	11,450.0	11,423.9	11,381.8	97.6	42.7	46.55	-208.2	-971.6	5,436.8	5,349.5	87.31	62.268				
16,800.0	11,450.0	11,422.6	11,380.5	99.1	42.7	46.03	-208.1	-971.6	5,536.7	5,449.4	87.36	63.378				
16,900.0	11,450.0	11,421.4	11,379.3	100.6	42.7	45.52	-208.1	-971.6	5,636.7	5,549.3	87.41	64.487				
17,000.0	11,450.0	11,420.1	11,378.0	102.1	42.7	45.01	-208.1	-971.6	5,736.7	5,649.3	87.46	65.594				
17,100.0	11,450.0	11,418.8	11,376.7	103.6	42.7	44.52	-208.1	-971.6	5,836.7	5,749.2	87.51	66.698				
17,200.0	11,450.0	11,417.6	11,375.5	105.1	42.7	44.03	-208.1	-971.6	5,936.7	5,849.1	87.56	67.801				
17,300.0	11,450.0	11,416.3	11,374.2	106.6	42.7	43.55	-208.1	-971.6	6,036.7	5,949.1	87.61	68.902				
17,400.0	11,450.0	11,415.0	11,372.9	108.1	42.7	43.08	-208.0	-971.6	6,136.7	6,049.0	87.67	70.000				
17,500.0	11,450.0	11,413.7	11,371.7	109.6	42.7	42.62	-208.0	-971.6	6,236.6	6,148.9	87.72	71.097				
17,600.0	11,450.0	11,412.5	11,370.4	111.2	42.7	42.17	-208.0	-971.6	6,336.6	6,248.8	87.78	72.192				
17,700.0	11,450.0	11,411.2	11,369.1	112.7	42.7	41.72	-208.0	-971.6	6,436.6	6,348.8	87.83	73.284				
17,800.0	11,450.0	11,409.9	11,367.8	114.2	42.7	41.28	-208.0	-971.6	6,536.6	6,448.7	87.89	74.374				
17,900.0	11,450.0	11,408.7	11,366.6	115.8	42.7	40.85	-208.0	-971.6	6,636.6	6,548.6	87.95	75.463				
18,000.0	11,450.0	11,407.4	11,365.3	117.3	42.7	40.43	-208.0	-971.6	6,736.6	6,648.6	88.00	76.549				
18,100.0	11,450.0	11,406.1	11,364.0	118.9	42.7	40.01	-207.9	-971.6	6,836.6	6,748.5	88.06	77.632				
18,200.0	11,450.0	11,404.8	11,362.8	120.4	42.7	39.60	-207.9	-971.6	6,936.5	6,848.4	88.12	78.714				

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 usft
Survey Program: 220-MWD															Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
18,300.0	11,450.0	11,404.4	11,361.5	121.9	42.7	39.20	-207.9	-971.6	7,036.5	6,948.3	88.19	79.791					
18,400.0	11,450.0	11,405.7	11,360.2	123.5	42.7	38.81	-207.9	-971.6	7,136.5	7,048.3	88.26	80.860					
18,500.0	11,450.0	11,407.0	11,358.9	125.1	42.7	38.42	-207.9	-971.6	7,236.5	7,148.2	88.33	81.927					
18,600.0	11,450.0	11,408.2	11,357.7	126.6	42.7	38.03	-207.9	-971.6	7,336.5	7,248.1	88.40	82.992					
18,700.0	11,450.0	11,409.5	11,356.4	128.2	42.7	37.66	-207.8	-971.6	7,436.5	7,348.0	88.47	84.054					
18,800.0	11,450.0	11,404.0	11,361.9	129.7	42.7	39.33	-207.9	-971.6	7,536.5	7,447.9	88.52	85.138					
18,900.0	11,450.0	11,404.0	11,361.9	131.3	42.7	39.33	-207.9	-971.6	7,636.4	7,547.9	88.59	86.200					
19,000.0	11,450.0	11,404.0	11,361.9	132.9	42.7	39.33	-207.9	-971.6	7,736.4	7,647.8	88.66	87.259					
19,100.0	11,450.0	11,404.0	11,361.9	134.4	42.7	39.33	-207.9	-971.6	7,836.4	7,747.7	88.73	88.316					
19,200.0	11,450.0	11,404.0	11,361.9	136.0	42.7	39.33	-207.9	-971.6	7,936.4	7,847.6	88.80	89.370					
19,300.0	11,450.0	11,404.0	11,361.9	137.6	42.7	39.33	-207.9	-971.6	8,036.4	7,947.5	88.88	90.422					
19,400.0	11,450.0	11,404.0	11,361.9	139.1	42.7	39.33	-207.9	-971.6	8,136.4	8,047.4	88.95	91.472					
19,500.0	11,450.0	11,404.0	11,361.9	140.7	42.7	39.33	-207.9	-971.6	8,236.4	8,147.4	89.02	92.518					
19,600.0	11,450.0	11,404.0	11,361.9	142.3	42.7	39.33	-207.9	-971.6	8,336.4	8,247.3	89.10	93.562					
19,700.0	11,450.0	11,404.0	11,361.9	143.9	42.7	39.33	-207.9	-971.6	8,436.4	8,347.2	89.18	94.604					
19,800.0	11,450.0	11,404.0	11,361.9	145.5	42.7	39.33	-207.9	-971.6	8,536.4	8,447.1	89.25	95.643					
19,900.0	11,450.0	11,394.9	11,352.8	147.1	42.6	36.64	-207.8	-971.6	8,636.3	8,547.0	89.31	96.705					
20,000.0	11,450.0	11,394.4	11,352.4	148.6	42.6	36.50	-207.8	-971.6	8,736.3	8,646.9	89.38	97.740					
20,100.0	11,450.0	11,394.0	11,351.9	150.2	42.6	36.37	-207.8	-971.6	8,836.3	8,746.9	89.46	98.773					
20,200.0	11,450.0	11,393.5	11,351.4	151.8	42.6	36.23	-207.8	-971.6	8,936.3	8,846.8	89.54	99.803					
20,300.0	11,450.0	11,393.0	11,350.9	153.4	42.6	36.10	-207.8	-971.6	9,036.3	8,946.7	89.62	100.830					
20,400.0	11,450.0	11,392.5	11,350.4	155.0	42.6	35.98	-207.8	-971.6	9,136.3	9,046.6	89.70	101.855					
20,500.0	11,450.0	11,392.1	11,350.0	156.6	42.6	35.85	-207.8	-971.6	9,236.3	9,146.5	89.78	102.876					
20,600.0	11,450.0	11,391.6	11,349.5	158.2	42.6	35.73	-207.8	-971.6	9,336.3	9,246.4	89.86	103.896					
20,700.0	11,450.0	11,391.2	11,349.1	159.8	42.6	35.61	-207.8	-971.6	9,436.3	9,346.3	89.94	104.912					
20,800.0	11,450.0	11,390.7	11,348.6	161.4	42.6	35.49	-207.8	-971.6	9,536.3	9,446.2	90.03	105.925					
20,900.0	11,450.0	11,390.3	11,348.2	163.0	42.6	35.37	-207.7	-971.6	9,636.2	9,546.1	90.11	106.936					
21,000.0	11,450.0	11,389.8	11,347.7	164.6	42.6	35.26	-207.7	-971.6	9,736.2	9,646.0	90.20	107.944					
21,100.0	11,450.0	11,389.4	11,347.3	166.2	42.6	35.15	-207.7	-971.6	9,836.2	9,745.9	90.28	108.949					
21,200.0	11,450.0	11,389.0	11,346.9	167.8	42.6	35.04	-207.7	-971.6	9,936.2	9,845.9	90.37	109.951					

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 220-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	1.0	1.0	0.0	0.0	-75.32	28.8	-110.1	113.8					
100.0	100.0	101.9	101.9	0.1	0.2	-75.46	28.5	-109.8	113.4	113.1	0.29	384.632		
200.0	200.0	202.9	202.8	0.5	0.3	-75.86	27.4	-108.8	112.2	111.4	0.81	138.507		
300.0	300.0	303.1	303.1	0.8	0.6	-76.44	25.9	-107.3	110.4	108.9	1.49	73.966		
400.0	400.0	403.0	402.9	1.2	1.0	-76.96	24.5	-105.7	108.6	106.3	2.21	49.165		
500.0	500.0	502.7	502.6	1.6	1.4	-77.38	23.3	-104.3	106.9	104.0	2.92	36.562		
600.0	600.0	602.0	601.9	1.9	1.7	-77.66	22.6	-103.2	105.7	102.0	3.64	29.057		
700.0	700.0	701.2	701.1	2.3	2.1	-77.83	22.2	-102.9	105.3	100.9	4.35	24.218		
728.5	728.5	729.6	729.5	2.4	2.2	-77.85	22.2	-102.9	105.2	100.7	4.54	23.155		
800.0	800.0	800.8	800.7	2.6	2.4	-77.84	22.2	-103.0	105.3	100.3	5.04	20.899		
900.0	900.0	900.5	900.4	3.0	2.7	-77.75	22.4	-103.4	105.8	100.0	5.73	18.458		
1,000.0	1,000.0	1,000.8	1,000.8	3.4	3.1	-77.69	22.7	-103.9	106.3	99.9	6.43	16.532		
1,100.0	1,100.0	1,101.6	1,101.5	3.7	3.4	14.38	22.9	-103.7	105.4	98.2	7.13	14.781		
1,200.0	1,200.0	1,201.9	1,201.9	4.0	3.8	15.08	23.3	-102.8	102.1	94.3	7.82	13.055		
1,300.0	1,299.9	1,302.7	1,302.6	4.4	4.1	16.33	24.0	-101.5	96.8	88.2	8.52	11.359		
1,400.0	1,399.7	1,404.2	1,404.1	4.7	4.5	18.05	24.1	-98.6	88.2	79.0	9.22	9.567		
1,500.0	1,499.4	1,505.4	1,505.1	5.1	4.9	20.73	23.6	-93.4	75.8	65.9	9.92	7.637		
1,600.0	1,598.9	1,605.2	1,604.7	5.5	5.2	25.16	22.4	-86.2	59.8	49.2	10.62	5.632		
1,700.0	1,698.3	1,703.5	1,702.6	5.8	5.6	32.66	19.7	-78.6	41.8	30.5	11.33	3.690		
1,744.2	1,742.1	1,746.7	1,745.6	6.0	5.7	38.07	18.2	-75.6	33.8	22.2	11.65	2.903		
1,800.0	1,797.4	1,801.1	1,800.0	6.2	5.9	48.76	16.1	-72.5	24.7	12.6	12.07	2.047		
1,900.0	1,896.6	1,899.4	1,898.1	6.6	6.3	92.03	12.6	-68.4	14.7	1.9	12.86	1.145	Level 2	
1,915.1	1,911.6	1,914.3	1,913.0	6.6	6.3	101.54	12.1	-67.9	14.5	1.5	12.98	1.119	Level 2, CC, ES, SF	
2,000.0	1,995.8	1,998.1	1,996.7	7.0	6.6	144.70	9.4	-65.5	19.9	6.4	13.52	1.470	Level 3	
2,100.0	2,094.9	2,096.6	2,095.0	7.4	7.0	167.04	5.4	-62.1	33.2	19.1	14.18	2.345		
2,200.0	2,194.1	2,194.2	2,192.4	7.8	7.4	177.79	0.1	-57.4	50.1	35.2	14.86	3.371		
2,300.0	2,293.2	2,291.9	2,289.7	8.1	7.7	-176.19	-6.1	-51.4	69.0	53.4	15.55	4.434		
2,400.0	2,392.4	2,390.5	2,387.9	8.5	8.1	-172.73	-12.4	-45.5	88.2	71.9	16.27	5.419		
2,500.0	2,491.5	2,489.7	2,486.8	8.9	8.5	-170.91	-17.9	-40.4	106.7	89.7	17.00	6.274		
2,600.0	2,590.7	2,588.0	2,585.0	9.3	8.8	-169.94	-22.6	-35.7	124.8	107.1	17.72	7.043		
2,700.0	2,689.9	2,686.8	2,683.5	9.7	9.2	-169.37	-26.9	-31.1	142.7	124.3	18.44	7.742		
2,800.0	2,789.0	2,785.3	2,781.9	10.1	9.5	-168.96	-31.1	-26.7	160.4	141.2	19.16	8.373		
2,900.0	2,888.2	2,882.3	2,878.6	10.5	9.9	-168.42	-35.9	-22.2	178.5	158.7	19.86	8.989		
3,000.0	2,987.3	2,978.6	2,974.6	10.9	10.3	-167.86	-41.3	-16.8	197.6	177.0	20.56	9.611		
3,100.0	3,086.5	3,075.3	3,071.0	11.4	10.6	-167.54	-46.3	-10.5	217.5	196.2	21.26	10.230		
3,200.0	3,185.6	3,174.5	3,169.9	11.8	11.0	-167.56	-50.3	-3.7	237.6	215.6	21.99	10.803		
3,300.0	3,284.8	3,274.5	3,269.7	12.2	11.4	-168.06	-52.1	2.6	256.6	233.9	22.73	11.293		
3,400.0	3,384.0	3,369.2	3,364.1	12.6	11.7	-168.83	-52.1	9.0	275.9	252.5	23.40	11.792		
3,500.0	3,483.1	3,460.7	3,455.2	13.0	12.1	-169.78	-50.9	17.2	297.2	273.2	24.02	12.372		
3,600.0	3,582.3	3,554.9	3,548.8	13.4	12.4	-170.75	-49.2	27.4	320.3	295.6	24.68	12.977		
3,700.0	3,681.4	3,655.1	3,648.5	13.8	12.8	-171.36	-49.1	38.0	343.5	318.0	25.42	13.510		
3,800.0	3,780.6	3,757.2	3,750.2	14.2	13.2	-171.58	-50.8	47.2	365.3	339.1	26.19	13.948		
3,900.0	3,879.7	3,858.2	3,850.8	14.6	13.5	-171.56	-53.8	55.2	386.1	359.2	26.94	14.334		
4,000.0	3,978.9	3,960.4	3,952.8	15.0	13.9	-171.58	-56.4	62.3	406.1	378.4	27.70	14.663		
4,100.0	4,078.1	4,062.3	4,054.4	15.4	14.3	-171.72	-58.1	68.5	425.1	396.6	28.45	14.943		
4,200.0	4,177.2	4,164.0	4,156.0	15.8	14.7	-171.76	-60.3	73.8	443.2	414.0	29.19	15.183		
4,300.0	4,276.4	4,263.4	4,255.3	16.2	15.1	-171.81	-62.2	78.5	460.9	431.0	29.92	15.404		
4,400.0	4,375.5	4,364.5	4,356.3	16.7	15.4	-172.01	-62.9	83.0	478.2	447.5	30.66	15.598		
4,500.0	4,474.7	4,460.5	4,452.2	17.1	15.8	-172.25	-63.1	87.4	495.5	464.2	31.35	15.805		
4,600.0	4,573.9	4,562.4	4,554.0	17.5	16.1	-172.44	-63.6	91.8	512.7	480.6	32.09	15.976		
4,700.0	4,673.0	4,664.9	4,656.4	17.9	16.5	-172.47	-65.5	95.4	529.2	496.3	32.84	16.114		

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 usft
Survey Program: 220-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					
4,800.0	4,772.2	4,765.3	4,756.7	18.3	16.9	-172.33	-68.8	98.3	545.2	511.6	33.57	16.238					
4,900.0	4,871.3	4,865.1	4,856.4	18.7	17.2	-172.17	-72.3	100.9	560.9	526.6	34.30	16.351					
5,000.0	4,970.5	4,964.4	4,955.5	19.1	17.6	-172.03	-75.8	103.3	576.5	541.4	35.03	16.457					
5,100.0	5,069.6	5,062.9	5,054.0	19.5	17.9	-171.90	-79.1	105.7	592.1	556.3	35.75	16.562					
5,200.0	5,168.8	5,161.9	5,152.9	19.9	18.3	-171.79	-82.4	108.1	607.7	571.2	36.47	16.661					
5,300.0	5,268.0	5,261.4	5,252.3	20.4	18.7	-171.68	-85.7	110.5	623.2	586.0	37.20	16.753					
5,400.0	5,367.1	5,362.0	5,352.8	20.8	19.0	-171.58	-89.0	112.7	638.5	600.6	37.93	16.834					
5,500.0	5,466.3	5,459.6	5,450.4	21.2	19.4	-171.50	-91.9	114.7	653.7	615.1	38.65	16.916					
5,600.0	5,565.4	5,561.0	5,551.7	21.6	19.7	-171.43	-95.0	116.8	668.9	629.5	39.39	16.984					
5,700.0	5,664.6	5,658.8	5,649.5	22.0	20.1	-171.36	-97.9	118.7	684.0	643.9	40.10	17.056					
5,800.0	5,763.7	5,758.3	5,748.9	22.4	20.5	-171.29	-101.0	120.7	699.1	658.3	40.83	17.123					
5,900.0	5,862.9	5,857.0	5,847.5	22.8	20.8	-171.21	-104.1	122.4	714.0	672.5	41.55	17.184					
6,000.0	5,962.1	5,943.0	5,933.4	23.2	21.1	-171.19	-106.4	124.9	730.0	687.8	42.18	17.305					
6,100.0	6,061.2	6,033.7	6,024.1	23.7	21.5	-171.19	-108.7	128.8	747.4	704.5	42.84	17.443					
6,200.0	6,160.4	6,134.2	6,124.4	24.1	21.8	-171.19	-111.2	133.5	765.1	721.5	43.58	17.554					
6,300.0	6,259.5	6,232.2	6,222.3	24.5	22.2	-171.19	-113.7	138.1	782.7	738.4	44.30	17.667					
6,400.0	6,358.7	6,331.7	6,321.6	24.9	22.5	-171.20	-116.2	142.6	800.2	755.2	45.03	17.770					
6,500.0	6,457.8	6,429.2	6,419.0	25.3	22.9	-171.20	-118.6	147.1	817.8	772.1	45.75	17.878					
6,600.0	6,557.0	6,531.3	6,520.9	25.7	23.3	-171.25	-120.5	151.6	835.2	788.7	46.49	17.964					
6,700.0	6,656.2	6,631.8	6,621.3	26.1	23.6	-171.31	-122.1	155.8	852.3	805.1	47.23	18.046					
6,800.0	6,755.3	6,731.9	6,721.4	26.5	24.0	-171.37	-123.7	159.7	869.2	821.2	47.96	18.123					
6,900.0	6,854.5	6,831.4	6,820.8	27.0	24.4	-171.42	-125.3	163.5	885.9	837.2	48.69	18.195					
7,000.0	6,953.6	6,931.9	6,921.2	27.4	24.7	-171.48	-126.7	167.2	902.5	853.1	49.42	18.262					
7,100.0	7,052.8	7,033.0	7,022.3	27.8	25.1	-171.54	-128.2	170.7	918.8	868.7	50.16	18.318					
7,200.0	7,152.0	7,133.9	7,123.1	28.2	25.5	-171.59	-129.6	173.9	934.9	884.0	50.90	18.369					
7,300.0	7,251.1	7,234.3	7,223.4	28.6	25.8	-171.63	-131.3	176.8	950.8	899.2	51.63	18.416					
7,400.0	7,350.3	7,333.1	7,322.2	29.0	26.2	-171.67	-132.7	179.6	966.6	914.2	52.35	18.463					
7,500.0	7,449.4	7,436.1	7,425.1	29.4	26.6	-171.70	-134.5	182.4	982.2	929.1	53.10	18.497					
7,551.0	7,500.0	7,486.9	7,475.9	29.7	26.7	-171.71	-135.4	183.5	990.0	936.6	53.47	18.514					
7,600.0	7,548.6	7,535.3	7,524.3	29.8	26.9	-160.70	-136.2	184.7	997.0	943.1	53.83	18.522					
7,674.8	7,623.1	7,609.2	7,598.2	30.1	27.2	-136.51	-137.5	186.4	1,005.2	950.9	54.36	18.492					
7,700.0	7,648.2	7,634.2	7,623.1	30.2	27.3	-136.57	-138.0	187.0	1,007.6	953.0	54.54	18.473					
7,800.0	7,747.7	7,738.6	7,727.5	30.6	27.7	-136.83	-140.2	189.3	1,016.6	961.3	55.29	18.386					
7,900.0	7,847.3	7,835.9	7,824.8	31.0	28.0	-137.07	-142.2	191.3	1,025.6	969.6	55.99	18.316					
8,000.0	7,946.9	7,939.2	7,928.0	31.3	28.4	-137.32	-144.5	193.2	1,034.3	977.6	56.73	18.231					
8,100.0	8,046.5	8,037.8	8,026.6	31.7	28.7	-137.55	-146.7	195.0	1,043.1	985.7	57.45	18.158					
8,200.0	8,146.1	8,137.7	8,126.4	32.1	29.1	-137.76	-149.1	196.6	1,051.7	993.6	58.17	18.082					
8,300.0	8,245.6	8,234.0	8,222.6	32.4	29.4	-137.97	-151.4	198.6	1,060.8	1,001.9	58.86	18.020					
8,400.0	8,345.2	8,330.5	8,319.2	32.8	29.8	-138.21	-152.9	200.6	1,069.8	1,010.3	59.56	17.962					
8,500.0	8,444.8	8,424.1	8,412.7	33.2	30.1	-138.53	-153.0	203.4	1,079.6	1,019.4	60.24	17.923					
8,600.0	8,544.4	8,526.2	8,514.8	33.6	30.5	-138.88	-152.7	206.4	1,089.5	1,028.5	60.96	17.870					
8,700.0	8,644.0	8,629.6	8,618.1	33.9	30.8	-139.23	-152.4	209.2	1,099.0	1,037.3	61.70	17.812					
8,800.0	8,743.5	8,732.5	8,720.9	34.3	31.2	-139.58	-152.1	211.5	1,108.2	1,045.8	62.43	17.751					
8,900.0	8,843.1	8,839.6	8,828.1	34.7	31.6	-139.88	-152.5	213.5	1,117.1	1,053.9	63.19	17.677					
9,000.0	8,942.7	8,945.2	8,933.7	35.1	32.0	-140.12	-154.1	214.6	1,125.2	1,061.3	63.95	17.597					
9,100.0	9,042.3	9,038.6	9,027.0	35.4	32.3	-140.29	-156.4	215.6	1,133.4	1,068.8	64.63	17.538					
9,200.0	9,141.9	9,120.0	9,108.3	35.8	32.6	-140.40	-159.1	217.2	1,142.7	1,077.4	65.23	17.517					
9,300.0	9,241.4	9,213.4	9,201.7	36.2	32.9	-140.49	-162.8	220.3	1,153.1	1,087.2	65.91	17.495					
9,400.0	9,341.0	9,304.2	9,292.3	36.6	33.3	-140.56	-166.8	223.6	1,164.1	1,097.5	66.57	17.485					
9,500.0	9,440.6	9,394.8	9,382.7	36.9	33.6	-140.64	-170.6	227.7	1,175.8	1,108.6	67.23	17.489					

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft	
Survey Program:		220-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			
9,600.0	9,540.2	9,489.7	9,477.5	37.3	34.0	-140.77	-173.6	232.6	1,188.1	1,120.2	67.92	17.493			
9,700.0	9,639.8	9,592.7	9,580.3	37.7	34.3	-140.95	-176.1	237.9	1,200.5	1,131.8	68.67	17.481			
9,800.0	9,739.3	9,697.6	9,685.1	38.1	34.7	-141.14	-178.3	242.9	1,212.4	1,143.0	69.44	17.460			
9,900.0	9,838.9	9,798.8	9,786.1	38.4	35.1	-141.29	-180.9	247.3	1,224.0	1,153.8	70.17	17.442			
10,000.0	9,938.5	9,905.3	9,892.4	38.8	35.5	-141.46	-183.6	251.7	1,235.3	1,164.3	70.95	17.411			
10,100.0	10,038.1	9,997.9	9,985.0	39.2	35.8	-141.63	-185.4	255.4	1,246.6	1,174.9	71.62	17.405			
10,200.0	10,137.7	10,099.2	10,086.1	39.6	36.2	-141.82	-186.9	259.8	1,258.1	1,185.7	72.36	17.387			
10,300.0	10,237.2	10,207.8	10,194.7	39.9	36.6	-142.04	-188.4	263.8	1,269.0	1,195.8	73.14	17.350			
10,400.0	10,336.8	10,307.7	10,294.5	40.3	37.0	-142.23	-189.8	267.2	1,279.6	1,205.7	73.87	17.323			
10,500.0	10,436.4	10,406.0	10,392.8	40.7	37.3	-142.43	-191.0	270.5	1,290.3	1,215.7	74.58	17.301			
10,600.0	10,536.0	10,504.6	10,491.3	41.1	37.7	-142.63	-191.9	274.0	1,301.1	1,225.8	75.29	17.280			
10,700.0	10,635.6	10,601.2	10,587.9	41.4	38.0	-142.81	-193.1	277.4	1,311.9	1,235.9	75.99	17.263			
10,759.5	10,694.8	10,655.6	10,642.2	41.7	38.2	-142.92	-193.6	279.5	1,318.5	1,242.1	76.39	17.261			
10,800.0	10,735.2	10,696.2	10,682.7	41.8	38.4	-143.07	-193.9	281.1	1,322.8	1,246.1	76.68	17.251			
10,900.0	10,835.1	10,801.8	10,788.2	42.2	38.7	-143.27	-195.2	285.3	1,330.4	1,253.0	77.44	17.181			
10,941.9	10,877.0	10,848.5	10,834.9	42.3	38.9	89.66	-196.1	286.9	1,332.2	1,254.4	77.76	17.132			
10,950.0	10,885.1	10,857.5	10,843.9	42.3	38.9	90.10	-196.3	287.2	1,332.5	1,254.6	77.82	17.121			
11,000.0	10,935.0	10,909.4	10,895.8	42.5	39.1	90.12	-197.3	288.8	1,334.0	1,255.8	78.18	17.063			
11,050.0	10,984.4	10,960.2	10,946.6	42.6	39.3	90.32	-198.2	290.3	1,335.5	1,257.0	78.53	17.006			
11,100.0	11,033.1	11,008.8	10,995.2	42.8	39.5	90.67	-199.0	291.7	1,337.1	1,258.3	78.86	16.955			
11,150.0	11,080.5	11,058.1	11,044.4	42.9	39.7	91.18	-199.6	293.1	1,338.9	1,259.7	79.20	16.906			
11,200.0	11,126.4	11,107.5	11,093.8	43.0	39.9	91.83	-199.9	294.4	1,340.9	1,261.4	79.53	16.860			
11,250.0	11,170.4	11,187.6	11,173.9	43.1	40.1	93.27	-200.1	295.5	1,343.0	1,263.0	80.03	16.782			
11,300.0	11,212.2	11,248.3	11,234.6	43.2	40.3	94.52	-200.0	294.8	1,344.5	1,264.1	80.38	16.726			
11,350.0	11,251.4	11,293.1	11,279.4	43.3	40.5	95.46	-199.9	294.0	1,346.8	1,266.1	80.66	16.697			
11,400.0	11,287.8	11,334.9	11,321.2	43.4	40.6	96.34	-199.6	293.1	1,350.1	1,269.2	80.92	16.684			
11,450.0	11,321.0	11,373.2	11,359.5	43.4	40.7	97.06	-198.7	292.3	1,354.8	1,273.6	81.17	16.691			
11,500.0	11,350.9	11,403.2	11,389.4	43.5	40.8	97.42	-197.0	291.7	1,360.9	1,279.5	81.37	16.724			
11,550.0	11,377.2	11,436.0	11,422.0	43.5	40.9	97.74	-193.8	291.4	1,368.7	1,287.1	81.58	16.778			
11,600.0	11,399.6	11,496.6	11,481.7	43.6	41.1	98.87	-183.5	291.0	1,377.8	1,296.0	81.83	16.837			
11,650.0	11,418.1	11,545.2	11,528.6	43.6	41.2	99.46	-170.9	290.7	1,388.1	1,306.1	82.01	16.926			
11,700.0	11,432.5	11,587.4	11,568.4	43.6	41.3	99.68	-157.0	291.0	1,399.9	1,317.8	82.14	17.042			
11,750.0	11,442.6	11,624.7	11,602.7	43.7	41.4	99.59	-142.2	291.6	1,413.2	1,331.0	82.24	17.184			
11,800.0	11,448.4	11,653.6	11,628.7	43.8	41.5	99.05	-129.5	292.5	1,428.2	1,345.9	82.30	17.353			
11,841.9	11,450.0	11,688.2	11,659.1	43.8	41.6	98.83	-113.0	293.9	1,442.0	1,359.7	82.31	17.520			
11,900.0	11,450.0	11,916.2	11,840.8	43.9	42.0	106.17	23.2	297.9	1,459.7	1,378.2	81.56	17.899			
12,000.0	11,450.0	12,109.1	11,962.6	44.2	42.4	110.81	172.4	299.0	1,486.1	1,405.2	80.83	18.385			
12,100.0	11,450.0	12,279.4	12,057.3	44.5	43.0	114.27	313.8	296.2	1,510.4	1,430.1	80.28	18.814			
12,200.0	11,450.0	12,710.1	12,140.1	44.9	44.8	116.94	729.0	304.1	1,521.1	1,439.9	81.20	18.732			
12,300.0	11,450.0	12,826.2	12,135.3	45.4	45.4	116.74	845.0	305.7	1,521.2	1,438.9	82.39	18.464			
12,400.0	11,450.0	12,930.2	12,131.4	45.9	46.0	116.59	949.0	306.0	1,520.5	1,436.9	83.59	18.191			
12,500.0	11,450.0	13,030.5	12,128.2	46.5	46.6	116.46	1,049.2	306.0	1,519.8	1,434.9	84.84	17.913			
12,582.0	11,450.0	13,101.3	12,126.1	47.1	47.1	116.38	1,119.9	306.1	1,519.4	1,433.6	85.84	17.701			
12,600.0	11,450.0	13,116.2	12,125.9	47.2	47.2	116.37	1,134.9	306.1	1,519.4	1,433.4	86.05	17.658			
12,700.0	11,450.0	13,232.5	12,124.7	47.9	48.1	116.32	1,251.2	305.7	1,519.4	1,431.8	87.57	17.350			
12,800.0	11,450.0	13,359.1	12,121.2	48.7	49.0	116.22	1,377.7	303.6	1,517.4	1,428.1	89.34	16.984			
12,900.0	11,450.0	13,450.3	12,117.2	49.5	49.8	116.10	1,468.7	302.3	1,514.8	1,423.9	90.87	16.670			
13,000.0	11,450.0	13,517.0	12,115.0	50.3	50.4	116.02	1,535.4	301.9	1,513.7	1,421.6	92.18	16.422			
13,011.2	11,450.0	13,528.4	12,114.7	50.4	50.5	116.01	1,546.9	302.0	1,513.7	1,421.3	92.37	16.387			
13,100.0	11,450.0	13,584.9	12,114.1	51.2	51.0	115.97	1,603.3	302.6	1,514.8	1,421.3	93.52	16.198			
13,200.0	11,450.0	13,672.0	12,114.4	52.2	51.7	115.93	1,690.4	304.8	1,517.8	1,422.7	95.10	15.960			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-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			
13,300.0	11,450.0	13,773.5	12,114.9	53.1	52.7	115.90	1,791.8	307.1	1,520.9	1,424.0	96.92	15.692			
13,400.0	11,450.0	13,863.2	12,115.3	54.1	53.6	115.86	1,881.5	309.5	1,524.2	1,425.5	98.65	15.450			
13,500.0	11,450.0	13,964.1	12,117.3	55.1	54.6	115.87	1,982.4	312.0	1,528.0	1,427.4	100.55	15.196			
13,600.0	11,450.0	14,095.6	12,120.5	56.2	55.9	115.94	2,113.9	313.4	1,530.8	1,427.9	102.90	14.877			
13,700.0	11,450.0	14,214.2	12,121.9	57.3	57.2	115.98	2,232.4	312.7	1,531.4	1,426.3	105.16	14.564			
13,800.0	11,450.0	14,314.2	12,119.1	58.4	58.3	115.86	2,332.4	313.8	1,531.9	1,424.6	107.31	14.275			
13,900.0	11,450.0	14,408.5	12,116.0	59.5	59.4	115.73	2,426.6	314.9	1,532.3	1,422.8	109.44	14.000			
14,000.0	11,450.0	14,498.5	12,115.0	60.7	60.4	115.66	2,516.6	315.8	1,533.4	1,421.9	111.50	13.752			
14,100.0	11,450.0	14,613.1	12,114.0	61.9	61.8	115.60	2,631.2	317.0	1,534.7	1,420.7	113.97	13.465			
14,200.0	11,450.0	14,719.5	12,113.5	63.1	63.1	115.57	2,737.6	316.4	1,534.7	1,418.4	116.33	13.192			
14,300.0	11,450.0	14,952.6	12,116.0	64.3	65.9	115.83	2,970.0	304.2	1,532.2	1,411.9	120.30	12.736			
14,400.0	11,450.0	15,029.1	12,115.7	65.5	66.9	115.92	3,046.2	297.1	1,524.3	1,402.0	122.29	12.465			
14,500.0	11,450.0	15,107.8	12,116.7	66.8	67.9	116.06	3,124.6	290.4	1,517.9	1,393.6	124.28	12.213			
14,600.0	11,450.0	15,164.5	12,119.5	68.1	68.6	116.23	3,181.0	285.7	1,513.5	1,387.6	125.93	12.019			
14,685.7	11,450.0	15,207.0	12,121.4	69.2	69.2	116.32	3,223.4	283.7	1,512.2	1,385.0	127.24	11.884			
14,700.0	11,450.0	15,207.0	12,121.4	69.4	69.2	116.32	3,223.4	283.7	1,512.3	1,384.9	127.35	11.875			
14,800.0	11,450.0	15,264.4	12,122.9	70.7	69.9	116.36	3,280.8	283.5	1,514.2	1,385.2	128.98	11.740			
14,900.0	11,450.0	15,379.5	12,124.5	72.0	71.4	116.33	3,395.8	287.9	1,519.2	1,387.5	131.72	11.533			
15,000.0	11,450.0	15,500.1	12,125.6	73.4	73.0	116.34	3,516.4	288.9	1,521.0	1,386.4	134.56	11.303			
15,100.0	11,450.0	15,564.6	12,124.2	74.7	73.9	116.24	3,580.8	291.1	1,523.7	1,387.2	136.48	11.164			
15,200.0	11,450.0	15,631.3	12,123.0	76.1	74.8	116.13	3,647.4	294.7	1,528.5	1,390.1	138.42	11.042			
15,300.0	11,450.0	15,300.0	12,121.8	77.4	70.3	115.96	3,759.7	301.6	1,534.3	1,398.5	135.76	11.301			
15,400.0	11,450.0	15,863.8	12,119.5	78.8	78.0	115.79	3,879.5	306.7	1,537.9	1,393.4	144.45	10.646			
15,500.0	11,450.0	16,019.1	12,120.0	80.2	80.1	115.77	4,034.8	307.3	1,538.6	1,390.5	148.08	10.390			
15,600.0	11,450.0	16,125.6	12,121.3	81.6	81.6	115.83	4,141.3	306.0	1,538.7	1,388.0	150.76	10.207			
15,700.0	11,450.0	16,240.0	12,121.1	83.0	83.2	115.85	4,255.6	303.1	1,537.0	1,383.4	153.62	10.005			
15,766.9	11,450.0	16,289.3	12,122.1	84.0	83.9	115.91	4,304.8	301.3	1,536.0	1,381.0	155.03	9.908			
15,800.0	11,450.0	16,305.1	12,123.3	84.5	84.1	115.96	4,320.6	300.7	1,536.2	1,380.7	155.54	9.877			
15,900.0	11,450.0	16,374.5	12,132.0	85.9	85.1	116.28	4,389.4	298.0	1,538.8	1,381.5	157.28	9.784			
16,000.0	11,450.0	16,490.6	12,147.2	87.3	86.8	116.85	4,504.4	293.1	1,541.7	1,382.0	159.70	9.654			
16,100.0	11,450.0	16,589.9	12,154.2	88.8	88.2	117.11	4,603.4	290.9	1,543.6	1,381.5	162.09	9.523			
16,200.0	11,450.0	16,704.0	12,154.8	90.2	89.9	117.09	4,717.5	292.3	1,545.6	1,380.6	165.05	9.365			
16,300.0	11,450.0	16,844.6	12,153.3	91.7	91.9	117.03	4,858.0	291.7	1,545.4	1,376.8	168.55	9.169			
16,400.0	11,450.0	16,986.2	12,151.5	93.2	94.0	117.02	4,999.5	287.7	1,543.2	1,371.2	171.94	8.975			
16,500.0	11,450.0	17,048.9	12,150.7	94.6	94.9	117.02	5,062.2	285.5	1,540.2	1,366.2	174.05	8.849			
16,600.0	11,450.0	17,149.4	12,150.5	96.1	96.4	117.03	5,162.7	284.1	1,539.6	1,362.8	176.78	8.709			
16,700.0	11,450.0	17,244.5	12,151.8	97.6	97.8	117.12	5,257.7	280.5	1,537.6	1,358.3	179.33	8.574			
16,769.0	11,450.0	17,293.6	12,152.2	98.6	98.6	117.14	5,306.8	279.5	1,537.1	1,356.3	180.83	8.500			
16,800.0	11,450.0	17,313.4	12,152.3	99.1	98.9	117.15	5,326.6	279.3	1,537.2	1,355.8	181.46	8.471			
16,900.0	11,450.0	17,390.9	12,153.1	100.6	100.0	117.15	5,404.1	280.0	1,539.1	1,355.3	183.75	8.376			
17,000.0	11,450.0	17,565.4	12,149.9	102.1	102.6	117.03	5,578.6	279.5	1,538.5	1,350.5	188.04	8.182			
17,094.1	11,450.0	17,618.7	12,149.5	103.5	103.4	117.02	5,631.9	278.6	1,537.4	1,347.5	189.93	8.094			
17,100.0	11,450.0	17,622.3	12,149.5	103.6	103.5	117.02	5,635.5	278.6	1,537.4	1,347.3	190.05	8.089			
17,200.0	11,450.0	17,683.8	12,149.8	105.1	104.4	117.02	5,696.9	279.0	1,538.8	1,346.8	192.04	8.013			
17,300.0	11,450.0	17,746.3	12,149.8	106.6	105.3	116.97	5,759.4	281.2	1,542.7	1,348.7	194.01	7.952			
17,400.0	11,450.0	17,948.8	12,146.0	108.1	108.4	116.70	5,961.6	288.2	1,546.9	1,347.6	199.27	7.763			
17,500.0	11,450.0	18,058.9	12,145.6	109.6	110.1	116.73	6,071.8	284.8	1,544.6	1,342.4	202.21	7.638			
17,600.0	11,450.0	18,128.1	12,146.3	111.2	111.1	116.77	6,140.9	283.0	1,543.4	1,339.0	204.42	7.550			
17,610.6	11,450.0	18,135.6	12,146.3	111.3	111.2	116.78	6,148.4	282.9	1,543.4	1,338.7	204.65	7.542			
17,700.0	11,450.0	18,199.6	12,146.8	112.7	112.2	116.79	6,212.4	282.7	1,544.1	1,337.5	206.64	7.472			

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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-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			
17,800.0	11,450.0	18,270.2	12,147.3		114.2	113.3	116.77	6,283.0	283.9	1,546.7	1,337.9	208.83	7.407		
17,900.0	11,450.0	18,349.4	12,148.2		115.8	114.5	116.75	6,362.2	286.8	1,551.1	1,339.9	211.18	7.345		
18,000.0	11,450.0	18,442.8	12,149.2		117.3	115.9	116.70	6,455.4	290.9	1,556.3	1,342.4	213.90	7.276		
18,100.0	11,450.0	18,563.6	12,156.2		118.9	117.8	116.88	6,576.0	293.1	1,561.3	1,344.3	217.00	7.195		
18,200.0	11,450.0	18,698.5	12,158.4		120.4	119.9	116.90	6,710.8	295.2	1,564.1	1,343.5	220.60	7.090		
18,300.0	11,450.0	18,300.0	12,153.2		121.9	113.7	116.69	6,866.0	296.1	1,563.6	1,346.7	216.90	7.209		
18,400.0	11,450.0	18,967.5	12,147.4		123.5	124.0	116.51	6,979.6	294.3	1,560.5	1,332.4	228.15	6.840		
18,500.0	11,450.0	19,079.1	12,141.7		125.1	125.8	116.34	7,091.0	292.3	1,557.4	1,325.9	231.44	6.729		
18,600.0	11,450.0	19,168.1	12,140.1		126.6	127.2	116.33	7,179.9	289.3	1,554.3	1,320.1	234.17	6.638		
18,700.0	11,450.0	19,249.2	12,140.1		128.2	128.4	116.36	7,261.0	286.8	1,552.2	1,315.5	236.68	6.558		
18,800.0	11,450.0	19,358.8	12,138.0		129.7	130.1	116.31	7,370.5	284.8	1,550.4	1,310.6	239.81	6.465		
18,892.4	11,450.0	19,418.4	12,136.6		131.2	131.1	116.26	7,430.2	284.5	1,549.6	1,307.7	241.95	6.405		
18,900.0	11,450.0	19,423.7	12,136.5		131.3	131.2	116.26	7,435.5	284.5	1,549.6	1,307.5	242.13	6.400		
19,000.0	11,450.0	19,498.2	12,135.3		132.9	132.3	116.19	7,509.9	285.4	1,550.6	1,306.1	244.58	6.340		
19,100.0	11,450.0	19,609.4	12,133.9		134.4	134.1	116.10	7,621.1	287.5	1,552.6	1,304.8	247.86	6.264		
19,200.0	11,450.0	19,722.7	12,136.9		136.0	135.8	116.21	7,734.3	285.9	1,553.2	1,302.3	250.87	6.191		
19,300.0	11,450.0	19,853.9	12,142.8		137.6	137.9	116.47	7,865.3	280.9	1,552.5	1,298.6	253.95	6.113		
19,400.0	11,450.0	19,981.6	12,144.3		139.1	139.9	116.59	7,992.8	275.1	1,549.6	1,292.5	257.10	6.027		
19,500.0	11,450.0	20,067.9	12,143.3		140.7	141.3	116.61	8,079.1	271.7	1,546.3	1,286.5	259.78	5.952		
19,600.0	11,450.0	20,164.7	12,141.3		142.3	142.8	116.56	8,175.7	269.5	1,544.0	1,281.3	262.70	5.877		
19,700.0	11,450.0	20,254.5	12,140.9		143.9	144.2	116.59	8,265.5	266.6	1,541.7	1,276.3	265.40	5.809		
19,800.0	11,450.0	20,333.6	12,140.7		145.5	145.5	116.60	8,344.6	265.0	1,540.5	1,272.6	267.92	5.750		
19,829.7	11,450.0	20,356.5	12,140.5		145.9	145.8	116.59	8,367.5	264.9	1,540.5	1,271.8	268.67	5.734		
19,900.0	11,450.0	20,421.2	12,139.6		147.1	146.9	116.55	8,432.2	265.1	1,540.7	1,270.1	270.67	5.692		
20,000.0	11,450.0	20,533.3	12,136.4		148.6	148.6	116.42	8,544.3	265.8	1,540.7	1,266.7	274.06	5.622		
20,100.0	11,450.0	20,643.9	12,135.2		150.2	150.4	116.38	8,654.8	264.6	1,539.9	1,262.7	277.25	5.554		
20,200.0	11,450.0	20,749.6	12,134.3		151.8	152.1	116.37	8,760.5	262.6	1,538.6	1,258.3	280.29	5.489		
20,289.6	11,450.0	20,816.5	12,133.6		153.2	153.1	116.35	8,827.4	261.7	1,537.8	1,255.3	282.52	5.443		
20,300.0	11,450.0	20,823.7	12,133.5		153.4	153.3	116.35	8,834.6	261.7	1,537.9	1,255.1	282.77	5.439		
20,400.0	11,450.0	20,911.8	12,133.6		155.0	154.7	116.33	8,922.7	261.9	1,538.7	1,253.3	285.47	5.390		
20,500.0	11,450.0	21,057.3	12,133.6		156.6	157.0	116.34	9,068.1	260.5	1,538.7	1,249.5	289.28	5.319		
20,600.0	11,450.0	21,185.5	12,134.1		158.2	159.0	116.44	9,196.2	254.2	1,535.1	1,242.6	292.47	5.249		
20,700.0	11,450.0	21,277.1	12,131.8		159.8	160.5	116.40	9,287.7	251.2	1,531.7	1,236.3	295.37	5.186		
20,800.0	11,450.0	21,363.8	12,131.1		161.4	161.9	116.43	9,374.4	247.8	1,528.6	1,230.5	298.07	5.128		
20,900.0	11,450.0	21,435.1	12,128.9		163.0	163.0	116.35	9,445.6	247.2	1,527.1	1,226.5	300.63	5.080		
20,930.4	11,450.0	21,457.6	12,128.0		163.5	163.4	116.32	9,468.1	247.3	1,527.0	1,225.6	301.43	5.066		
21,000.0	11,450.0	21,509.1	12,126.6		164.6	164.2	116.25	9,519.6	248.0	1,527.5	1,224.2	303.22	5.038		
21,100.0	11,450.0	21,592.0	12,125.0		166.2	165.5	116.16	9,602.4	249.8	1,529.2	1,223.3	305.94	4.998		
21,200.0	11,450.0	21,708.4	12,124.4		167.8	167.4	116.09	9,718.8	251.7	1,531.3	1,221.9	309.41	4.949		
21,300.0	11,450.0	21,834.6	12,122.6		169.4	169.4	116.01	9,845.0	252.1	1,531.6	1,218.6	313.08	4.892		
21,400.0	11,450.0	21,944.5	12,120.1		171.0	171.1	115.92	9,954.8	251.2	1,530.6	1,214.2	316.39	4.838		
21,500.0	11,450.0	22,057.0	12,118.6		172.6	173.0	115.89	10,067.4	249.4	1,529.3	1,209.7	319.64	4.784		
21,600.0	11,450.0	22,184.5	12,113.9		174.2	175.0	115.77	10,194.7	246.2	1,526.1	1,202.8	323.27	4.721		
21,659.1	11,450.0	22,191.0	12,113.6		175.1	175.1	115.76	10,201.2	246.0	1,524.8	1,200.6	324.16	4.704		

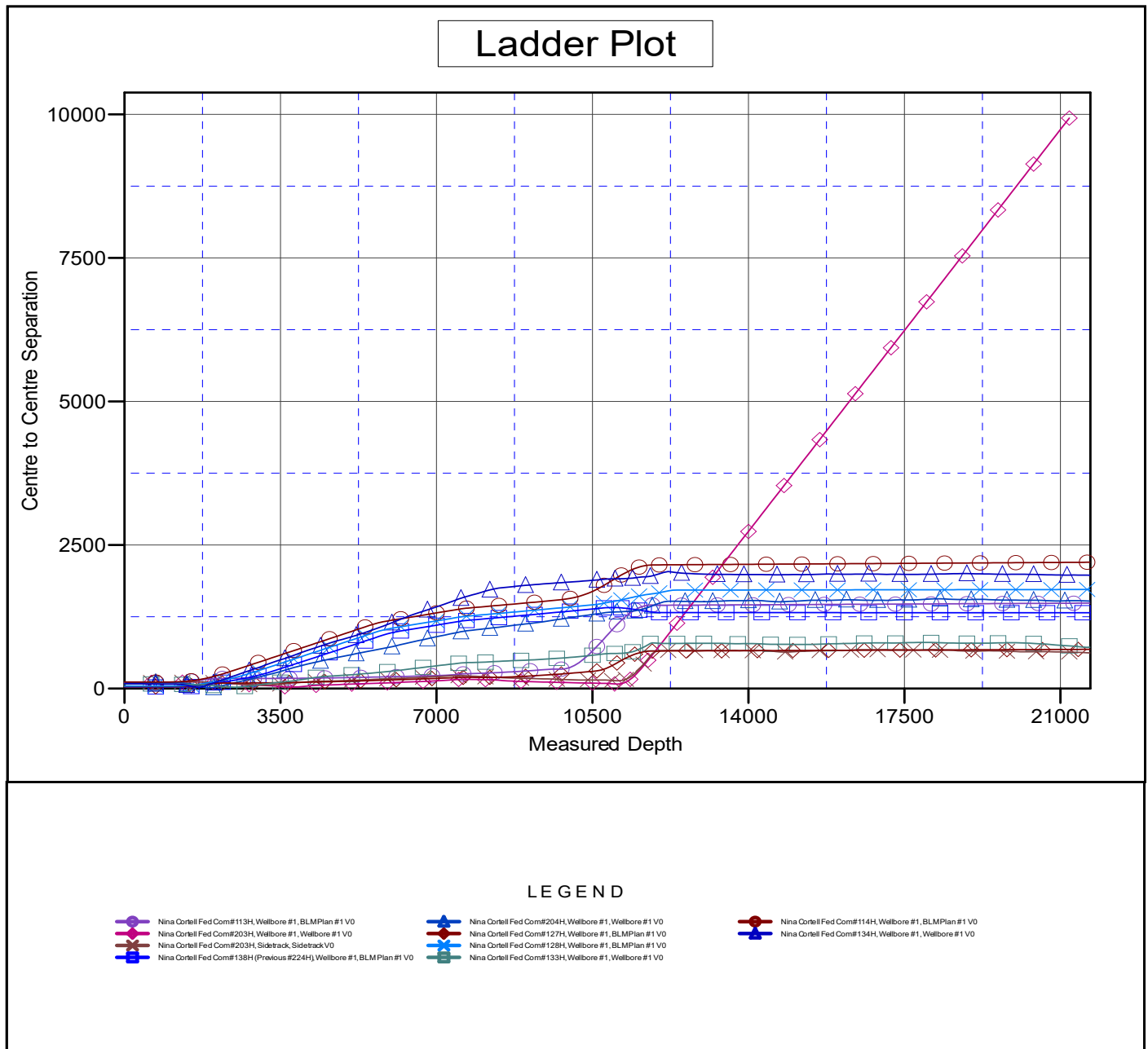
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3817.5usft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Nina Cortell Fed Com #137H (Previous #223H)
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.36°



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 Nina Cortell Fed Com #137H (Previous #223H)
Project:	Antelope Ridge	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #137H (Previous #223H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3817.5usft (Original Well Elev)

Offset Depths are relative to Offset Datum

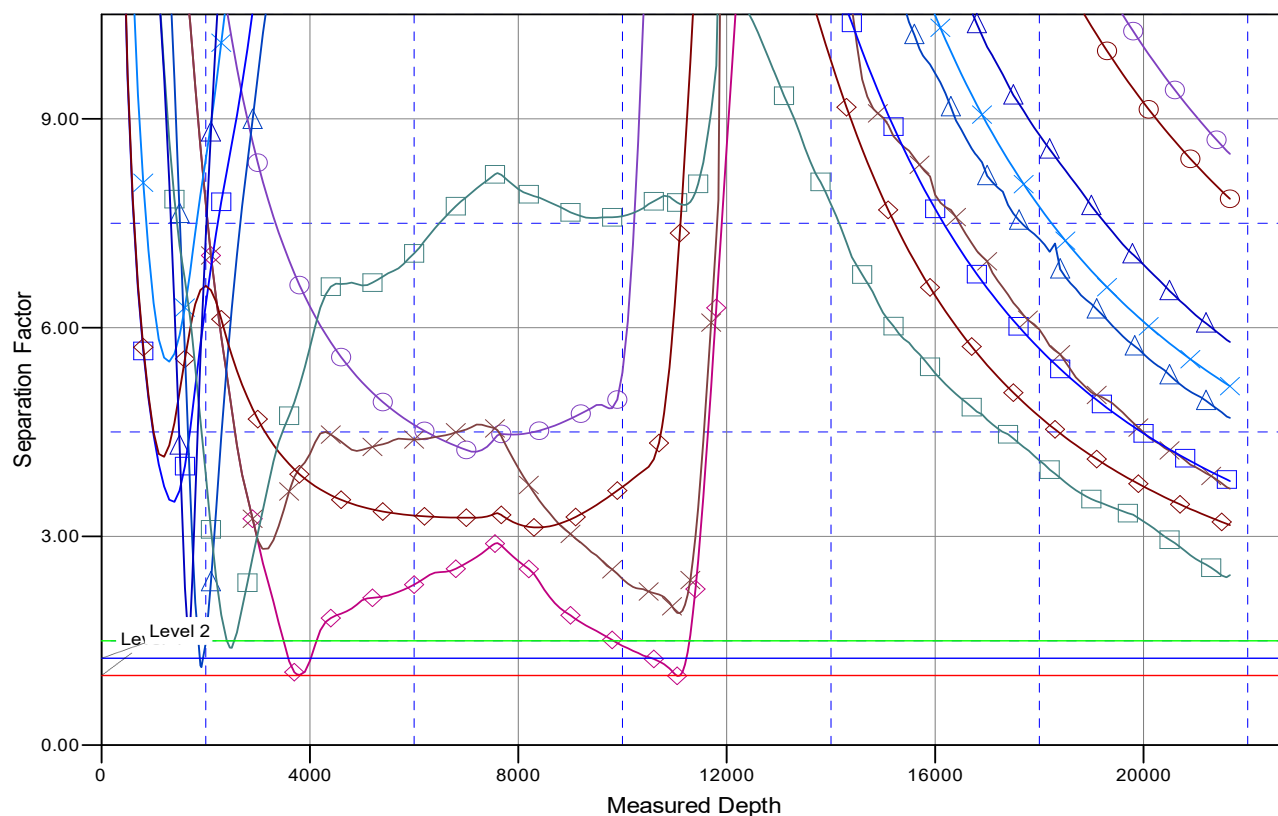
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Nina Cortell Fed Com #137H (Previous #223H)

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

Grid Convergence at Surface is: 0.36°

Separation Factor Plot



LEGEND

Nina Cortell Fed Com#113H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#203H, Wellbore #1, Wellbore #1 V0
 Nina Cortell Fed Com#203H, Sidetrack, Sidetrack V0
 Nina Cortell Fed Com#138H (Previous #224H), Wellbore #1, BLM Plan #1 V0

Nina Cortell Fed Com#204H, Wellbore #1, Wellbore #1 V0
 Nina Cortell Fed Com#127H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#128H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#133H, Wellbore #1, Wellbore #1 V0

Nina Cortell Fed Com#114H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#134H, Wellbore #1, Wellbore #1 V0

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

Nina Cortell Fed Com 137H
SHL: 244 FSL & 1260' FEL Section 10
BHL: 110' FNL & 2307' FEL Section 3
Township/Range: 22S 32E
Elevation Above Sea Level: 3789

Sundry Request

- Matador respectfully requests the option to amend the well design of the Nina Cortell Fed Com 137H make the following changes to the current APD:

- Change well name from Nina Cortell Fed Com #223H to Nina Cortell Fed Com #137H
- Change target zone from Wolfcamp to Bone Spring
- Change BHL from 60' FNL & 1652' FEL to 110' FNL & 2307' FEL. All perforations will be within the setback requirements as previously approved.
- Amend Casing and Cementing plan by changing Intermediate 1 casing from 7-5/8" to 9-5/8" and revising set depth as described below.
- Amend pressure control requirements from 10M to 5M with the change from Wolfcamp to Bone Springs.

3. Pressure Control

Equipment

A 12,000' 5,000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5,000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1, and Production Strings. The BOPs will not be tested again unless any flanges are separated.

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

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

4. Casing & Cement

All casing will be API and new. See attached casing assumption worksheet.

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 975	0 - 975	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	12.25	0 - 5039	0 - 5039	9.625	40	J-55	BUTT	1.125	1.125	1.8
Production	8.75	0 - 21659	0 - 11450	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for review
- Request option to drill either 8.75" or 8.5" production hole section, cement volumes will be adjusted accordingly

Variance Request

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	450	1.72	775	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	675	C	5% NaCl + LCM
Intermediate 1	Lead	480	3.66	1773	10.3	35%	0	A/C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	330	1.38	457	13.2	35%	4039	A/C	5% NaCl + LCM
Production	Lead	520	3.66	1916	10.3	25%	4839	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	2360	1.44	3394	13.2	25%	10941	A/C	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 975	8.4 - 8.8	28-30	NC

Intermediate 1	12.25	Brine	975 - 5039	9.6 - 10.2	28-30	NC
Production	8.75	OBM / Cut Brine	5039 - 21659	9 - 10.5	30-50	<20

Matador Production Company

Antelope Ridge

Nina Cortell

Nina Cortell Fed Com #137H (Previous #223H)

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

13 July, 2023

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Antelope Ridge		
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	Nina Cortell				
Site Position:		Northing:	509,698.48 usft	Latitude:	32° 23' 58.229 N
From:	Lat/Long	Easting:	705,998.14 usft	Longitude:	103° 39' 57.270 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well	Nina Cortell Fed Com #137H (Previous #223H)					
Well Position	+N/-S	29.2 usft	Northing:	509,727.64 usft	Latitude:	32° 23' 58.358 N
	+E/-W	2,563.1 usft	Easting:	708,561.17 usft	Longitude:	103° 39' 27.374 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,789.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/5/2021	6.53	60.15	47,578.80100373

Design	BLM Plan #1			
Audit Notes:				
Version:	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	359.54

Plan Survey Tool Program	Date	7/13/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,659.1	BLM Plan #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,744.2	7.44	268.21	1,742.1	-1.5	-48.2	1.00	1.00	0.00	268.21	
7,551.0	7.44	268.21	7,500.0	-25.0	-800.0	0.00	0.00	0.00	0.00	
7,674.8	5.25	232.94	7,623.1	-28.7	-812.5	3.53	-1.77	-28.50	-136.06	
10,759.5	5.25	232.94	10,694.8	-198.9	-1,037.9	0.00	0.00	0.00	0.00	
10,941.9	0.00	0.00	10,877.0	-203.9	-1,044.6	2.88	-2.88	0.00	180.00	KOP - Nina Cortell Fe
11,841.9	90.00	359.54	11,450.0	369.0	-1,049.1	10.00	10.00	-0.05	359.54	
21,659.1	90.00	359.54	11,450.0	10,185.9	-1,127.2	0.00	0.00	0.00	0.00	BHL - Nina Cortell Fe

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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	
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	
839.0	0.00	0.00	839.0	0.0	0.0	0.0	0.00	0.00	0.00	
Z (Rustler)										
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
Start Build 1.00										
1,100.0	1.00	268.21	1,100.0	0.0	-0.9	0.0	1.00	1.00	0.00	
1,191.0	1.91	268.21	1,191.0	-0.1	-3.2	-0.1	1.00	1.00	0.00	
Z (Salado)										
1,200.0	2.00	268.21	1,200.0	-0.1	-3.5	-0.1	1.00	1.00	0.00	
1,300.0	3.00	268.21	1,299.9	-0.2	-7.8	-0.2	1.00	1.00	0.00	
1,400.0	4.00	268.21	1,399.7	-0.4	-14.0	-0.3	1.00	1.00	0.00	
1,500.0	5.00	268.21	1,499.4	-0.7	-21.8	-0.5	1.00	1.00	0.00	
1,600.0	6.00	268.21	1,598.9	-1.0	-31.4	-0.7	1.00	1.00	0.00	
1,700.0	7.00	268.21	1,698.3	-1.3	-42.7	-1.0	1.00	1.00	0.00	
1,744.2	7.44	268.21	1,742.1	-1.5	-48.2	-1.1	1.00	1.00	0.00	
Start 5806.8 hold at 1744.2 MD										
1,800.0	7.44	268.21	1,797.4	-1.7	-55.5	-1.3	0.00	0.00	0.00	
1,900.0	7.44	268.21	1,896.6	-2.1	-68.4	-1.6	0.00	0.00	0.00	
2,000.0	7.44	268.21	1,995.8	-2.5	-81.4	-1.9	0.00	0.00	0.00	
2,100.0	7.44	268.21	2,094.9	-2.9	-94.3	-2.2	0.00	0.00	0.00	
2,200.0	7.44	268.21	2,194.1	-3.4	-107.2	-2.5	0.00	0.00	0.00	
2,300.0	7.44	268.21	2,293.2	-3.8	-120.2	-2.8	0.00	0.00	0.00	
2,400.0	7.44	268.21	2,392.4	-4.2	-133.1	-3.1	0.00	0.00	0.00	
2,500.0	7.44	268.21	2,491.5	-4.6	-146.1	-3.4	0.00	0.00	0.00	
2,600.0	7.44	268.21	2,590.7	-5.0	-159.0	-3.7	0.00	0.00	0.00	
2,700.0	7.44	268.21	2,689.9	-5.4	-172.0	-4.0	0.00	0.00	0.00	
2,800.0	7.44	268.21	2,789.0	-5.8	-184.9	-4.3	0.00	0.00	0.00	
2,900.0	7.44	268.21	2,888.2	-6.2	-197.9	-4.6	0.00	0.00	0.00	
3,000.0	7.44	268.21	2,987.3	-6.6	-210.8	-4.9	0.00	0.00	0.00	
3,100.0	7.44	268.21	3,086.5	-7.0	-223.8	-5.2	0.00	0.00	0.00	
3,200.0	7.44	268.21	3,185.6	-7.4	-236.7	-5.5	0.00	0.00	0.00	
3,300.0	7.44	268.21	3,284.8	-7.8	-249.7	-5.8	0.00	0.00	0.00	
3,300.2	7.44	268.21	3,285.0	-7.8	-249.7	-5.8	0.00	0.00	0.00	
Z (Castile (T))										
3,400.0	7.44	268.21	3,384.0	-8.2	-262.6	-6.1	0.00	0.00	0.00	
3,500.0	7.44	268.21	3,483.1	-8.6	-275.5	-6.4	0.00	0.00	0.00	
3,600.0	7.44	268.21	3,582.3	-9.0	-288.5	-6.7	0.00	0.00	0.00	
3,700.0	7.44	268.21	3,681.4	-9.4	-301.4	-7.0	0.00	0.00	0.00	
3,800.0	7.44	268.21	3,780.6	-9.8	-314.4	-7.3	0.00	0.00	0.00	
3,900.0	7.44	268.21	3,879.7	-10.2	-327.3	-7.6	0.00	0.00	0.00	
4,000.0	7.44	268.21	3,978.9	-10.6	-340.3	-7.9	0.00	0.00	0.00	
4,100.0	7.44	268.21	4,078.1	-11.0	-353.2	-8.2	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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)
4,200.0	7.44	268.21	4,177.2	-11.4	-366.2	-8.5	0.00	0.00	0.00
4,300.0	7.44	268.21	4,276.4	-11.8	-379.1	-8.8	0.00	0.00	0.00
4,400.0	7.44	268.21	4,375.5	-12.3	-392.1	-9.1	0.00	0.00	0.00
4,500.0	7.44	268.21	4,474.7	-12.7	-405.0	-9.4	0.00	0.00	0.00
4,600.0	7.44	268.21	4,573.9	-13.1	-418.0	-9.7	0.00	0.00	0.00
4,700.0	7.44	268.21	4,673.0	-13.5	-430.9	-10.0	0.00	0.00	0.00
4,800.0	7.44	268.21	4,772.2	-13.9	-443.8	-10.3	0.00	0.00	0.00
4,900.0	7.44	268.21	4,871.3	-14.3	-456.8	-10.6	0.00	0.00	0.00
4,925.9	7.44	268.21	4,897.0	-14.4	-460.1	-10.7	0.00	0.00	0.00
Z (G30:CS14-CSB)									
4,968.2	7.44	268.21	4,939.0	-14.6	-465.6	-10.8	0.00	0.00	0.00
Z (G26: Bell Cyn.)									
5,000.0	7.44	268.21	4,970.5	-14.7	-469.7	-10.9	0.00	0.00	0.00
5,100.0	7.44	268.21	5,069.6	-15.1	-482.7	-11.2	0.00	0.00	0.00
5,200.0	7.44	268.21	5,168.8	-15.5	-495.6	-11.5	0.00	0.00	0.00
5,300.0	7.44	268.21	5,268.0	-15.9	-508.6	-11.8	0.00	0.00	0.00
5,400.0	7.44	268.21	5,367.1	-16.3	-521.5	-12.1	0.00	0.00	0.00
5,500.0	7.44	268.21	5,466.3	-16.7	-534.5	-12.4	0.00	0.00	0.00
5,600.0	7.44	268.21	5,565.4	-17.1	-547.4	-12.7	0.00	0.00	0.00
5,700.0	7.44	268.21	5,664.6	-17.5	-560.4	-13.0	0.00	0.00	0.00
5,800.0	7.44	268.21	5,763.7	-17.9	-573.3	-13.3	0.00	0.00	0.00
5,878.9	7.44	268.21	5,842.0	-18.2	-583.5	-13.5	0.00	0.00	0.00
Z (G13: Cherry Cyn.)									
5,900.0	7.44	268.21	5,862.9	-18.3	-586.3	-13.6	0.00	0.00	0.00
6,000.0	7.44	268.21	5,962.1	-18.7	-599.2	-13.9	0.00	0.00	0.00
6,100.0	7.44	268.21	6,061.2	-19.1	-612.1	-14.2	0.00	0.00	0.00
6,200.0	7.44	268.21	6,160.4	-19.5	-625.1	-14.5	0.00	0.00	0.00
6,300.0	7.44	268.21	6,259.5	-19.9	-638.0	-14.8	0.00	0.00	0.00
6,400.0	7.44	268.21	6,358.7	-20.3	-651.0	-15.1	0.00	0.00	0.00
6,500.0	7.44	268.21	6,457.8	-20.7	-663.9	-15.4	0.00	0.00	0.00
6,600.0	7.44	268.21	6,557.0	-21.2	-676.9	-15.7	0.00	0.00	0.00
6,700.0	7.44	268.21	6,656.2	-21.6	-689.8	-16.0	0.00	0.00	0.00
6,800.0	7.44	268.21	6,755.3	-22.0	-702.8	-16.3	0.00	0.00	0.00
6,900.0	7.44	268.21	6,854.5	-22.4	-715.7	-16.6	0.00	0.00	0.00
7,000.0	7.44	268.21	6,953.6	-22.8	-728.7	-16.9	0.00	0.00	0.00
7,031.6	7.44	268.21	6,985.0	-22.9	-732.8	-17.0	0.00	0.00	0.00
Z (G7: Brushy Cyn.) Antelope Ridge									
7,100.0	7.44	268.21	7,052.8	-23.2	-741.6	-17.2	0.00	0.00	0.00
7,200.0	7.44	268.21	7,152.0	-23.6	-754.6	-17.5	0.00	0.00	0.00
7,300.0	7.44	268.21	7,251.1	-24.0	-767.5	-17.8	0.00	0.00	0.00
7,400.0	7.44	268.21	7,350.3	-24.4	-780.5	-18.1	0.00	0.00	0.00
7,500.0	7.44	268.21	7,449.4	-24.8	-793.4	-18.4	0.00	0.00	0.00
7,551.0	7.44	268.21	7,500.0	-25.0	-800.0	-18.6	0.00	0.00	0.00
Start DLS 3.53 TFO -136.06									
7,600.0	6.31	257.23	7,548.6	-25.7	-805.8	-19.2	3.53	-2.31	-22.42
7,674.8	5.25	232.94	7,623.1	-28.7	-812.5	-22.1	3.53	-1.41	-32.48
Start 3084.8 hold at 7674.8 MD									
7,700.0	5.25	232.94	7,648.2	-30.1	-814.4	-23.5	0.00	0.00	0.00
7,800.0	5.25	232.94	7,747.7	-35.6	-821.7	-29.0	0.00	0.00	0.00
7,900.0	5.25	232.94	7,847.3	-41.1	-829.0	-34.4	0.00	0.00	0.00
8,000.0	5.25	232.94	7,946.9	-46.6	-836.3	-39.9	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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)	
8,100.0	5.25	232.94	8,046.5	-52.1	-843.6	-45.4	0.00	0.00	0.00	
8,200.0	5.25	232.94	8,146.1	-57.6	-850.9	-50.8	0.00	0.00	0.00	
8,300.0	5.25	232.94	8,245.6	-63.2	-858.2	-56.3	0.00	0.00	0.00	
8,400.0	5.25	232.94	8,345.2	-68.7	-865.5	-61.7	0.00	0.00	0.00	
8,500.0	5.25	232.94	8,444.8	-74.2	-872.8	-67.2	0.00	0.00	0.00	
8,600.0	5.25	232.94	8,544.4	-79.7	-880.1	-72.7	0.00	0.00	0.00	
8,700.0	5.25	232.94	8,644.0	-85.2	-887.4	-78.1	0.00	0.00	0.00	
8,800.0	5.25	232.94	8,743.5	-90.8	-894.8	-83.6	0.00	0.00	0.00	
8,882.8	5.25	232.94	8,826.0	-95.3	-900.8	-88.1	0.00	0.00	0.00	
Z (G4: BSG) (CS9)										
8,900.0	5.25	232.94	8,843.1	-96.3	-902.1	-89.0	0.00	0.00	0.00	
9,000.0	5.25	232.94	8,942.7	-101.8	-909.4	-94.5	0.00	0.00	0.00	
9,100.0	5.25	232.94	9,042.3	-107.3	-916.7	-99.9	0.00	0.00	0.00	
9,200.0	5.25	232.94	9,141.9	-112.8	-924.0	-105.4	0.00	0.00	0.00	
9,300.0	5.25	232.94	9,241.4	-118.3	-931.3	-110.9	0.00	0.00	0.00	
9,400.0	5.25	232.94	9,341.0	-123.9	-938.6	-116.3	0.00	0.00	0.00	
9,500.0	5.25	232.94	9,440.6	-129.4	-945.9	-121.8	0.00	0.00	0.00	
9,600.0	5.25	232.94	9,540.2	-134.9	-953.2	-127.2	0.00	0.00	0.00	
9,700.0	5.25	232.94	9,639.8	-140.4	-960.5	-132.7	0.00	0.00	0.00	
9,724.3	5.25	232.94	9,664.0	-141.8	-962.3	-134.0	0.00	0.00	0.00	
Z (L5.3: FBSC)										
9,800.0	5.25	232.94	9,739.3	-145.9	-967.8	-138.2	0.00	0.00	0.00	
9,900.0	5.25	232.94	9,838.9	-151.5	-975.1	-143.6	0.00	0.00	0.00	
9,958.3	5.25	232.94	9,897.0	-154.7	-979.4	-146.8	0.00	0.00	0.00	
Z (L5.1: FBSC)										
10,000.0	5.25	232.94	9,938.5	-157.0	-982.4	-149.1	0.00	0.00	0.00	
10,100.0	5.25	232.94	10,038.1	-162.5	-989.7	-154.5	0.00	0.00	0.00	
10,200.0	5.25	232.94	10,137.7	-168.0	-997.0	-160.0	0.00	0.00	0.00	
10,240.5	5.25	232.94	10,178.0	-170.2	-1,000.0	-162.2	0.00	0.00	0.00	
Z (L4.3: SBSC)										
10,300.0	5.25	232.94	10,237.2	-173.5	-1,004.3	-165.5	0.00	0.00	0.00	
10,400.0	5.25	232.94	10,336.8	-179.0	-1,011.7	-170.9	0.00	0.00	0.00	
10,500.0	5.25	232.94	10,436.4	-184.6	-1,019.0	-176.4	0.00	0.00	0.00	
10,600.0	5.25	232.94	10,536.0	-190.1	-1,026.3	-181.8	0.00	0.00	0.00	
10,621.1	5.25	232.94	10,557.0	-191.2	-1,027.8	-183.0	0.00	0.00	0.00	
Z (L4.1: SBSC)										
10,700.0	5.25	232.94	10,635.6	-195.6	-1,033.6	-187.3	0.00	0.00	0.00	
10,759.5	5.25	232.94	10,694.8	-198.9	-1,037.9	-190.5	0.00	0.00	0.00	
Start Drop -2.88										
10,800.0	4.09	232.94	10,735.2	-200.9	-1,040.6	-192.5	2.88	-2.88	0.00	
10,900.0	1.21	232.94	10,835.1	-203.7	-1,044.2	-195.3	2.88	-2.88	0.00	
10,941.9	0.00	0.00	10,877.0	-203.9	-1,044.6	-195.5	2.88	-2.88	302.95	
Start DLS 10.00 TFO 359.54 - KOP - Nina Cortell Fed Com #137H										
11,000.0	5.81	359.54	10,935.0	-201.0	-1,044.6	-192.6	10.00	10.00	-0.78	
11,044.5	10.25	359.54	10,979.0	-194.8	-1,044.7	-186.4	10.00	10.00	0.00	
Z (L3.3: TBSC)										
11,100.0	15.81	359.54	11,033.1	-182.3	-1,044.8	-173.9	10.00	10.00	0.00	
11,182.9	24.10	359.54	11,110.9	-154.0	-1,045.0	-145.6	10.00	10.00	0.00	
FTP - Nina Cortell #137H										
11,200.0	25.81	359.54	11,126.4	-146.8	-1,045.0	-138.4	10.00	10.00	0.00	
11,300.0	35.81	359.54	11,212.2	-95.6	-1,045.5	-87.2	10.00	10.00	0.00	

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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)
11,400.0	45.81	359.54	11,287.8	-30.4	-1,046.0	-22.0	10.00	10.00	0.00
11,500.0	55.81	359.54	11,350.9	47.0	-1,046.6	55.4	10.00	10.00	0.00
11,600.0	65.81	359.54	11,399.6	134.2	-1,047.3	142.6	10.00	10.00	0.00
11,700.0	75.81	359.54	11,432.5	228.5	-1,048.0	236.9	10.00	10.00	0.00
11,800.0	85.81	359.54	11,448.4	327.1	-1,048.8	335.5	10.00	10.00	0.00
11,841.9	90.00	359.54	11,450.0	369.0	-1,049.1	377.4	10.00	10.00	0.00
Start 9817.2 hold at 11841.9 MD									
11,900.0	90.00	359.54	11,450.0	427.1	-1,049.6	435.5	0.00	0.00	0.00
12,000.0	90.00	359.54	11,450.0	527.1	-1,050.4	535.5	0.00	0.00	0.00
12,100.0	90.00	359.54	11,450.0	627.1	-1,051.2	635.5	0.00	0.00	0.00
12,200.0	90.00	359.54	11,450.0	727.1	-1,052.0	735.5	0.00	0.00	0.00
12,300.0	90.00	359.54	11,450.0	827.1	-1,052.8	835.5	0.00	0.00	0.00
12,400.0	90.00	359.54	11,450.0	927.1	-1,053.6	935.5	0.00	0.00	0.00
12,500.0	90.00	359.54	11,450.0	1,027.1	-1,054.4	1,035.5	0.00	0.00	0.00
12,600.0	90.00	359.54	11,450.0	1,127.1	-1,055.2	1,135.5	0.00	0.00	0.00
12,700.0	90.00	359.54	11,450.0	1,227.0	-1,056.0	1,235.5	0.00	0.00	0.00
12,800.0	90.00	359.54	11,450.0	1,327.0	-1,056.8	1,335.5	0.00	0.00	0.00
12,900.0	90.00	359.54	11,450.0	1,427.0	-1,057.6	1,435.5	0.00	0.00	0.00
13,000.0	90.00	359.54	11,450.0	1,527.0	-1,058.3	1,535.5	0.00	0.00	0.00
13,100.0	90.00	359.54	11,450.0	1,627.0	-1,059.1	1,635.5	0.00	0.00	0.00
13,200.0	90.00	359.54	11,450.0	1,727.0	-1,059.9	1,735.5	0.00	0.00	0.00
13,300.0	90.00	359.54	11,450.0	1,827.0	-1,060.7	1,835.5	0.00	0.00	0.00
13,400.0	90.00	359.54	11,450.0	1,927.0	-1,061.5	1,935.5	0.00	0.00	0.00
13,500.0	90.00	359.54	11,450.0	2,027.0	-1,062.3	2,035.5	0.00	0.00	0.00
13,600.0	90.00	359.54	11,450.0	2,127.0	-1,063.1	2,135.5	0.00	0.00	0.00
13,700.0	90.00	359.54	11,450.0	2,227.0	-1,063.9	2,235.5	0.00	0.00	0.00
13,800.0	90.00	359.54	11,450.0	2,327.0	-1,064.7	2,335.5	0.00	0.00	0.00
13,900.0	90.00	359.54	11,450.0	2,427.0	-1,065.5	2,435.5	0.00	0.00	0.00
14,000.0	90.00	359.54	11,450.0	2,527.0	-1,066.3	2,535.5	0.00	0.00	0.00
14,100.0	90.00	359.54	11,450.0	2,627.0	-1,067.1	2,635.5	0.00	0.00	0.00
14,200.0	90.00	359.54	11,450.0	2,727.0	-1,067.9	2,735.5	0.00	0.00	0.00
14,300.0	90.00	359.54	11,450.0	2,827.0	-1,068.7	2,835.5	0.00	0.00	0.00
14,400.0	90.00	359.54	11,450.0	2,927.0	-1,069.5	2,935.5	0.00	0.00	0.00
14,500.0	90.00	359.54	11,450.0	3,027.0	-1,070.3	3,035.5	0.00	0.00	0.00
14,600.0	90.00	359.54	11,450.0	3,127.0	-1,071.1	3,135.5	0.00	0.00	0.00
14,700.0	90.00	359.54	11,450.0	3,227.0	-1,071.9	3,235.5	0.00	0.00	0.00
14,800.0	90.00	359.54	11,450.0	3,327.0	-1,072.7	3,335.5	0.00	0.00	0.00
14,900.0	90.00	359.54	11,450.0	3,427.0	-1,073.4	3,435.5	0.00	0.00	0.00
15,000.0	90.00	359.54	11,450.0	3,527.0	-1,074.2	3,535.5	0.00	0.00	0.00
15,100.0	90.00	359.54	11,450.0	3,627.0	-1,075.0	3,635.5	0.00	0.00	0.00
15,200.0	90.00	359.54	11,450.0	3,727.0	-1,075.8	3,735.5	0.00	0.00	0.00
15,300.0	90.00	359.54	11,450.0	3,827.0	-1,076.6	3,835.5	0.00	0.00	0.00
15,400.0	90.00	359.54	11,450.0	3,927.0	-1,077.4	3,935.5	0.00	0.00	0.00
15,500.0	90.00	359.54	11,450.0	4,027.0	-1,078.2	4,035.5	0.00	0.00	0.00
15,600.0	90.00	359.54	11,450.0	4,127.0	-1,079.0	4,135.5	0.00	0.00	0.00
15,700.0	90.00	359.54	11,450.0	4,227.0	-1,079.8	4,235.5	0.00	0.00	0.00
15,800.0	90.00	359.54	11,450.0	4,327.0	-1,080.6	4,335.5	0.00	0.00	0.00
15,900.0	90.00	359.54	11,450.0	4,426.9	-1,081.4	4,435.5	0.00	0.00	0.00
16,000.0	90.00	359.54	11,450.0	4,526.9	-1,082.2	4,535.5	0.00	0.00	0.00
16,100.0	90.00	359.54	11,450.0	4,626.9	-1,083.0	4,635.5	0.00	0.00	0.00
16,200.0	90.00	359.54	11,450.0	4,726.9	-1,083.8	4,735.5	0.00	0.00	0.00
16,300.0	90.00	359.54	11,450.0	4,826.9	-1,084.6	4,835.5	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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)
16,400.0	90.00	359.54	11,450.0	4,926.9	-1,085.4	4,935.5	0.00	0.00	0.00
16,495.9	90.00	359.54	11,450.0	5,022.8	-1,086.1	5,031.4	0.00	0.00	0.00
BPP1 - Nina Cortell #137H									
16,500.0	90.00	359.54	11,450.0	5,026.9	-1,086.2	5,035.5	0.00	0.00	0.00
16,600.0	90.00	359.54	11,450.0	5,126.9	-1,087.0	5,135.5	0.00	0.00	0.00
16,700.0	90.00	359.54	11,450.0	5,226.9	-1,087.8	5,235.5	0.00	0.00	0.00
16,800.0	90.00	359.54	11,450.0	5,326.9	-1,088.5	5,335.5	0.00	0.00	0.00
16,900.0	90.00	359.54	11,450.0	5,426.9	-1,089.3	5,435.5	0.00	0.00	0.00
17,000.0	90.00	359.54	11,450.0	5,526.9	-1,090.1	5,535.5	0.00	0.00	0.00
17,100.0	90.00	359.54	11,450.0	5,626.9	-1,090.9	5,635.5	0.00	0.00	0.00
17,200.0	90.00	359.54	11,450.0	5,726.9	-1,091.7	5,735.5	0.00	0.00	0.00
17,300.0	90.00	359.54	11,450.0	5,826.9	-1,092.5	5,835.5	0.00	0.00	0.00
17,400.0	90.00	359.54	11,450.0	5,926.9	-1,093.3	5,935.5	0.00	0.00	0.00
17,500.0	90.00	359.54	11,450.0	6,026.9	-1,094.1	6,035.5	0.00	0.00	0.00
17,600.0	90.00	359.54	11,450.0	6,126.9	-1,094.9	6,135.5	0.00	0.00	0.00
17,700.0	90.00	359.54	11,450.0	6,226.9	-1,095.7	6,235.5	0.00	0.00	0.00
17,800.0	90.00	359.54	11,450.0	6,326.9	-1,096.5	6,335.5	0.00	0.00	0.00
17,900.0	90.00	359.54	11,450.0	6,426.9	-1,097.3	6,435.5	0.00	0.00	0.00
18,000.0	90.00	359.54	11,450.0	6,526.9	-1,098.1	6,535.5	0.00	0.00	0.00
18,100.0	90.00	359.54	11,450.0	6,626.9	-1,098.9	6,635.5	0.00	0.00	0.00
18,200.0	90.00	359.54	11,450.0	6,726.9	-1,099.7	6,735.5	0.00	0.00	0.00
18,300.0	90.00	359.54	11,450.0	6,826.9	-1,100.5	6,835.5	0.00	0.00	0.00
18,400.0	90.00	359.54	11,450.0	6,926.9	-1,101.3	6,935.5	0.00	0.00	0.00
18,500.0	90.00	359.54	11,450.0	7,026.9	-1,102.1	7,035.5	0.00	0.00	0.00
18,600.0	90.00	359.54	11,450.0	7,126.9	-1,102.8	7,135.5	0.00	0.00	0.00
18,700.0	90.00	359.54	11,450.0	7,226.9	-1,103.6	7,235.5	0.00	0.00	0.00
18,800.0	90.00	359.54	11,450.0	7,326.9	-1,104.4	7,335.5	0.00	0.00	0.00
18,900.0	90.00	359.54	11,450.0	7,426.9	-1,105.2	7,435.5	0.00	0.00	0.00
19,000.0	90.00	359.54	11,450.0	7,526.8	-1,106.0	7,535.5	0.00	0.00	0.00
19,100.0	90.00	359.54	11,450.0	7,626.8	-1,106.8	7,635.5	0.00	0.00	0.00
19,200.0	90.00	359.54	11,450.0	7,726.8	-1,107.6	7,735.5	0.00	0.00	0.00
19,300.0	90.00	359.54	11,450.0	7,826.8	-1,108.4	7,835.5	0.00	0.00	0.00
19,400.0	90.00	359.54	11,450.0	7,926.8	-1,109.2	7,935.5	0.00	0.00	0.00
19,500.0	90.00	359.54	11,450.0	8,026.8	-1,110.0	8,035.5	0.00	0.00	0.00
19,600.0	90.00	359.54	11,450.0	8,126.8	-1,110.8	8,135.5	0.00	0.00	0.00
19,700.0	90.00	359.54	11,450.0	8,226.8	-1,111.6	8,235.5	0.00	0.00	0.00
19,800.0	90.00	359.54	11,450.0	8,326.8	-1,112.4	8,335.5	0.00	0.00	0.00
19,900.0	90.00	359.54	11,450.0	8,426.8	-1,113.2	8,435.5	0.00	0.00	0.00
20,000.0	90.00	359.54	11,450.0	8,526.8	-1,114.0	8,535.5	0.00	0.00	0.00
20,100.0	90.00	359.54	11,450.0	8,626.8	-1,114.8	8,635.5	0.00	0.00	0.00
20,200.0	90.00	359.54	11,450.0	8,726.8	-1,115.6	8,735.5	0.00	0.00	0.00
20,300.0	90.00	359.54	11,450.0	8,826.8	-1,116.4	8,835.5	0.00	0.00	0.00
20,400.0	90.00	359.54	11,450.0	8,926.8	-1,117.2	8,935.5	0.00	0.00	0.00
20,500.0	90.00	359.54	11,450.0	9,026.8	-1,117.9	9,035.5	0.00	0.00	0.00
20,600.0	90.00	359.54	11,450.0	9,126.8	-1,118.7	9,135.5	0.00	0.00	0.00
20,700.0	90.00	359.54	11,450.0	9,226.8	-1,119.5	9,235.5	0.00	0.00	0.00
20,800.0	90.00	359.54	11,450.0	9,326.8	-1,120.3	9,335.5	0.00	0.00	0.00
20,900.0	90.00	359.54	11,450.0	9,426.8	-1,121.1	9,435.5	0.00	0.00	0.00
21,000.0	90.00	359.54	11,450.0	9,526.8	-1,121.9	9,535.5	0.00	0.00	0.00
21,100.0	90.00	359.54	11,450.0	9,626.8	-1,122.7	9,635.5	0.00	0.00	0.00
21,200.0	90.00	359.54	11,450.0	9,726.8	-1,123.5	9,735.5	0.00	0.00	0.00
21,300.0	90.00	359.54	11,450.0	9,826.8	-1,124.3	9,835.5	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	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)
21,400.0	90.00	359.54	11,450.0	9,926.8	-1,125.1	9,935.5	0.00	0.00	0.00
21,500.0	90.00	359.54	11,450.0	10,026.8	-1,125.9	10,035.5	0.00	0.00	0.00
21,600.0	90.00	359.54	11,450.0	10,126.8	-1,126.7	10,135.5	0.00	0.00	0.00
21,659.1	90.00	359.54	11,450.0	10,185.9	-1,127.2	10,194.6	0.00	0.00	0.00
TD at 21659.1 - BHL - Nina Cortell Fed Com #137H									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - Nina Cortell Fed C - plan hits target center - Point	0.00	0.00	10,877.0	-203.9	-1,044.6	509,523.74	707,516.70	32° 23' 56.406 N	103° 39' 39.571 W
FTP - Nina Cortell #137H - plan misses target center by 0.3usft at 11182.9usft MD (11110.9 TVD, -154.0 N, -1045.0 E) - Point	0.00	0.00	11,110.9	-154.0	-1,044.7	509,573.69	707,516.54	32° 23' 56.900 N	103° 39' 39.569 W
BPP1 - Nina Cortell #137 - plan misses target center by 0.2usft at 16495.9usft MD (11450.0 TVD, 5022.8 N, -1086.1 E) - Point	0.00	0.00	11,450.0	5,022.8	-1,085.9	514,750.22	707,475.33	32° 24' 48.127 N	103° 39' 39.670 W
BHL - Nina Cortell Fed C - plan hits target center - Point	0.00	0.00	11,450.0	10,185.9	-1,127.2	519,913.51	707,434.01	32° 25' 39.222 N	103° 39' 39.773 W

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
839.0	839.0	Z (Rustler)		0.00	359.54
1,191.0	1,191.0	Z (Salado)		0.00	359.54
3,300.2	3,285.0	Z (Castile (T))		0.00	359.54
4,925.9	4,897.0	Z (G30:CS14-CSB)		0.00	359.54
4,968.2	4,939.0	Z (G26: Bell Cyn.)		0.00	359.54
5,878.9	5,842.0	Z (G13: Cherry Cyn.)		0.00	359.54
7,031.6	6,985.0	Z (G7: Brushy Cyn.) Antelope Ridge		0.00	359.54
8,882.8	8,826.0	Z (G4: BSG (CS9))		0.00	359.54
9,724.3	9,664.0	Z (L5.3: FBSC)		0.00	359.54
9,958.3	9,897.0	Z (L5.1: FBSC)		0.00	359.54
10,240.5	10,178.0	Z (L4.3: SBSC)		0.00	359.54
10,621.1	10,557.0	Z (L4.1: SBSC)		0.00	359.54
11,044.5	10,979.0	Z (L3.3: TBSC)		0.00	359.54

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #137H (Previous #223H)
Company:	Matador Production Company	TVD Reference:	KB @ 3817.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3817.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #137H (Previous #223H)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,000.0	1,000.0	0.0	0.0	Start Build 1.00	
1,744.2	1,742.1	-1.5	-48.2	Start 5806.8 hold at 1744.2 MD	
7,551.0	7,500.0	-25.0	-800.0	Start DLS 3.53 TFO -136.06	
7,674.8	7,623.1	-28.7	-812.5	Start 3084.8 hold at 7674.8 MD	
10,759.5	10,694.8	-198.9	-1,037.9	Start Drop -2.88	
10,941.9	10,877.0	-203.9	-1,044.6	Start DLS 10.00 TFO 359.54	
11,841.9	11,450.0	369.0	-1,049.1	Start 9817.2 hold at 11841.9 MD	
21,659.1	11,450.0	10,185.9	-1,127.2	TD at 21659.1	

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 263467

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 263467
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	10/25/2023