

Carlsbad Field Office OCD Artesia

OIL CONSERVATION
ARTESIA DISTRICT

Form 3160-3
(March 2012)

AUG 17 2018

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone		8. Lease Name and Well No. 322261 GARRETT FED COM 222H
2. Name of Operator MATADOR PRODUCTION COMPANY		9. API Well No. 30-015-45182
3a. Address 5400 LBJ Freeway, Suite 1500 Dallas TX 7524	3b. Phone No. (include area code) (972)371-5200	10. Field and Pool, or Exploratory PURPLE SAGE WOLFCAMP / WOLFCAMP
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SWNW / 2282 FNL / 585 FWL / LAT 32.1748621 / LONG -104.0132274 At proposed prod. zone SENE / 1663 FNL / 240 FEL / LAT 32.1764931 / LONG -103.998857		11. Sec., T. R. M. or Blk. and Survey or Area SEC 32 / T24S / R29E / NMP
14. Distance in miles and direction from nearest town or post office* 5 miles		12. County or Parish EDDY
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 584 feet		13. State NM
16. No. of acres in lease 80	17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, 30 feet applied for, on this lease, ft.	19. Proposed Depth 10934 feet / 15718 feet	20. BLM/BIA Bond No. on file FED: NMB001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2922 feet	22. Approximate date work will start* 03/01/2018	23. Estimated duration 90 days

24. Attachments

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) Brian Wood / Ph: (505)466-8120	Date 01/24/2018
Title President		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 07/16/2018
Title Assistant Field Manager Lands & Minerals		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS
Approval Date: 07/16/2018

RUP 8-17-18.

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

NOTICES

The Privacy Act of 1974 and 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

I. SHL: SWNW / 2282 FNL / 585 FWL / TWSP: 24S / RANGE: 29E / SECTION: 32 / LAT: 32.1748621 / LONG: -104.0132274 (TVD: 0 feet, MD: 0 feet)
PPP: SWNE / 1669 FNL / 2460 FEL / TWSP: 24S / RANGE: 29E / SECTION: 32 / LAT: 32.176541 / LONG: -104.006564 (TVD: 10934 feet, MD: 13339 feet)
PPP: SENW / 1669 FNL / 1320 FWL / TWSP: 24S / RANGE: 29E / SECTION: 32 / LAT: 32.176541 / LONG: -104.010827 (TVD: 10934 feet, MD: 12021 feet)
PPP: SWNW / 2282 FNL / 585 FWL / TWSP: 24S / RANGE: 29E / SECTION: 32 / LAT: 32.1748621 / LONG: -104.0132274 (TVD: 0 feet, MD: 0 feet)
BHL: SENE / 1663 FNL / 240 FEL / TWSP: 24S / RANGE: 29E / SECTION: 32 / LAT: 32.1764931 / LONG: -103.998857 (TVD: 10934 feet, MD: 15718 feet)

BLM Point of Contact

Name: Judith Yeager

Title: Legal Instruments Examiner

Phone: 5752345936

Email: jyeager@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM-054289
WELL NAME & NO.:	Garrett Fed Com 222H
SURFACE HOLE FOOTAGE:	2282' FNL & 0585' FWL
BOTTOM HOLE FOOTAGE:	1663' FNL & 0240' FEL
LOCATION:	Section 24, T. 29 S., R 32 E., NMPM
COUNTY:	County, New Mexico

Communitization Agreement

The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, 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.

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☐ **Eddy County**

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

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, report measured amounts and formations to the BLM.**
2. **Hydrogen Sulfide has been reported as a hazard, but no measurements have been recorded. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If Hydrogen Sulfide is encountered, report measurements and formations to the BLM.**
3. **Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
4. **Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.**
5. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

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

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

Wait on cement (WOC) for Water Basin:

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

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.

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

Medium Cave/Karst

Possibility of water flows in the Castile and Salado.

Possibility of lost circulation in the Rustler, Red Beds, and Delaware.

Abnormal pressure maybe encountered when penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

1. The 13-3/8 inch surface casing shall be set at approximately 610 feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet 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 is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

- ☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

If cement does not circulate to surface on the intermediate casing, the cement on the 7-5/8 X 7 casing must come to surface.

3. The minimum required fill of cement behind the 7-5/8 X 7 inch intermediate casing is:

- ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

4. The minimum required fill of cement behind the 5-1/2 X 4-1/2 inch production casing is:

- ☐ Cement as proposed by operator. Operator shall provide method of verification.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

BOP Option #1:

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 1st intermediate casing shoe shall be psi.
5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7-5/8 X 7 intermediate casing shoe shall be psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

BOP Option #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 psi.

- a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
- b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
- c. **Manufacturer representative shall install the test plug for the initial BOP test.**
- d. **Operator shall perform the 9-5/8" and 7-5/8 X 7" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
- 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.**

Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7-5/8 X 7 casing shoe shall be psi.

- a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
- b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
- c. **Manufacturer representative shall install the test plug for the initial BOP test.**
- d. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

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

6. **The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.**

- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
- b. 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.
- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.**
- e. 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.
- f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

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

E. DRILL STEM TEST

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

F. WASTE MATERIAL AND FLUIDS

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

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

JAM 071618

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM054289
WELL NAME & NO.:	Garrett Fed Com 222H
SURFACE HOLE FOOTAGE:	2282'/N & 585'/W
BOTTOM HOLE FOOTAGE:	1663'/N & 240'/E
LOCATION:	Section 32, T.24 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

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

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Cave/Karst Surface Mitigation

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

Construction:

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

No Blasting:

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

Pad Berming:

- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will be vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Tank Battery Liners and Berms:

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

Leak Detection System:

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

Automatic Shut-off Systems:

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

Cave/Karst Subsurface Mitigation

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

Rotary Drilling with Fresh Water:

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

Directional Drilling:

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

Lost Circulation:

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

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

Abandonment Cementing:

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

Pressure Testing:

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

Hydrology:

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

Following proper procedures for crossing fence lines including bracing and tying off on both sides of road passageways through fences with H-braces prior to cutting the fence, would mitigate the impacts to fence. The operator would notify the New Mexico State Land Office private surface landowners, and grazing allotment holders prior to crossing any fences.

Any damage to fences, cattle guards, windmills, and pipelines or structures that provide water to livestock during construction, throughout the life of the project, and caused by its operation, must be immediately corrected by the Applicant. The Applicant must notify the New Mexico State Land Office, grazing allottee or the private surface landowner and the BLM-CFO (575-234-5972) if any damage occurs to windmills, tanks, pipelines or structures that provide water to livestock.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

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

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

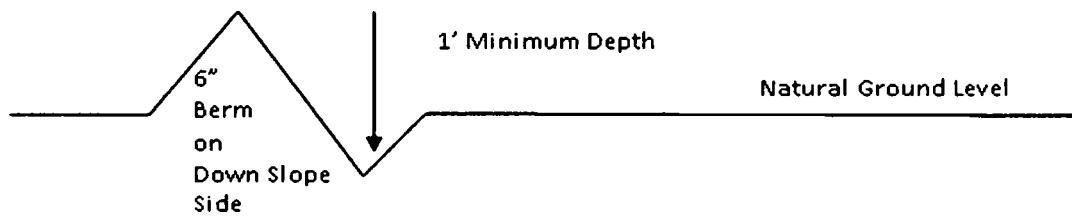
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

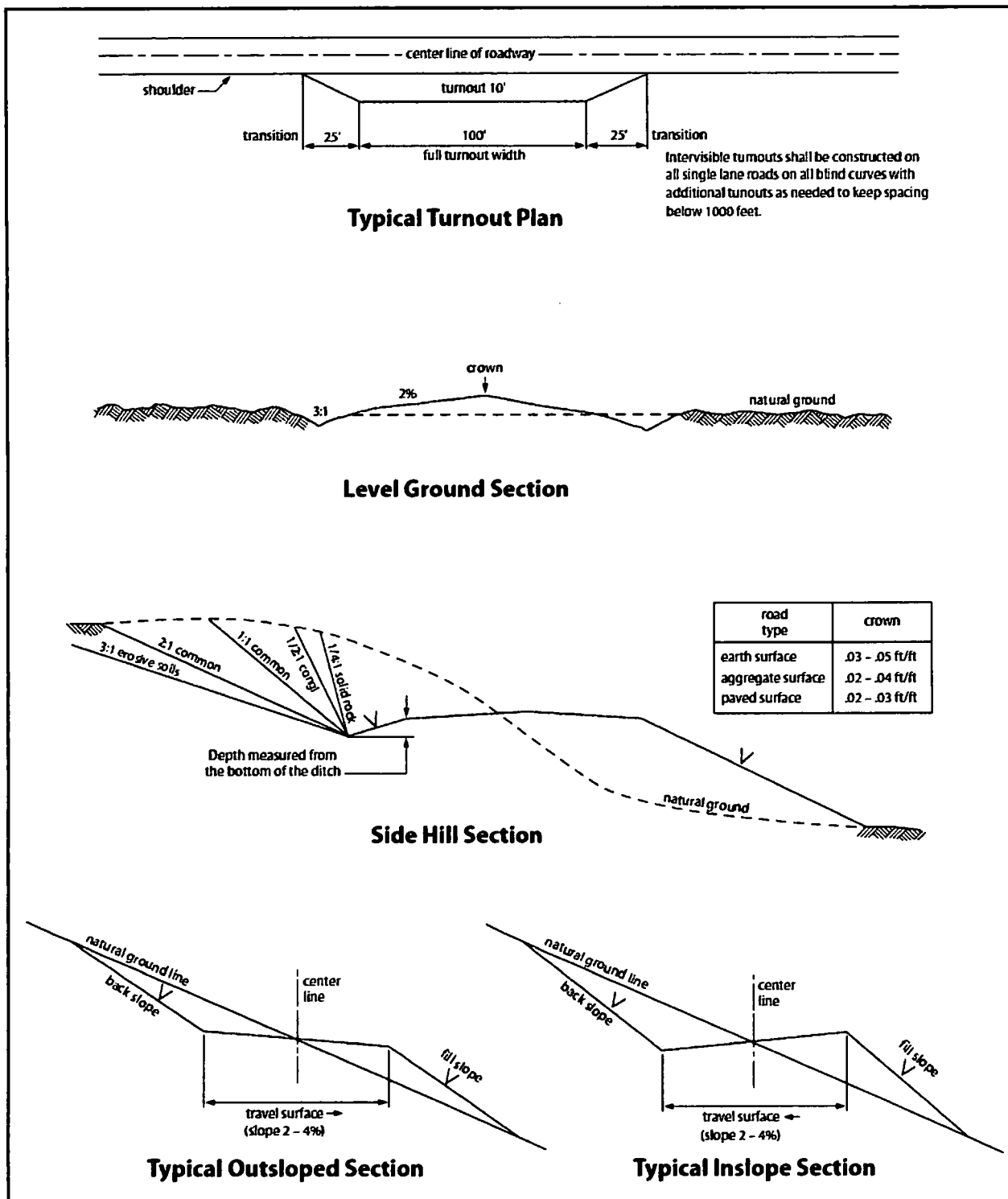


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

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

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

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
 - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
 - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

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

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

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

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

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

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

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

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or

other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

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

VIII. INTERIM RECLAMATION

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

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

Seed Mixture 1 for Loamy Sites

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

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

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

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass (<i>Eragrostis intermedia</i>)	0.5
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sideoats grama (<i>Bouteloua curtipendula</i>)	5.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

*Pounds of pure live seed:

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

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM054289
WELL NAME & NO.:	Garrett Fed Com 222H
SURFACE HOLE FOOTAGE:	2282'/N & 585'/W
BOTTOM HOLE FOOTAGE	1663'/N & 240'/E
LOCATION:	Section 32, T.24 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

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

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Cave/Karst Surface Mitigation

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

Construction:

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

No Blasting:

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

Pad Berming:

- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Tank Battery Liners and Berms:

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

Leak Detection System:

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

Automatic Shut-off Systems:

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

Cave/Karst Subsurface Mitigation

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

Rotary Drilling with Fresh Water:

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

Directional Drilling:

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

Lost Circulation:

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

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

Abandonment Cementing:

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

Pressure Testing:

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

Hydrology:

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

Following proper procedures for crossing fence lines including bracing and tying off on both sides of road passageways through fences with H-braces prior to cutting the fence, would mitigate the impacts to fence. The operator would notify the New Mexico State Land Office private surface landowners, and grazing allotment holders prior to crossing any fences.

Any damage to fences, cattle guards, windmills, and pipelines or structures that provide water to livestock during construction, throughout the life of the project, and caused by its operation, must be immediately corrected by the Applicant. The Applicant must notify the New Mexico State Land Office, grazing allottee or the private surface landowner and the BLM-CFO (575-234-5972) if any damage occurs to windmills, tanks, pipelines or structures that provide water to livestock.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

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

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

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

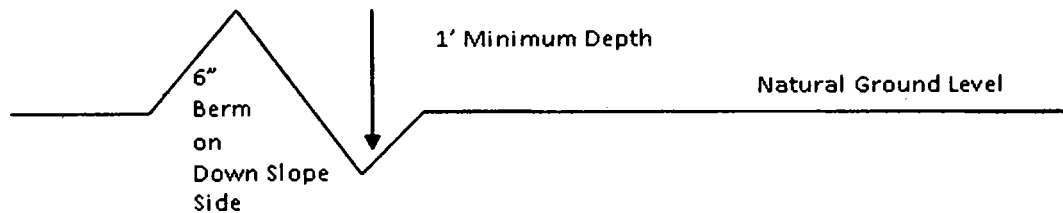
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

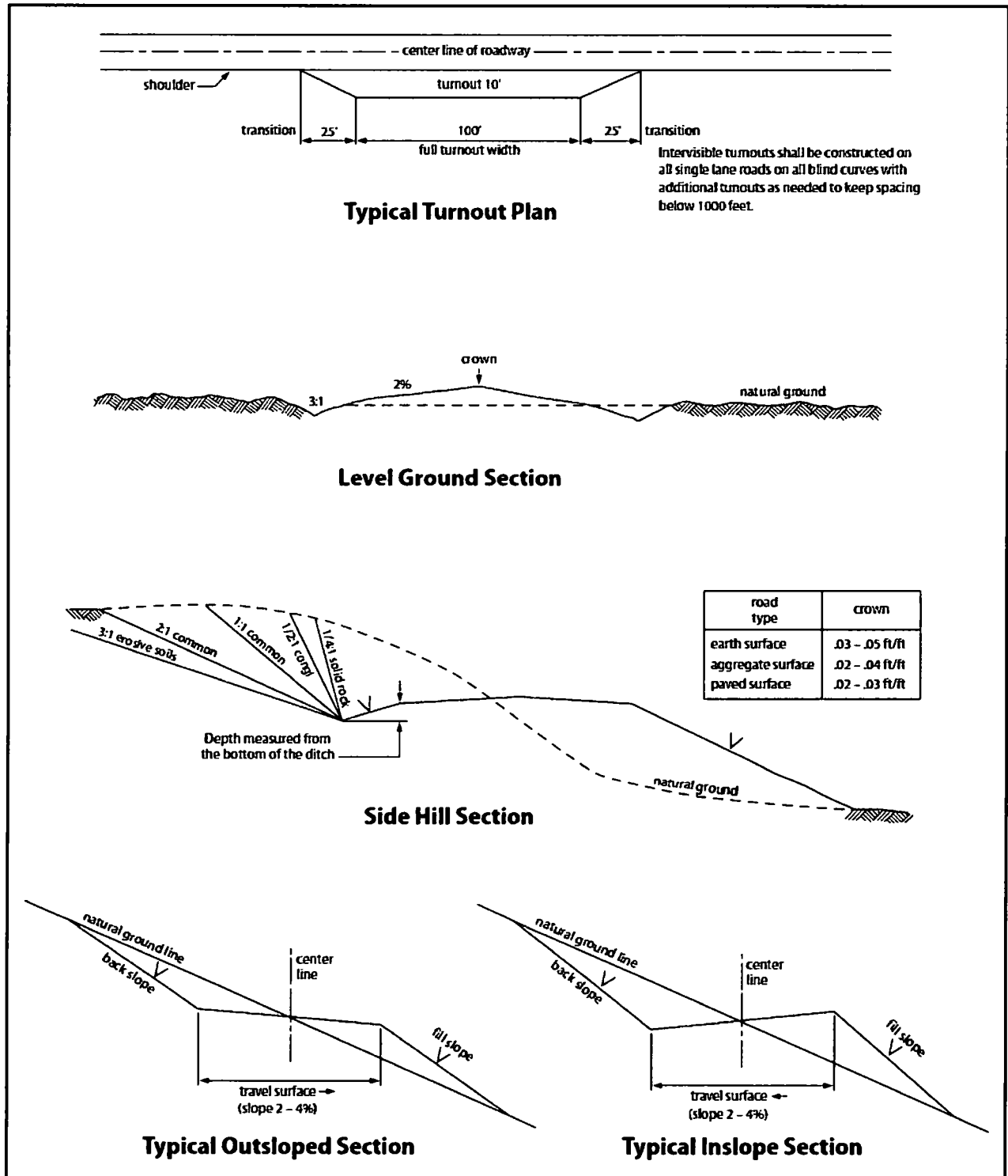


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

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

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

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
 - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
 - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

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

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

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

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

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

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

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

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or

other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

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

VIII. INTERIM RECLAMATION

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

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

Seed Mixture 1 for Loamy Sites

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

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

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

Species

	<u>lb/acre</u>
Plains lovegrass (<i>Eragrostis intermedia</i>)	0.5
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sideoats grama (<i>Bouteloua curtipendula</i>)	5.0
Plains bristlegass (<i>Setaria macrostachya</i>)	2.0

*Pounds of pure live seed:

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



**U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT**

Operator Certification Data Report

07/19/2018

Operator Certification

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

NAME: Brian Wood

Signed on: 01/24/2018

Title: President

Street Address: 37 Verano Loop

City: Santa Fe

State: NM

Zip: 87508

Phone: (505)466-8120

Email address: afmss@permitswest.com

Field Representative

Representative Name: Sam Pryor

Street Address: 5400 LBJ Freeway, Suite 1500

City: Dallas

State: TX

Zip: 75240

Phone: (972)371-5241

Email address:



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

07/19/2018

APD ID: 10400026519

Submission Date: 01/24/2018

Operator Name: MATADOR PRODUCTION COMPANY

Highlighted data
reflects the most
recent changes

Well Name: GARRETT FED COM

Well Number: 222H

Show Final Text

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400026519

Tie to previous NOS?

Submission Date: 01/24/2018

BLM Office: CARLSBAD

User: Brian Wood

Title: President

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM054289

Lease Acres: 80

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? YES

APD Operator: MATADOR PRODUCTION COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: MATADOR PRODUCTION COMPANY

Operator Address: 5400 LBJ Freeway, Suite 1500

Zip: 75240

Operator PO Box:

Operator City: Dallas

State: TX

Operator Phone: (972)371-5200

Operator Internet Address: amonroe@matadorresources.com

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: GARRETT FED COM

Well Number: 222H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: PURPLE SAGE
WOLFCAMP

Pool Name: WOLFCAMP

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:

Number: 122H

Well Class: HORIZONTAL

GARRETT FED COM

Number of Legs: 1

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 5 Miles

Distance to nearest well: 30 FT

Distance to lease line: 584 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Garrett_222H_Plat_20180124085526.pdf

Well work start Date: 03/01/2018

Duration: 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 18329

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	228 2	FNL	585	FWL	24S	29E	32	Aliquot SWN W	32.17486 21	- 104.0132 274	EDD Y	NEW MEXI CO	NEW MEXI CO	S	STATE	292 2	0	0
KOP Leg #1	228 2	FNL	585	FWL	24S	29E	32	Aliquot SWN W	32.17486 21	- 104.0132 274	EDD Y	NEW MEXI CO	NEW MEXI CO	S	STATE	- 743 3	103 98	103 55
PPP Leg #1	228 2	FNL	585	FWL	24S	29E	32	Aliquot SWN W	32.17486 21	- 104.0132 274	EDD Y	NEW MEXI CO	NEW MEXI CO	S	STATE	292 2	0	0

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	166 9	FNL	132 0	FWL	24S	29E	32	Aliquot SENW	32.17654 1	- 104.0108 27	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 054289	- 801 2	120 21	109 34
PPP Leg #1	166 9	FNL	246 0	FEL	24S	29E	32	Aliquot SWNE	32.17654 1	- 104.0065 64	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 801 2	133 39	109 34
EXIT Leg #1	166 3	FNL	240	FEL	24S	29E	32	Aliquot SENE	32.17649 31	- 103.9988 57	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 801 2	157 18	109 34
BHL Leg #1	166 3	FNL	240	FEL	24S	29E	32	Aliquot SENE	32.17649 31	- 103.9988 57	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 801 2	157 18	109 34

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint, but determined to be impractical, to reduce the amount of gas flared.

- Power Generation – On lease
 - Operating a generator will only utilize a portion of the produced gas and the remainder of gas would still need to be flared.
 - Power generation also requires an agreement with a power company that is willing to purchase the gas. The terms of any such agreement typically require a long-term commitment from the operator at certain and steady deliverables. With gas decline rates and the unpredictability of markets, it is impracticable for the operator to agree to a long-term commitment because as the wells decline the operator would be burdened with penalties for failure to meet the deliverables.
- Compressed Natural Gas – On lease
 - Compressed Natural Gas is likely to be uneconomic to operate when the gas volume declines.
- NGL Removal – On lease
 - NGL Removal requires a plant and is expensive on such a small scale rendering it uneconomic and still requires residue gas to be flared.



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

07/19/2018

APD ID: 10400026519

Submission Date: 01/24/2018

Operator Name: MATADOR PRODUCTION COMPANY

Highlighted data
reflects the most
recent changes

Well Name: GARRETT FED COM

Well Number: 222H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	QUATERNARY	2921	0	0	OTHER : CALICHE	USEABLE WATER	No
2	RUSTLER ANHYDRITE	2910	11	29		USEABLE WATER	No
3	TOP SALT	2539	382	382		NONE	No
4	CASTILE	1720	1201	1203	ANHYDRITE	NONE	No
5	BASE OF SALT	152	2769	2783		NONE	No
6	BELL CANYON	102	2819	2833	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-808	3729	3750	SANDSTONE	NATURAL GAS,OIL	No
8	BRUSHY CANYON	-1977	4898	4928	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING	-3614	6535	6578	LIMESTONE	NATURAL GAS,OIL	No
10	BONE SPRING 1ST	-4414	7335	7378	OTHER : CARBONATE	NATURAL GAS,OIL	No
11	BONE SPRING 1ST	-4593	7514	7557	LIMESTONE,SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 2ND	-4844	7765	7808	OTHER : CARBONATE	NATURAL GAS,OIL	No
13	BONE SPRING 2ND	-5339	8260	8403	SANDSTONE	NATURAL GAS,OIL	Yes
14	BONE SPRING 3RD	-5699	8620	8663	OTHER : Carbonate	NATURAL GAS,CO2,OIL	No
15	BONE SPRING 3RD	-6437	9358	9401	SANDSTONE	NATURAL GAS,CO2,OIL	No
16	WOLFCAMP	-6801	9722	9765	OTHER : A Carbonate	NATURAL GAS,CO2,OIL	No
17	WOLFCAMP	-7067	9988	10031	OTHER : A Fat Carbonate	NATURAL GAS,CO2,OIL	No
18	WOLFCAMP	-7257	10178	10201	OTHER : B Carbonate	NATURAL GAS,CO2,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 12000

Equipment: A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attached BOP, choke manifold, co-flex hose, and speed head diagrams. An accumulator complying with Onshore Order 2 requirements for the BOP stack pressure rating will be present. Rotating head will be installed as needed.

Requesting Variance? YES

Variance request: Matador requests a variance to have the option of running a speed head for setting the intermediate 1 and 2 strings. In the case of running a speed head with landing mandrel for 9.625" and 7" casing, a minimum 3M BOPE system will be installed after surface casing is set. BOP test pressures will be 250 psi low and 3000 psi high. Annular will be tested to 250 psi low and 2500 psi high before drilling below the surface shoe. After 7" casing is set in the speed head, the BOP will then be lifted to install another casing head section for setting the production casing. Matador will nipple up the casing head and BOP and a minimum 5M BOPE system will be installed. Pressure tests will be made to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 2500 psi high. A diagram of the speed head is attached. 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. Manufacturer does not require the hose to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Testing Procedure: Pressure tests will be conducted before drilling out from under all casing strings. 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 the surface casing, and before drilling the surface casing shoe, a minimum 2M BOPE system will be installed. It will be tested to 250 psi low and 2000 psi high. Annular will be tested to 250 psi low and 1000 psi high. After setting intermediate 1 casing, a minimum 3M BOPE system will be installed and tested to 250 psi low and 3000 psi high. Annular will be tested to 250 psi low and 2500 psi high. After setting intermediate 2 casing, a minimum 5M BOPE system will be installed and tested to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 2500 psi high.

Choke Diagram Attachment:

Garrett_222H_Choke_20180124090908.pdf

BOP Diagram Attachment:

Garrett_222H_BOP_20180124090923.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	610	0	610	2921		610	J-55	54.5	OTHER - BTC	1.125	1.125	DRY	1.8	DRY	1.8
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	2600	0	2584			2600	P-110	29.7	OTHER - BTC	1.125	1.125	DRY	1.8	DRY	1.8

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2900	0	2885			2900	J-55	40	OTHER - BTC	1.125	1.125	DRY	1.8	DRY	1.8
4	PRODUCTION	6.125	5.5	NEW	API	Y	0	10200	0	10157			10200	P-110	20	OTHER - BTC/TXP	1.125	1.125	DRY	1.8	DRY	1.8
5	INTERMEDIATE	8.75	7.625	NEW	API	Y	2600	10300	2587	9164			7700	P-110	29.7	OTHER - VAM HTF-NR	1.125	1.125	DRY	1.8	DRY	1.8
6	INTERMEDIATE	8.75	7.0	NEW	API	Y	10300	11198	10257	10919			898	P-110	29	OTHER - BTC	1.125	1.125	DRY	1.8	DRY	1.8
7	PRODUCTION	6.125	4.5	NEW	API	Y	10200	15718	10157	10934			5518	P-110	13.5	OTHER - BTC/TXP	1.125	1.125	DRY	1.8	DRY	1.8

Casing Attachments

Casing ID: 1String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091009.pdf

Casing ID: 2String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Garrett_222H_Casing_Design_Assumptions_20180124091729.pdf

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091940.pdf

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Casing Attachments

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091408.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Garrett_222H_5.5in_Specs_20180124091819.pdf

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091929.pdf

Casing ID: 5 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Garrett_222H_7.625in_Specs_20180124091528.pdf

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091553.pdf

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Casing Attachments

Casing ID: 6 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Garrett_222H_Casing_Design_Assumptions_20180124091646.pdf

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091918.pdf

Casing ID: 7 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Garrett_222H_4.5in_Specs_20180124091855.pdf

Casing Design Assumptions and Worksheet(s):

Garrett_222H_Casing_Design_Assumptions_20180124091908.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	610	268	1.82	12.8	487	100	CLASS C	BENTONITE + 2% CaCl2 + 3% NaCl + LCM
SURFACE	Tail		0	610	352	1.38	14.8	485	100	CLASS C	5% NaCl + LCM
INTERMEDIATE	Lead		0	2600	700	2.13	12.6	1491	60	TXI	fluid loss + dispersant + retarder + LCM
INTERMEDIATE	Tail		0	2600	225	1.38	14.8	310	60	TXI	fluid loss + dispersant + retarder + LCM
INTERMEDIATE	Lead		0	2900	638	2.13	12.6	1358	100	CLASS C	BENTONITE + 1% CaCl2 + 8% NaCl +

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											LCM
INTERMEDIATE	Tail		0	2900	202	1.38	14.8	278	100	CLASS C	5% NaCl + LCM
PRODUCTION	Lead		0	1020 0	520	1.17	15.8	620	25	Class H	FLUID LOSS + DISPERSANT + RETARDER + LCM
PRODUCTION	Tail		0	1020 0	530	1.17	15.8	620	25	Class H	FLUID LOSS + DISPERSANT + RETARDER + LCM
INTERMEDIATE	Lead		2600	1030 0	700	2.13	12.6	1491	60	TXI	fluid loss + dispersant + retarder + LCM
INTERMEDIATE	Tail		2600	1030 0	225	1.38	14.8	310	60	TXI	fluid loss + dispersant + retarder + LCM
INTERMEDIATE	Lead		1030 0	1119 8	700	2.13	12.6	1491	60	TXI	fluid loss + dispersant + retarder + LCM
INTERMEDIATE	Tail		1030 0	1119 8	225	1.38	14.8	310	60	TXI	fluid loss + dispersant + retarder + LCM
PRODUCTION	Lead		1020 0	1571 8	530	1.17	15.8	620	25	Class H	fluid loss + dispersant + retarder + LCM
PRODUCTION	Tail		1020 0	1571 8	530	1.17	15.8	620	25	Class H	fluid loss + dispersant + retarder + LCM

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized: An electronic Pason mud monitoring system complying with Onshore Order 1 will be used.

Circulating Medium Table

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1119 8	1571 8	OIL-BASED MUD	12.5	12.5							
610	2900	OTHER : BRINE WATER	10	10							
0	610	SPUD MUD	8.3	8.3							
2900	1119 8	OTHER : FRESH WATER + CUT BRINE	9	9							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

A 2-person mud logging program will be used from 11,200 MD to TD.

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

List of open and cased hole logs run in the well:

CBL,GR,MWD

Coring operation description for the well:

No core is planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7100

Anticipated Surface Pressure: 4694.52

Anticipated Bottom Hole Temperature(F): 170

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Garrett_222H_H2S_Plan_20180124092732.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Garrett_222H_Horizontal_Drill_Plan_20180124130127.pdf

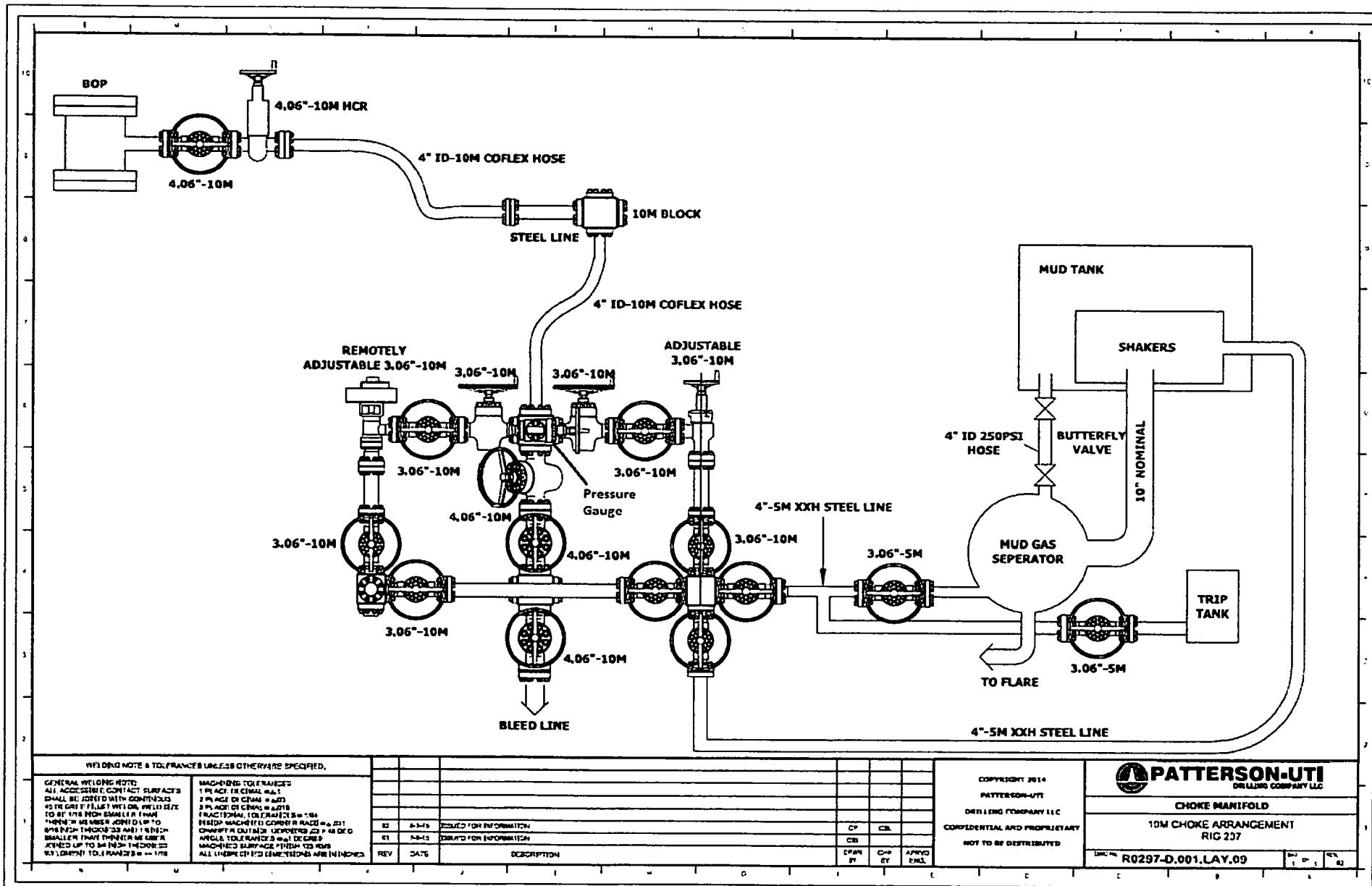
Other proposed operations facets description:

Other proposed operations facets attachment:

Garrett_222H_Speedhead_Specs_20180124092824.pdf

Garrett_222H_General_Drill_Plan_20180517081845.pdf

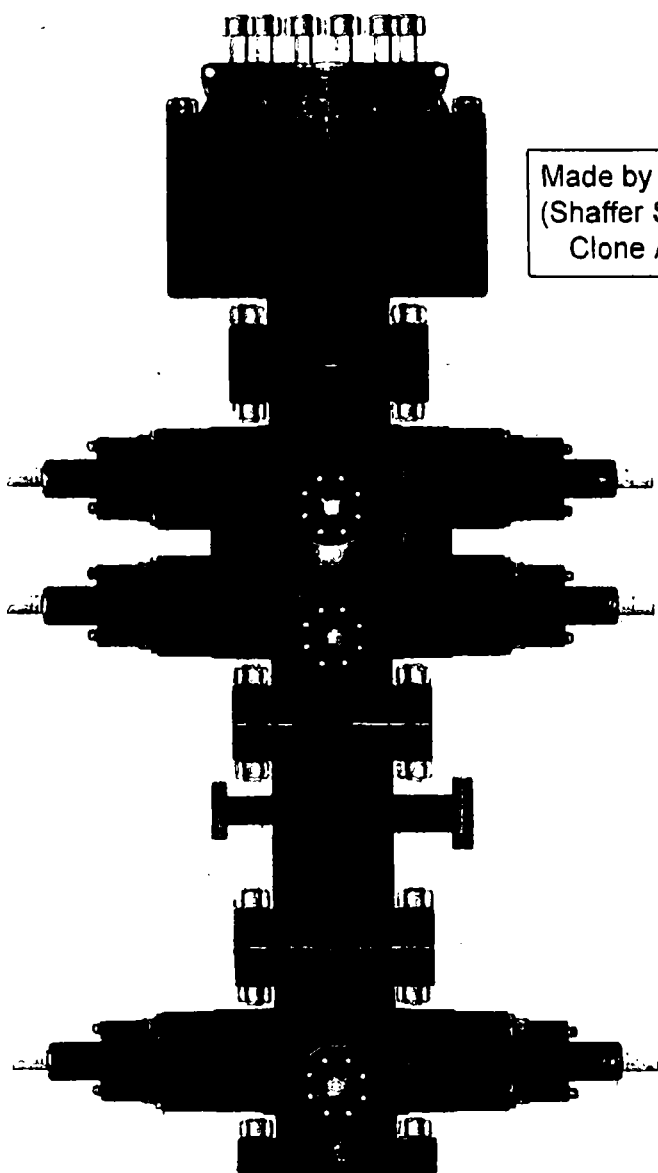
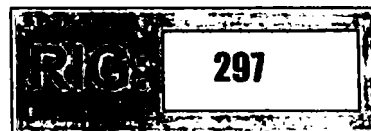
Other Variance attachment:





PATTERSON-UTI

Well Control



Made by Cameron
(Shaffer Spherical)
Clone Annular

PATTERSON-UTI # PS2-628

STYLE: New Shaffer Spherical

BORE 13 5/8" PRESSURE 5,000

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

PATTERSON-UTI # PC2-128

STYLE: New Cameron Type U

BORE 13 5/8" PRESSURE 10,000

RAMS: TOP 5" Pipe BTM Blinds

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

Length 40" Outlets 4" 10M

DSA 4" 10M x 2" 10M

PATTERSON-UTI # PC2-228

STYLE: New Cameron Type U

BORE 13 5/8" PRESSURE 10,000

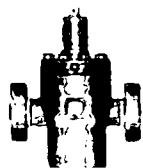
RAMS: 5" Pipe

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

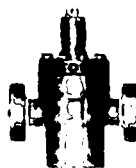
WING VALVES



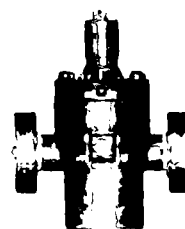
2" Check Valve



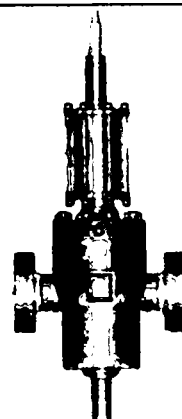
2" Manual Valve



2" Manual Valve



4" Manual Valve



4" Hydraulic Valve



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 8, 2014

Customer: Patterson

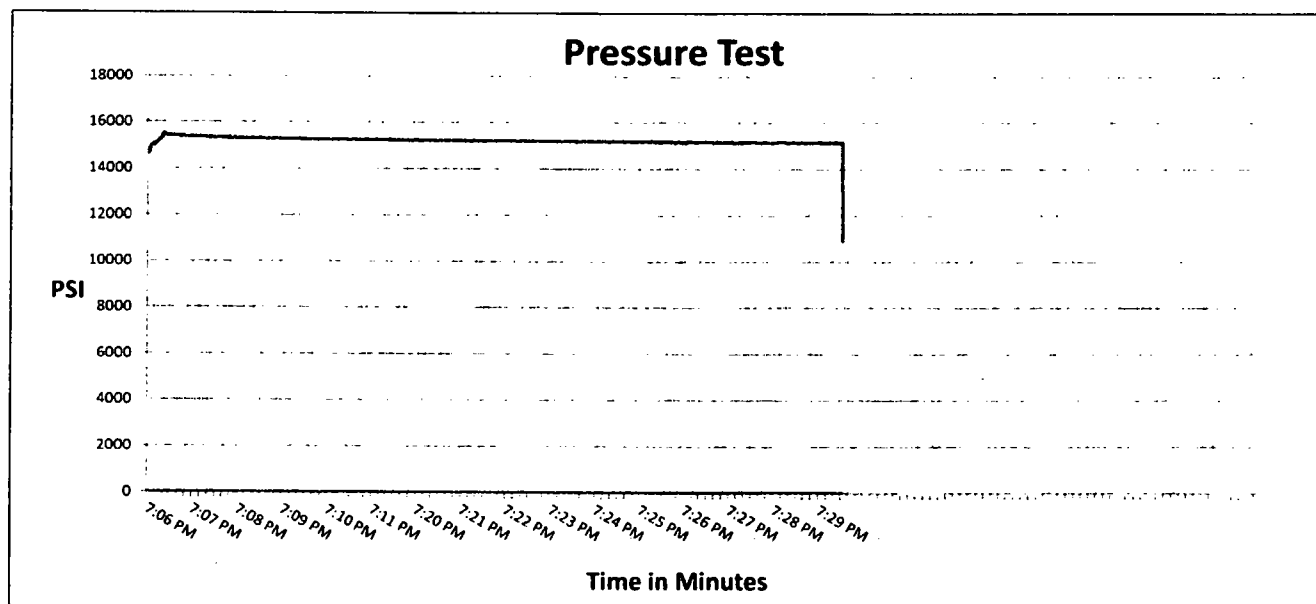
Pick Ticket #: 284918

Hose Specifications

<u>Hose Type</u>	<u>Length</u>
Ck	10'
<u>I.D.</u>	<u>O.D.</u>
3"	4.79"
<u>Working Pressure</u>	<u>Burst Pressure</u>
10000 PSI	Standard Safety Multiplier Applies

Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
4-1/16 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
5.37"	5.37"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
10490	284918-2



Test Pressure
15000 PSI

Time Held at Test Pressure
15 2/4 Minutes

Actual Burst Pressure

Peak Pressure
15732 PSI

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

Tested By: Tyler Hill

Approved By: Ryan Adams



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

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



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: PATTERSON B&E	Customer P.O.# 260471
Sales Order # 236404	Date Assembled: 12/8/2014

Specifications

Hose Assembly Type:	Choke & Kill		
Assembly Serial #	287918-2	Hose Lot # and Date Code	10490-01/13
Hose Working Pressure (psi)	10000	Test Pressure (psi)	15000

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

Supplier:

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

Comments:

Approved By

Date

12/9/2014



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

Hose Type

Ck

I.D.

3"

Working Pressure

10000 PSI

Length

20'

O.D.

4.77"

Burst Pressure

Standard Safety Multiplier Applies

Verification

Type of Fitting

4-1/16 10K

Die Size

5.37"

Hose Serial

10490

Coupling Method

Swage

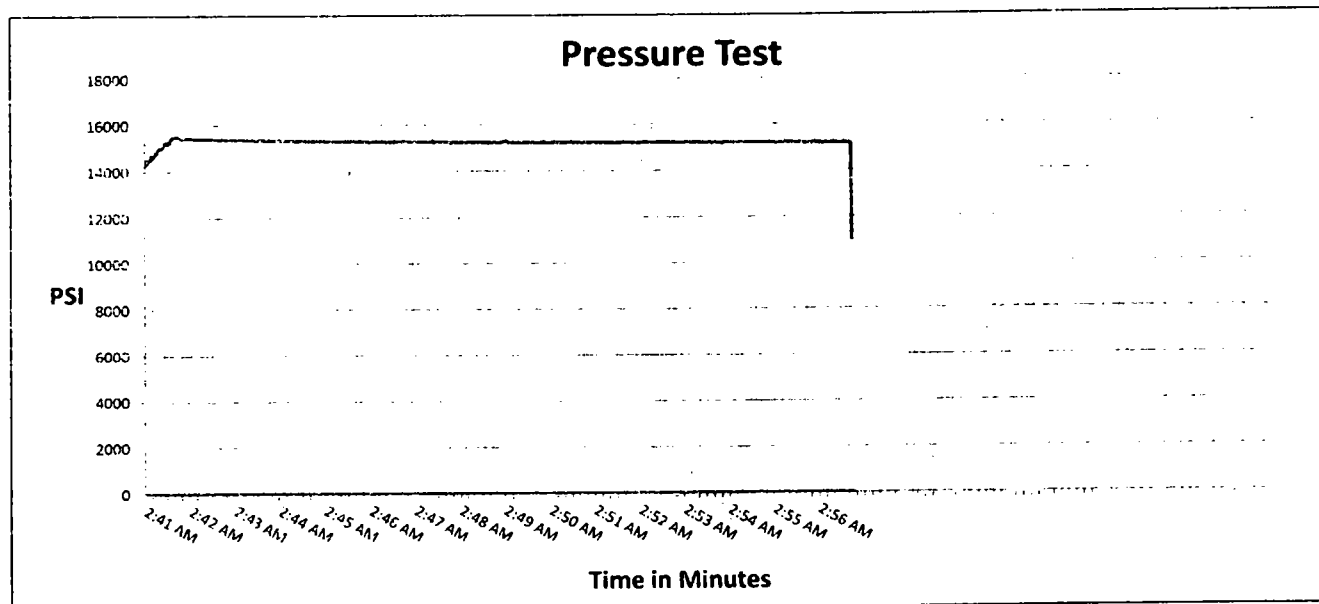
Final O.D.

5.40"

Hose Assembly Serial

284918-1

2297



Test Pressure
15000 PSI

Time Held at Test Pressure
15 2/4 Minutes

Actual Burst Pressure

Peak Pressure
15893 PSI

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

Tested By: Tyler Hill

[Signature]

Approved By: Ryan Adams

[Signature]



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

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



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: PATTERSON B&E	Customer P.O.# 260471
Sales Order # 236404	Date Assembled: 12/8/2014

Specifications

Hose Assembly Type:	Choke & Kill		
Assembly Serial #	287918-1	Hose Lot # and Date Code	10490-01/13
Hose Working Pressure (psi)	10000	Test Pressure (psi)	15000

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

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

Comments:

Approved By

Date

12/9/2014



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

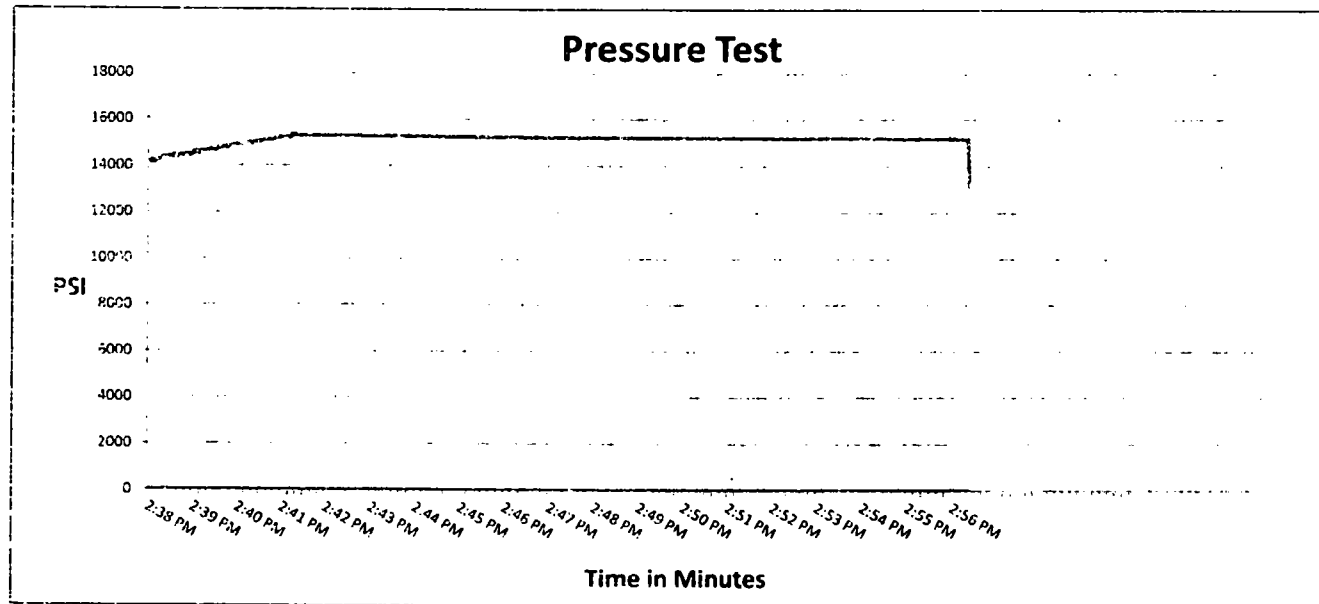
Pick Ticket #: 284918

Hose Specifications

Hose Type	Length
Mud	70'
I.D.	O.D.
3"	4.79"
Working Pressure	Burst Pressure
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	Final O.D.
5.37"	5.37"
Hose Serial #	Hose Assembly Serial #
10490	284918-3



Test Pressure
15000 PSI

Time Held at Test Pressure
16 3/4 Minutes

Actual Burst Pressure

Peak Pressure
15410 PSI

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

Tested By: Tyler Hill

Approved By: Ryan Adams

[Signature]

[Signature]



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

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



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: PATTERSON B&E	Customer P.O.# 260471
Sales Order # 236404	Date Assembled: 12/8/2014

Specifications

Hose Assembly Type:	Choke & Kill		
Assembly Serial #	287918-3	Hose Lot # and Date Code	10490-01/13
Hose Working Pressure (psi)	10000	Test Pressure (psi)	15000

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

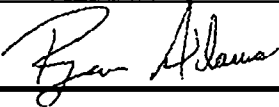
Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By	Date
	12/9/2014

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

For the latest performance data, always visit our website: www.tenaris.com

December 31 2015



Connection: TenarisXP® BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 4.500 in.
Wall: 0.290 in.
Weight: 13.50 lbs/ft
Grade: P110-ICY
Min. Wall Thickness: 87.5 %

Nominal OD	4.500 in.	Nominal Weight	13.50 lbs/ft	Standard Drift Diameter	3.795 in.
Nominal ID	3.920 in.	Wall Thickness	0.290 in.	Special Drift Diameter	N/A
Plain End Weight	13.05 lbs/ft				
Body Yield Strength	479 x 1000 lbs	Internal Yield	14100 psi	SMYS	125000 psi
Collapse	11620 psi				
Connection OD	5.000 in.	Coupling Length	9.075 in.	Connection ID	3.908 in.
Critical Section Area	3.836 sq. in.	Threads per in.	5.00	Make-Up Loss	4.016 in.
Tension Efficiency	100 %	Joint Yield Strength	479 x 1000 lbs	Internal Pressure Capacity ⁽¹⁾	14100 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	479 x 1000 lbs	Structural Bending ⁽²⁾	127 °/100 ft
External Pressure Capacity	11620 psi				
Minimum	6950 ft-lbs	Optimum	7720 ft-lbs	Maximum	8490 ft-lbs
Operating Torque	10500 ft-lbs	Yield Torque	12200 ft-lbs		
Blanking Dimensions					

For the latest performance data, always visit our website: www.tenaris.com

July 15 2015



Connection: TenarisXP™ BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 5.500 in.
Wall: 0.361 in.
Weight: 20.00 lbs/ft
Grade: P110-IC
Min. Wall Thickness: 87.5 %

PIPE BODY DATA			
GEOMETRY			
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft
Nominal ID	4.778 in.	Wall Thickness	0.361 in.
Plain End Weight	19.83 lbs/ft	Standard Drift Diameter	4.653 in.
		Special Drift Diameter	N/A
PERFORMANCE			
Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi
Collapse	12100 psi	SMYS	110000 psi
TENARISXP™ BTC CONNECTION DATA			
GEOMETRY			
Connection OD	6.100 in.	Coupling Length	9.450 in.
Critical Section Area	5.828 sq. in.	Threads per in.	5.00
		Connection ID	4.766 in.
		Make-Up Loss	4.204 in.
PERFORMANCE			
Tension Efficiency	100 %	Joint Yield Strength	641 x 1000 lbs
Structural Compression Efficiency	100 %	Structural Compression Strength	641 x 1000 lbs
External Pressure Capacity	12100 psi	Internal Pressure Capacity ⁽¹⁾	12630 psi
		Structural Bending ⁽²⁾	92 °/100 ft
ESTIMATED MAKE-UP TORQUES ⁽³⁾			
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs
		Maximum	13770 ft-lbs
OPERATIONAL LIMIT TORQUES			
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs

BLANKING DIMENSIONS

Blanking Dimensions

- (1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.
- (2) Structural rating, pure bending to yield (i.e no other loads applied)
- (3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at licensees@oilfield.tenaris.com. Torque values may be further reviewed.
- For additional information, please contact us at contact-tenarishydril@tenaris.com

**DATA ARE INFORMATIVE ONLY.
BASED ON SI_PD-101836 P&B**

VAM® HTF-NR™

Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift	Connection
7 5/8 in.	29.70 lb/ft.	0.375 in.	P110 EC	6.750 in.	VAM® HTF NR

PIPE PROPERTIES

Nominal OD	7.625 in.
Nominal ID	6.875 in.
Nominal Cross Section Area	8.541 sqin.
Grade Type	Enhanced API
Min. Yield Strength	125 ksi
Max. Yield Strength	140 ksi
Min. Ultimate Tensile Strength	135 ksi
Tensile Yield Strength	1 068 klb
Internal Yield Pressure	10 760 psi
Collapse pressure	7 360 psi

CONNECTION PROPERTIES

Connection Type	Premium Integral Flush
Connection OD (nom)	7.701 in.
Connection ID (nom)	6.782 in.
Make-Up Loss	4.657 in.
Critical Cross Section	4.971 sqin.
Tension Efficiency	58 % of pipe
Compression Efficiency	72.7 % of pipe
Compression Efficiency with Sealability	34.8 % of pipe
Internal Pressure Efficiency	100 % of pipe
External Pressure Efficiency	100 % of pipe

CONNECTION PERFORMANCES

Tensile Yield Strength	619 klb
Compression Resistance	778 klb
Compression with Sealability	372 klb
Internal Yield Pressure	10 760 psi
External Pressure Resistance	7 360 psi
Max. Bending	44 °/100ft
Max. Bending with Sealability	17 °/100ft

TORQUE VALUES

Min. Make-up torque	9 600 ³ ft.lb
Opti. Make-up torque	11 300 ft.lb
Max. Make-up torque	13 000 ft.lb
Max. Torque with Sealability	58 500 ft.lb
Max. Torsional Value	73 000 ft.lb

VAM® HTF™ (High Torque Flush) is a flush OD integral connection providing maximum clearance along with torque strength for challenging applications such as extended reach and slim hole wells, drilling liner / casing, liner rotation to achieve better cementation in highly deviated and critical High Pressure / High Temperature wells.

Looking ahead on the outcoming testing industry standards, VAM® decided to create an upgraded design and launch on the market the VAM® HTF-NR as the new standard version of VAM® extreme high torque flush connection. The VAM® HTF-NR has extensive tests as per API RP 5C5:2015 CAL II which include the gas sealability having load points with bending, internal pressure and high temperature at 135°C.

Do you need help on this product? - Remember no one knows VAM® like VAM®

canada@vamfieldservice.com
usa@vamfieldservice.com
mexico@vamfieldservice.com
brazil@vamfieldservice.com

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nigeria@vamfieldservice.com
angola@vamfieldservice.com

china@vamfieldservice.com
baku@vamfieldservice.com
singapore@vamfieldservice.com
australia@vamfieldservice.com

Over 180 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

Other Connection Data Sheets are available at www.vamservices.com

Vallourec Group



Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
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- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
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- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

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Tensile: $DF_t=1.8$

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- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

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Intermediate #2 Casing

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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: $DF_c=1.125$

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Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).



Hydrogen Sulfide Drilling Operations Plan

1 H2S safety instructions covering:

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

2 H2S Detection and Alarm Systems:

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

3 Windssocks and / Wind Streamers:

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

4 Condition Flags and Signs:

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

5 Well Control Equipment:

- See APD

6 Communications:

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



7 Drill Stem Testing:

- No DST or cores are planned at this time.

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

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

11 Emergency Contacts

- See next page

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

Company Office			
Matador Production Company		(972)-371-5200	
Key Personnel			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Adam Lange	Drilling Engineer	972-371-5247	214-458-0788
Artesia			
Ambulance			911
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
Carlsbad			
Ambulance			911
State Police		575-885-3137	
Loving City Police		575-745-3511	
Sheriff's Office		575-887-7551	
Malaga Fire Department		575-745-2317	
Local Emergency Planning Committee		575-885-3581	
Santa Fe			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
Carlsbad BLM		575-234-5972	
National Emergency Response Center (Washington, D.C.)		800-424-8802	
Medical			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd S.E., D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
Other			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Halliburton		575-746-2757	
B.J. Services		575-746-3569	

H2S Rig Diagram

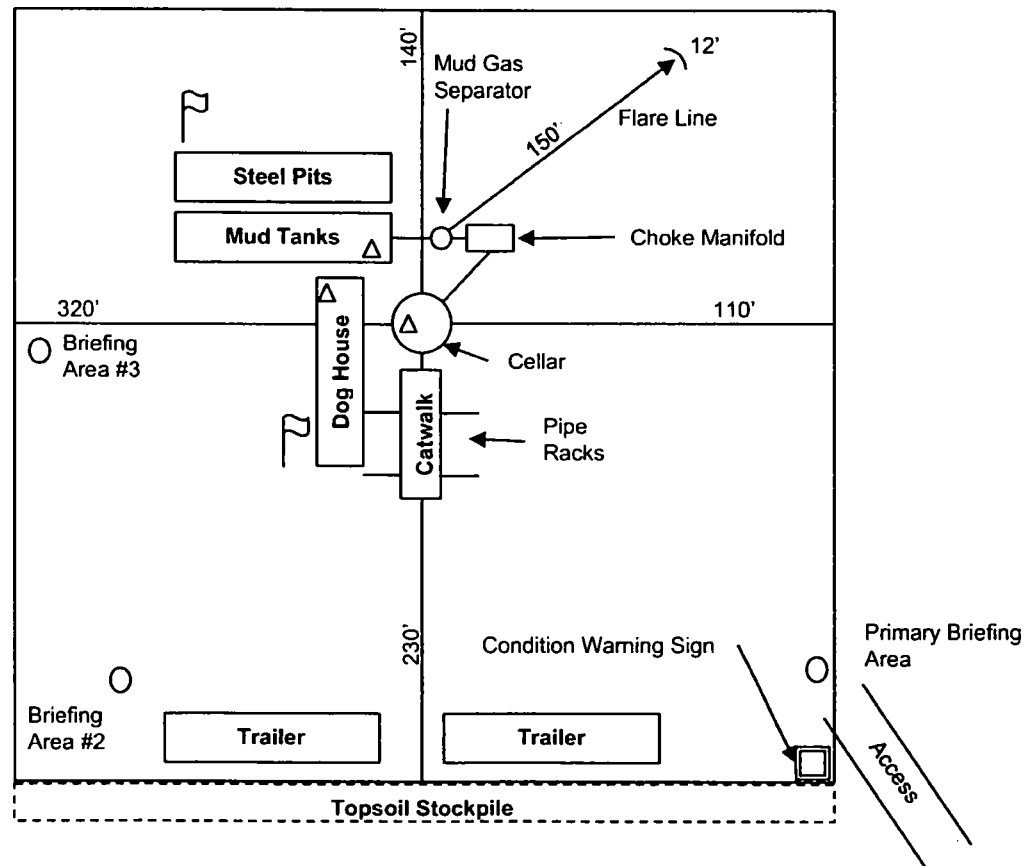
Garrett Fed Com 222H
SHL 2282' FNL & 585' FWL
32-24S-29E Eddy County, NM
(not to scale)

Wind Direction
Indicator

H2S Monitors

Briefing Areas

Prevailing
Winds → North

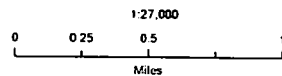


Matador Production Company

Garrett Fed Com #222H
H₂S Contingency Plan:
2 Mile Radius Map

Section 32, Township 24S, Range 29E
Eddy County, New Mexico

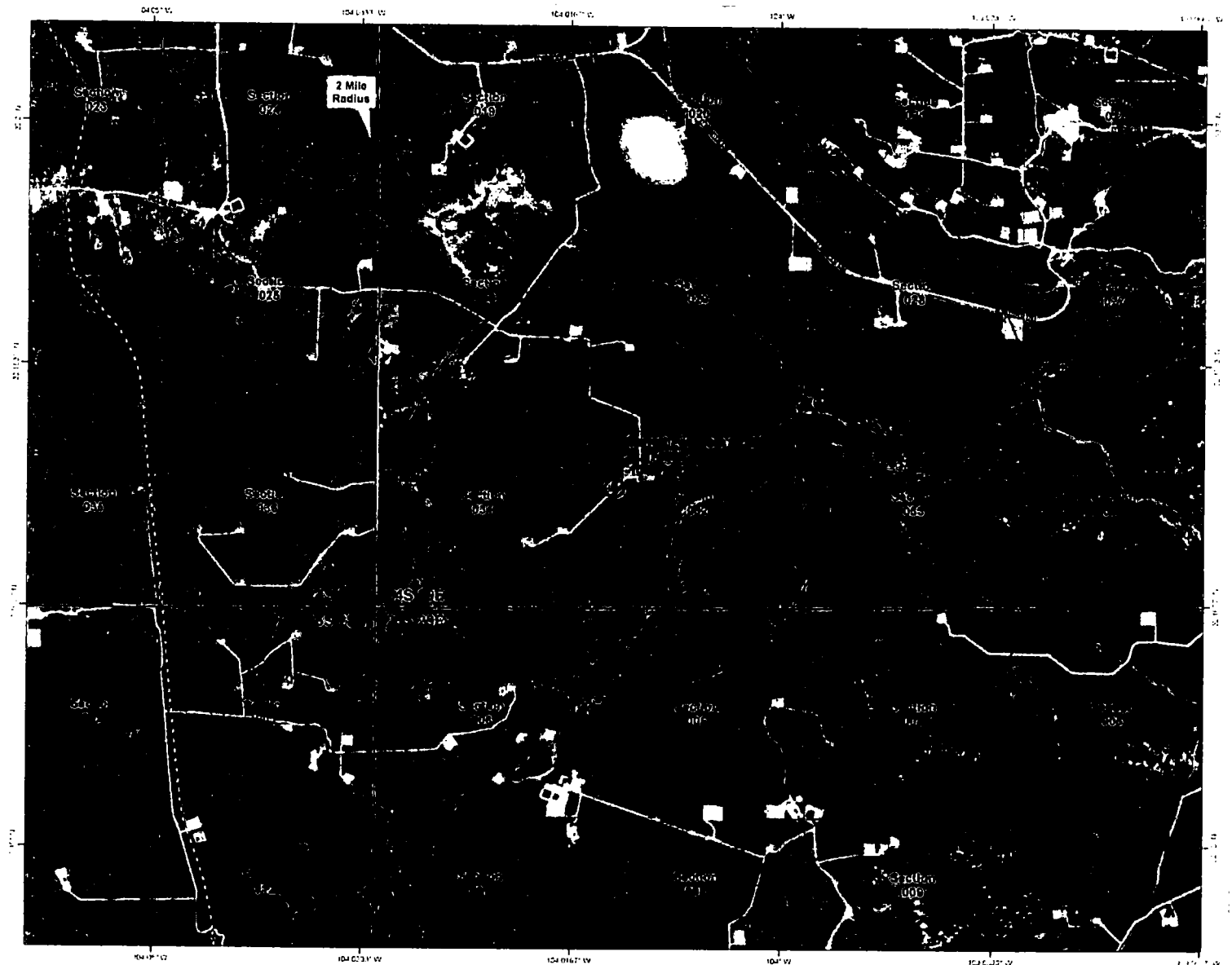
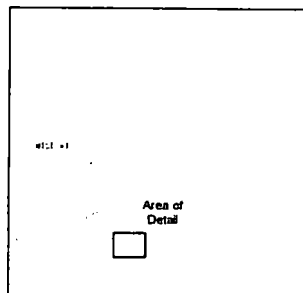
⊙ Surface Hole Location



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., December 15, 2017
for Matador Production Company



Matador
RESOURCES COMPANY

[illegible]

Magnetic Field
Strength: 48078.6snT
Dip Angle: 59.95°
Date: 9/28/2017
Model: HDGM

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
1068.29	7.02	312.02	1067.11	19.19	-21.30	1.50	312.02	-21.33	
6523.00	7.02	312.02	6480.89	465.68	-516.89	0.00	0.00	-517.62	
6991.29	0.00	0.00	6948.00	484.87	-538.19	1.50	180.00	-538.95	Garrett Fed Com #222H NP
10398.53	0.00	0.00	10355.24	484.87	-538.19	0.00	0.00	-538.95	
11198.52	80.00	80.70	10919.49	561.39	-70.95	10.00	80.70	-71.83	
11365.19	90.00	80.70	10934.00	588.18	92.69	6.00	0.00	91.76	
11678.25	90.00	90.09	10934.00	613.28	404.39	3.00	90.00	403.43	
15718.17	90.00	90.09	10934.00	606.80	4444.31	0.00	0.00	4443.35	Garrett Fed Com #222H PBHL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Garrett Fed Com #222H FTP	0.00	614.57	-257.78	428053.00	598936.00	Point
Garrett Fed Com #222H LTP	0.00	606.57	4354.24	428045.00	603548.00	Point
Garrett Fed Com #222H SL	0.00	0.00	0.00	427438.43	599193.76	Point
Garrett Fed Com #222H PP	6948.00	614.87	-537.98	428053.31	598655.77	Point
Garrett Fed Com #222H NP	6948.00	484.87	-538.19	427923.31	598655.56	Point
Garrett Fed Com #222H PBHL	10934.00	606.80	4444.31	428045.23	603638.06	Point

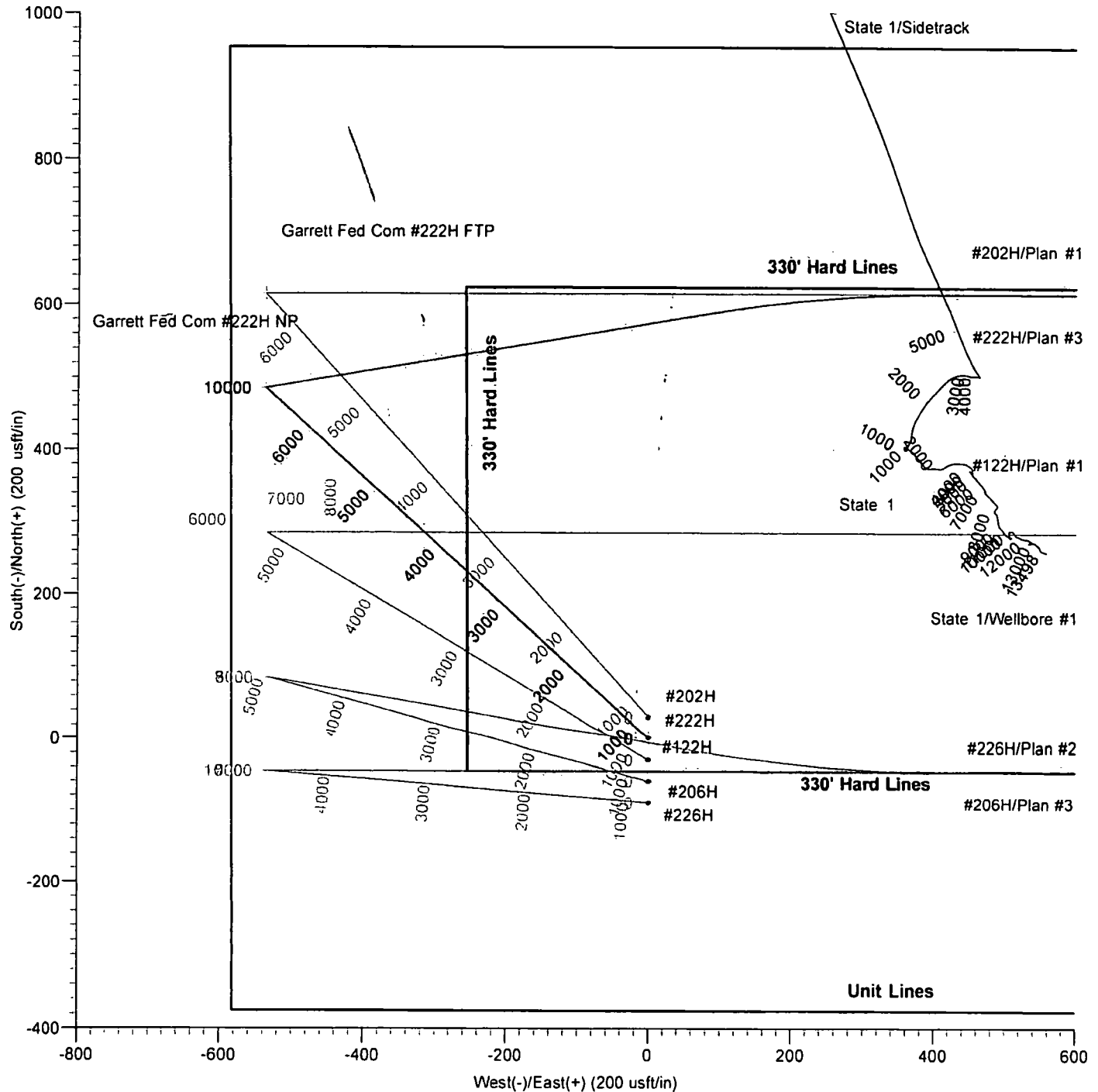
MATADOR RESOURCES

Project: Eddy County, New Mexico
 Site: Garrett Fed Com #202H, #222H, #206H, #226H
 Well: #222H
 Wellbore: Lateral
 Design: Plan #3

SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
#122H	-29.92	-0.01	427408.51	599193.75
#202H	30.00	0.03	427468.43	599193.79
#206H	-60.03	0.01	427378.40	599193.77
#222H	0.00	0.00	427438.43	599193.76
#226H	-90.01	0.04	427348.43	599193.79

Azimuths to Grid North
 True North: -0.17°
 Magnetic North: 6.93°
 Magnetic Field
 Strength: 48078.6snT
 Dip Angle: 59.95°
 Date: 9/28/2017
 Model: HDGM



Plan: Plan #3 (#222H/Lateral)

Created By: RDW
 Date: 7:54, October 05 2017

PREMIER DIRECTIONAL DRILLING
 363 N Sam Houston Pkwy Houston, TX 77060
 Phone: 281-673-4000



Planning Report

Database: EDM 5000 14 Multi User
Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Well: #222H
Wellbore: Lateral
Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, New Mexico		
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		

Site		Garrett Fed Com #202H, #222H, #122H, #206H, #226H			
Site Position:		Northing:	427,468.43 usft	Latitude:	32° 10' 29.36 N
From:	Map	Easting:	599,193.80 usft	Longitude:	104° 0' 45.86 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.17 °

Well	#222H - Slot #222H					
Well Position	+N/-S	-30.00 usft	Northing:	427,438.43 usft	Latitude:	32° 10' 29.06 N
	+E/-W	-0.03 usft	Easting:	599,193.76 usft	Longitude:	104° 0' 45.86 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	2,920.00 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/28/2017	7.10	59.95	48,079

Design	Plan #3				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	90.09	

Plan Survey Tool Program		Date 10/5/2017			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	15,717.95 Plan #3 (Lateral)	MWD+HDGM		
			OWSG MWD + HDGM		

Planning Report

Database: EDM 5000 14 Multi User
Company: MATADOR RESOURCES
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Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Well: #222H
Wellbore: Lateral
Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,068.29	7.02	312.02	1,067.11	19.19	-21.30	1.50	1.50	0.00	312.02	
6,523.00	7.02	312.02	6,480.89	465.68	-516.89	0.00	0.00	0.00	0.00	
6,991.29	0.00	0.00	6,948.00	484.87	-538.19	1.50	-1.50	0.00	180.00	Garrett Fed Com #2
10,398.53	0.00	0.00	10,355.24	484.87	-538.19	0.00	0.00	0.00	0.00	
11,198.52	80.00	80.70	10,919.49	561.39	-70.95	10.00	10.00	0.00	80.70	
11,365.19	90.00	80.70	10,934.00	588.18	92.69	6.00	6.00	0.00	0.00	
11,678.26	90.00	90.09	10,934.00	613.28	404.39	3.00	0.00	3.00	90.00	
15,718.17	90.00	90.09	10,934.00	606.80	4,444.31	0.00	0.00	0.00	0.00	Garrett Fed Com #2

Planning Report

Database: EDM 5000 14 Multi User
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 Project: Eddy County, New Mexico
 Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Well: #222H
 Wellbore: Lateral
 Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	1.50	312.02	699.99	0.88	-0.97	-0.97	1.50	1.50	0.00
800.00	3.00	312.02	799.91	3.50	-3.89	-3.89	1.50	1.50	0.00
900.00	4.50	312.02	899.69	7.88	-8.75	-8.76	1.50	1.50	0.00
1,000.00	6.00	312.02	999.27	14.01	-15.55	-15.57	1.50	1.50	0.00
1,068.29	7.02	312.02	1,067.11	19.19	-21.30	-21.33	1.50	1.50	0.00
1,100.00	7.02	312.02	1,098.59	21.79	-24.18	-24.22	0.00	0.00	0.00
1,200.00	7.02	312.02	1,197.84	29.97	-33.27	-33.31	0.00	0.00	0.00
1,300.00	7.02	312.02	1,297.09	38.16	-42.35	-42.41	0.00	0.00	0.00
1,400.00	7.02	312.02	1,396.34	46.34	-51.44	-51.51	0.00	0.00	0.00
1,500.00	7.02	312.02	1,495.59	54.53	-60.52	-60.61	0.00	0.00	0.00
1,600.00	7.02	312.02	1,594.84	62.71	-69.61	-69.71	0.00	0.00	0.00
1,700.00	7.02	312.02	1,694.09	70.90	-78.69	-78.81	0.00	0.00	0.00
1,800.00	7.02	312.02	1,793.34	79.08	-87.78	-87.90	0.00	0.00	0.00
1,900.00	7.02	312.02	1,892.59	87.27	-96.87	-97.00	0.00	0.00	0.00
2,000.00	7.02	312.02	1,991.83	95.45	-105.95	-106.10	0.00	0.00	0.00
2,100.00	7.02	312.02	2,091.08	103.64	-115.04	-115.20	0.00	0.00	0.00
2,200.00	7.02	312.02	2,190.33	111.83	-124.12	-124.30	0.00	0.00	0.00
2,300.00	7.02	312.02	2,289.58	120.01	-133.21	-133.40	0.00	0.00	0.00
2,400.00	7.02	312.02	2,388.83	128.20	-142.29	-142.50	0.00	0.00	0.00
2,500.00	7.02	312.02	2,488.08	136.38	-151.38	-151.59	0.00	0.00	0.00
2,600.00	7.02	312.02	2,587.33	144.57	-160.47	-160.69	0.00	0.00	0.00
2,700.00	7.02	312.02	2,686.58	152.75	-169.55	-169.79	0.00	0.00	0.00
2,800.00	7.02	312.02	2,785.83	160.94	-178.64	-178.89	0.00	0.00	0.00
2,900.00	7.02	312.02	2,885.08	169.12	-187.72	-187.99	0.00	0.00	0.00
3,000.00	7.02	312.02	2,984.33	177.31	-196.81	-197.09	0.00	0.00	0.00
3,100.00	7.02	312.02	3,083.58	185.49	-205.89	-206.18	0.00	0.00	0.00
3,200.00	7.02	312.02	3,182.83	193.68	-214.98	-215.28	0.00	0.00	0.00
3,300.00	7.02	312.02	3,282.08	201.87	-224.06	-224.38	0.00	0.00	0.00
3,400.00	7.02	312.02	3,381.33	210.05	-233.15	-233.48	0.00	0.00	0.00
3,500.00	7.02	312.02	3,480.58	218.24	-242.24	-242.58	0.00	0.00	0.00
3,600.00	7.02	312.02	3,579.83	226.42	-251.32	-251.68	0.00	0.00	0.00
3,700.00	7.02	312.02	3,679.08	234.61	-260.41	-260.78	0.00	0.00	0.00
3,800.00	7.02	312.02	3,778.32	242.79	-269.49	-269.87	0.00	0.00	0.00
3,900.00	7.02	312.02	3,877.57	250.98	-278.58	-278.97	0.00	0.00	0.00
4,000.00	7.02	312.02	3,976.82	259.16	-287.66	-288.07	0.00	0.00	0.00
4,100.00	7.02	312.02	4,076.07	267.35	-296.75	-297.17	0.00	0.00	0.00
4,200.00	7.02	312.02	4,175.32	275.53	-305.83	-306.27	0.00	0.00	0.00
4,300.00	7.02	312.02	4,274.57	283.72	-314.92	-315.37	0.00	0.00	0.00
4,400.00	7.02	312.02	4,373.82	291.91	-324.01	-324.46	0.00	0.00	0.00
4,500.00	7.02	312.02	4,473.07	300.09	-333.09	-333.56	0.00	0.00	0.00
4,600.00	7.02	312.02	4,572.32	308.28	-342.18	-342.66	0.00	0.00	0.00
4,700.00	7.02	312.02	4,671.57	316.46	-351.26	-351.76	0.00	0.00	0.00
4,800.00	7.02	312.02	4,770.82	324.65	-360.35	-360.86	0.00	0.00	0.00
4,900.00	7.02	312.02	4,870.07	332.83	-369.43	-369.96	0.00	0.00	0.00
5,000.00	7.02	312.02	4,969.32	341.02	-378.52	-379.05	0.00	0.00	0.00
5,100.00	7.02	312.02	5,068.57	349.20	-387.61	-388.15	0.00	0.00	0.00

Planning Report

Database: EDM 5000 14 Multi User
 Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Well: #222H
 Wellbore: Lateral
 Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
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 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	7.02	312.02	5,167.82	357.39	-396.69	-397.25	0.00	0.00	0.00
5,300.00	7.02	312.02	5,267.07	365.57	-405.78	-406.35	0.00	0.00	0.00
5,400.00	7.02	312.02	5,366.32	373.76	-414.86	-415.45	0.00	0.00	0.00
5,500.00	7.02	312.02	5,465.57	381.95	-423.95	-424.55	0.00	0.00	0.00
5,600.00	7.02	312.02	5,564.81	390.13	-433.03	-433.65	0.00	0.00	0.00
5,700.00	7.02	312.02	5,664.06	398.32	-442.12	-442.74	0.00	0.00	0.00
5,800.00	7.02	312.02	5,763.31	406.50	-451.20	-451.84	0.00	0.00	0.00
5,900.00	7.02	312.02	5,862.56	414.69	-460.29	-460.94	0.00	0.00	0.00
6,000.00	7.02	312.02	5,961.81	422.87	-469.38	-470.04	0.00	0.00	0.00
6,100.00	7.02	312.02	6,061.06	431.06	-478.46	-479.14	0.00	0.00	0.00
6,200.00	7.02	312.02	6,160.31	439.24	-487.55	-488.24	0.00	0.00	0.00
6,300.00	7.02	312.02	6,259.56	447.43	-496.63	-497.33	0.00	0.00	0.00
6,400.00	7.02	312.02	6,358.81	455.61	-505.72	-506.43	0.00	0.00	0.00
6,500.00	7.02	312.02	6,458.06	463.80	-514.80	-515.53	0.00	0.00	0.00
6,523.00	7.02	312.02	6,480.89	465.68	-516.89	-517.62	0.00	0.00	0.00
6,600.00	5.87	312.02	6,557.40	471.47	-523.32	-524.06	1.50	-1.50	0.00
6,700.00	4.37	312.02	6,657.00	477.44	-529.95	-530.70	1.50	-1.50	0.00
6,800.00	2.87	312.02	6,756.79	481.67	-534.64	-535.39	1.50	-1.50	0.00
6,900.00	1.37	312.02	6,856.72	484.14	-537.38	-538.14	1.50	-1.50	0.00
6,991.29	0.00	0.00	6,948.00	484.87	-538.19	-538.95	1.50	-1.50	0.00
7,000.00	0.00	0.00	6,956.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,100.00	0.00	0.00	7,056.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,200.00	0.00	0.00	7,156.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,300.00	0.00	0.00	7,256.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,400.00	0.00	0.00	7,356.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,500.00	0.00	0.00	7,456.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,600.00	0.00	0.00	7,556.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,700.00	0.00	0.00	7,656.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,800.00	0.00	0.00	7,756.71	484.87	-538.19	-538.95	0.00	0.00	0.00
7,900.00	0.00	0.00	7,856.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,000.00	0.00	0.00	7,956.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,100.00	0.00	0.00	8,056.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,200.00	0.00	0.00	8,156.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,300.00	0.00	0.00	8,256.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,400.00	0.00	0.00	8,356.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,500.00	0.00	0.00	8,456.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,600.00	0.00	0.00	8,556.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,700.00	0.00	0.00	8,656.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,800.00	0.00	0.00	8,756.71	484.87	-538.19	-538.95	0.00	0.00	0.00
8,900.00	0.00	0.00	8,856.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,000.00	0.00	0.00	8,956.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,100.00	0.00	0.00	9,056.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,200.00	0.00	0.00	9,156.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,300.00	0.00	0.00	9,256.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,400.00	0.00	0.00	9,356.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,500.00	0.00	0.00	9,456.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,600.00	0.00	0.00	9,556.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,700.00	0.00	0.00	9,656.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,800.00	0.00	0.00	9,756.71	484.87	-538.19	-538.95	0.00	0.00	0.00
9,900.00	0.00	0.00	9,856.71	484.87	-538.19	-538.95	0.00	0.00	0.00
10,000.00	0.00	0.00	9,956.71	484.87	-538.19	-538.95	0.00	0.00	0.00
10,100.00	0.00	0.00	10,056.71	484.87	-538.19	-538.95	0.00	0.00	0.00
10,200.00	0.00	0.00	10,156.71	484.87	-538.19	-538.95	0.00	0.00	0.00

Planning Report

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 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,300.00	0.00	0.00	10,256.71	484.87	-538.19	-538.95	0.00	0.00	0.00
10,398.53	0.00	0.00	10,355.24	484.87	-538.19	-538.95	0.00	0.00	0.00
10,400.00	0.15	80.70	10,356.71	484.87	-538.19	-538.95	10.00	10.00	0.00
10,450.00	5.15	80.70	10,406.65	485.25	-535.91	-536.67	10.00	10.00	0.00
10,500.00	10.15	80.70	10,456.19	486.32	-529.35	-530.11	10.00	10.00	0.00
10,550.00	15.15	80.70	10,504.96	488.09	-518.55	-519.31	10.00	10.00	0.00
10,600.00	20.15	80.70	10,552.59	490.54	-503.59	-504.36	10.00	10.00	0.00
10,650.00	25.15	80.70	10,598.72	493.65	-484.60	-485.38	10.00	10.00	0.00
10,700.00	30.15	80.70	10,643.00	497.40	-461.71	-462.49	10.00	10.00	0.00
10,750.00	35.15	80.70	10,685.08	501.75	-435.10	-435.89	10.00	10.00	0.00
10,800.00	40.15	80.70	10,724.66	506.69	-404.97	-405.77	10.00	10.00	0.00
10,850.00	45.15	80.70	10,761.42	512.16	-371.55	-372.36	10.00	10.00	0.00
10,900.00	50.15	80.70	10,795.10	518.13	-335.10	-335.91	10.00	10.00	0.00
10,950.00	55.15	80.70	10,825.42	524.55	-295.89	-296.71	10.00	10.00	0.00
11,000.00	60.15	80.70	10,852.17	531.38	-254.22	-255.05	10.00	10.00	0.00
11,050.00	65.15	80.70	10,875.14	538.55	-210.41	-211.25	10.00	10.00	0.00
11,100.00	70.15	80.70	10,894.15	546.02	-164.79	-165.64	10.00	10.00	0.00
11,150.00	75.15	80.70	10,909.05	553.73	-117.70	-118.57	10.00	10.00	0.00
11,198.52	80.00	80.70	10,919.49	561.39	-70.95	-71.83	10.00	10.00	0.00
11,200.00	80.09	80.70	10,919.75	561.62	-69.52	-70.40	6.00	6.00	0.00
11,250.00	83.09	80.70	10,927.06	569.61	-20.71	-21.61	6.00	6.00	0.00
11,300.00	86.09	80.70	10,931.78	577.66	28.41	27.50	6.00	6.00	0.00
11,350.00	89.09	80.70	10,933.88	585.73	77.70	76.78	6.00	6.00	0.00
11,365.19	90.00	80.70	10,934.00	588.18	92.69	91.76	6.00	6.00	0.00
11,400.00	90.00	81.74	10,934.00	593.50	127.09	126.16	3.00	0.00	3.00
11,500.00	90.00	84.74	10,934.00	605.26	226.38	225.43	3.00	0.00	3.00
11,600.00	90.00	87.74	10,934.00	611.81	326.16	325.20	3.00	0.00	3.00
11,678.26	90.00	90.09	10,934.00	613.28	404.39	403.43	3.00	0.00	3.00
11,700.00	90.00	90.09	10,934.00	613.25	426.14	425.18	0.00	0.00	0.00
11,800.00	90.00	90.09	10,934.00	613.09	526.14	525.18	0.00	0.00	0.00
11,900.00	90.00	90.09	10,934.00	612.93	626.14	625.18	0.00	0.00	0.00
12,000.00	90.00	90.09	10,934.00	612.77	726.14	725.18	0.00	0.00	0.00
12,100.00	90.00	90.09	10,934.00	612.61	826.14	825.18	0.00	0.00	0.00
12,200.00	90.00	90.09	10,934.00	612.45	926.14	925.18	0.00	0.00	0.00
12,300.00	90.00	90.09	10,934.00	612.29	1,026.14	1,025.18	0.00	0.00	0.00
12,400.00	90.00	90.09	10,934.00	612.13	1,126.14	1,125.18	0.00	0.00	0.00
12,500.00	90.00	90.09	10,934.00	611.97	1,226.14	1,225.18	0.00	0.00	0.00
12,600.00	90.00	90.09	10,934.00	611.81	1,326.14	1,325.18	0.00	0.00	0.00
12,700.00	90.00	90.09	10,934.00	611.64	1,426.14	1,425.18	0.00	0.00	0.00
12,800.00	90.00	90.09	10,934.00	611.48	1,526.14	1,525.18	0.00	0.00	0.00
12,900.00	90.00	90.09	10,934.00	611.32	1,626.14	1,625.18	0.00	0.00	0.00
13,000.00	90.00	90.09	10,934.00	611.16	1,726.14	1,725.18	0.00	0.00	0.00
13,100.00	90.00	90.09	10,934.00	611.00	1,826.14	1,825.18	0.00	0.00	0.00
13,200.00	90.00	90.09	10,934.00	610.84	1,926.14	1,925.18	0.00	0.00	0.00
13,300.00	90.00	90.09	10,934.00	610.68	2,026.14	2,025.18	0.00	0.00	0.00
13,400.00	90.00	90.09	10,934.00	610.52	2,126.14	2,125.18	0.00	0.00	0.00
13,500.00	90.00	90.09	10,934.00	610.36	2,226.14	2,225.18	0.00	0.00	0.00
13,600.00	90.00	90.09	10,934.00	610.20	2,326.14	2,325.18	0.00	0.00	0.00
13,700.00	90.00	90.09	10,934.00	610.04	2,426.14	2,425.18	0.00	0.00	0.00
13,800.00	90.00	90.09	10,934.00	609.88	2,526.14	2,525.18	0.00	0.00	0.00
13,900.00	90.00	90.09	10,934.00	609.72	2,626.14	2,625.18	0.00	0.00	0.00
14,000.00	90.00	90.09	10,934.00	609.56	2,726.14	2,725.18	0.00	0.00	0.00
14,100.00	90.00	90.09	10,934.00	609.40	2,826.14	2,825.18	0.00	0.00	0.00

Planning Report

Database: EDM 5000 14 Multi User
Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Well: #222H
Wellbore: Lateral
Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid

Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,200.00	90.00	90.09	10,934.00	609.24	2,926.14	2,925.18	0.00	0.00	0.00
14,300.00	90.00	90.09	10,934.00	609.08	3,026.14	3,025.18	0.00	0.00	0.00
14,400.00	90.00	90.09	10,934.00	608.92	3,126.14	3,125.18	0.00	0.00	0.00
14,500.00	90.00	90.09	10,934.00	608.76	3,226.14	3,225.18	0.00	0.00	0.00
14,600.00	90.00	90.09	10,934.00	608.60	3,326.14	3,325.18	0.00	0.00	0.00
14,700.00	90.00	90.09	10,934.00	608.43	3,426.14	3,425.18	0.00	0.00	0.00
14,800.00	90.00	90.09	10,934.00	608.27	3,526.14	3,525.18	0.00	0.00	0.00
14,900.00	90.00	90.09	10,934.00	608.11	3,626.14	3,625.18	0.00	0.00	0.00
15,000.00	90.00	90.09	10,934.00	607.95	3,726.14	3,725.18	0.00	0.00	0.00
15,100.00	90.00	90.09	10,934.00	607.79	3,826.13	3,825.18	0.00	0.00	0.00
15,200.00	90.00	90.09	10,934.00	607.63	3,926.13	3,925.18	0.00	0.00	0.00
15,300.00	90.00	90.09	10,934.00	607.47	4,026.13	4,025.18	0.00	0.00	0.00
15,400.00	90.00	90.09	10,934.00	607.31	4,126.13	4,125.18	0.00	0.00	0.00
15,500.00	90.00	90.09	10,934.00	607.15	4,226.13	4,225.18	0.00	0.00	0.00
15,600.00	90.00	90.09	10,934.00	606.99	4,326.13	4,325.18	0.00	0.00	0.00
15,700.00	90.00	90.09	10,934.00	606.83	4,426.13	4,425.18	0.00	0.00	0.00
15,718.17	90.00	90.09	10,934.00	606.80	4,444.31	4,443.35	0.00	0.00	0.00

Anticollision Report

Company:	MATADOR RESOURCES	Local Co-ordinate Reference:	Well #222H - Slot #222H
Project:	Eddy County, New Mexico	TVD Reference:	2920+28.50 @ 2948.50usft (Patterson 282)
Reference Site:	Garrett Fed Com #202H, #222H, #122H, #206H, #226H	MD Reference:	2920+28.50 @ 2948.50usft (Patterson 282)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#222H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000 14 Multi User
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 9,999.98 us
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program **Date** 10/5/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,717.95	Plan #3 (Lateral)	MWD+HDGM	OWSG MWD + HDGM

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						
Amethyst State #1 (OFFSET)						
State 1 - Sidetrack - Sidetrack	100.00	72.05	539.74	539.49	2,097.271	CC
State 1 - Sidetrack - Sidetrack	600.00	568.97	540.76	536.99	143.555	ES
State 1 - Sidetrack - Sidetrack	5,200.00	5,168.00	845.05	807.32	22.397	SF
State 1 - Wellbore #1 - Wellbore #1	11,785.86	10,905.97	327.35	243.04	3.883	CC, ES
State 1 - Wellbore #1 - Wellbore #1	11,800.00	10,906.35	327.65	243.22	3.881	SF
Corral Canyon Fed Com Pad (OFFSET)						
#1H - Original Hole - Original Hole	8,531.72	16,185.00	1,482.03	1,258.63	6.634	CC, ES, SF
#2H - Original Hole - Original Hole	8,549.50	15,900.00	2,276.11	2,129.41	15.516	CC, ES
#2H - Original Hole - Original Hole	8,600.00	15,900.00	2,276.67	2,129.86	15.508	SF
#3H - Original Hole - Original Hole	14,075.80	15,530.00	2,871.10	2,759.61	25.753	CC
#3H - Original Hole - Original Hole	14,100.00	15,530.00	2,871.20	2,759.39	25.678	ES
#3H - Original Hole - Original Hole	15,718.17	15,530.00	3,307.66	3,157.23	21.989	SF
#4H - Wellbore #1 - Wellbore #1	15,212.06	15,935.00	2,605.19	2,482.81	21.289	CC, ES
#4H - Wellbore #1 - Wellbore #1	15,718.17	15,935.00	2,653.89	2,521.25	20.008	SF
Emerald State Com #1 (OFFSET)						
Com #1 - Original Hole - Original Hole	290.46	287.97	884.52	882.85	531.068	CC
Com #1 - Original Hole - Original Hole	500.00	491.37	885.19	882.04	281.293	ES
Com #1 - Original Hole - Original Hole	5,100.00	4,904.00	1,459.73	1,423.83	40.657	SF
Garrett Fed Com #202H, #222H, #122H, #206H, #226H						
#122H - Lateral - Plan #1	600.00	600.00	29.92	26.08	7.790	CC
#122H - Lateral - Plan #1	800.00	800.79	30.77	25.51	5.848	ES
#122H - Lateral - Plan #1	5,900.00	5,904.29	150.36	105.42	3.346	SF
#202H - Lateral - Plan #1	600.00	600.00	30.00	26.16	7.810	CC
#202H - Lateral - Plan #1	1,000.00	997.70	31.34	24.66	4.689	ES
#202H - Lateral - Plan #1	9,400.00	9,409.46	130.32	61.52	1.894	SF
#206H - Lateral - Plan #3	600.00	600.00	60.03	56.19	15.629	CC
#206H - Lateral - Plan #3	700.00	700.41	60.57	56.01	13.308	ES
#206H - Lateral - Plan #3	9,400.00	9,383.68	400.96	332.85	5.887	SF
#226H - Lateral - Plan #2	600.00	600.00	90.01	86.17	23.433	CC, ES
#226H - Lateral - Plan #2	15,718.17	15,717.08	660.32	375.54	2.319	SF

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Sidetrack - Sidetrack													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	41.92	401.59	360.57	540.41				
100.00	100.00	72.05	72.05	0.13	0.13	41.91	401.65	360.55	539.74	539.49	0.26	2,097.271 CC	
200.00	200.00	172.05	172.05	0.49	0.44	41.89	401.86	360.47	539.84	538.92	0.92	584.172	
300.00	300.00	272.02	272.02	0.85	0.79	41.88	402.00	360.43	539.92	538.28	1.64	329.323	
400.00	400.00	371.01	371.01	1.20	1.15	41.88	402.15	360.51	540.08	537.73	2.35	229.856	
500.00	500.00	471.14	471.14	1.56	1.50	41.88	402.37	360.72	540.39	537.32	3.06	176.474	
600.00	600.00	568.97	568.97	1.92	1.85	41.88	402.59	361.02	540.76	536.99	3.77	143.555 ES	
700.00	699.99	666.00	666.00	2.28	2.19	90.00	403.21	361.68	541.70	537.23	4.47	121.236	
800.00	799.91	761.98	761.96	2.63	2.54	90.37	404.33	362.63	543.23	538.07	5.17	105.163	
900.00	899.69	859.05	859.00	2.99	2.88	90.95	406.23	363.77	545.55	539.68	5.87	92.931	
1,000.00	999.27	957.65	957.58	3.35	3.24	91.79	408.48	365.01	548.31	541.72	6.59	83.256	
1,068.29	1,067.11	1,025.01	1,024.91	3.60	3.48	92.51	410.08	365.91	550.40	543.32	7.08	77.764	
1,100.00	1,098.59	1,056.20	1,056.08	3.72	3.59	92.88	410.84	366.34	551.45	544.14	7.31	75.468	
1,200.00	1,197.84	1,152.85	1,152.69	4.09	3.94	93.99	413.53	367.61	555.09	547.07	8.03	69.163	
1,300.00	1,297.09	1,250.15	1,249.90	4.47	4.29	94.96	417.63	368.34	559.51	550.76	8.75	63.944	
1,400.00	1,396.34	1,342.29	1,341.90	4.85	4.62	95.73	422.73	368.44	564.52	555.07	9.46	59.699	
1,500.00	1,495.59	1,428.51	1,427.88	5.23	4.93	96.42	428.92	369.87	571.86	561.72	10.14	56.409	
1,600.00	1,594.84	1,518.20	1,517.22	5.62	5.26	97.15	436.29	372.85	581.24	570.41	10.83	53.654	
1,700.00	1,694.09	1,610.78	1,609.34	6.00	5.60	97.91	444.44	377.12	592.10	580.56	11.54	51.302	
1,800.00	1,793.34	1,707.71	1,705.73	6.39	5.97	98.70	453.22	382.25	603.76	591.48	12.27	49.199	
1,900.00	1,892.59	1,803.08	1,800.54	6.78	6.33	99.48	461.85	387.87	615.99	602.99	12.99	47.402	
2,000.00	1,991.83	1,897.49	1,894.37	7.16	6.68	100.32	469.98	394.48	628.97	615.26	13.71	45.869	
2,100.00	2,091.08	2,006.49	2,002.77	7.55	7.09	101.35	478.11	402.49	641.68	627.18	14.51	44.235	
2,200.00	2,190.33	2,116.04	2,111.91	7.94	7.50	102.37	484.97	409.10	652.81	637.50	15.30	42.666	
2,300.00	2,289.58	2,216.29	2,211.85	8.33	7.88	103.28	490.61	414.49	663.20	647.15	16.05	41.326	
2,400.00	2,388.83	2,311.13	2,306.39	8.72	8.23	104.16	495.66	420.10	674.04	657.27	16.77	40.198	
2,500.00	2,488.08	2,408.82	2,403.74	9.11	8.59	105.15	499.97	426.96	685.49	668.00	17.50	39.173	
2,600.00	2,587.33	2,520.51	2,515.11	9.50	9.00	106.42	502.58	435.02	696.26	677.97	18.29	38.059	
2,700.00	2,686.58	2,635.54	2,629.93	9.89	9.41	107.77	502.99	441.87	705.23	686.14	19.09	36.936	
2,800.00	2,785.83	2,750.15	2,744.46	10.28	9.81	109.05	502.47	446.02	712.06	692.18	19.88	35.817	
2,900.00	2,885.08	2,855.86	2,850.15	10.67	10.17	110.13	501.98	447.88	717.52	696.89	20.63	34.781	
3,000.00	2,984.33	2,954.77	2,949.05	11.07	10.51	111.11	501.59	449.17	722.85	701.49	21.36	33.849	
3,100.00	3,083.58	3,053.76	3,048.04	11.46	10.85	112.06	501.39	450.54	728.54	706.45	22.08	32.992	
3,200.00	3,182.83	3,153.20	3,147.47	11.85	11.20	112.99	501.29	451.74	734.30	711.49	22.81	32.189	
3,300.00	3,282.08	3,252.12	3,246.38	12.24	11.54	113.91	501.12	453.02	740.32	716.78	23.54	31.450	
3,400.00	3,381.33	3,351.08	3,345.33	12.63	11.89	114.81	500.89	454.31	746.50	722.24	24.27	30.763	
3,500.00	3,480.58	3,449.95	3,444.18	13.03	12.23	115.69	500.83	455.59	752.93	727.94	24.99	30.125	
3,600.00	3,579.83	3,548.78	3,543.01	13.42	12.58	116.55	500.92	456.82	759.54	733.82	25.72	29.529	
3,700.00	3,679.08	3,648.21	3,642.44	13.81	12.93	117.39	500.95	458.14	766.37	739.92	26.45	28.973	
3,800.00	3,778.32	3,749.01	3,743.22	14.20	13.28	118.24	500.90	459.33	773.21	746.03	27.19	28.442	
3,900.00	3,877.57	3,848.75	3,842.96	14.60	13.63	119.06	500.79	460.32	780.02	752.11	27.91	27.943	
4,000.00	3,976.82	3,947.18	3,941.38	14.99	13.98	119.86	500.69	461.35	787.03	758.40	28.64	27.482	
4,100.00	4,076.07	4,046.79	4,040.98	15.38	14.33	120.65	500.68	462.42	794.26	764.89	29.37	27.046	
4,200.00	4,175.32	4,147.22	4,141.42	15.77	14.68	121.44	500.57	463.36	801.46	771.36	30.10	26.629	
4,300.00	4,274.57	4,246.45	4,242.64	16.17	15.04	122.21	500.47	464.14	808.66	777.83	30.83	26.229	
4,400.00	4,373.82	4,350.97	4,345.16	16.56	15.39	122.97	500.37	464.52	815.62	784.06	31.57	25.839	
4,500.00	4,473.07	4,448.23	4,442.42	16.95	15.73	123.69	500.00	464.73	822.50	790.22	32.27	25.485	
4,600.00	4,572.32	4,548.22	4,542.41	17.35	16.07	124.42	499.81	465.30	829.89	796.90	32.99	25.154	
4,700.00	4,671.57	4,653.03	4,647.21	17.74	16.43	125.13	500.08	465.20	836.86	803.13	33.73	24.811	
4,800.00	4,770.82	4,758.05	4,752.23	18.13	16.79	125.78	500.85	464.26	843.27	808.80	34.47	24.467	
4,900.00	4,870.07	4,933.18	4,921.34	18.53	17.40	124.48	533.73	445.88	843.38	807.98	35.40	23.822	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Sidetrack - Sidetrack													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,969.32	5,085.23	5,036.51	18.92	17.98	118.75	623.31	407.78	840.79	804.36	36.43	23.082	
5,082.79	5,051.48	5,145.81	5,068.08	19.24	18.28	115.49	670.14	386.11	837.89	800.68	37.22	22.515	
5,100.00	5,068.57	5,150.39	5,070.08	19.31	18.30	115.23	673.90	384.44	838.04	800.71	37.33	22.449	
5,200.00	5,167.82	5,168.00	5,077.27	19.70	18.40	114.19	688.69	378.15	845.05	807.32	37.73	22.397 SF	
5,300.00	5,267.07	5,199.00	5,087.92	20.10	18.58	112.30	715.83	367.64	862.46	824.58	37.89	22.765	
5,400.00	5,366.32	5,209.73	5,091.01	20.49	18.65	111.63	725.50	364.15	889.94	852.41	37.53	23.712	
5,500.00	5,465.57	5,231.00	5,096.28	20.88	18.78	110.30	744.97	357.43	926.91	889.90	37.01	25.044	
5,600.00	5,564.81	5,241.23	5,098.48	21.28	18.85	109.65	754.44	354.25	972.17	935.98	36.19	26.863	
5,700.00	5,664.06	5,263.00	5,102.64	21.67	18.99	108.27	774.66	347.33	1,024.67	989.28	35.39	28.956	
5,800.00	5,763.31	5,277.29	5,104.94	22.07	19.09	107.37	787.97	342.66	1,083.39	1,048.93	34.46	31.440	
5,900.00	5,862.56	5,294.00	5,107.11	22.46	19.21	106.30	803.55	337.04	1,147.55	1,113.99	33.56	34.196	
6,000.00	5,961.81	5,302.67	5,108.04	22.85	19.28	105.75	811.64	334.05	1,216.29	1,183.68	32.61	37.297	
6,100.00	6,061.06	5,314.60	5,109.12	23.25	19.37	104.99	822.75	329.84	1,288.94	1,257.18	31.76	40.587	
6,200.00	6,160.31	5,326.00	5,109.96	23.64	19.46	104.26	833.34	325.72	1,364.90	1,333.93	30.97	44.073	
6,300.00	6,259.56	5,333.47	5,110.39	24.03	19.52	103.79	840.27	322.96	1,443.68	1,413.46	30.22	47.770	
6,400.00	6,358.81	5,340.93	5,110.72	24.43	19.58	103.31	847.17	320.15	1,524.86	1,495.31	29.55	51.598	
6,500.00	6,458.06	5,347.32	5,110.94	24.82	19.63	102.90	853.07	317.69	1,608.10	1,579.15	28.95	55.547	
6,523.00	6,480.89	5,348.66	5,110.97	24.91	19.64	102.82	854.30	317.17	1,627.50	1,598.68	28.82	56.469	
6,600.00	6,557.40	5,357.00	5,111.12	25.21	19.71	104.10	861.97	313.89	1,693.03	1,664.59	28.44	59.527	
6,700.00	6,657.00	5,357.00	5,111.12	25.59	19.71	106.55	861.97	313.89	1,779.16	1,751.24	27.91	63.742	
6,800.00	6,756.79	5,357.00	5,111.12	25.95	19.71	109.09	861.97	313.89	1,866.31	1,838.88	27.44	68.023	
6,900.00	6,856.72	5,357.00	5,111.12	26.30	19.71	111.70	861.97	313.89	1,954.30	1,927.29	27.01	72.347	
6,991.29	6,948.00	5,357.00	5,111.12	26.60	19.71	66.13	861.97	313.89	2,035.22	2,008.55	26.67	76.317	
7,000.00	6,956.71	5,357.00	5,111.12	26.63	19.71	66.13	861.97	313.89	2,042.97	2,016.33	26.64	76.698	
7,100.00	7,056.71	5,357.00	5,111.12	26.96	19.71	66.13	861.97	313.89	2,132.45	2,106.14	26.31	81.041	
7,200.00	7,156.71	5,357.00	5,111.12	27.29	19.71	66.13	861.97	313.89	2,222.83	2,196.79	26.04	85.359	
7,300.00	7,256.71	5,357.00	5,111.12	27.62	19.71	66.13	861.97	313.89	2,314.00	2,288.18	25.81	89.639	
7,400.00	7,356.71	5,357.00	5,111.12	27.95	19.71	66.13	861.97	313.89	2,405.87	2,380.24	25.63	93.868	
7,500.00	7,456.71	5,357.00	5,111.12	28.28	19.71	66.13	861.97	313.89	2,498.36	2,472.88	25.48	98.037	
7,600.00	7,556.71	5,357.00	5,111.12	28.61	19.71	66.13	861.97	313.89	2,591.42	2,566.04	25.37	102.136	
7,700.00	7,656.71	5,357.00	5,111.12	28.95	19.71	66.13	861.97	313.89	2,684.97	2,659.68	25.29	106.160	
7,800.00	7,756.71	5,357.00	5,111.12	29.28	19.71	66.13	861.97	313.89	2,778.97	2,753.73	25.24	110.101	
7,900.00	7,856.71	5,357.00	5,111.12	29.61	19.71	66.13	861.97	313.89	2,873.38	2,848.16	25.21	113.957	
8,000.00	7,956.71	5,357.00	5,111.12	29.95	19.71	66.13	861.97	313.89	2,968.15	2,942.94	25.21	117.723	
8,100.00	8,056.71	5,357.00	5,111.12	30.28	19.71	66.13	861.97	313.89	3,063.26	3,038.02	25.23	121.396	
8,200.00	8,156.71	5,357.00	5,111.12	30.62	19.71	66.13	861.97	313.89	3,158.66	3,133.39	25.27	124.976	
8,300.00	8,256.71	5,357.00	5,111.12	30.96	19.71	66.13	861.97	313.89	3,254.35	3,229.01	25.33	128.461	
8,400.00	8,356.71	5,357.00	5,111.12	31.29	19.71	66.13	861.97	313.89	3,350.28	3,324.87	25.41	131.851	
8,500.00	8,456.71	5,357.00	5,111.12	31.63	19.71	66.13	861.97	313.89	3,446.45	3,420.95	25.50	135.145	
8,600.00	8,556.71	5,357.00	5,111.12	31.97	19.71	66.13	861.97	313.89	3,542.83	3,517.22	25.61	138.344	
8,700.00	8,656.71	5,357.00	5,111.12	32.31	19.71	66.13	861.97	313.89	3,639.40	3,613.67	25.73	141.448	
8,800.00	8,756.71	5,357.00	5,111.12	32.64	19.71	66.13	861.97	313.89	3,736.16	3,710.29	25.86	144.459	
8,900.00	8,856.71	5,357.00	5,111.12	32.98	19.71	66.13	861.97	313.89	3,833.08	3,807.07	26.01	147.377	
9,000.00	8,956.71	5,357.00	5,111.12	33.32	19.71	66.13	861.97	313.89	3,930.15	3,903.99	26.17	150.205	
9,100.00	9,056.71	5,357.00	5,111.12	33.66	19.71	66.13	861.97	313.89	4,027.37	4,001.04	26.33	152.943	
9,200.00	9,156.71	5,357.00	5,111.12	34.00	19.71	66.13	861.97	313.89	4,124.72	4,098.21	26.51	155.593	
9,300.00	9,256.71	5,357.00	5,111.12	34.34	19.71	66.13	861.97	313.89	4,222.20	4,195.50	26.70	158.156	
9,400.00	9,356.71	5,357.00	5,111.12	34.68	19.71	66.13	861.97	313.89	4,319.79	4,292.90	26.89	160.636	
9,500.00	9,456.71	5,357.00	5,111.12	35.02	19.71	66.13	861.97	313.89	4,417.49	4,390.39	27.10	163.033	
9,600.00	9,556.71	5,357.00	5,111.12	35.37	19.71	66.13	861.97	313.89	4,515.29	4,487.98	27.31	165.349	
9,700.00	9,656.71	5,357.00	5,111.12	35.71	19.71	66.13	861.97	313.89	4,613.18	4,585.65	27.53	167.586	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Sidetrack - Sidetrack												Offset Site Error: 0.00 usft	
Survey Program: 100-MWD STANDARD												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
9,800.00	9,756.71	5,357.00	5,111.12	36.05	19.71	66.13	861.97	313.89	4,711.16	4,683.41	27.75	169.746	
9,900.00	9,856.71	5,357.00	5,111.12	36.39	19.71	66.13	861.97	313.89	4,809.23	4,781.24	27.99	171.832	
10,000.00	9,956.71	5,357.00	5,111.12	36.74	19.71	66.13	861.97	313.89	4,907.37	4,879.14	28.23	173.844	
10,100.00	10,056.71	5,357.00	5,111.12	37.08	19.71	66.13	861.97	313.89	5,005.59	4,977.11	28.48	175.785	
10,200.00	10,156.71	5,357.00	5,111.12	37.42	19.71	66.13	861.97	313.89	5,103.88	5,075.15	28.73	177.656	
10,300.00	10,256.71	5,357.00	5,111.12	37.77	19.71	66.13	861.97	313.89	5,202.23	5,173.24	28.99	179.460	
10,398.53	10,355.24	5,357.00	5,111.12	38.10	19.71	66.13	861.97	313.89	5,299.19	5,269.94	29.25	181.173	
10,400.00	10,356.71	5,357.00	5,111.12	38.11	19.71	-14.37	861.97	313.89	5,300.64	5,271.39	29.25	181.198	
10,450.00	10,406.65	5,357.00	5,111.12	38.27	19.71	-9.72	861.97	313.89	5,349.41	5,320.03	29.38	182.078	
10,500.00	10,456.19	5,357.00	5,111.12	38.42	19.71	-7.36	861.97	313.89	5,397.10	5,367.61	29.49	182.990	
10,550.00	10,504.96	5,357.00	5,111.12	38.56	19.71	-5.94	861.97	313.89	5,443.37	5,413.78	29.60	183.918	
10,600.00	10,552.59	5,357.00	5,111.12	38.70	19.71	-5.00	861.97	313.89	5,487.92	5,458.24	29.69	184.854	
10,650.00	10,598.72	5,357.00	5,111.12	38.83	19.71	-4.34	861.97	313.89	5,530.46	5,500.69	29.77	185.792	
10,700.00	10,643.00	5,357.00	5,111.12	38.94	19.71	-3.86	861.97	313.89	5,570.69	5,540.86	29.83	186.720	
10,750.00	10,685.08	5,357.00	5,111.12	39.05	19.71	-3.49	861.97	313.89	5,608.39	5,578.50	29.89	187.630	
10,800.00	10,724.66	5,357.00	5,111.12	39.16	19.71	-3.20	861.97	313.89	5,643.30	5,613.36	29.94	188.510	
10,850.00	10,761.42	5,357.00	5,111.12	39.26	19.71	-2.98	861.97	313.89	5,675.22	5,645.25	29.97	189.344	
10,900.00	10,795.10	5,357.00	5,111.12	39.36	19.71	-2.80	861.97	313.89	5,703.96	5,673.96	30.00	190.120	
10,950.00	10,825.42	5,357.00	5,111.12	39.47	19.71	-2.66	861.97	313.89	5,729.35	5,699.32	30.02	190.821	
11,000.00	10,852.17	5,357.00	5,111.12	39.60	19.71	-2.55	861.97	313.89	5,751.24	5,721.19	30.04	191.430	
11,050.00	10,875.14	5,357.00	5,111.12	39.76	19.71	-2.47	861.97	313.89	5,769.50	5,739.44	30.06	191.930	
11,100.00	10,894.15	5,357.00	5,111.12	39.96	19.71	-2.40	861.97	313.89	5,784.03	5,753.96	30.08	192.306	
11,150.00	10,909.05	5,357.00	5,111.12	40.21	19.71	-2.36	861.97	313.89	5,794.76	5,764.66	30.10	192.541	
11,198.52	10,919.49	5,357.00	5,111.12	40.48	19.71	-2.33	861.97	313.89	5,801.46	5,771.34	30.12	192.623	
11,200.00	10,919.75	5,357.00	5,111.12	40.49	19.71	-2.33	861.97	313.89	5,801.61	5,771.49	30.12	192.629	
11,250.00	10,927.06	5,357.00	5,111.12	40.82	19.71	-2.32	861.97	313.89	5,805.47	5,775.32	30.15	192.559	
11,300.00	10,931.78	5,357.00	5,111.12	41.20	19.71	-2.31	861.97	313.89	5,807.15	5,776.96	30.19	192.360	
11,350.00	10,933.88	5,357.00	5,111.12	41.61	19.71	-2.32	861.97	313.89	5,806.65	5,776.41	30.24	192.028	
11,365.19	10,934.00	5,357.00	5,111.12	41.74	19.71	-2.32	861.97	313.89	5,806.06	5,775.80	30.26	191.899	
11,400.00	10,934.00	5,357.00	5,111.12	42.06	19.71	-2.36	861.97	313.89	5,804.60	5,774.30	30.30	191.572	
11,500.00	10,934.00	5,357.00	5,111.12	43.09	19.71	-2.45	861.97	313.89	5,801.72	5,771.25	30.47	190.387	
11,600.00	10,934.00	5,341.25	5,110.74	44.29	19.58	-2.33	847.47	320.02	5,800.56	5,769.91	30.65	189.272	
11,602.83	10,934.00	5,341.16	5,110.73	44.32	19.58	-2.33	847.38	320.06	5,800.55	5,769.90	30.65	189.224	
11,678.26	10,934.00	5,326.00	5,109.96	45.32	19.46	-2.17	833.34	325.72	5,801.25	5,770.44	30.81	188.266	
11,700.00	10,934.00	5,326.00	5,109.96	45.63	19.46	-2.17	833.34	325.72	5,801.59	5,770.70	30.89	187.838	
11,800.00	10,934.00	5,326.00	5,109.96	47.10	19.46	-2.17	833.34	325.72	5,804.19	5,772.94	31.25	185.726	
11,900.00	10,934.00	5,326.00	5,109.96	48.69	19.46	-2.17	833.34	325.72	5,808.51	5,776.84	31.67	183.408	
12,000.00	10,934.00	5,326.00	5,109.96	50.38	19.46	-2.17	833.34	325.72	5,814.54	5,782.40	32.14	180.919	
12,100.00	10,934.00	5,326.00	5,109.96	52.18	19.46	-2.17	833.34	325.72	5,822.29	5,789.64	32.65	178.297	
12,200.00	10,934.00	5,326.00	5,109.96	54.06	19.46	-2.17	833.34	325.72	5,831.74	5,798.53	33.21	175.576	
12,300.00	10,934.00	5,326.00	5,109.96	56.03	19.46	-2.17	833.34	325.72	5,842.89	5,809.08	33.81	172.791	
12,400.00	10,934.00	5,326.00	5,109.96	58.06	19.46	-2.17	833.34	325.72	5,855.73	5,821.28	34.45	169.970	
12,500.00	10,934.00	5,310.64	5,108.78	60.16	19.34	-2.03	819.06	331.25	5,870.03	5,834.99	35.04	167.537	
12,600.00	10,934.00	5,294.00	5,107.11	62.32	19.21	-1.88	803.55	337.04	5,886.26	5,850.61	35.64	165.148	
12,700.00	10,934.00	5,294.00	5,107.11	64.53	19.21	-1.88	803.55	337.04	5,903.89	5,867.52	36.36	162.357	
12,800.00	10,934.00	5,294.00	5,107.11	66.79	19.21	-1.88	803.55	337.04	5,923.15	5,886.05	37.11	159.621	
12,900.00	10,934.00	5,294.00	5,107.11	69.09	19.21	-1.88	803.55	337.04	5,944.04	5,906.17	37.87	156.952	
13,000.00	10,934.00	5,294.00	5,107.11	71.43	19.21	-1.88	803.55	337.04	5,966.53	5,927.88	38.65	154.364	
13,100.00	10,934.00	5,294.00	5,107.11	73.81	19.21	-1.88	803.55	337.04	5,990.51	5,951.16	39.45	151.864	
13,200.00	10,934.00	5,294.00	5,107.11	76.21	19.21	-1.88	803.55	337.04	6,016.25	5,976.00	40.25	149.460	
13,300.00	10,934.00	5,294.00	5,107.11	78.65	19.21	-1.88	803.55	337.04	6,043.44	6,002.37	41.07	147.156	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Sidetrack - Sidetrack													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
13,400.00	10,934.00	5,294.00	5,107.11	81.11	19.21	-1.88	803.55	337.04	6,072.15	6,030.26	41.89	144.956	
13,500.00	10,934.00	5,294.00	5,107.11	83.60	19.21	-1.88	803.55	337.04	6,102.37	6,059.66	42.72	142.861	
13,600.00	10,934.00	5,279.37	5,105.24	86.10	19.11	-1.74	789.91	341.97	6,133.83	6,090.38	43.45	141.172	
13,700.00	10,934.00	5,263.00	5,102.64	88.63	18.99	-1.59	774.66	347.33	6,167.12	6,122.95	44.17	139.620	
13,800.00	10,934.00	5,263.00	5,102.64	91.17	18.99	-1.59	774.66	347.33	6,201.55	6,156.55	45.00	137.826	
13,900.00	10,934.00	5,263.00	5,102.64	93.74	18.99	-1.59	774.66	347.33	6,237.39	6,191.57	45.82	136.136	
14,000.00	10,934.00	5,263.00	5,102.64	96.31	18.99	-1.59	774.66	347.33	6,274.62	6,227.98	46.64	134.547	
14,100.00	10,934.00	5,263.00	5,102.64	98.91	18.99	-1.59	774.66	347.33	6,313.21	6,265.76	47.45	133.056	
14,200.00	10,934.00	5,263.00	5,102.64	101.51	18.99	-1.59	774.66	347.33	6,353.14	6,304.89	48.25	131.660	
14,300.00	10,934.00	5,263.00	5,102.64	104.13	18.99	-1.59	774.66	347.33	6,394.39	6,345.34	49.05	130.357	
14,400.00	10,934.00	5,263.00	5,102.64	106.76	18.99	-1.59	774.66	347.33	6,436.93	6,387.09	49.84	129.143	
14,500.00	10,934.00	5,263.00	5,102.64	109.39	18.99	-1.59	774.66	347.33	6,480.73	6,430.11	50.62	128.015	
14,600.00	10,934.00	5,263.00	5,102.64	112.04	18.99	-1.59	774.66	347.33	6,525.77	6,474.38	51.40	126.970	
14,700.00	10,934.00	5,263.00	5,102.64	114.70	18.99	-1.59	774.66	347.33	6,572.03	6,519.87	52.16	126.004	
14,800.00	10,934.00	5,247.91	5,099.82	117.37	18.89	-1.45	760.64	352.15	6,619.28	6,566.48	52.80	125.357	
14,900.00	10,934.00	5,231.00	5,096.28	120.04	18.78	-1.30	744.97	357.43	6,667.96	6,614.54	53.43	124.809	
15,000.00	10,934.00	5,231.00	5,096.28	122.72	18.78	-1.30	744.97	357.43	6,717.55	6,663.40	54.15	124.053	
15,100.00	10,934.00	5,231.00	5,096.28	125.41	18.78	-1.30	744.97	357.43	6,768.26	6,713.39	54.86	123.363	
15,200.00	10,934.00	5,231.00	5,096.28	128.11	18.78	-1.30	744.97	357.43	6,820.05	6,764.48	55.57	122.738	
15,300.00	10,934.00	5,231.00	5,096.28	130.81	18.78	-1.30	744.97	357.43	6,872.91	6,816.65	56.25	122.174	
15,400.00	10,934.00	5,231.00	5,096.28	133.51	18.78	-1.30	744.97	357.43	6,926.81	6,869.88	56.93	121.669	
15,500.00	10,934.00	5,231.00	5,096.28	136.23	18.78	-1.30	744.97	357.43	6,981.72	6,924.13	57.60	121.221	
15,600.00	10,934.00	5,231.00	5,096.28	138.94	18.78	-1.30	744.97	357.43	7,037.63	6,979.38	58.25	120.825	
15,700.00	10,934.00	5,231.00	5,096.28	141.67	18.78	-1.30	744.97	357.43	7,094.51	7,035.62	58.88	120.482	
15,718.17	10,934.00	5,231.00	5,096.28	142.16	18.78	-1.30	744.97	357.43	7,104.94	7,045.94	59.00	120.424	

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 500-MWD STANDARD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
				(usft)	(usft)			+N-S (usft)	+E-W (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	41.92		401.59	360.57	540.41				
100.00	100.00	72.25	72.25	0.13	0.13	41.92		401.62	360.57	539.73	539.47	0.26	2.093	475
200.00	200.00	171.90	171.90	0.49	0.31	41.91		401.72	360.57	539.81	539.01	0.79	679	134
300.00	300.00	271.55	271.55	0.85	0.49	41.90		401.92	360.57	539.95	538.62	1.33	405	406
400.00	400.00	371.20	371.20	1.20	0.67	41.88		402.20	360.57	540.16	538.29	1.87	289	024
500.00	500.00	470.85	470.85	1.56	0.84	41.85		402.56	360.57	540.44	538.03	2.41	224	624
600.00	600.00	569.37	569.37	1.92	1.14	41.86		402.83	360.88	540.85	537.79	3.06	176	807
700.00	699.99	669.53	669.52	2.28	1.49	90.09		402.53	362.15	541.47	537.71	3.77	143	816
800.00	799.91	770.53	770.51	2.63	1.84	90.67		401.80	363.62	541.95	537.47	4.47	121	150
900.00	899.69	871.29	871.25	2.99	2.20	91.57		400.64	365.24	542.34	537.15	5.18	104	619
1,000.00	999.27	971.71	971.64	3.35	2.55	92.78		399.07	367.00	542.78	536.89	5.90	92	033
1,068.29	1,067.11	1,040.03	1,039.93	3.60	2.79	93.78		397.76	368.28	543.22	536.83	6.39	85	040
1,100.00	1,098.59	1,071.70	1,071.59	3.72	2.90	94.28		397.09	368.89	543.47	536.85	6.62	82	142
1,200.00	1,197.84	1,170.88	1,170.72	4.09	3.25	95.90		394.61	371.05	544.46	537.11	7.34	74	135
1,300.00	1,297.09	1,269.53	1,269.28	4.47	3.61	97.60		391.39	373.85	545.89	537.82	8.08	67	589
1,400.00	1,396.34	1,367.83	1,367.43	4.85	3.97	99.39		387.42	377.30	547.86	539.05	8.81	62	185
1,500.00	1,495.59	1,465.77	1,465.17	5.23	4.32	101.27		382.70	381.41	550.46	540.92	9.54	57	678
1,600.00	1,594.84	1,563.31	1,562.44	5.62	4.67	103.22		377.24	386.15	553.78	543.50	10.28	53	888
1,700.00	1,694.09	1,640.10	1,639.01	6.00	4.95	104.72		373.56	390.53	559.05	548.12	10.92	51	175
1,800.00	1,793.34	1,728.71	1,727.36	6.39	5.28	106.06		374.49	397.13	569.11	557.49	11.61	49	003
1,900.00	1,892.59	1,826.38	1,824.70	6.78	5.64	107.70		373.51	405.11	579.26	566.92	12.34	46	923
2,000.00	1,991.83	1,916.07	1,914.06	7.16	5.95	109.04		374.05	412.69	590.87	577.84	13.03	45	335
2,100.00	2,091.08	2,015.39	2,013.02	7.55	6.32	110.10		378.33	419.86	603.43	589.67	13.76	43	847
2,200.00	2,190.33	2,117.94	2,115.21	7.94	6.70	111.38		380.63	428.21	616.11	601.60	14.51	42	455
2,300.00	2,289.58	2,222.81	2,219.74	8.33	7.08	112.82		380.53	436.59	627.96	612.68	15.28	41	107
2,400.00	2,388.83	2,318.45	2,315.09	8.72	7.44	114.10		380.12	443.99	639.79	623.79	15.99	40	001
2,500.00	2,488.08	2,451.73	2,448.02	9.11	7.93	116.02		376.29	452.54	649.94	633.06	16.89	38	491
2,600.00	2,587.33	2,563.56	2,559.62	9.50	8.32	117.72		369.88	455.64	656.02	638.36	17.65	37	164
2,700.00	2,686.58	2,667.98	2,663.99	9.89	8.68	118.97		366.81	456.36	661.52	643.13	18.39	35	981
2,800.00	2,785.83	2,773.39	2,769.38	10.28	9.04	119.89		366.91	455.01	666.37	647.25	19.12	34	846
2,900.00	2,885.08	2,871.82	2,867.76	10.67	9.37	120.56		368.86	452.83	670.85	651.01	19.84	33	817
3,000.00	2,984.33	2,968.19	2,964.10	11.07	9.70	121.27		370.24	450.90	675.87	655.32	20.54	32	898
3,100.00	3,083.58	3,064.37	3,060.28	11.46	10.02	122.03		371.02	449.82	681.47	660.22	21.25	32	071
3,200.00	3,182.83	3,160.35	3,156.26	11.85	10.35	122.84		371.19	449.39	687.68	665.73	21.95	31	329
3,300.00	3,282.08	3,335.30	3,250.60	12.24	10.95	123.67		370.83	449.55	694.50	671.57	22.93	30	293
3,400.00	3,381.33	3,353.78	3,349.68	12.63	11.01	124.59		369.84	450.39	701.98	678.61	23.36	30	046
3,500.00	3,480.58	3,452.86	3,448.75	13.03	11.37	125.49		368.85	451.22	709.63	685.55	24.09	29	462
3,600.00	3,579.83	3,551.95	3,547.83	13.42	11.72	126.37		367.85	452.05	717.47	692.66	24.81	28	919
3,700.00	3,679.08	3,651.03	3,646.90	13.81	12.07	127.24		366.86	452.89	725.47	699.93	25.53	28	414
3,800.00	3,778.32	3,750.11	3,745.97	14.20	12.42	128.08		365.87	453.72	733.63	707.37	26.25	27	944
3,900.00	3,877.57	3,849.56	3,845.41	14.60	12.77	128.91		364.89	454.54	741.93	714.95	26.98	27	502
4,000.00	3,976.82	3,949.35	3,945.19	14.99	13.12	129.71		364.03	455.26	750.30	722.60	27.70	27	085
4,100.00	4,076.07	4,049.18	4,045.02	15.38	13.48	130.48		363.30	455.87	758.72	730.30	28.43	26	691
4,200.00	4,175.32	4,149.06	4,144.90	15.77	13.83	131.22		362.71	456.37	767.18	738.03	29.15	26	318
4,300.00	4,274.57	4,248.98	4,244.82	16.17	14.19	131.94		362.24	456.76	775.67	745.79	29.87	25	964
4,400.00	4,373.82	4,348.29	4,344.12	16.56	14.54	132.63		361.89	457.06	784.20	753.60	30.60	25	630
4,500.00	4,473.07	4,447.02	4,442.85	16.95	14.89	133.31		361.50	457.40	792.88	761.56	31.32	25	319
4,600.00	4,572.32	4,545.73	4,541.56	17.35	15.24	133.97		361.04	457.80	801.73	769.69	32.03	25	027
4,700.00	4,671.57	4,644.42	4,640.25	17.74	15.59	134.63		360.53	458.27	810.74	777.99	32.75	24	753
4,800.00	4,770.82	4,743.08	4,738.91	18.13	15.94	135.27		359.96	458.79	819.92	786.45	33.47	24	497
4,900.00	4,870.07	4,841.53	4,837.35	18.53	16.29	135.91		359.33	459.39	829.26	795.07	34.19	24	256

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

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 500-MWD STANDARD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,969.32	4,939.73	4,935.55	18.92	16.64	136.53	358.57	460.08	838.81	803.91	34.90	24.033		
5,100.00	5,068.57	5,037.89	5,033.70	19.31	17.00	137.15	357.69	460.89	848.57	812.95	35.62	23.824		
5,200.00	5,167.82	5,136.00	5,131.80	19.70	17.35	137.77	356.68	461.81	858.54	822.21	36.33	23.630		
5,300.00	5,267.07	5,234.07	5,229.86	20.10	17.70	138.38	355.54	462.83	868.72	831.68	37.05	23.450		
5,400.00	5,366.32	5,332.76	5,328.54	20.49	18.05	138.99	354.29	463.96	879.10	841.34	37.76	23.280		
5,500.00	5,465.57	5,432.36	5,428.12	20.88	18.41	139.58	353.06	465.07	889.54	851.06	38.48	23.115		
5,600.00	5,564.81	5,531.97	5,527.72	21.28	18.76	140.16	351.88	466.11	900.01	860.81	39.20	22.957		
5,700.00	5,664.06	5,631.61	5,627.35	21.67	19.12	140.72	350.77	467.10	910.50	870.58	39.93	22.805		
5,800.00	5,763.31	5,731.28	5,727.01	22.07	19.48	141.27	349.72	468.02	921.02	880.37	40.65	22.659		
5,900.00	5,862.56	5,830.97	5,826.69	22.46	19.83	141.80	348.73	468.88	931.54	890.18	41.37	22.519		
6,000.00	5,961.81	5,929.39	5,925.10	22.85	20.18	142.31	347.66	469.75	942.18	900.10	42.08	22.389		
6,100.00	6,061.06	6,028.17	6,023.87	23.25	20.54	142.82	346.52	470.64	952.91	910.11	42.80	22.265		
6,200.00	6,160.31	6,126.92	6,122.61	23.64	20.89	143.33	345.28	471.56	963.75	920.24	43.51	22.148		
6,300.00	6,259.56	6,225.65	6,221.32	24.03	21.24	143.83	343.96	472.49	974.69	930.46	44.23	22.037		
6,400.00	6,358.81	6,324.33	6,320.99	24.43	21.61	144.34	342.53	473.43	985.68	940.72	44.96	21.923		
6,500.00	6,458.06	6,424.64	6,421.29	24.82	21.99	144.85	341.57	473.41	995.76	950.03	45.73	21.776		
6,523.00	6,480.89	6,465.53	6,462.18	24.91	22.08	144.97	341.47	473.21	997.90	952.00	45.90	21.739		
6,600.00	6,557.40	6,553.43	6,549.07	25.21	22.38	145.35	341.45	471.98	1,003.94	957.45	46.49	21.594		
6,700.00	6,657.00	6,647.11	6,642.74	25.59	22.70	145.67	341.70	470.30	1,009.50	962.33	47.17	21.402		
6,800.00	6,756.79	6,735.97	6,731.60	25.95	23.01	145.90	341.58	469.59	1,013.95	966.14	47.82	21.204		
6,900.00	6,856.72	6,824.86	6,820.48	26.30	23.32	146.05	341.07	469.80	1,017.34	968.88	48.46	20.994		
6,991.29	6,948.00	6,906.02	6,901.63	26.60	23.60	98.16	340.27	470.80	1,019.48	970.45	49.03	20.793		
7,000.00	6,956.71	6,913.77	6,909.38	26.63	23.62	98.16	340.17	470.94	1,019.64	970.56	49.08	20.773		
7,100.00	7,056.71	7,002.65	6,998.23	26.96	23.93	98.21	338.90	472.99	1,022.13	972.43	49.70	20.565		
7,200.00	7,156.71	7,096.39	7,091.90	27.29	24.26	98.29	337.14	476.03	1,025.61	975.25	50.35	20.368		
7,300.00	7,256.71	7,197.17	7,192.60	27.62	24.63	98.39	334.74	479.34	1,029.20	978.15	51.06	20.159		
7,400.00	7,356.71	7,297.93	7,293.27	27.95	24.99	98.53	331.82	482.49	1,032.72	980.97	51.76	19.953		
7,500.00	7,456.71	7,398.67	7,393.91	28.28	25.36	98.69	328.38	485.48	1,036.17	983.71	52.46	19.752		
7,600.00	7,556.71	7,499.38	7,494.50	28.61	25.72	98.88	324.42	488.30	1,039.54	986.38	53.16	19.555		
7,700.00	7,656.71	7,621.10	7,616.08	28.95	26.15	99.14	319.24	490.98	1,042.50	988.52	53.97	19.315		
7,800.00	7,756.71	7,782.28	7,777.14	29.28	26.71	99.40	315.14	487.58	1,040.82	985.92	54.91	18.957		
7,900.00	7,856.71	7,859.73	7,854.48	29.61	26.98	99.47	314.46	483.52	1,036.14	980.62	55.52	18.663		
7,944.62	7,901.34	7,879.09	7,873.84	29.76	27.04	99.48	314.35	483.26	1,035.59	979.88	55.72	18.587		
8,000.00	7,956.71	7,924.00	7,918.72	29.95	27.20	99.48	314.10	484.51	1,036.92	980.87	56.04	18.502		
8,100.00	8,056.71	8,002.02	7,996.66	30.28	27.47	99.49	313.33	487.85	1,040.80	984.18	56.62	18.384		
8,200.00	8,156.71	8,152.81	8,147.39	30.62	28.01	99.69	309.66	488.29	1,041.49	983.92	57.57	18.092		
8,300.00	8,256.71	8,235.99	8,230.53	30.96	28.30	99.83	307.08	487.53	1,041.02	982.83	58.19	17.891		
8,315.76	8,272.47	8,250.45	8,244.97	31.01	28.35	99.86	306.62	487.44	1,041.01	982.72	58.29	17.859		
8,400.00	8,356.71	8,327.72	8,322.20	31.29	28.63	100.00	304.15	487.27	1,041.29	982.45	58.84	17.696		
8,500.00	8,456.71	8,419.44	8,413.88	31.63	28.95	100.15	301.17	487.74	1,042.37	982.87	59.50	17.520		
8,600.00	8,556.71	8,511.14	8,505.52	31.97	29.28	100.30	298.15	488.94	1,044.24	984.09	60.15	17.362		
8,700.00	8,656.71	8,602.82	8,597.13	32.31	29.61	100.45	295.08	490.86	1,046.90	986.11	60.79	17.221		
8,800.00	8,756.71	8,703.05	8,697.27	32.64	29.96	100.60	291.78	493.49	1,050.09	988.59	61.50	17.076		
8,900.00	8,856.71	8,807.31	8,801.46	32.98	30.34	100.74	288.78	495.94	1,052.93	990.70	62.22	16.921		
9,000.00	8,956.71	8,911.62	8,905.71	33.32	30.72	100.85	286.22	498.03	1,055.36	992.40	62.95	16.764		
9,100.00	9,056.71	9,015.55	9,010.01	33.66	31.09	100.95	284.10	499.77	1,057.38	993.70	63.68	16.604		
9,200.00	9,156.71	9,120.32	9,114.35	34.00	31.47	101.02	282.43	501.16	1,058.99	994.58	64.41	16.441		
9,300.00	9,256.71	9,220.10	9,214.13	34.34	31.83	101.08	281.15	502.32	1,060.38	995.26	65.11	16.285		
9,400.00	9,356.71	9,319.31	9,313.32	34.68	32.18	101.13	280.01	503.57	1,061.84	996.03	65.81	16.134		
9,500.00	9,456.71	9,418.52	9,412.51	35.02	32.54	101.16	279.01	504.93	1,063.37	996.86	66.51	15.987		
9,600.00	9,556.71	9,517.73	9,511.71	35.37	32.89	101.19	278.15	506.38	1,064.98	997.77	67.21	15.844		

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Wellbore #1 - Wellbore #1													Offset Site Error: 0 00 usft
Survey Program: 500-MWD STANDARD													Offset Well Error: 0 00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,700.00	9,656.71	9,618.05	9,612.01	35.71	33.25	101.22	277.41	507.95	1,066.65	998.73	67.92	15.705	
9,800.00	9,756.71	9,726.53	9,720.48	36.05	33.62	101.22	277.08	509.23	1,067.87	999.21	68.66	15.554	
9,900.00	9,856.71	9,835.02	9,828.98	36.39	34.00	101.20	277.41	509.76	1,068.29	998.90	69.39	15.395	
10,000.00	9,956.71	9,943.51	9,937.46	36.74	34.37	101.15	278.39	509.54	1,067.91	997.79	70.12	15.229	
10,100.00	10,056.71	10,048.95	10,042.89	37.08	34.72	101.11	279.29	508.61	1,066.89	996.06	70.83	15.063	
10,200.00	10,156.71	10,154.44	10,148.37	37.42	35.07	101.12	279.50	507.00	1,065.35	993.82	71.53	14.893	
10,300.00	10,256.71	10,240.12	10,234.03	37.77	35.36	101.14	279.28	505.57	1,063.82	991.66	72.16	14.742	
10,316.39	10,273.11	10,251.69	10,245.61	37.82	35.40	101.14	279.29	505.54	1,063.79	991.53	72.25	14.723	
10,398.53	10,355.24	10,313.95	10,307.85	38.10	35.62	101.12	279.63	506.25	1,064.61	991.88	72.73	14.639	
10,400.00	10,356.71	10,315.10	10,309.01	38.11	35.62	20.42	279.64	506.28	1,064.64	991.90	72.73	14.637	
10,450.00	10,406.65	10,367.33	10,361.21	38.27	35.80	20.45	280.39	507.52	1,063.50	990.42	73.08	14.552	
10,500.00	10,456.19	10,429.00	10,422.87	38.42	36.01	20.75	281.36	508.41	1,057.82	984.35	73.47	14.398	
10,550.00	10,504.96	10,489.56	10,483.42	38.56	36.22	21.33	282.37	508.60	1,047.57	973.72	73.84	14.187	
10,600.00	10,552.59	10,548.35	10,542.20	38.70	36.42	22.23	283.39	508.14	1,032.87	958.67	74.19	13.921	
10,650.00	10,598.72	10,604.78	10,598.61	38.83	36.61	23.49	284.42	507.10	1,013.90	939.38	74.52	13.606	
10,700.00	10,643.00	10,658.29	10,652.09	38.94	36.79	25.18	285.43	505.57	990.91	916.09	74.82	13.244	
10,750.00	10,685.08	10,667.92	10,661.72	39.05	36.82	26.64	285.56	505.80	965.43	890.48	74.96	12.880	
10,800.00	10,724.66	10,695.00	10,688.80	39.16	36.91	28.75	285.95	506.10	937.47	862.34	75.13	12.478	
10,850.00	10,761.42	10,723.17	10,716.96	39.26	37.01	31.40	286.32	506.74	907.02	831.72	75.30	12.045	
10,900.00	10,795.10	10,757.74	10,751.52	39.36	37.13	34.96	286.77	507.52	873.96	798.45	75.51	11.574	
10,950.00	10,825.42	10,785.73	10,779.50	39.47	37.23	39.21	287.01	508.19	838.63	762.95	75.68	11.081	
11,000.00	10,852.17	10,810.85	10,804.61	39.60	37.32	44.37	287.06	508.82	801.44	725.60	75.84	10.568	
11,050.00	10,875.14	10,832.62	10,826.37	39.76	37.40	50.48	286.97	509.39	762.79	686.80	76.00	10.037	
11,100.00	10,894.15	10,850.88	10,844.63	39.96	37.46	57.48	286.80	509.90	723.10	646.95	76.16	9.495	
11,150.00	10,909.05	10,865.48	10,859.22	40.21	37.51	65.11	286.60	510.31	682.83	606.51	76.33	8.946	
11,198.52	10,919.49	10,876.05	10,869.78	40.48	37.55	72.70	286.42	510.62	643.68	567.17	76.52	8.412	
11,200.00	10,919.75	10,876.31	10,870.05	40.49	37.55	72.85	286.42	510.63	642.50	565.97	76.52	8.396	
11,250.00	10,927.06	10,885.03	10,878.76	40.82	37.58	77.91	286.25	510.89	602.76	525.99	76.77	7.852	
11,300.00	10,931.78	10,891.12	10,884.85	41.20	37.61	82.42	286.13	511.06	564.20	487.13	77.07	7.321	
11,350.00	10,933.88	10,894.51	10,888.23	41.61	37.62	86.22	286.07	511.15	527.27	449.82	77.45	6.808	
11,365.19	10,934.00	10,895.01	10,888.73	41.74	37.62	87.22	286.06	511.17	516.45	438.87	77.58	6.657	
11,400.00	10,934.00	10,895.87	10,889.60	42.06	37.62	87.31	286.04	511.19	492.29	414.37	77.92	6.318	
11,500.00	10,934.00	10,898.41	10,892.13	43.09	37.63	87.61	285.99	511.26	428.13	348.91	79.22	5.404	
11,600.00	10,934.00	10,901.02	10,894.74	44.29	37.64	87.98	285.94	511.34	374.99	293.99	81.01	4.629	
11,678.26	10,934.00	10,903.11	10,896.82	45.32	37.65	88.31	285.89	511.39	344.57	261.99	82.58	4.172	
11,700.00	10,934.00	10,903.69	10,897.41	45.63	37.65	88.41	285.88	511.41	338.41	255.41	83.00	4.077	
11,785.86	10,934.00	10,905.97	10,899.69	46.89	37.66	88.81	285.83	511.47	327.35	243.04	84.31	3.883 CC, ES	
11,800.00	10,934.00	10,906.35	10,900.06	47.10	37.66	88.87	285.83	511.48	327.65	243.22	84.43	3.881 SF	
11,900.00	10,934.00	10,908.96	10,902.67	48.69	37.67	89.33	285.77	511.55	346.66	262.07	84.59	4.098	
12,000.00	10,934.00	10,911.53	10,905.24	50.38	37.68	89.78	285.72	511.62	391.13	307.37	83.75	4.670	
12,100.00	10,934.00	10,914.06	10,907.77	52.18	37.69	90.22	285.66	511.69	453.62	371.00	82.62	5.491	
12,200.00	10,934.00	10,916.54	10,910.25	54.06	37.70	90.66	285.61	511.75	527.78	446.19	81.59	6.469	
12,300.00	10,934.00	10,918.99	10,912.69	56.03	37.71	91.08	285.56	511.82	609.36	528.60	80.76	7.545	
12,400.00	10,934.00	10,921.39	10,915.10	58.06	37.71	91.50	285.50	511.88	695.75	615.63	80.13	8.683	
12,500.00	10,934.00	10,923.76	10,917.47	60.16	37.72	91.92	285.45	511.94	785.37	705.73	79.64	9.861	
12,600.00	10,934.00	10,926.09	10,919.79	62.32	37.73	92.32	285.40	512.00	877.24	797.96	79.27	11.066	
12,700.00	10,934.00	10,928.38	10,922.09	64.53	37.74	92.72	285.35	512.06	970.70	891.71	78.99	12.290	
12,800.00	10,934.00	10,930.64	10,924.34	66.79	37.75	93.12	285.30	512.11	1,065.35	986.59	78.76	13.526	
12,900.00	10,934.00	10,932.87	10,926.57	69.09	37.76	93.50	285.24	512.17	1,160.89	1,082.30	78.58	14.773	
13,000.00	10,934.00	10,935.05	10,928.75	71.43	37.76	93.88	285.19	512.22	1,257.12	1,178.68	78.44	16.026	
13,100.00	10,934.00	10,937.21	10,930.91	73.81	37.77	94.26	285.14	512.27	1,353.89	1,275.56	78.33	17.285	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Amethyst State #1 (OFFSET) - State 1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 500-MWD STANDARD												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,200.00	10,934.00	10,939.33	10,933.03	76.21	37.78	94.62	285.09	512.33	1,451.10	1,372.86	78.24	18.548	
13,300.00	10,934.00	10,941.42	10,935.12	78.65	37.79	94.99	285.04	512.38	1,548.65	1,470.49	78.16	19.813	
13,400.00	10,934.00	10,943.49	10,937.18	81.11	37.79	95.34	285.00	512.43	1,646.50	1,568.40	78.11	21.080	
13,500.00	10,934.00	10,945.51	10,939.21	83.60	37.80	95.69	284.95	512.47	1,744.59	1,666.53	78.06	22.349	
13,600.00	10,934.00	10,947.51	10,941.21	86.10	37.81	96.04	284.90	512.52	1,842.89	1,764.86	78.02	23.619	
13,700.00	10,934.00	10,949.49	10,943.18	88.63	37.82	96.38	284.85	512.57	1,941.35	1,863.35	78.00	24.890	
13,800.00	10,934.00	10,951.43	10,945.12	91.17	37.82	96.71	284.80	512.61	2,039.96	1,961.98	77.98	26.160	
13,900.00	10,934.00	10,953.34	10,947.03	93.74	37.83	97.04	284.76	512.66	2,138.70	2,060.73	77.97	27.431	
14,000.00	10,934.00	10,955.23	10,948.92	96.31	37.84	97.36	284.71	512.70	2,237.55	2,159.59	77.96	28.702	
14,100.00	10,934.00	10,957.09	10,950.78	98.91	37.84	97.68	284.66	512.74	2,336.49	2,258.54	77.96	29.972	
14,200.00	10,934.00	10,958.93	10,952.61	101.51	37.85	97.99	284.62	512.78	2,435.52	2,357.56	77.96	31.241	
14,300.00	10,934.00	10,960.73	10,954.42	104.13	37.86	98.30	284.57	512.82	2,534.63	2,456.66	77.97	32.509	
14,400.00	10,934.00	10,962.52	10,956.20	106.76	37.86	98.60	284.53	512.86	2,633.80	2,555.82	77.98	33.777	
14,500.00	10,934.00	10,964.28	10,957.96	109.39	37.87	98.90	284.48	512.90	2,733.03	2,655.04	77.99	35.044	
14,600.00	10,934.00	10,966.01	10,959.69	112.04	37.88	99.19	284.44	512.94	2,832.31	2,754.30	78.01	36.309	
14,700.00	10,934.00	10,967.72	10,961.40	114.70	37.88	99.48	284.39	512.98	2,931.64	2,853.61	78.02	37.573	
14,800.00	10,934.00	10,969.41	10,963.09	117.37	37.89	99.77	284.35	513.01	3,031.01	2,952.96	78.05	38.836	
14,900.00	10,934.00	10,971.08	10,964.76	120.04	37.89	100.05	284.31	513.05	3,130.42	3,052.35	78.07	40.097	
15,000.00	10,934.00	10,972.72	10,966.40	122.72	37.90	100.32	284.26	513.08	3,229.87	3,151.77	78.10	41.357	
15,100.00	10,934.00	10,974.35	10,968.02	125.41	37.91	100.60	284.22	513.12	3,329.35	3,251.22	78.13	42.615	
15,200.00	10,934.00	10,975.95	10,969.62	128.11	37.91	100.86	284.18	513.15	3,428.86	3,350.70	78.16	43.872	
15,300.00	10,934.00	10,977.53	10,971.20	130.81	37.92	101.13	284.14	513.19	3,528.39	3,450.20	78.19	45.126	
15,400.00	10,934.00	10,979.09	10,972.76	133.51	37.92	101.39	284.09	513.22	3,627.95	3,549.73	78.22	46.379	
15,500.00	10,934.00	10,980.63	10,974.30	136.23	37.93	101.64	284.05	513.25	3,727.53	3,649.27	78.26	47.630	
15,600.00	10,934.00	10,982.15	10,975.82	138.94	37.93	101.89	284.01	513.28	3,827.14	3,748.84	78.30	48.880	
15,700.00	10,934.00	10,983.65	10,977.32	141.67	37.94	102.14	283.97	513.31	3,926.76	3,848.42	78.34	50.127	
15,718.17	10,934.00	10,983.92	10,977.59	142.16	37.94	102.19	283.96	513.32	3,944.86	3,866.52	78.34	50.353	

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #1H - Original Hole - Original Hole													Offset Site Error:	0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-172.69	-8,133.01	-1,043.74	8,199.72					
100.00	100.00	51.63	51.63	0.13	0.09	-172.69	-8,133.12	-1,043.80	8,199.91	8,199.69	0.22	N/A		
200.00	200.00	100.00	100.00	0.49	0.18	-172.69	-8,133.42	-1,043.97	8,200.63	8,199.96	0.67	N/A		
300.00	300.00	146.08	146.07	0.85	0.35	-172.68	-8,134.00	-1,044.20	8,201.99	8,200.80	1.19	6,883.850		
400.00	400.00	16,185.00	8,476.94	1.20	245.30	147.39	-649.50	415.55	8,125.10	8,056.76	68.35	118.882		
500.00	500.00	16,185.00	8,476.94	1.56	245.30	147.39	-649.50	415.55	8,025.56	7,957.15	68.41	117.313		
600.00	600.00	16,185.00	8,476.94	1.92	245.30	147.39	-649.50	415.55	7,926.03	7,857.55	68.48	115.735		
700.00	699.99	16,185.00	8,476.94	2.28	245.30	-167.84	-649.50	415.55	7,826.65	7,758.08	68.57	114.144		
800.00	799.91	16,185.00	8,476.94	2.63	245.30	-169.92	-649.50	415.55	7,727.60	7,658.93	68.67	112.528		
900.00	899.69	16,185.00	8,476.94	2.99	245.30	-171.38	-649.50	415.55	7,628.97	7,560.17	68.80	110.884		
1,000.00	999.27	16,185.00	8,476.94	3.35	245.30	-172.45	-649.50	415.55	7,530.85	7,461.89	68.96	109.212		
1,068.29	1,087.11	16,185.00	8,476.94	3.60	245.30	-173.04	-649.50	415.55	7,464.18	7,395.10	69.08	108.055		
1,100.00	1,098.59	16,185.00	8,476.94	3.72	245.30	-173.04	-649.50	415.55	7,433.29	7,364.15	69.14	107.513		
1,200.00	1,197.84	16,185.00	8,476.94	4.09	245.30	-173.04	-649.50	415.55	7,335.93	7,266.58	69.35	105.777		
1,300.00	1,297.09	16,185.00	8,476.94	4.47	245.30	-173.04	-649.50	415.55	7,238.65	7,169.07	69.58	104.031		
1,400.00	1,396.34	16,185.00	8,476.94	4.85	245.30	-173.04	-649.50	415.55	7,141.44	7,071.61	69.83	102.273		
1,500.00	1,495.59	16,185.00	8,476.94	5.23	245.30	-173.04	-649.50	415.55	7,044.30	6,974.22	70.09	100.507		
1,600.00	1,594.84	16,185.00	8,476.94	5.62	245.30	-173.04	-649.50	415.55	6,947.25	6,876.89	70.36	98.732		
1,700.00	1,694.09	16,185.00	8,476.94	6.00	245.30	-173.04	-649.50	415.55	6,850.29	6,779.63	70.66	96.949		
1,800.00	1,793.34	16,185.00	8,476.94	6.39	245.30	-173.04	-649.50	415.55	6,753.41	6,682.44	70.97	95.159		
1,900.00	1,892.59	16,185.00	8,476.94	6.78	245.30	-173.04	-649.50	415.55	6,656.62	6,585.32	71.30	93.363		
2,000.00	1,991.83	16,185.00	8,476.94	7.16	245.30	-173.04	-649.50	415.55	6,559.93	6,488.29	71.65	91.561		
2,100.00	2,091.08	16,185.00	8,476.94	7.55	245.30	-173.04	-649.50	415.55	6,463.35	6,391.33	72.01	89.754		
2,200.00	2,190.33	16,185.00	8,476.94	7.94	245.30	-173.04	-649.50	415.55	6,366.86	6,294.46	72.40	87.942		
2,300.00	2,289.58	16,185.00	8,476.94	8.33	245.30	-173.04	-649.50	415.55	6,270.49	6,197.69	72.81	86.127		
2,400.00	2,388.83	16,185.00	8,476.94	8.72	245.30	-173.04	-649.50	415.55	6,174.23	6,101.00	73.23	84.309		
2,500.00	2,488.08	16,185.00	8,476.94	9.11	245.30	-173.04	-649.50	415.55	6,078.10	6,004.41	73.68	82.488		
2,600.00	2,587.33	16,185.00	8,476.94	9.50	245.30	-173.04	-649.50	415.55	5,982.09	5,907.93	74.16	80.666		
2,700.00	2,686.58	16,185.00	8,476.94	9.89	245.30	-173.04	-649.50	415.55	5,886.21	5,811.55	74.66	78.842		
2,800.00	2,785.83	16,185.00	8,476.94	10.28	245.30	-173.04	-649.50	415.55	5,790.47	5,715.29	75.18	77.017		
2,900.00	2,885.08	16,185.00	8,476.94	10.67	245.30	-173.04	-649.50	415.55	5,694.88	5,619.14	75.74	75.193		
3,000.00	2,984.33	16,185.00	8,476.94	11.07	245.30	-173.04	-649.50	415.55	5,599.44	5,523.13	76.32	73.369		
3,100.00	3,083.58	16,185.00	8,476.94	11.46	245.30	-173.04	-649.50	415.55	5,504.17	5,427.24	76.93	71.546		
3,200.00	3,182.83	16,185.00	8,476.94	11.85	245.30	-173.04	-649.50	415.55	5,409.07	5,331.49	77.58	69.725		
3,300.00	3,282.08	16,185.00	8,476.94	12.24	245.30	-173.04	-649.50	415.55	5,314.14	5,235.88	78.26	67.907		
3,400.00	3,381.33	16,185.00	8,476.94	12.63	245.30	-173.04	-649.50	415.55	5,219.41	5,140.43	78.97	66.092		
3,500.00	3,480.58	16,185.00	8,476.94	13.03	245.30	-173.04	-649.50	415.55	5,124.87	5,045.14	79.73	64.281		
3,600.00	3,579.83	16,185.00	8,476.94	13.42	245.30	-173.04	-649.50	415.55	5,030.55	4,950.03	80.52	62.475		
3,700.00	3,679.08	16,185.00	8,476.94	13.81	245.30	-173.04	-649.50	415.55	4,936.45	4,855.09	81.36	60.675		
3,800.00	3,778.32	16,185.00	8,476.94	14.20	245.30	-173.04	-649.50	415.55	4,842.58	4,760.34	82.24	58.882		
3,900.00	3,877.57	16,185.00	8,476.94	14.60	245.30	-173.04	-649.50	415.55	4,748.97	4,665.79	83.18	57.096		
4,000.00	3,976.82	16,185.00	8,476.94	14.99	245.30	-173.04	-649.50	415.55	4,655.62	4,571.46	84.16	55.319		
4,100.00	4,076.07	16,185.00	8,476.94	15.38	245.30	-173.04	-649.50	415.55	4,562.56	4,477.36	85.20	53.552		
4,200.00	4,175.32	16,185.00	8,476.94	15.77	245.30	-173.04	-649.50	415.55	4,469.79	4,383.49	86.30	51.796		
4,300.00	4,274.57	16,185.00	8,476.94	16.17	245.30	-173.04	-649.50	415.55	4,377.34	4,289.89	87.46	50.052		
4,400.00	4,373.82	16,185.00	8,476.94	16.56	245.30	-173.04	-649.50	415.55	4,285.23	4,196.55	88.68	48.321		
4,500.00	4,473.07	16,185.00	8,476.94	16.95	245.30	-173.04	-649.50	415.55	4,193.49	4,103.51	89.98	46.605		
4,600.00	4,572.32	16,185.00	8,476.94	17.35	245.30	-173.04	-649.50	415.55	4,102.13	4,010.78	91.35	44.905		
4,700.00	4,671.57	16,185.00	8,476.94	17.74	245.30	-173.04	-649.50	415.55	4,011.18	3,918.37	92.80	43.222		
4,800.00	4,770.82	16,185.00	8,476.94	18.13	245.30	-173.04	-649.50	415.55	3,920.67	3,826.33	94.34	41.559		
4,900.00	4,870.07	16,185.00	8,476.94	18.53	245.30	-173.04	-649.50	415.55	3,830.63	3,734.67	95.97	39.916		

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #1H - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,969.32	16,185.00	8,476.94	18.92	245.30	-173.04	-649.50	415.55	3,741.10	3,643.41	97.69	38.295	
5,100.00	5,068.57	16,185.00	8,476.94	19.31	245.30	-173.04	-649.50	415.55	3,652.12	3,552.60	99.52	36.698	
5,200.00	5,167.82	16,185.00	8,476.94	19.70	245.30	-173.04	-649.50	415.55	3,563.72	3,462.26	101.46	35.126	
5,300.00	5,267.07	16,185.00	8,476.94	20.10	245.30	-173.04	-649.50	415.55	3,475.94	3,372.43	103.51	33.581	
5,400.00	5,366.32	16,185.00	8,476.94	20.49	245.30	-173.04	-649.50	415.55	3,388.85	3,283.16	105.68	32.066	
5,500.00	5,465.57	16,185.00	8,476.94	20.88	245.30	-173.04	-649.50	415.55	3,302.48	3,194.49	107.99	30.581	
5,600.00	5,564.81	16,185.00	8,476.94	21.28	245.30	-173.04	-649.50	415.55	3,216.91	3,106.47	110.44	29.129	
5,700.00	5,664.06	16,185.00	8,476.94	21.67	245.30	-173.04	-649.50	415.55	3,132.19	3,019.16	113.03	27.712	
5,800.00	5,763.31	16,185.00	8,476.94	22.07	245.30	-173.04	-649.50	415.55	3,048.39	2,932.62	115.78	26.330	
5,900.00	5,862.56	16,185.00	8,476.94	22.46	245.30	-173.04	-649.50	415.55	2,965.60	2,846.92	118.69	24.987	
6,000.00	5,961.81	16,185.00	8,476.94	22.85	245.30	-173.04	-649.50	415.55	2,883.90	2,762.13	121.77	23.683	
6,100.00	6,061.06	16,185.00	8,476.94	23.25	245.30	-173.04	-649.50	415.55	2,803.39	2,678.36	125.03	22.421	
6,200.00	6,160.31	16,185.00	8,476.94	23.64	245.30	-173.04	-649.50	415.55	2,724.17	2,595.69	128.48	21.203	
6,300.00	6,259.56	16,185.00	8,476.94	24.03	245.30	-173.04	-649.50	415.55	2,646.36	2,514.23	132.12	20.029	
6,400.00	6,358.81	16,185.00	8,476.94	24.43	245.30	-173.04	-649.50	415.55	2,570.08	2,434.11	135.97	18.902	
6,500.00	6,458.08	16,185.00	8,476.94	24.82	245.30	-173.04	-649.50	415.55	2,495.48	2,355.46	140.02	17.823	
6,523.00	6,480.89	16,185.00	8,476.94	24.91	245.30	-173.04	-649.50	415.55	2,478.58	2,337.60	140.98	17.582	
6,600.00	6,557.40	16,185.00	8,476.94	25.21	245.30	-172.89	-649.50	415.55	2,422.18	2,277.95	144.23	16.794	
6,700.00	6,657.00	16,185.00	8,476.94	25.59	245.30	-172.68	-649.50	415.55	2,349.07	2,200.55	148.52	15.817	
6,800.00	6,756.79	16,185.00	8,476.94	25.95	245.30	-172.48	-649.50	415.55	2,276.17	2,123.30	152.87	14.889	
6,900.00	6,856.72	16,185.00	8,476.94	26.30	245.30	-172.27	-649.50	415.55	2,203.57	2,046.28	157.29	14.010	
6,991.29	6,948.00	16,185.00	8,476.94	26.60	245.30	139.94	-649.50	415.55	2,137.61	1,976.24	161.36	13.247	
7,000.00	6,956.71	16,185.00	8,476.94	26.63	245.30	139.94	-649.50	415.55	2,131.34	1,969.58	161.76	13.176	
7,100.00	7,056.71	16,185.00	8,476.94	26.95	245.30	139.94	-649.50	415.55	2,060.64	1,894.29	166.35	12.387	
7,200.00	7,156.71	16,185.00	8,476.94	27.29	245.30	139.94	-649.50	415.55	1,992.46	1,821.35	171.12	11.644	
7,300.00	7,256.71	16,185.00	8,476.94	27.62	245.30	139.94	-649.50	415.55	1,927.06	1,751.02	176.04	10.947	
7,400.00	7,356.71	16,185.00	8,476.94	27.95	245.30	139.94	-649.50	415.55	1,864.73	1,683.65	181.08	10.298	
7,500.00	7,456.71	16,185.00	8,476.94	28.28	245.30	139.94	-649.50	415.55	1,805.79	1,619.58	186.21	9.698	
7,600.00	7,556.71	16,185.00	8,476.94	28.61	245.30	139.94	-649.50	415.55	1,750.58	1,559.23	191.35	9.149	
7,700.00	7,656.71	16,185.00	8,476.94	28.95	245.30	139.94	-649.50	415.55	1,699.47	1,503.02	196.45	8.651	
7,800.00	7,756.71	16,185.00	8,476.94	29.28	245.30	139.94	-649.50	415.55	1,652.83	1,451.42	201.41	8.206	
7,900.00	7,856.71	16,185.00	8,476.94	29.61	245.30	139.94	-649.50	415.55	1,611.05	1,404.92	206.13	7.816	
8,000.00	7,956.71	16,185.00	8,476.94	29.95	245.30	139.94	-649.50	415.55	1,574.53	1,364.02	210.51	7.479	
8,100.00	8,056.71	16,185.00	8,476.94	30.28	245.30	139.94	-649.50	415.55	1,543.64	1,329.21	214.43	7.199	
8,200.00	8,156.71	16,185.00	8,476.94	30.62	245.30	139.94	-649.50	415.55	1,518.71	1,300.94	217.76	6.974	
8,300.00	8,256.71	16,185.00	8,476.94	30.96	245.30	139.94	-649.50	415.55	1,500.04	1,279.64	220.40	6.806	
8,400.00	8,356.71	16,185.00	8,476.94	31.29	245.30	139.94	-649.50	415.55	1,487.88	1,265.61	222.26	6.694	
8,500.00	8,456.71	16,185.00	8,476.94	31.63	245.30	139.94	-649.50	415.55	1,482.37	1,259.10	223.27	6.639	
8,531.72	8,488.44	16,185.00	8,476.94	31.74	245.30	139.94	-649.50	415.55	1,482.03	1,258.63	223.41	6.634 CC, ES, SF	
8,600.00	8,556.71	16,185.00	8,476.94	31.97	245.30	139.94	-649.50	415.55	1,483.61	1,260.21	223.40	6.641	
8,700.00	8,656.71	16,185.00	8,476.94	32.31	245.30	139.94	-649.50	415.55	1,491.56	1,268.90	222.66	6.699	
8,800.00	8,756.71	16,185.00	8,476.94	32.64	245.30	139.94	-649.50	415.55	1,506.12	1,285.04	221.08	6.813	
8,900.00	8,856.71	16,185.00	8,476.94	32.98	245.30	139.94	-649.50	415.55	1,527.11	1,308.36	218.74	6.981	
9,000.00	8,956.71	16,185.00	8,476.94	33.32	245.30	139.94	-649.50	415.55	1,554.26	1,338.51	215.75	7.204	
9,100.00	9,056.71	16,185.00	8,476.94	33.66	245.30	139.94	-649.50	415.55	1,587.25	1,375.05	212.20	7.480	
9,200.00	9,156.71	16,185.00	8,476.94	34.00	245.30	139.94	-649.50	415.55	1,625.74	1,417.51	208.23	7.807	
9,300.00	9,256.71	16,185.00	8,476.94	34.34	245.30	139.94	-649.50	415.55	1,669.34	1,465.39	203.94	8.185	
9,400.00	9,356.71	16,185.00	8,476.94	34.68	245.30	139.94	-649.50	415.55	1,717.65	1,518.20	199.45	8.612	
9,500.00	9,456.71	16,185.00	8,476.94	35.02	245.30	139.94	-649.50	415.55	1,770.31	1,575.46	194.85	9.085	
9,600.00	9,556.71	16,185.00	8,476.94	35.37	245.30	139.94	-649.50	415.55	1,826.92	1,636.70	190.23	9.604	
9,700.00	9,656.71	16,185.00	8,476.94	35.71	245.30	139.94	-649.50	415.55	1,887.14	1,701.50	185.64	10.166	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #1H - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.00	9,756.71	16,185.00	8,476.94	38.05	245.30	139.94	-649.50	415.55	1,950.63	1,769.49	181.14	10.768	
9,900.00	9,856.71	16,185.00	8,476.94	36.39	245.30	139.94	-649.50	415.55	2,017.08	1,840.30	176.78	11.410	
10,000.00	9,956.71	16,185.00	8,476.94	36.74	245.30	139.94	-649.50	415.55	2,086.21	1,913.63	172.58	12.088	
10,100.00	10,056.71	16,185.00	8,476.94	37.08	245.30	139.94	-649.50	415.55	2,157.76	1,989.19	168.57	12.801	
10,200.00	10,156.71	16,185.00	8,476.94	37.42	245.30	139.94	-649.50	415.55	2,231.50	2,066.76	164.74	13.545	
10,300.00	10,256.71	16,185.00	8,476.94	37.77	245.30	139.94	-649.50	415.55	2,307.21	2,146.10	161.12	14.320	
10,398.53	10,355.24	16,185.00	8,476.94	38.10	245.30	139.94	-649.50	415.55	2,383.57	2,225.82	157.74	15.110	
10,400.00	10,356.71	16,185.00	8,476.94	38.11	245.30	59.08	-649.50	415.55	2,384.72	2,227.03	157.69	15.122	
10,450.00	10,406.65	16,185.00	8,476.94	38.27	245.30	54.02	-649.50	415.55	2,423.32	2,267.43	155.89	15.545	
10,500.00	10,456.19	16,185.00	8,476.94	38.42	245.30	49.60	-649.50	415.55	2,460.68	2,306.84	153.84	15.995	
10,550.00	10,504.96	16,185.00	8,476.94	38.56	245.30	45.78	-649.50	415.55	2,496.60	2,345.02	151.58	16.471	
10,600.00	10,552.59	16,185.00	8,476.94	38.70	245.30	42.51	-649.50	415.55	2,530.86	2,381.74	149.12	16.972	
10,650.00	10,598.72	16,185.00	8,476.94	38.83	245.30	39.71	-649.50	415.55	2,563.27	2,416.78	146.49	17.498	
10,700.00	10,643.00	16,185.00	8,476.94	38.94	245.30	37.32	-649.50	415.55	2,593.66	2,449.94	143.72	18.046	
10,750.00	10,685.08	16,185.00	8,476.94	39.05	245.30	35.30	-649.50	415.55	2,621.88	2,481.05	140.83	18.617	
10,800.00	10,724.66	16,185.00	8,476.94	39.16	245.30	33.59	-649.50	415.55	2,647.78	2,509.93	137.85	19.208	
10,850.00	10,761.42	16,185.00	8,476.94	39.26	245.30	32.14	-649.50	415.55	2,671.23	2,536.44	134.79	19.818	
10,900.00	10,795.10	16,185.00	8,476.94	39.36	245.30	30.94	-649.50	415.55	2,692.12	2,560.44	131.68	20.444	
10,950.00	10,825.42	16,185.00	8,476.94	39.47	245.30	29.95	-649.50	415.55	2,710.36	2,581.81	128.55	21.083	
11,000.00	10,852.17	16,185.00	8,476.94	39.60	245.30	29.14	-649.50	415.55	2,725.86	2,600.43	125.43	21.732	
11,050.00	10,875.14	16,185.00	8,476.94	39.76	245.30	28.51	-649.50	415.55	2,738.55	2,616.21	122.34	22.385	
11,100.00	10,894.15	16,185.00	8,476.94	39.96	245.30	28.04	-649.50	415.55	2,748.36	2,629.07	119.30	23.038	
11,150.00	10,909.05	16,185.00	8,476.94	40.21	245.30	27.71	-649.50	415.55	2,755.27	2,638.94	116.34	23.684	
11,198.52	10,919.49	16,185.00	8,476.94	40.48	245.30	27.53	-649.50	415.55	2,759.16	2,645.60	113.56	24.297	
11,200.00	10,919.75	16,185.00	8,476.94	40.49	245.30	27.53	-649.50	415.55	2,759.24	2,645.76	113.48	24.316	
11,250.00	10,927.05	16,185.00	8,476.94	40.82	245.30	27.48	-649.50	415.55	2,761.06	2,650.32	110.74	24.934	
11,300.00	10,931.78	16,185.00	8,476.94	41.20	245.30	27.47	-649.50	415.55	2,761.47	2,653.34	108.13	25.539	
11,350.00	10,933.88	16,185.00	8,476.94	41.61	245.30	27.49	-649.50	415.55	2,760.46	2,654.79	105.66	26.125	
11,365.19	10,934.00	16,185.00	8,476.94	41.74	245.30	27.51	-649.50	415.55	2,759.87	2,654.93	104.95	26.298	
11,400.00	10,934.00	16,185.00	8,476.94	42.06	245.30	27.47	-649.50	415.55	2,758.45	2,655.10	103.34	26.692	
11,500.00	10,934.00	16,185.00	8,476.94	43.09	245.30	27.38	-649.50	415.55	2,755.17	2,656.05	99.12	27.796	
11,600.00	10,934.00	16,185.00	8,476.94	44.29	245.30	27.33	-649.50	415.55	2,753.12	2,657.53	95.59	28.803	
11,678.26	10,934.00	16,185.00	8,476.94	45.32	245.30	27.31	-649.50	415.55	2,752.37	2,658.96	93.41	29.464	
11,691.44	10,934.00	16,185.00	8,476.94	45.51	245.30	27.31	-649.50	415.55	2,752.34	2,659.23	93.11	29.561	
11,700.00	10,934.00	16,185.00	8,476.94	45.63	245.30	27.31	-649.50	415.55	2,752.35	2,659.43	92.92	29.622	
11,800.00	10,934.00	16,185.00	8,476.94	47.10	245.30	27.31	-649.50	415.55	2,754.48	2,663.18	91.30	30.169	
11,900.00	10,934.00	16,185.00	8,476.94	48.69	245.30	27.31	-649.50	415.55	2,760.23	2,669.36	90.87	30.377	
12,000.00	10,934.00	16,185.00	8,476.94	50.38	245.30	27.31	-649.50	415.55	2,769.58	2,677.92	91.66	30.216	
12,100.00	10,934.00	16,185.00	8,476.94	52.18	245.30	27.31	-649.50	415.55	2,782.50	2,688.85	93.64	29.714	
12,200.00	10,934.00	16,185.00	8,476.94	54.06	245.30	27.31	-649.50	415.55	2,798.93	2,702.22	96.71	28.941	
12,300.00	10,934.00	16,185.00	8,476.94	56.03	245.30	27.31	-649.50	415.55	2,818.81	2,718.11	100.70	27.991	
12,400.00	10,934.00	16,185.00	8,476.94	58.06	245.30	27.31	-649.50	415.55	2,842.08	2,736.65	105.43	26.956	
12,500.00	10,934.00	16,185.00	8,476.94	60.16	245.30	27.31	-649.50	415.55	2,868.65	2,757.92	110.73	25.908	
12,600.00	10,934.00	16,185.00	8,476.94	62.32	245.30	27.31	-649.50	415.55	2,898.42	2,782.01	116.41	24.898	
12,700.00	10,934.00	16,185.00	8,476.94	64.53	245.30	27.31	-649.50	415.55	2,931.31	2,808.95	122.36	23.957	
12,800.00	10,934.00	16,185.00	8,476.94	66.79	245.30	27.31	-649.50	415.55	2,967.20	2,838.76	128.44	23.101	
12,900.00	10,934.00	16,185.00	8,476.94	69.09	245.30	27.31	-649.50	415.55	3,005.99	2,871.41	134.58	22.336	
13,000.00	10,934.00	16,185.00	8,476.94	71.43	245.30	27.31	-649.50	415.55	3,047.57	2,906.87	140.70	21.659	
13,100.00	10,934.00	16,185.00	8,476.94	73.81	245.30	27.31	-649.50	415.55	3,091.83	2,945.08	146.75	21.069	
13,200.00	10,934.00	16,185.00	8,476.94	76.21	245.30	27.31	-649.50	415.55	3,138.65	2,985.97	152.68	20.557	
13,300.00	10,934.00	16,185.00	8,476.94	78.65	245.30	27.31	-649.50	415.55	3,187.92	3,029.45	158.47	20.117	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #1H - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,400.00	10,934.00	16,185.00	8,476.94	81.11	245.30	27.31	-649.50	415.55	3,239.53	3,075.45	164.08	19.744	
13,500.00	10,934.00	16,185.00	8,476.94	83.60	245.30	27.31	-649.50	415.55	3,293.37	3,123.86	169.51	19.429	
13,600.00	10,934.00	16,185.00	8,476.94	86.10	245.30	27.31	-649.50	415.55	3,349.32	3,174.59	174.74	19.168	
13,700.00	10,934.00	16,185.00	8,476.94	88.63	245.30	27.31	-649.50	415.55	3,407.30	3,227.54	179.76	18.954	
13,800.00	10,934.00	16,185.00	8,476.94	91.17	245.30	27.31	-649.50	415.55	3,467.19	3,282.61	184.58	18.784	
13,900.00	10,934.00	16,185.00	8,476.94	93.74	245.30	27.31	-649.50	415.55	3,528.90	3,339.70	189.20	18.652	
14,000.00	10,934.00	16,185.00	8,476.94	96.31	245.30	27.31	-649.50	415.55	3,592.33	3,398.72	193.61	18.554	
14,100.00	10,934.00	16,185.00	8,476.94	98.91	245.30	27.31	-649.50	415.55	3,657.39	3,459.57	197.83	18.488	
14,200.00	10,934.00	16,185.00	8,476.94	101.51	245.30	27.31	-649.50	415.55	3,724.01	3,522.16	201.85	18.450	
14,300.00	10,934.00	16,185.00	8,476.94	104.13	245.30	27.31	-649.50	415.55	3,792.09	3,586.41	205.68	18.437	
14,400.00	10,934.00	16,185.00	8,476.94	106.76	245.30	27.31	-649.50	415.55	3,861.56	3,652.24	209.33	18.447	
14,500.00	10,934.00	16,185.00	8,476.94	109.39	245.30	27.31	-649.50	415.55	3,932.35	3,719.55	212.80	18.479	
14,600.00	10,934.00	16,185.00	8,476.94	112.04	245.30	27.31	-649.50	415.55	4,004.39	3,788.27	216.11	18.529	
14,700.00	10,934.00	16,185.00	8,476.94	114.70	245.30	27.31	-649.50	415.55	4,077.60	3,858.34	219.26	18.597	
14,800.00	10,934.00	16,185.00	8,476.94	117.37	245.30	27.31	-649.50	415.55	4,151.93	3,929.67	222.26	18.681	
14,900.00	10,934.00	16,185.00	8,476.94	120.04	245.30	27.31	-649.50	415.55	4,227.32	4,002.21	225.11	18.779	
15,000.00	10,934.00	16,185.00	8,476.94	122.72	245.30	27.31	-649.50	415.55	4,303.71	4,075.89	227.83	18.890	
15,100.00	10,934.00	16,185.00	8,476.94	125.41	245.30	27.31	-649.50	415.55	4,381.06	4,150.65	230.41	19.014	
15,200.00	10,934.00	16,185.00	8,476.94	128.11	245.30	27.31	-649.50	415.55	4,459.30	4,226.43	232.87	19.149	
15,300.00	10,934.00	16,185.00	8,476.94	130.81	245.30	27.31	-649.50	415.55	4,538.40	4,303.19	235.21	19.295	
15,400.00	10,934.00	16,185.00	8,476.94	133.51	245.30	27.31	-649.50	415.55	4,618.31	4,380.87	237.44	19.450	
15,500.00	10,934.00	16,185.00	8,476.94	136.23	245.30	27.31	-649.50	415.55	4,698.99	4,459.42	239.57	19.614	
15,600.00	10,934.00	16,185.00	8,476.94	138.94	245.30	27.31	-649.50	415.55	4,780.40	4,538.80	241.60	19.787	
15,700.00	10,934.00	16,185.00	8,476.94	141.67	245.30	27.31	-649.50	415.55	4,862.50	4,618.97	243.53	19.967	
15,718.17	10,934.00	16,185.00	8,476.94	142.16	245.30	27.31	-649.50	415.55	4,877.49	4,633.62	243.87	20.000	

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #2H - Original Hole - Original Hole												Offset Site Error:	0.00 usft
Survey Program: 690-MWD STANDARD												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	20.75	20.75	0.00	0.04	171.44	-8,198.98	1,234.28	8,291.36				
100.00	100.00	139.30	139.30	0.13	0.25	171.44	-8,198.75	1,234.57	8,291.21	8,290.83	0.38	N/A	
200.00	200.00	257.85	257.85	0.49	0.46	171.43	-8,198.20	1,235.27	8,290.83	8,289.88	0.95	8,715.900	
300.00	300.00	376.40	376.38	0.85	0.68	171.42	-8,197.31	1,236.38	8,290.24	8,288.71	1.52	5,442.771	
400.00	400.00	15,900.00	8,523.71	1.20	128.75	112.15	-596.21	1,464.79	8,259.04	8,192.79	66.25	124.659	
500.00	500.00	15,900.00	8,523.71	1.56	128.75	112.15	-596.21	1,464.79	8,160.91	8,094.55	66.36	122.980	
600.00	600.00	15,900.00	8,523.71	1.92	128.75	112.15	-596.21	1,464.79	8,062.83	7,996.36	66.48	121.288	
700.00	699.99	15,900.00	8,523.71	2.28	128.75	162.38	-596.21	1,464.79	7,965.06	7,898.45	66.60	119.591	
800.00	799.91	15,900.00	8,523.71	2.63	128.75	164.16	-596.21	1,464.79	7,867.90	7,801.15	66.74	117.884	
900.00	899.69	15,900.00	8,523.71	2.99	128.75	165.59	-596.21	1,464.79	7,771.45	7,704.54	66.90	116.160	
1,000.00	999.27	15,900.00	8,523.71	3.35	128.75	166.76	-596.21	1,464.79	7,675.80	7,608.72	67.09	114.417	
1,068.29	1,067.11	15,900.00	8,523.71	3.60	128.75	167.45	-596.21	1,464.79	7,611.00	7,543.78	67.22	113.220	
1,100.00	1,098.59	15,900.00	8,523.71	3.72	128.75	167.45	-596.21	1,464.79	7,581.02	7,513.73	67.29	112.661	
1,200.00	1,197.84	15,900.00	8,523.71	4.09	128.75	167.45	-596.21	1,464.79	7,486.56	7,419.03	67.53	110.862	
1,300.00	1,297.09	15,900.00	8,523.71	4.47	128.75	167.45	-596.21	1,464.79	7,392.25	7,324.47	67.78	109.055	
1,400.00	1,396.34	15,900.00	8,523.71	4.85	128.75	167.45	-596.21	1,464.79	7,298.09	7,230.04	68.05	107.240	
1,500.00	1,495.59	15,900.00	8,523.71	5.23	128.75	167.45	-596.21	1,464.79	7,204.09	7,135.75	68.34	105.418	
1,600.00	1,594.84	15,900.00	8,523.71	5.62	128.75	167.45	-596.21	1,464.79	7,110.25	7,041.61	68.64	103.592	
1,700.00	1,694.09	15,900.00	8,523.71	6.00	128.75	167.45	-596.21	1,464.79	7,016.58	6,947.63	68.95	101.763	
1,800.00	1,793.34	15,900.00	8,523.71	6.39	128.75	167.45	-596.21	1,464.79	6,923.09	6,853.81	69.28	99.931	
1,900.00	1,892.59	15,900.00	8,523.71	6.78	128.75	167.45	-596.21	1,464.79	6,829.79	6,760.16	69.62	98.097	
2,000.00	1,991.83	15,900.00	8,523.71	7.16	128.75	167.45	-596.21	1,464.79	6,736.67	6,666.69	69.98	96.264	
2,100.00	2,091.08	15,900.00	8,523.71	7.55	128.75	167.45	-596.21	1,464.79	6,643.76	6,573.40	70.36	94.431	
2,200.00	2,190.33	15,900.00	8,523.71	7.94	128.75	167.45	-596.21	1,464.79	6,551.05	6,480.31	70.75	92.600	
2,300.00	2,289.58	15,900.00	8,523.71	8.33	128.75	167.45	-596.21	1,464.79	6,458.56	6,387.41	71.15	90.771	
2,400.00	2,388.83	15,900.00	8,523.71	8.72	128.75	167.45	-596.21	1,464.79	6,366.30	6,294.73	71.58	88.945	
2,500.00	2,488.08	15,900.00	8,523.71	9.11	128.75	167.45	-596.21	1,464.79	6,274.28	6,202.26	72.02	87.124	
2,600.00	2,587.33	15,900.00	8,523.71	9.50	128.75	167.45	-596.21	1,464.79	6,182.50	6,110.03	72.47	85.307	
2,700.00	2,686.58	15,900.00	8,523.71	9.89	128.75	167.45	-596.21	1,464.79	6,090.99	6,018.04	72.95	83.495	
2,800.00	2,785.83	15,900.00	8,523.71	10.28	128.75	167.45	-596.21	1,464.79	5,999.74	5,926.30	73.45	81.689	
2,900.00	2,885.08	15,900.00	8,523.71	10.67	128.75	167.45	-596.21	1,464.79	5,908.78	5,834.82	73.96	79.891	
3,000.00	2,984.33	15,900.00	8,523.71	11.07	128.75	167.45	-596.21	1,464.79	5,818.11	5,743.62	74.50	78.099	
3,100.00	3,083.58	15,900.00	8,523.71	11.46	128.75	167.45	-596.21	1,464.79	5,727.76	5,652.70	75.05	76.316	
3,200.00	3,182.83	15,900.00	8,523.71	11.85	128.75	167.45	-596.21	1,464.79	5,637.73	5,562.10	75.63	74.542	
3,300.00	3,282.08	15,900.00	8,523.71	12.24	128.75	167.45	-596.21	1,464.79	5,548.04	5,471.81	76.23	72.777	
3,400.00	3,381.33	15,900.00	8,523.71	12.63	128.75	167.45	-596.21	1,464.79	5,458.71	5,381.85	76.86	71.022	
3,500.00	3,480.58	15,900.00	8,523.71	13.03	128.75	167.45	-596.21	1,464.79	5,369.76	5,292.25	77.51	69.278	
3,600.00	3,579.83	15,900.00	8,523.71	13.42	128.75	167.45	-596.21	1,464.79	5,281.20	5,203.01	78.19	67.546	
3,700.00	3,679.08	15,900.00	8,523.71	13.81	128.75	167.45	-596.21	1,464.79	5,193.05	5,114.16	78.89	65.826	
3,800.00	3,778.32	15,900.00	8,523.71	14.20	128.75	167.45	-596.21	1,464.79	5,105.35	5,025.72	79.62	64.119	
3,900.00	3,877.57	15,900.00	8,523.71	14.60	128.75	167.45	-596.21	1,464.79	5,018.10	4,937.72	80.39	62.425	
4,000.00	3,976.82	15,900.00	8,523.71	14.99	128.75	167.45	-596.21	1,464.79	4,931.34	4,850.16	81.18	60.747	
4,100.00	4,076.07	15,900.00	8,523.71	15.38	128.75	167.45	-596.21	1,464.79	4,845.09	4,763.08	82.00	59.084	
4,200.00	4,175.32	15,900.00	8,523.71	15.77	128.75	167.45	-596.21	1,464.79	4,759.38	4,676.51	82.86	57.437	
4,300.00	4,274.57	15,900.00	8,523.71	16.17	128.75	167.45	-596.21	1,464.79	4,674.23	4,590.47	83.76	55.807	
4,400.00	4,373.82	15,900.00	8,523.71	16.56	128.75	167.45	-596.21	1,464.79	4,589.68	4,505.00	84.69	54.195	
4,500.00	4,473.07	15,900.00	8,523.71	16.95	128.75	167.45	-596.21	1,464.79	4,505.77	4,420.11	85.66	52.603	
4,600.00	4,572.32	15,900.00	8,523.71	17.35	128.75	167.45	-596.21	1,464.79	4,422.52	4,335.86	86.68	51.030	
4,700.00	4,671.57	15,900.00	8,523.71	17.74	128.75	167.45	-596.21	1,464.79	4,339.99	4,252.27	87.71	49.479	
4,800.00	4,770.82	15,900.00	8,523.71	18.13	128.75	167.45	-596.21	1,464.79	4,258.20	4,169.39	88.81	47.949	
4,900.00	4,870.07	15,900.00	8,523.71	18.53	128.75	167.45	-596.21	1,464.79	4,177.20	4,087.26	89.94	46.442	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #2H - Original Hole - Original Hole													Offset Site Error: 0 00 usft
Survey Program: 690-MWD STANDARD													Offset Well Error: 0 00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,969.32	15,900.00	8,523.71	18.92	128.75	167.45	-596.21	1,464.79	4,097.05	4,005.92	91.13	44.960	
5,100.00	5,068.57	15,900.00	8,523.71	19.31	128.75	167.45	-596.21	1,464.79	4,017.78	3,925.42	92.35	43.503	
5,200.00	5,167.82	15,900.00	8,523.71	19.70	128.75	167.45	-596.21	1,464.79	3,939.46	3,845.82	93.64	42.072	
5,300.00	5,267.07	15,900.00	8,523.71	20.10	128.75	167.45	-596.21	1,464.79	3,862.14	3,767.17	94.96	40.669	
5,400.00	5,366.32	15,900.00	8,523.71	20.49	128.75	167.45	-596.21	1,464.79	3,785.88	3,689.53	96.35	39.295	
5,500.00	5,465.57	15,900.00	8,523.71	20.88	128.75	167.45	-596.21	1,464.79	3,710.75	3,612.97	97.78	37.951	
5,600.00	5,564.81	15,900.00	8,523.71	21.28	128.75	167.45	-596.21	1,464.79	3,636.81	3,537.55	99.26	36.638	
5,700.00	5,664.06	15,900.00	8,523.71	21.67	128.75	167.45	-596.21	1,464.79	3,564.15	3,463.35	100.80	35.357	
5,800.00	5,763.31	15,900.00	8,523.71	22.07	128.75	167.45	-596.21	1,464.79	3,492.84	3,390.45	102.40	34.111	
5,900.00	5,862.56	15,900.00	8,523.71	22.46	128.75	167.45	-596.21	1,464.79	3,422.97	3,318.93	104.04	32.899	
6,000.00	5,961.81	15,900.00	8,523.71	22.85	128.75	167.45	-596.21	1,464.79	3,354.62	3,248.88	105.74	31.724	
6,100.00	6,061.06	15,900.00	8,523.71	23.25	128.75	167.45	-596.21	1,464.79	3,287.89	3,180.40	107.49	30.587	
6,200.00	6,160.31	15,900.00	8,523.71	23.64	128.75	167.45	-596.21	1,464.79	3,222.89	3,113.59	109.29	29.488	
6,300.00	6,259.56	15,900.00	8,523.71	24.03	128.75	167.45	-596.21	1,464.79	3,159.71	3,048.57	111.14	28.429	
6,400.00	6,358.81	15,900.00	8,523.71	24.43	128.75	167.45	-596.21	1,464.79	3,098.48	2,985.44	113.03	27.412	
6,500.00	6,458.06	15,900.00	8,523.71	24.82	128.75	167.45	-596.21	1,464.79	3,039.30	2,924.33	114.96	26.437	
6,523.00	6,480.89	15,900.00	8,523.71	24.91	128.75	167.45	-596.21	1,464.79	3,025.99	2,910.58	115.41	26.219	
6,600.00	6,557.40	15,900.00	8,523.71	25.21	128.75	167.27	-596.21	1,464.79	2,981.67	2,864.75	116.92	25.502	
6,700.00	6,657.00	15,900.00	8,523.71	25.59	128.75	167.04	-596.21	1,464.79	2,924.26	2,805.38	118.88	24.598	
6,800.00	6,756.79	15,900.00	8,523.71	25.95	128.75	166.80	-596.21	1,464.79	2,867.05	2,746.21	120.84	23.726	
6,900.00	6,856.72	15,900.00	8,523.71	26.30	128.75	166.56	-596.21	1,464.79	2,810.10	2,687.30	122.79	22.885	
6,991.29	6,948.00	15,900.00	8,523.71	26.60	128.75	118.36	-596.21	1,464.79	2,758.38	2,633.82	124.57	22.144	
7,000.00	6,956.71	15,900.00	8,523.71	26.63	128.75	118.36	-596.21	1,464.79	2,753.47	2,626.73	124.74	22.074	
7,100.00	7,056.71	15,900.00	8,523.71	26.96	128.75	118.36	-596.21	1,464.79	2,698.46	2,571.79	126.67	21.302	
7,200.00	7,156.71	15,900.00	8,523.71	27.29	128.75	118.36	-596.21	1,464.79	2,646.09	2,517.48	128.61	20.575	
7,300.00	7,256.71	15,900.00	8,523.71	27.62	128.75	118.36	-596.21	1,464.79	2,596.52	2,465.98	130.53	19.892	
7,400.00	7,356.71	15,900.00	8,523.71	27.95	128.75	118.36	-596.21	1,464.79	2,549.90	2,417.47	132.43	19.255	
7,500.00	7,456.71	15,900.00	8,523.71	28.28	128.75	118.36	-596.21	1,464.79	2,506.41	2,372.13	134.28	18.665	
7,600.00	7,556.71	15,900.00	8,523.71	28.61	128.75	118.36	-596.21	1,464.79	2,466.21	2,330.14	136.07	18.124	
7,700.00	7,656.71	15,900.00	8,523.71	28.95	128.75	118.36	-596.21	1,464.79	2,429.47	2,291.68	137.79	17.632	
7,800.00	7,756.71	15,900.00	8,523.71	29.28	128.75	118.36	-596.21	1,464.79	2,396.33	2,256.93	139.41	17.190	
7,900.00	7,856.71	15,900.00	8,523.71	29.61	128.75	118.36	-596.21	1,464.79	2,366.96	2,226.05	140.91	16.798	
8,000.00	7,956.71	15,900.00	8,523.71	29.95	128.75	118.36	-596.21	1,464.79	2,341.50	2,199.22	142.28	16.457	
8,100.00	8,056.71	15,900.00	8,523.71	30.28	128.75	118.36	-596.21	1,464.79	2,320.07	2,176.57	143.49	16.169	
8,200.00	8,156.71	15,900.00	8,523.71	30.62	128.75	118.36	-596.21	1,464.79	2,302.78	2,158.24	144.54	15.932	
8,300.00	8,256.71	15,900.00	8,523.71	30.96	128.75	118.36	-596.21	1,464.79	2,289.74	2,144.34	145.40	15.748	
8,400.00	8,356.71	15,900.00	8,523.71	31.29	128.75	118.36	-596.21	1,464.79	2,281.01	2,134.94	146.07	15.616	
8,500.00	8,456.71	15,900.00	8,523.71	31.63	128.75	118.36	-596.21	1,464.79	2,276.64	2,130.10	146.54	15.536	
8,549.50	8,506.21	15,900.00	8,523.71	31.80	128.75	118.36	-596.21	1,464.79	2,276.11	2,129.41	146.70	15.518 CC, ES	
8,600.00	8,556.71	15,900.00	8,523.71	31.97	128.75	118.36	-596.21	1,464.79	2,276.67	2,129.86	146.80	15.508 SF	
8,700.00	8,656.71	15,900.00	8,523.71	32.31	128.75	118.36	-596.21	1,464.79	2,281.08	2,134.22	146.86	15.533	
8,800.00	8,756.71	15,900.00	8,523.71	32.64	128.75	118.36	-596.21	1,464.79	2,289.85	2,143.14	146.71	15.608	
8,900.00	8,856.71	15,900.00	8,523.71	32.98	128.75	118.36	-596.21	1,464.79	2,302.93	2,156.57	146.37	15.734	
9,000.00	8,956.71	15,900.00	8,523.71	33.32	128.75	118.36	-596.21	1,464.79	2,320.26	2,174.42	145.84	15.910	
9,100.00	9,056.71	15,900.00	8,523.71	33.66	128.75	118.36	-596.21	1,464.79	2,341.73	2,196.60	145.14	16.135	
9,200.00	9,156.71	15,900.00	8,523.71	34.00	128.75	118.36	-596.21	1,464.79	2,367.24	2,222.96	144.28	16.407	
9,300.00	9,256.71	15,900.00	8,523.71	34.34	128.75	118.36	-596.21	1,464.79	2,396.65	2,253.36	143.29	16.726	
9,400.00	9,356.71	15,900.00	8,523.71	34.68	128.75	118.36	-596.21	1,464.79	2,429.82	2,287.64	142.17	17.091	
9,500.00	9,456.71	15,900.00	8,523.71	35.02	128.75	118.36	-596.21	1,464.79	2,466.60	2,325.64	140.96	17.499	
9,600.00	9,556.71	15,900.00	8,523.71	35.37	128.75	118.36	-596.21	1,464.79	2,506.83	2,367.17	139.66	17.949	
9,700.00	9,656.71	15,900.00	8,523.71	35.71	128.75	118.36	-596.21	1,464.79	2,550.35	2,412.05	138.31	18.440	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #2H - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 690-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,800.00	9,756.71	15,900.00	8,523.71	36.05	128.75	118.36	-596.21	1,464.79	2,597.00	2,460.10	136.90	18.970	
9,900.00	9,856.71	15,900.00	8,523.71	36.39	128.75	118.36	-596.21	1,464.79	2,646.60	2,511.14	135.47	19.537	
10,000.00	9,956.71	15,900.00	8,523.71	36.74	128.75	118.36	-596.21	1,464.79	2,699.00	2,564.98	134.02	20.139	
10,100.00	10,056.71	15,900.00	8,523.71	37.08	128.75	118.36	-596.21	1,464.79	2,754.04	2,621.47	132.57	20.775	
10,200.00	10,156.71	15,900.00	8,523.71	37.42	128.75	118.36	-596.21	1,464.79	2,811.55	2,680.43	131.12	21.442	
10,300.00	10,256.71	15,900.00	8,523.71	37.77	128.75	118.36	-596.21	1,464.79	2,871.40	2,741.70	129.70	22.139	
10,398.53	10,355.24	15,900.00	8,523.71	38.10	128.75	118.36	-596.21	1,464.79	2,932.50	2,804.18	128.32	22.852	
10,400.00	10,356.71	15,900.00	8,523.71	38.11	128.75	37.58	-596.21	1,464.79	2,933.43	2,805.13	128.30	22.863	
10,450.00	10,406.65	15,900.00	8,523.71	38.27	128.75	35.31	-596.21	1,464.79	2,963.78	2,836.22	127.56	23.235	
10,500.00	10,456.19	15,900.00	8,523.71	38.42	128.75	33.41	-596.21	1,464.79	2,991.79	2,865.06	126.73	23.607	
10,550.00	10,504.96	15,900.00	8,523.71	38.56	128.75	31.80	-596.21	1,464.79	3,017.33	2,891.50	125.83	23.979	
10,600.00	10,552.59	15,900.00	8,523.71	38.70	128.75	30.47	-596.21	1,464.79	3,040.26	2,915.39	124.87	24.348	
10,650.00	10,598.72	15,900.00	8,523.71	38.83	128.75	29.37	-596.21	1,464.79	3,060.47	2,936.63	123.84	24.714	
10,700.00	10,643.00	15,900.00	8,523.71	38.94	128.75	28.47	-596.21	1,464.79	3,077.86	2,955.11	122.75	25.074	
10,750.00	10,685.08	15,900.00	8,523.71	39.05	128.75	27.76	-596.21	1,464.79	3,092.34	2,970.73	121.61	25.428	
10,800.00	10,724.66	15,900.00	8,523.71	39.16	128.75	27.21	-596.21	1,464.79	3,103.85	2,983.41	120.43	25.773	
10,850.00	10,761.42	15,900.00	8,523.71	39.26	128.75	26.82	-596.21	1,464.79	3,112.33	2,993.11	119.22	26.106	
10,900.00	10,795.10	15,900.00	8,523.71	39.36	128.75	26.57	-596.21	1,464.79	3,117.74	2,999.77	117.98	26.427	
10,950.00	10,825.42	15,900.00	8,523.71	39.47	128.75	26.47	-596.21	1,464.79	3,120.07	3,003.35	116.72	26.731	
11,000.00	10,852.17	15,900.00	8,523.71	39.60	128.75	26.51	-596.21	1,464.79	3,119.28	3,003.83	115.45	27.017	
11,050.00	10,875.14	15,900.00	8,523.71	39.76	128.75	26.68	-596.21	1,464.79	3,115.40	3,001.21	114.19	27.282	
11,100.00	10,894.15	15,900.00	8,523.71	39.96	128.75	27.00	-596.21	1,464.79	3,108.44	2,995.50	112.94	27.523	
11,150.00	10,909.05	15,900.00	8,523.71	40.21	128.75	27.46	-596.21	1,464.79	3,098.43	2,986.72	111.71	27.736	
11,198.52	10,919.49	15,900.00	8,523.71	40.48	128.75	28.07	-596.21	1,464.79	3,085.84	2,975.30	110.54	27.915	
11,200.00	10,919.75	15,900.00	8,523.71	40.49	128.75	28.08	-596.21	1,464.79	3,085.42	2,974.90	110.51	27.919	
11,250.00	10,927.06	15,900.00	8,523.71	40.82	128.75	28.54	-596.21	1,464.79	3,070.23	2,960.89	109.34	28.079	
11,300.00	10,931.78	15,900.00	8,523.71	41.20	128.75	29.05	-596.21	1,464.79	3,053.60	2,945.40	108.21	28.220	
11,350.00	10,933.88	15,900.00	8,523.71	41.61	128.75	29.62	-596.21	1,464.79	3,035.55	2,928.44	107.11	28.341	
11,365.19	10,934.00	15,900.00	8,523.71	41.74	128.75	29.80	-596.21	1,464.79	3,029.78	2,923.00	106.78	28.374	
11,400.00	10,934.00	15,900.00	8,523.71	42.06	128.75	29.43	-596.21	1,464.79	3,016.45	2,910.41	106.04	28.447	
11,500.00	10,934.00	15,900.00	8,523.71	43.09	128.75	28.35	-596.21	1,464.79	2,978.47	2,874.52	103.95	28.653	
11,600.00	10,934.00	15,900.00	8,523.71	44.29	128.75	27.28	-596.21	1,464.79	2,941.07	2,839.14	101.94	28.852	
11,678.26	10,934.00	15,900.00	8,523.71	45.32	128.75	26.45	-596.21	1,464.79	2,912.29	2,811.86	100.43	28.999	
11,700.00	10,934.00	15,900.00	8,523.71	45.63	128.75	26.45	-596.21	1,464.79	2,904.43	2,804.41	100.02	29.039	
11,800.00	10,934.00	15,900.00	8,523.71	47.10	128.75	26.45	-596.21	1,464.79	2,870.12	2,771.90	98.22	29.221	
11,900.00	10,934.00	15,900.00	8,523.71	48.69	128.75	26.45	-596.21	1,464.79	2,838.92	2,742.34	96.58	29.395	
12,000.00	10,934.00	15,900.00	8,523.71	50.38	128.75	26.45	-596.21	1,464.79	2,810.94	2,715.82	95.12	29.553	
12,100.00	10,934.00	15,900.00	8,523.71	52.18	128.75	26.45	-596.21	1,464.79	2,786.26	2,692.39	93.87	29.683	
12,200.00	10,934.00	15,900.00	8,523.71	54.06	128.75	26.45	-596.21	1,464.79	2,764.98	2,672.12	92.86	29.775	
12,300.00	10,934.00	15,900.00	8,523.71	56.03	128.75	26.45	-596.21	1,464.79	2,747.18	2,655.05	92.13	29.818	
12,400.00	10,934.00	15,900.00	8,523.71	58.06	128.75	26.45	-596.21	1,464.79	2,732.93	2,641.22	91.70	29.802	
12,500.00	10,934.00	15,900.00	8,523.71	60.16	128.75	26.45	-596.21	1,464.79	2,722.27	2,630.67	91.60	29.719	
12,600.00	10,934.00	15,900.00	8,523.71	62.32	128.75	26.45	-596.21	1,464.79	2,715.26	2,623.42	91.84	29.564	
12,700.00	10,934.00	15,900.00	8,523.71	64.53	128.75	26.45	-596.21	1,464.79	2,711.93	2,619.49	92.44	29.337	
12,740.59	10,934.00	15,900.00	8,523.71	65.45	128.75	26.45	-596.21	1,464.79	2,711.62	2,618.83	92.79	29.224	
12,800.00	10,934.00	15,900.00	8,523.71	66.79	128.75	26.45	-596.21	1,464.79	2,712.27	2,618.88	93.39	29.041	
12,900.00	10,934.00	15,900.00	8,523.71	69.09	128.75	26.45	-596.21	1,464.79	2,716.30	2,621.61	94.70	28.684	
13,000.00	10,934.00	15,900.00	8,523.71	71.43	128.75	26.45	-596.21	1,464.79	2,724.00	2,627.67	96.33	28.278	
13,100.00	10,934.00	15,900.00	8,523.71	73.81	128.75	26.45	-596.21	1,464.79	2,735.34	2,637.08	98.26	27.837	
13,200.00	10,934.00	15,900.00	8,523.71	76.21	128.75	26.45	-596.21	1,464.79	2,750.26	2,649.80	100.46	27.377	
13,300.00	10,934.00	15,900.00	8,523.71	78.65	128.75	26.45	-596.21	1,464.79	2,768.72	2,665.84	102.88	26.911	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #2H - Original Hole - Original Hole														Offset Site Error: 0.00 usft
Survey Program: 690-MWD STANDARD														Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,400.00	10,934.00	15,900.00	8,523.71	81.11	128.75	26.45	-596.21	1,464.79	2,790.65	2,685.16	105.49	26.454		
13,500.00	10,934.00	15,900.00	8,523.71	83.60	128.75	26.45	-596.21	1,464.79	2,815.96	2,707.72	108.24	26.017		
13,600.00	10,934.00	15,900.00	8,523.71	86.10	128.75	26.45	-596.21	1,464.79	2,844.55	2,733.47	111.08	25.608		
13,700.00	10,934.00	15,900.00	8,523.71	88.63	128.75	26.45	-596.21	1,464.79	2,876.35	2,762.36	113.99	25.234		
13,800.00	10,934.00	15,900.00	8,523.71	91.17	128.75	26.45	-596.21	1,464.79	2,911.23	2,794.31	116.92	24.899		
13,900.00	10,934.00	15,900.00	8,523.71	93.74	128.75	26.45	-596.21	1,464.79	2,949.09	2,829.24	119.85	24.606		
14,000.00	10,934.00	15,900.00	8,523.71	96.31	128.75	26.45	-596.21	1,464.79	2,989.82	2,867.06	122.76	24.355		
14,100.00	10,934.00	15,900.00	8,523.71	98.91	128.75	26.45	-596.21	1,464.79	3,033.30	2,907.68	125.62	24.147		
14,200.00	10,934.00	15,900.00	8,523.71	101.51	128.75	26.45	-596.21	1,464.79	3,079.41	2,951.00	128.41	23.981		
14,300.00	10,934.00	15,900.00	8,523.71	104.13	128.75	26.45	-596.21	1,464.79	3,128.04	2,996.92	131.12	23.856		
14,400.00	10,934.00	15,900.00	8,523.71	106.76	128.75	26.45	-596.21	1,464.79	3,179.08	3,045.33	133.75	23.768		
14,500.00	10,934.00	15,900.00	8,523.71	109.39	128.75	26.45	-596.21	1,464.79	3,232.40	3,096.12	136.29	23.718		
14,600.00	10,934.00	15,900.00	8,523.71	112.04	128.75	26.45	-596.21	1,464.79	3,287.90	3,149.18	138.72	23.701		
14,700.00	10,934.00	15,900.00	8,523.71	114.70	128.75	26.45	-596.21	1,464.79	3,345.47	3,204.42	141.06	23.717		
14,800.00	10,934.00	15,900.00	8,523.71	117.37	128.75	26.45	-596.21	1,464.79	3,405.01	3,261.72	143.29	23.764		
14,900.00	10,934.00	15,900.00	8,523.71	120.04	128.75	26.45	-596.21	1,464.79	3,466.40	3,320.99	145.41	23.838		
15,000.00	10,934.00	15,900.00	8,523.71	122.72	128.75	26.45	-596.21	1,464.79	3,529.57	3,382.13	147.44	23.939		
15,100.00	10,934.00	15,900.00	8,523.71	125.41	128.75	26.45	-596.21	1,464.79	3,594.40	3,445.04	149.37	24.064		
15,200.00	10,934.00	15,900.00	8,523.71	128.11	128.75	26.45	-596.21	1,464.79	3,660.82	3,509.62	151.20	24.212		
15,300.00	10,934.00	15,900.00	8,523.71	130.81	128.75	26.45	-596.21	1,464.79	3,728.74	3,575.80	152.93	24.381		
15,400.00	10,934.00	15,900.00	8,523.71	133.51	128.75	26.45	-596.21	1,464.79	3,798.07	3,643.49	154.58	24.570		
15,500.00	10,934.00	15,900.00	8,523.71	136.23	128.75	26.45	-596.21	1,464.79	3,868.75	3,712.61	156.14	24.777		
15,600.00	10,934.00	15,900.00	8,523.71	138.94	128.75	26.45	-596.21	1,464.79	3,940.70	3,783.08	157.62	25.001		
15,700.00	10,934.00	15,900.00	8,523.71	141.67	128.75	26.45	-596.21	1,464.79	4,013.85	3,854.83	159.02	25.241		
15,718.17	10,934.00	15,900.00	8,523.71	142.16	128.75	26.45	-596.21	1,464.79	4,027.27	3,868.00	159.27	25.286		

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #3H - Original Hole - Original Hole													Offset Site Error: 0 00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0 00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Warning
0.00	0.00	39.23	39.23	0.00	0.07	162.62		-8,133.21	2,546.26	8,522.49			
100.00	100.00	113.15	113.15	0.13	0.23	162.62		-8,133.60	2,545.93	8,522.85	8,522.49	0.36	N/A
200.00	200.00	212.68	212.67	0.49	0.58	162.62		-8,134.25	2,545.61	8,523.38	8,522.31	1.07	7,969.906
300.00	300.00	340.63	340.62	0.85	1.04	162.63		-8,134.77	2,544.96	8,523.59	8,521.71	1.88	4,522.986
400.00	400.00	433.85	433.84	1.20	1.37	162.63		-8,135.24	2,544.28	8,523.85	8,521.27	2.58	3,308.333
500.00	500.00	535.89	535.87	1.56	1.74	162.64		-8,135.79	2,543.18	8,524.04	8,520.74	3.30	2,582.652
600.00	600.00	15,530.00	8,611.07	1.92	121.24	109.64		-998.75	2,799.35	8,492.64	8,422.89	69.76	121.747
700.00	699.99	15,530.00	8,611.07	2.28	121.24	159.04		-998.75	2,799.35	8,399.48	8,329.45	70.03	119.938
800.00	799.91	15,530.00	8,611.07	2.63	121.24	160.27		-998.75	2,799.35	8,307.41	8,237.08	70.33	118.121
900.00	899.69	15,530.00	8,611.07	2.99	121.24	161.35		-998.75	2,799.35	8,216.52	8,145.86	70.66	116.283
1,000.00	999.27	15,530.00	8,611.07	3.35	121.24	162.29		-998.75	2,799.35	8,126.93	8,055.91	71.02	114.425
1,068.29	1,067.11	15,530.00	8,611.07	3.60	121.24	162.87		-998.75	2,799.35	8,066.55	7,995.26	71.29	113.151
1,100.00	1,098.59	15,530.00	8,611.07	3.72	121.24	162.87		-998.75	2,799.35	8,038.68	7,967.26	71.42	112.556
1,200.00	1,197.84	15,530.00	8,611.07	4.09	121.24	162.87		-998.75	2,799.35	7,950.99	7,879.13	71.86	110.640
1,300.00	1,297.09	15,530.00	8,611.07	4.47	121.24	162.87		-998.75	2,799.35	7,863.59	7,791.26	72.33	108.722
1,400.00	1,396.34	15,530.00	8,611.07	4.85	121.24	162.87		-998.75	2,799.35	7,776.49	7,703.68	72.81	106.803
1,500.00	1,495.59	15,530.00	8,611.07	5.23	121.24	162.87		-998.75	2,799.35	7,689.71	7,616.40	73.32	104.886
1,600.00	1,594.84	15,530.00	8,611.07	5.62	121.24	162.87		-998.75	2,799.35	7,603.25	7,529.42	73.84	102.973
1,700.00	1,694.09	15,530.00	8,611.07	6.00	121.24	162.87		-998.75	2,799.35	7,517.13	7,442.75	74.38	101.065
1,800.00	1,793.34	15,530.00	8,611.07	6.39	121.24	162.87		-998.75	2,799.35	7,431.36	7,356.42	74.94	99.165
1,900.00	1,892.59	15,530.00	8,611.07	6.78	121.24	162.87		-998.75	2,799.35	7,345.95	7,270.43	75.52	97.274
2,000.00	1,991.83	15,530.00	8,611.07	7.16	121.24	162.87		-998.75	2,799.35	7,260.90	7,184.79	76.12	95.394
2,100.00	2,091.08	15,530.00	8,611.07	7.55	121.24	162.87		-998.75	2,799.35	7,176.25	7,099.52	76.73	93.525
2,200.00	2,190.33	15,530.00	8,611.07	7.94	121.24	162.87		-998.75	2,799.35	7,091.99	7,014.63	77.37	91.668
2,300.00	2,289.58	15,530.00	8,611.07	8.33	121.24	162.87		-998.75	2,799.35	7,008.15	6,930.13	78.02	89.825
2,400.00	2,388.83	15,530.00	8,611.07	8.72	121.24	162.87		-998.75	2,799.35	6,924.74	6,846.04	78.69	87.997
2,500.00	2,488.08	15,530.00	8,611.07	9.11	121.24	162.87		-998.75	2,799.35	6,841.77	6,762.38	79.39	86.184
2,600.00	2,587.33	15,530.00	8,611.07	9.50	121.24	162.87		-998.75	2,799.35	6,759.26	6,679.16	80.10	84.388
2,700.00	2,686.58	15,530.00	8,611.07	9.89	121.24	162.87		-998.75	2,799.35	6,677.23	6,596.40	80.83	82.608
2,800.00	2,785.83	15,530.00	8,611.07	10.28	121.24	162.87		-998.75	2,799.35	6,595.70	6,514.11	81.58	80.846
2,900.00	2,885.08	15,530.00	8,611.07	10.67	121.24	162.87		-998.75	2,799.35	6,514.68	6,432.32	82.36	79.103
3,000.00	2,984.33	15,530.00	8,611.07	11.07	121.24	162.87		-998.75	2,799.35	6,434.19	6,351.04	83.15	77.380
3,100.00	3,083.58	15,530.00	8,611.07	11.46	121.24	162.87		-998.75	2,799.35	6,354.26	6,270.30	83.97	75.676
3,200.00	3,182.83	15,530.00	8,611.07	11.85	121.24	162.87		-998.75	2,799.35	6,274.91	6,190.10	84.80	73.993
3,300.00	3,282.08	15,530.00	8,611.07	12.24	121.24	162.87		-998.75	2,799.35	6,196.15	6,110.49	85.66	72.331
3,400.00	3,381.33	15,530.00	8,611.07	12.63	121.24	162.87		-998.75	2,799.35	6,118.01	6,031.47	86.55	70.691
3,500.00	3,480.58	15,530.00	8,611.07	13.03	121.24	162.87		-998.75	2,799.35	6,040.52	5,953.07	87.45	69.073
3,600.00	3,579.83	15,530.00	8,611.07	13.42	121.24	162.87		-998.75	2,799.35	5,963.70	5,875.32	88.38	67.479
3,700.00	3,679.08	15,530.00	8,611.07	13.81	121.24	162.87		-998.75	2,799.35	5,887.57	5,798.24	89.33	65.908
3,800.00	3,778.32	15,530.00	8,611.07	14.20	121.24	162.87		-998.75	2,799.35	5,812.17	5,721.87	90.30	64.362
3,900.00	3,877.57	15,530.00	8,611.07	14.60	121.24	162.87		-998.75	2,799.35	5,737.52	5,646.22	91.30	62.841
4,000.00	3,976.82	15,530.00	8,611.07	14.99	121.24	162.87		-998.75	2,799.35	5,663.65	5,571.33	92.32	61.345
4,100.00	4,076.07	15,530.00	8,611.07	15.38	121.24	162.87		-998.75	2,799.35	5,590.60	5,497.23	93.37	59.875
4,200.00	4,175.32	15,530.00	8,611.07	15.77	121.24	162.87		-998.75	2,799.35	5,518.39	5,423.95	94.44	58.432
4,300.00	4,274.57	15,530.00	8,611.07	16.17	121.24	162.87		-998.75	2,799.35	5,447.05	5,351.52	95.54	57.016
4,400.00	4,373.82	15,530.00	8,611.07	16.56	121.24	162.87		-998.75	2,799.35	5,376.64	5,279.98	96.65	55.628
4,500.00	4,473.07	15,530.00	8,611.07	16.95	121.24	162.87		-998.75	2,799.35	5,307.17	5,209.37	97.80	54.268
4,600.00	4,572.32	15,530.00	8,611.07	17.35	121.24	162.87		-998.75	2,799.35	5,238.69	5,139.72	98.96	52.936
4,700.00	4,671.57	15,530.00	8,611.07	17.74	121.24	162.87		-998.75	2,799.35	5,171.23	5,071.08	100.15	51.634
4,800.00	4,770.82	15,530.00	8,611.07	18.13	121.24	162.87		-998.75	2,799.35	5,104.85	5,003.48	101.36	50.362
4,900.00	4,870.07	15,530.00	8,611.07	18.53	121.24	162.87		-998.75	2,799.35	5,039.57	4,936.97	102.60	49.119

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #3H - Original Hole - Original Hole													Offset Site Error:	0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,969.32	15,530.00	8,611.07	18.92	121.24	162.87	-998.75	2,799.35	4,975.45	4,871.59	103.85	47.908		
5,100.00	5,068.57	15,530.00	8,611.07	19.31	121.24	162.87	-998.75	2,799.35	4,912.52	4,807.39	105.13	46.727		
5,200.00	5,167.82	15,530.00	8,611.07	19.70	121.24	162.87	-998.75	2,799.35	4,850.85	4,744.42	106.43	45.578		
5,300.00	5,267.07	15,530.00	8,611.07	20.10	121.24	162.87	-998.75	2,799.35	4,790.46	4,682.72	107.74	44.461		
5,400.00	5,366.32	15,530.00	8,611.07	20.49	121.24	162.87	-998.75	2,799.35	4,731.42	4,622.34	109.08	43.377		
5,500.00	5,465.57	15,530.00	8,611.07	20.88	121.24	162.87	-998.75	2,799.35	4,673.77	4,563.35	110.43	42.325		
5,600.00	5,564.81	15,530.00	8,611.07	21.28	121.24	162.87	-998.75	2,799.35	4,617.57	4,505.78	111.79	41.306		
5,700.00	5,664.06	15,530.00	8,611.07	21.67	121.24	162.87	-998.75	2,799.35	4,562.87	4,449.71	113.16	40.321		
5,800.00	5,763.31	15,530.00	8,611.07	22.07	121.24	162.87	-998.75	2,799.35	4,509.72	4,395.17	114.55	39.370		
5,900.00	5,862.56	15,530.00	8,611.07	22.46	121.24	162.87	-998.75	2,799.35	4,458.18	4,342.24	115.94	38.452		
6,000.00	5,961.81	15,530.00	8,611.07	22.85	121.24	162.87	-998.75	2,799.35	4,408.31	4,290.97	117.34	37.569		
6,100.00	6,061.06	15,530.00	8,611.07	23.25	121.24	162.87	-998.75	2,799.35	4,360.16	4,241.42	118.74	36.720		
6,200.00	6,160.31	15,530.00	8,611.07	23.64	121.24	162.87	-998.75	2,799.35	4,313.80	4,193.66	120.14	35.906		
6,300.00	6,259.56	15,530.00	8,611.07	24.03	121.24	162.87	-998.75	2,799.35	4,269.27	4,147.73	121.54	35.128		
6,400.00	6,358.81	15,530.00	8,611.07	24.43	121.24	162.87	-998.75	2,799.35	4,226.64	4,103.71	122.92	34.384		
6,500.00	6,458.06	15,530.00	8,611.07	24.82	121.24	162.87	-998.75	2,799.35	4,185.96	4,061.66	124.30	33.676		
6,523.00	6,480.89	15,530.00	8,611.07	24.91	121.24	162.87	-998.75	2,799.35	4,176.89	4,052.27	124.62	33.518		
6,600.00	6,557.40	15,530.00	8,611.07	25.21	121.24	162.72	-998.75	2,799.35	4,146.61	4,020.95	125.66	32.998		
6,700.00	6,657.00	15,530.00	8,611.07	25.59	121.24	162.53	-998.75	2,799.35	4,107.06	3,980.07	127.00	32.339		
6,800.00	6,756.79	15,530.00	8,611.07	25.95	121.24	162.34	-998.75	2,799.35	4,067.28	3,938.97	128.31	31.700		
6,900.00	6,856.72	15,530.00	8,611.07	26.30	121.24	162.14	-998.75	2,799.35	4,027.27	3,897.69	129.58	31.079		
6,991.29	6,948.00	15,530.00	8,611.07	26.60	121.24	113.97	-998.75	2,799.35	3,990.57	3,859.85	130.72	30.528		
7,000.00	6,956.71	15,530.00	8,611.07	26.63	121.24	113.97	-998.75	2,799.35	3,987.07	3,856.24	130.82	30.477		
7,100.00	7,056.71	15,530.00	8,611.07	26.96	121.24	113.97	-998.75	2,799.35	3,948.03	3,816.00	132.03	29.902		
7,200.00	7,156.71	15,530.00	8,611.07	27.29	121.24	113.97	-998.75	2,799.35	3,911.16	3,777.95	133.21	29.361		
7,300.00	7,256.71	15,530.00	8,611.07	27.62	121.24	113.97	-998.75	2,799.35	3,876.52	3,742.17	134.35	28.853		
7,400.00	7,356.71	15,530.00	8,611.07	27.95	121.24	113.97	-998.75	2,799.35	3,844.17	3,708.71	135.46	28.379		
7,500.00	7,456.71	15,530.00	8,611.07	28.28	121.24	113.97	-998.75	2,799.35	3,814.17	3,677.64	136.52	27.938		
7,600.00	7,556.71	15,530.00	8,611.07	28.61	121.24	113.97	-998.75	2,799.35	3,786.57	3,649.03	137.53	27.532		
7,700.00	7,656.71	15,530.00	8,611.07	28.95	121.24	113.97	-998.75	2,799.35	3,761.42	3,622.93	138.49	27.159		
7,800.00	7,756.71	15,530.00	8,611.07	29.28	121.24	113.97	-998.75	2,799.35	3,738.79	3,599.39	139.40	26.821		
7,900.00	7,856.71	15,530.00	8,611.07	29.61	121.24	113.97	-998.75	2,799.35	3,718.71	3,578.47	140.24	26.517		
8,000.00	7,956.71	15,530.00	8,611.07	29.95	121.24	113.97	-998.75	2,799.35	3,701.22	3,560.20	141.02	26.247		
8,100.00	8,056.71	15,530.00	8,611.07	30.28	121.24	113.97	-998.75	2,799.35	3,686.36	3,544.63	141.72	26.011		
8,200.00	8,156.71	15,530.00	8,611.07	30.62	121.24	113.97	-998.75	2,799.35	3,674.16	3,531.80	142.36	25.809		
8,300.00	8,256.71	15,530.00	8,611.07	30.95	121.24	113.97	-998.75	2,799.35	3,664.65	3,521.73	142.92	25.641		
8,400.00	8,356.71	15,530.00	8,611.07	31.29	121.24	113.97	-998.75	2,799.35	3,657.86	3,514.45	143.40	25.508		
8,500.00	8,456.71	15,530.00	8,611.07	31.63	121.24	113.97	-998.75	2,799.35	3,653.79	3,509.98	143.81	25.407		
8,598.86	8,555.57	15,530.00	8,611.07	31.96	121.24	113.97	-998.75	2,799.35	3,652.45	3,508.32	144.13	25.342		
8,600.00	8,556.71	15,530.00	8,611.07	31.97	121.24	113.97	-998.75	2,799.35	3,652.45	3,508.32	144.13	25.341		
8,700.00	8,656.71	15,530.00	8,611.07	32.31	121.24	113.97	-998.75	2,799.35	3,653.85	3,509.47	144.38	25.308		
8,800.00	8,756.71	15,530.00	8,611.07	32.64	121.24	113.97	-998.75	2,799.35	3,657.98	3,513.44	144.54	25.308		
8,900.00	8,856.71	15,530.00	8,611.07	32.98	121.24	113.97	-998.75	2,799.35	3,664.84	3,520.22	144.62	25.340		
9,000.00	8,956.71	15,530.00	8,611.07	33.32	121.24	113.97	-998.75	2,799.35	3,674.41	3,529.78	144.63	25.405		
9,100.00	9,056.71	15,530.00	8,611.07	33.66	121.24	113.97	-998.75	2,799.35	3,686.67	3,542.11	144.56	25.503		
9,200.00	9,156.71	15,530.00	8,611.07	34.00	121.24	113.97	-998.75	2,799.35	3,701.59	3,557.17	144.42	25.631		
9,300.00	9,256.71	15,530.00	8,611.07	34.34	121.24	113.97	-998.75	2,799.35	3,719.14	3,574.94	144.20	25.792		
9,400.00	9,356.71	15,530.00	8,611.07	34.68	121.24	113.97	-998.75	2,799.35	3,739.28	3,595.36	143.92	25.982		
9,500.00	9,456.71	15,530.00	8,611.07	35.02	121.24	113.97	-998.75	2,799.35	3,761.97	3,618.40	143.57	26.203		
9,600.00	9,556.71	15,530.00	8,611.07	35.37	121.24	113.97	-998.75	2,799.35	3,787.17	3,644.01	143.16	26.454		
9,700.00	9,656.71	15,530.00	8,611.07	35.71	121.24	113.97	-998.75	2,799.35	3,814.83	3,672.13	142.70	26.734		

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #3H - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.00	9,756.71	15,530.00	8,611.07	36.05	121.24	113.97	-998.75	2,799.35	3,844.88	3,702.70	142.18	27.042	
9,900.00	9,856.71	15,530.00	8,611.07	36.39	121.24	113.97	-998.75	2,799.35	3,877.29	3,735.67	141.62	27.379	
10,000.00	9,956.71	15,530.00	8,611.07	36.74	121.24	113.97	-998.75	2,799.35	3,911.98	3,770.97	141.01	27.742	
10,100.00	10,056.71	15,530.00	8,611.07	37.08	121.24	113.97	-998.75	2,799.35	3,948.90	3,808.53	140.37	28.132	
10,200.00	10,156.71	15,530.00	8,611.07	37.42	121.24	113.97	-998.75	2,799.35	3,987.99	3,848.29	139.69	28.548	
10,300.00	10,256.71	15,530.00	8,611.07	37.77	121.24	113.97	-998.75	2,799.35	4,029.18	3,890.19	138.99	28.989	
10,398.53	10,355.24	15,530.00	8,611.07	38.10	121.24	113.97	-998.75	2,799.35	4,071.75	3,933.48	138.27	29.448	
10,400.00	10,356.71	15,530.00	8,611.07	38.11	121.24	33.23	-998.75	2,799.35	4,072.40	3,934.14	138.26	29.455	
10,450.00	10,406.65	15,530.00	8,611.07	38.27	121.24	32.01	-998.75	2,799.35	4,093.01	3,955.16	137.86	29.691	
10,500.00	10,456.19	15,530.00	8,611.07	38.42	121.24	31.02	-998.75	2,799.35	4,110.72	3,973.32	137.40	29.917	
10,550.00	10,504.96	15,530.00	8,611.07	38.56	121.24	30.23	-998.75	2,799.35	4,125.44	3,988.54	136.90	30.134	
10,600.00	10,552.59	15,530.00	8,611.07	38.70	121.24	29.63	-998.75	2,799.35	4,137.09	4,000.73	136.36	30.339	
10,650.00	10,598.72	15,530.00	8,611.07	38.83	121.24	29.21	-998.75	2,799.35	4,145.61	4,009.83	135.78	30.532	
10,700.00	10,643.00	15,530.00	8,611.07	38.94	121.24	28.95	-998.75	2,799.35	4,150.95	4,015.79	135.16	30.711	
10,750.00	10,685.08	15,530.00	8,611.07	39.05	121.24	28.84	-998.75	2,799.35	4,153.08	4,018.57	134.51	30.877	
10,800.00	10,724.66	15,530.00	8,611.07	39.16	121.24	28.90	-998.75	2,799.35	4,151.99	4,018.17	133.82	31.026	
10,850.00	10,761.42	15,530.00	8,611.07	39.26	121.24	29.11	-998.75	2,799.35	4,147.69	4,014.57	133.11	31.159	
10,900.00	10,795.10	15,530.00	8,611.07	39.36	121.24	29.48	-998.75	2,799.35	4,140.20	4,007.61	132.39	31.273	
10,950.00	10,825.42	15,530.00	8,611.07	39.47	121.24	30.02	-998.75	2,799.35	4,129.55	3,997.91	131.65	31.368	
11,000.00	10,852.17	15,530.00	8,611.07	39.60	121.24	30.74	-998.75	2,799.35	4,115.82	3,984.91	130.91	31.441	
11,050.00	10,875.14	15,530.00	8,611.07	39.76	121.24	31.66	-998.75	2,799.35	4,099.07	3,968.90	130.17	31.491	
11,100.00	10,894.15	15,530.00	8,611.07	39.96	121.24	32.81	-998.75	2,799.35	4,079.39	3,949.95	129.44	31.516	
11,150.00	10,909.05	15,530.00	8,611.07	40.21	121.24	34.20	-998.75	2,799.35	4,056.89	3,928.16	128.73	31.515	
11,198.52	10,919.49	15,530.00	8,611.07	40.48	121.24	35.82	-998.75	2,799.35	4,032.47	3,904.41	128.06	31.488	
11,200.00	10,919.75	15,530.00	8,611.07	40.49	121.24	35.85	-998.75	2,799.35	4,031.69	3,903.64	128.05	31.486	
11,250.00	10,927.06	15,530.00	8,611.07	40.82	121.24	37.00	-998.75	2,799.35	4,004.56	3,877.18	127.39	31.436	
11,300.00	10,931.78	15,530.00	8,611.07	41.20	121.24	38.27	-998.75	2,799.35	3,976.13	3,849.38	126.75	31.370	
11,350.00	10,933.88	15,530.00	8,611.07	41.61	121.24	39.66	-998.75	2,799.35	3,946.43	3,820.29	126.14	31.286	
11,365.19	10,934.00	15,530.00	8,611.07	41.74	121.24	40.11	-998.75	2,799.35	3,937.17	3,811.21	125.96	31.257	
11,400.00	10,934.00	15,530.00	8,611.07	42.06	121.24	39.48	-998.75	2,799.35	3,915.76	3,790.21	125.56	31.188	
11,500.00	10,934.00	15,530.00	8,611.07	43.09	121.24	37.62	-998.75	2,799.35	3,853.56	3,729.17	124.39	30.979	
11,600.00	10,934.00	15,530.00	8,611.07	44.29	121.24	35.66	-998.75	2,799.35	3,790.45	3,667.21	123.24	30.756	
11,678.26	10,934.00	15,530.00	8,611.07	45.32	121.24	34.06	-998.75	2,799.35	3,740.51	3,618.17	122.34	30.574	
11,700.00	10,934.00	15,530.00	8,611.07	45.63	121.24	34.06	-998.75	2,799.35	3,726.61	3,604.52	122.10	30.522	
11,800.00	10,934.00	15,530.00	8,611.07	47.10	121.24	34.06	-998.75	2,799.35	3,663.67	3,542.72	120.95	30.290	
11,900.00	10,934.00	15,530.00	8,611.07	48.69	121.24	34.06	-998.75	2,799.35	3,602.40	3,482.58	119.83	30.064	
12,000.00	10,934.00	15,530.00	8,611.07	50.38	121.24	34.06	-998.75	2,799.35	3,542.90	3,424.19	118.72	29.844	
12,100.00	10,934.00	15,530.00	8,611.07	52.18	121.24	34.06	-998.75	2,799.35	3,485.25	3,367.63	117.63	29.630	
12,200.00	10,934.00	15,530.00	8,611.07	54.06	121.24	34.06	-998.75	2,799.35	3,429.55	3,312.99	116.56	29.422	
12,300.00	10,934.00	15,530.00	8,611.07	56.03	121.24	34.06	-998.75	2,799.35	3,375.90	3,260.37	115.53	29.221	
12,400.00	10,934.00	15,530.00	8,611.07	58.06	121.24	34.06	-998.75	2,799.35	3,324.38	3,209.85	114.53	29.026	
12,500.00	10,934.00	15,530.00	8,611.07	60.16	121.24	34.06	-998.75	2,799.35	3,275.11	3,161.54	113.57	28.838	
12,600.00	10,934.00	15,530.00	8,611.07	62.32	121.24	34.06	-998.75	2,799.35	3,228.19	3,115.53	112.65	28.656	
12,700.00	10,934.00	15,530.00	8,611.07	64.53	121.24	34.06	-998.75	2,799.35	3,183.71	3,071.93	111.79	28.480	
12,800.00	10,934.00	15,530.00	8,611.07	66.79	121.24	34.06	-998.75	2,799.35	3,141.79	3,030.82	110.98	28.311	
12,900.00	10,934.00	15,530.00	8,611.07	69.09	121.24	34.06	-998.75	2,799.35	3,102.53	2,992.30	110.23	28.146	
13,000.00	10,934.00	15,530.00	8,611.07	71.43	121.24	34.06	-998.75	2,799.35	3,066.03	2,956.47	109.56	27.984	
13,100.00	10,934.00	15,530.00	8,611.07	73.81	121.24	34.06	-998.75	2,799.35	3,032.39	2,923.41	108.98	27.825	
13,200.00	10,934.00	15,530.00	8,611.07	76.21	121.24	34.06	-998.75	2,799.35	3,001.71	2,893.20	108.50	27.665	
13,300.00	10,934.00	15,530.00	8,611.07	78.65	121.24	34.06	-998.75	2,799.35	2,974.07	2,865.93	108.14	27.502	
13,400.00	10,934.00	15,530.00	8,611.07	81.11	121.24	34.06	-998.75	2,799.35	2,949.56	2,841.65	107.92	27.332	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #3H - Original Hole - Original Hole												Offset Site Error:	0.00 usft
Survey Program: 100-MWD STANDARD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
13,500.00	10,934.00	15,530.00	8,611.07	83.60	121.24	34.06	-998.75	2,799.35	2,928.27	2,820.42	107.85	27.152	
13,600.00	10,934.00	15,530.00	8,611.07	86.10	121.24	34.06	-998.75	2,799.35	2,910.26	2,802.30	107.96	26.958	
13,700.00	10,934.00	15,530.00	8,611.07	88.63	121.24	34.06	-998.75	2,799.35	2,895.59	2,787.33	108.26	26.746	
13,800.00	10,934.00	15,530.00	8,611.07	91.17	121.24	34.06	-998.75	2,799.35	2,884.32	2,775.53	108.79	26.513	
13,900.00	10,934.00	15,530.00	8,611.07	93.74	121.24	34.06	-998.75	2,799.35	2,876.48	2,766.93	109.55	26.258	
14,000.00	10,934.00	15,530.00	8,611.07	96.31	121.24	34.06	-998.75	2,799.35	2,872.10	2,761.55	110.55	25.979	
14,075.80	10,934.00	15,530.00	8,611.07	98.28	121.24	34.06	-998.75	2,799.35	2,871.10	2,759.61	111.49	25.753 CC	
14,100.00	10,934.00	15,530.00	8,611.07	98.91	121.24	34.06	-998.75	2,799.35	2,871.20	2,759.39	111.82	25.678 ES	
14,200.00	10,934.00	15,530.00	8,611.07	101.51	121.24	34.06	-998.75	2,799.35	2,873.78	2,760.46	113.33	25.358	
14,300.00	10,934.00	15,530.00	8,611.07	104.13	121.24	34.06	-998.75	2,799.35	2,879.84	2,764.76	115.08	25.025	
14,400.00	10,934.00	15,530.00	8,611.07	106.76	121.24	34.06	-998.75	2,799.35	2,889.35	2,772.29	117.05	24.684	
14,500.00	10,934.00	15,530.00	8,611.07	109.39	121.24	34.06	-998.75	2,799.35	2,902.27	2,783.04	119.23	24.342	
14,600.00	10,934.00	15,530.00	8,611.07	112.04	121.24	34.06	-998.75	2,799.35	2,918.56	2,796.99	121.57	24.007	
14,700.00	10,934.00	15,530.00	8,611.07	114.70	121.24	34.06	-998.75	2,799.35	2,938.17	2,814.12	124.05	23.685	
14,800.00	10,934.00	15,530.00	8,611.07	117.37	121.24	34.06	-998.75	2,799.35	2,961.03	2,834.39	126.64	23.382	
14,900.00	10,934.00	15,530.00	8,611.07	120.04	121.24	34.06	-998.75	2,799.35	2,987.06	2,857.77	129.29	23.104	
15,000.00	10,934.00	15,530.00	8,611.07	122.72	121.24	34.06	-998.75	2,799.35	3,016.18	2,884.20	131.98	22.853	
15,100.00	10,934.00	15,530.00	8,611.07	125.41	121.24	34.06	-998.75	2,799.35	3,048.31	2,913.63	134.69	22.633	
15,200.00	10,934.00	15,530.00	8,611.07	128.11	121.24	34.06	-998.75	2,799.35	3,083.35	2,945.97	137.38	22.445	
15,300.00	10,934.00	15,530.00	8,611.07	130.81	121.24	34.06	-998.75	2,799.35	3,121.20	2,981.17	140.03	22.289	
15,400.00	10,934.00	15,530.00	8,611.07	133.51	121.24	34.06	-998.75	2,799.35	3,161.76	3,019.12	142.63	22.167	
15,500.00	10,934.00	15,530.00	8,611.07	136.23	121.24	34.06	-998.75	2,799.35	3,204.93	3,059.76	145.17	22.077	
15,600.00	10,934.00	15,530.00	8,611.07	138.94	121.24	34.06	-998.75	2,799.35	3,250.60	3,102.97	147.63	22.019	
15,700.00	10,934.00	15,530.00	8,611.07	141.67	121.24	34.06	-998.75	2,799.35	3,298.67	3,148.67	150.00	21.991	
15,718.17	10,934.00	15,530.00	8,611.07	142.16	121.24	34.06	-998.75	2,799.35	3,307.66	3,157.23	150.42	21.989 SF	

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

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Corral Canyon Fed Com Pad (OFFSET) - #4H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 100-MWD STANDARD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	153.75	-8,099.60	3,994.59	9,031.08				
100.00	100.00	89.04	89.04	0.13	0.16	153.75	-8,099.62	3,994.68	9,031.13	9,030.85	0.29	N/A	
200.00	200.00	211.36	211.38	0.49	0.58	153.75	-8,099.48	3,994.88	9,031.15	9,030.09	1.06	8,500.645	
216.14	216.14	214.74	214.74	0.54	0.59	153.75	-8,099.48	3,995.00	9,031.15	9,030.01	1.13	7,975.972	
300.00	300.00	264.02	264.02	0.85	0.76	153.74	-8,099.46	3,995.26	9,031.32	9,029.71	1.61	5,614.786	
400.00	400.00	331.78	331.77	1.20	1.01	153.74	-8,099.63	3,995.86	9,031.92	9,029.71	2.21	4,089.319	
500.00	500.00	15,935.00	8,594.76	1.56	129.04	97.81	-540.12	3,936.35	9,017.75	8,937.40	80.34	112.238	
600.00	600.00	15,935.00	8,594.76	1.92	129.04	97.81	-540.12	3,936.35	8,928.09	8,847.35	80.74	110.578	
700.00	699.99	15,935.00	8,594.76	2.28	129.04	147.40	-540.12	3,936.35	8,839.14	8,757.99	81.15	108.918	
800.00	799.91	15,935.00	8,594.76	2.63	129.04	148.85	-540.12	3,936.35	8,751.48	8,669.89	81.60	107.254	
900.00	899.89	15,935.00	8,594.76	2.99	129.04	150.15	-540.12	3,936.35	8,665.21	8,583.13	82.07	105.577	
1,000.00	999.27	15,935.00	8,594.76	3.35	129.04	151.32	-540.12	3,936.35	8,580.42	8,497.83	82.59	103.888	
1,068.29	1,067.11	15,935.00	8,594.76	3.60	129.04	152.06	-540.12	3,936.35	8,523.42	8,440.46	82.97	102.734	
1,100.00	1,098.59	15,935.00	8,594.76	3.72	129.04	152.06	-540.12	3,936.35	8,497.15	8,414.01	83.15	102.195	
1,200.00	1,197.84	15,935.00	8,594.76	4.09	129.04	152.06	-540.12	3,936.35	8,414.55	8,330.80	83.75	100.473	
1,300.00	1,297.09	15,935.00	8,594.76	4.47	129.04	152.06	-540.12	3,936.35	8,332.33	8,247.96	84.38	98.753	
1,400.00	1,396.34	15,935.00	8,594.76	4.85	129.04	152.06	-540.12	3,936.35	8,250.51	8,165.48	85.02	97.040	
1,500.00	1,495.59	15,935.00	8,594.76	5.23	129.04	152.06	-540.12	3,936.35	8,169.08	8,083.39	85.69	95.334	
1,600.00	1,594.84	15,935.00	8,594.76	5.62	129.04	152.06	-540.12	3,936.35	8,088.08	8,001.70	86.38	93.639	
1,700.00	1,694.09	15,935.00	8,594.76	6.00	129.04	152.06	-540.12	3,936.35	8,007.50	7,920.42	87.08	91.955	
1,800.00	1,793.34	15,935.00	8,594.76	6.39	129.04	152.06	-540.12	3,936.35	7,927.37	7,839.56	87.81	90.283	
1,900.00	1,892.59	15,935.00	8,594.76	6.78	129.04	152.06	-540.12	3,936.35	7,847.69	7,759.14	88.55	88.625	
2,000.00	1,991.83	15,935.00	8,594.76	7.16	129.04	152.06	-540.12	3,936.35	7,768.48	7,679.17	89.31	86.983	
2,100.00	2,091.08	15,935.00	8,594.76	7.55	129.04	152.06	-540.12	3,936.35	7,689.76	7,599.67	90.09	85.356	
2,200.00	2,190.33	15,935.00	8,594.76	7.94	129.04	152.06	-540.12	3,936.35	7,611.54	7,520.65	90.89	83.745	
2,300.00	2,289.58	15,935.00	8,594.76	8.33	129.04	152.06	-540.12	3,936.35	7,533.83	7,442.13	91.71	82.152	
2,400.00	2,388.83	15,935.00	8,594.76	8.72	129.04	152.06	-540.12	3,936.35	7,456.65	7,364.11	92.54	80.577	
2,500.00	2,488.08	15,935.00	8,594.76	9.11	129.04	152.06	-540.12	3,936.35	7,380.03	7,286.63	93.39	79.021	
2,600.00	2,587.33	15,935.00	8,594.76	9.50	129.04	152.06	-540.12	3,936.35	7,303.96	7,209.70	94.27	77.483	
2,700.00	2,686.58	15,935.00	8,594.76	9.89	129.04	152.06	-540.12	3,936.35	7,228.48	7,133.33	95.15	75.966	
2,800.00	2,785.83	15,935.00	8,594.76	10.28	129.04	152.06	-540.12	3,936.35	7,153.60	7,057.54	96.06	74.468	
2,900.00	2,885.08	15,935.00	8,594.76	10.67	129.04	152.06	-540.12	3,936.35	7,079.35	6,982.36	96.99	72.991	
3,000.00	2,984.33	15,935.00	8,594.76	11.07	129.04	152.06	-540.12	3,936.35	7,005.73	6,907.79	97.93	71.535	
3,100.00	3,083.58	15,935.00	8,594.76	11.46	129.04	152.06	-540.12	3,936.35	6,932.77	6,833.87	98.90	70.101	
3,200.00	3,182.83	15,935.00	8,594.76	11.85	129.04	152.06	-540.12	3,936.35	6,860.49	6,760.62	99.88	68.688	
3,300.00	3,282.08	15,935.00	8,594.76	12.24	129.04	152.06	-540.12	3,936.35	6,788.92	6,688.04	100.88	67.298	
3,400.00	3,381.33	15,935.00	8,594.76	12.63	129.04	152.06	-540.12	3,936.35	6,718.08	6,616.18	101.90	65.931	
3,500.00	3,480.58	15,935.00	8,594.76	13.03	129.04	152.06	-540.12	3,936.35	6,647.98	6,545.05	102.93	64.586	
3,600.00	3,579.83	15,935.00	8,594.76	13.42	129.04	152.06	-540.12	3,936.35	6,578.66	6,474.67	103.99	63.264	
3,700.00	3,679.08	15,935.00	8,594.76	13.81	129.04	152.06	-540.12	3,936.35	6,510.13	6,405.07	105.06	61.967	
3,800.00	3,778.32	15,935.00	8,594.76	14.20	129.04	152.06	-540.12	3,936.35	6,442.43	6,336.28	106.15	60.693	
3,900.00	3,877.57	15,935.00	8,594.76	14.60	129.04	152.06	-540.12	3,936.35	6,375.58	6,268.32	107.26	59.443	
4,000.00	3,976.82	15,935.00	8,594.76	14.99	129.04	152.06	-540.12	3,936.35	6,309.60	6,201.22	108.38	58.218	
4,100.00	4,076.07	15,935.00	8,594.76	15.38	129.04	152.06	-540.12	3,936.35	6,244.53	6,135.01	109.52	57.017	
4,200.00	4,175.32	15,935.00	8,594.76	15.77	129.04	152.06	-540.12	3,936.35	6,180.39	6,069.72	110.68	55.842	
4,300.00	4,274.57	15,935.00	8,594.76	16.17	129.04	152.06	-540.12	3,936.35	6,117.22	6,005.37	111.85	54.691	
4,400.00	4,373.82	15,935.00	8,594.76	16.56	129.04	152.06	-540.12	3,936.35	6,055.03	5,941.99	113.04	53.566	
4,500.00	4,473.07	15,935.00	8,594.76	16.95	129.04	152.06	-540.12	3,936.35	5,993.87	5,879.63	114.24	52.467	
4,600.00	4,572.32	15,935.00	8,594.76	17.35	129.04	152.06	-540.12	3,936.35	5,933.77	5,818.31	115.46	51.394	
4,700.00	4,671.57	15,935.00	8,594.76	17.74	129.04	152.06	-540.12	3,936.35	5,874.75	5,758.06	116.69	50.347	
4,800.00	4,770.82	15,935.00	8,594.76	18.13	129.04	152.06	-540.12	3,936.35	5,816.85	5,698.93	117.93	49.326	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #4H - Wellbore #1 - Wellbore #1													Offset Site Error: 0 00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0 00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,870.07	15,935.00	8,594.76	18.53	129.04	152.06	-540.12	3,936.35	5,760.11	5,640.93	119.18	48.332	
5,000.00	4,969.32	15,935.00	8,594.76	18.92	129.04	152.06	-540.12	3,936.35	5,704.55	5,584.11	120.44	47.364	
5,100.00	5,068.57	15,935.00	8,594.76	19.31	129.04	152.06	-540.12	3,936.35	5,650.22	5,528.51	121.71	46.423	
5,200.00	5,167.82	15,935.00	8,594.76	19.70	129.04	152.06	-540.12	3,936.35	5,597.15	5,474.16	122.99	45.509	
5,300.00	5,267.07	15,935.00	8,594.76	20.10	129.04	152.06	-540.12	3,936.35	5,545.38	5,421.10	124.27	44.622	
5,400.00	5,366.32	15,935.00	8,594.76	20.49	129.04	152.06	-540.12	3,936.35	5,494.93	5,369.37	125.56	43.762	
5,500.00	5,465.57	15,935.00	8,594.76	20.88	129.04	152.06	-540.12	3,936.35	5,445.86	5,319.00	126.86	42.930	
5,600.00	5,564.81	15,935.00	8,594.76	21.28	129.04	152.06	-540.12	3,936.35	5,398.19	5,270.04	128.15	42.124	
5,700.00	5,664.06	15,935.00	8,594.76	21.67	129.04	152.06	-540.12	3,936.35	5,351.97	5,222.52	129.44	41.347	
5,800.00	5,763.31	15,935.00	8,594.76	22.07	129.04	152.06	-540.12	3,936.35	5,307.22	5,176.49	130.73	40.596	
5,900.00	5,862.56	15,935.00	8,594.76	22.46	129.04	152.06	-540.12	3,936.35	5,264.00	5,131.98	132.02	39.874	
6,000.00	5,961.81	15,935.00	8,594.76	22.85	129.04	152.06	-540.12	3,936.35	5,222.34	5,089.04	133.30	39.178	
6,100.00	6,061.06	15,935.00	8,594.76	23.25	129.04	152.06	-540.12	3,936.35	5,182.27	5,047.70	134.57	38.511	
6,200.00	6,160.31	15,935.00	8,594.76	23.64	129.04	152.06	-540.12	3,936.35	5,143.83	5,008.00	135.83	37.871	
6,300.00	6,259.56	15,935.00	8,594.76	24.03	129.04	152.06	-540.12	3,936.35	5,107.06	4,969.99	137.07	37.258	
6,400.00	6,358.81	15,935.00	8,594.76	24.43	129.04	152.06	-540.12	3,936.35	5,072.00	4,933.69	138.30	36.673	
6,500.00	6,458.06	15,935.00	8,594.76	24.82	129.04	152.06	-540.12	3,936.35	5,038.67	4,899.16	139.51	36.116	
6,523.00	6,480.89	15,935.00	8,594.76	24.91	129.04	152.06	-540.12	3,936.35	5,031.26	4,891.47	139.79	35.991	
6,600.00	6,557.40	15,935.00	8,594.76	25.21	129.04	151.87	-540.12	3,936.35	5,006.48	4,865.77	140.70	35.581	
6,700.00	6,657.00	15,935.00	8,594.76	25.59	129.04	151.63	-540.12	3,936.35	4,973.94	4,832.07	141.87	35.061	
6,800.00	6,756.79	15,935.00	8,594.76	25.95	129.04	151.38	-540.12	3,936.35	4,941.02	4,798.02	143.00	34.553	
6,900.00	6,856.72	15,935.00	8,594.76	26.30	129.04	151.12	-540.12	3,936.35	4,907.74	4,763.64	144.10	34.058	
6,991.29	6,948.00	15,935.00	8,594.76	26.60	129.04	102.90	-540.12	3,936.35	4,877.05	4,731.97	145.07	33.618	
7,000.00	6,956.71	15,935.00	8,594.76	26.63	129.04	102.90	-540.12	3,936.35	4,874.11	4,728.95	145.16	33.576	
7,100.00	7,056.71	15,935.00	8,594.76	26.96	129.04	102.90	-540.12	3,936.35	4,841.41	4,695.21	146.20	33.116	
7,200.00	7,156.71	15,935.00	8,594.76	27.29	129.04	102.90	-540.12	3,936.35	4,810.57	4,663.37	147.20	32.681	
7,300.00	7,256.71	15,935.00	8,594.76	27.62	129.04	102.90	-540.12	3,936.35	4,781.61	4,633.44	148.17	32.271	
7,400.00	7,356.71	15,935.00	8,594.76	27.95	129.04	102.90	-540.12	3,936.35	4,754.59	4,605.48	149.11	31.887	
7,500.00	7,456.71	15,935.00	8,594.76	28.28	129.04	102.90	-540.12	3,936.35	4,729.53	4,579.52	150.01	31.529	
7,600.00	7,556.71	15,935.00	8,594.76	28.61	129.04	102.90	-540.12	3,936.35	4,706.45	4,555.59	150.87	31.196	
7,700.00	7,656.71	15,935.00	8,594.76	28.95	129.04	102.90	-540.12	3,936.35	4,685.40	4,533.72	151.68	30.889	
7,800.00	7,756.71	15,935.00	8,594.76	29.28	129.04	102.90	-540.12	3,936.35	4,666.40	4,513.94	152.46	30.608	
7,900.00	7,856.71	15,935.00	8,594.76	29.61	129.04	102.90	-540.12	3,936.35	4,649.47	4,496.29	153.18	30.352	
8,000.00	7,956.71	15,935.00	8,594.76	29.95	129.04	102.90	-540.12	3,936.35	4,634.64	4,480.78	153.86	30.122	
8,100.00	8,056.71	15,935.00	8,594.76	30.28	129.04	102.90	-540.12	3,936.35	4,621.92	4,467.43	154.49	29.917	
8,200.00	8,156.71	15,935.00	8,594.76	30.62	129.04	102.90	-540.12	3,936.35	4,611.34	4,456.27	155.07	29.738	
8,300.00	8,256.71	15,935.00	8,594.76	30.96	129.04	102.90	-540.12	3,936.35	4,602.91	4,447.32	155.59	29.584	
8,400.00	8,356.71	15,935.00	8,594.76	31.29	129.04	102.90	-540.12	3,936.35	4,596.63	4,440.58	156.05	29.455	
8,500.00	8,456.71	15,935.00	8,594.76	31.63	129.04	102.90	-540.12	3,936.35	4,592.53	4,436.06	156.47	29.352	
8,600.00	8,556.71	15,935.00	8,594.76	31.97	129.04	102.90	-540.12	3,936.35	4,590.60	4,433.78	156.82	29.273	
8,638.54	8,595.26	15,935.00	8,594.76	32.10	129.04	102.90	-540.12	3,936.35	4,590.44	4,433.50	156.94	29.249	
8,700.00	8,656.71	15,935.00	8,594.76	32.31	129.04	102.90	-540.12	3,936.35	4,590.85	4,433.73	157.12	29.219	
8,800.00	8,756.71	15,935.00	8,594.76	32.64	129.04	102.90	-540.12	3,936.35	4,593.28	4,435.92	157.36	29.189	
8,900.00	8,856.71	15,935.00	8,594.76	32.98	129.04	102.90	-540.12	3,936.35	4,597.88	4,440.33	157.55	29.184	
9,000.00	8,956.71	15,935.00	8,594.76	33.32	129.04	102.90	-540.12	3,936.35	4,604.65	4,446.97	157.67	29.203	
9,100.00	9,056.71	15,935.00	8,594.76	33.66	129.04	102.90	-540.12	3,936.35	4,613.57	4,455.83	157.75	29.247	
9,200.00	9,156.71	15,935.00	8,594.76	34.00	129.04	102.90	-540.12	3,936.35	4,624.65	4,466.88	157.77	29.314	
9,300.00	9,256.71	15,935.00	8,594.76	34.34	129.04	102.90	-540.12	3,936.35	4,637.85	4,480.12	157.73	29.404	
9,400.00	9,356.71	15,935.00	8,594.76	34.68	129.04	102.90	-540.12	3,936.35	4,653.16	4,495.52	157.64	29.517	
9,500.00	9,456.71	15,935.00	8,594.76	35.02	129.04	102.90	-540.12	3,936.35	4,670.57	4,513.07	157.50	29.654	
9,600.00	9,556.71	15,935.00	8,594.76	35.37	129.04	102.90	-540.12	3,936.35	4,690.05	4,532.73	157.32	29.813	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #4H - Wellbore #1 - Wellbore #1													Offset Site Error: 0 00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0 00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.00	9,656.71	15,935.00	8,594.76	35.71	129.04	102.90	-540.12	3,936.35	4,711.56	4,554.48	157.08	28.994	
9,800.00	9,756.71	15,935.00	8,594.76	36.05	129.04	102.90	-540.12	3,936.35	4,735.09	4,578.29	156.80	30.198	
9,900.00	9,856.71	15,935.00	8,594.76	36.39	129.04	102.90	-540.12	3,936.35	4,760.61	4,604.13	156.48	30.423	
10,000.00	9,956.71	15,935.00	8,594.76	36.74	129.04	102.90	-540.12	3,936.35	4,788.08	4,631.96	156.12	30.669	
10,100.00	10,056.71	15,935.00	8,594.76	37.08	129.04	102.90	-540.12	3,936.35	4,817.47	4,661.74	155.72	30.936	
10,200.00	10,156.71	15,935.00	8,594.76	37.42	129.04	102.90	-540.12	3,936.35	4,848.74	4,693.45	155.29	31.224	
10,300.00	10,256.71	15,935.00	8,594.76	37.77	129.04	102.90	-540.12	3,936.35	4,881.86	4,727.04	154.82	31.532	
10,398.53	10,355.24	15,935.00	8,594.76	38.10	129.04	102.90	-540.12	3,936.35	4,916.27	4,761.93	154.34	31.854	
10,400.00	10,356.71	15,935.00	8,594.76	38.11	129.04	22.18	-540.12	3,936.35	4,916.79	4,762.46	154.33	31.859	
10,450.00	10,406.65	15,935.00	8,594.76	38.27	129.04	21.55	-540.12	3,936.35	4,932.91	4,778.86	154.05	32.022	
10,500.00	10,456.19	15,935.00	8,594.76	38.42	129.04	21.07	-540.12	3,936.35	4,945.61	4,791.88	153.74	32.170	
10,550.00	10,504.96	15,935.00	8,594.76	38.56	129.04	20.73	-540.12	3,936.35	4,954.82	4,801.43	153.40	32.301	
10,600.00	10,552.59	15,935.00	8,594.76	38.70	129.04	20.53	-540.12	3,936.35	4,960.49	4,807.46	153.03	32.416	
10,650.00	10,598.72	15,935.00	8,594.76	38.83	129.04	20.46	-540.12	3,936.35	4,962.59	4,809.96	152.63	32.513	
10,700.00	10,643.00	15,935.00	8,594.76	38.94	129.04	20.51	-540.12	3,936.35	4,961.11	4,808.89	152.21	32.593	
10,750.00	10,685.08	15,935.00	8,594.76	39.05	129.04	20.69	-540.12	3,936.35	4,956.05	4,804.28	151.77	32.655	
10,800.00	10,724.66	15,935.00	8,594.76	39.16	129.04	21.00	-540.12	3,936.35	4,947.44	4,796.14	151.31	32.698	
10,850.00	10,761.42	15,935.00	8,594.76	39.26	129.04	21.45	-540.12	3,936.35	4,935.34	4,784.51	150.83	32.721	
10,900.00	10,795.10	15,935.00	8,594.76	39.36	129.04	22.06	-540.12	3,936.35	4,919.80	4,769.46	150.34	32.725	
10,950.00	10,825.42	15,935.00	8,594.76	39.47	129.04	22.84	-540.12	3,936.35	4,900.92	4,751.07	149.84	32.707	
11,000.00	10,852.17	15,935.00	8,594.76	39.60	129.04	23.82	-540.12	3,936.35	4,878.79	4,729.45	149.34	32.668	
11,050.00	10,875.14	15,935.00	8,594.76	39.76	129.04	25.03	-540.12	3,936.35	4,853.55	4,704.70	148.85	32.607	
11,100.00	10,894.15	15,935.00	8,594.76	39.96	129.04	26.51	-540.12	3,936.35	4,825.34	4,676.97	148.36	32.524	
11,150.00	10,909.05	15,935.00	8,594.76	40.21	129.04	28.34	-540.12	3,936.35	4,794.32	4,646.42	147.89	32.417	
11,198.52	10,919.49	15,935.00	8,594.76	40.48	129.04	30.50	-540.12	3,936.35	4,761.71	4,614.25	147.46	32.292	
11,200.00	10,919.75	15,935.00	8,594.76	40.49	129.04	30.54	-540.12	3,936.35	4,760.68	4,613.23	147.45	32.287	
11,250.00	10,927.06	15,935.00	8,594.76	40.82	129.04	32.12	-540.12	3,936.35	4,725.16	4,578.14	147.02	32.140	
11,300.00	10,931.78	15,935.00	8,594.76	41.20	129.04	33.90	-540.12	3,936.35	4,688.36	4,541.75	146.61	31.978	
11,350.00	10,933.88	15,935.00	8,594.76	41.61	129.04	35.90	-540.12	3,936.35	4,650.36	4,504.14	146.22	31.803	
11,365.19	10,934.00	15,935.00	8,594.76	41.74	129.04	36.56	-540.12	3,936.35	4,638.59	4,492.48	146.11	31.747	
11,400.00	10,934.00	15,935.00	8,594.76	42.06	129.04	35.51	-540.12	3,936.35	4,611.42	4,465.57	145.85	31.617	
11,500.00	10,934.00	15,935.00	8,594.76	43.09	129.04	32.33	-540.12	3,936.35	4,532.71	4,387.60	145.11	31.237	
11,600.00	10,934.00	15,935.00	8,594.76	44.29	129.04	28.94	-540.12	3,936.35	4,453.10	4,308.75	144.35	30.850	
11,678.26	10,934.00	15,935.00	8,594.76	45.32	129.04	26.14	-540.12	3,936.35	4,390.30	4,246.56	143.74	30.543	
11,700.00	10,934.00	15,935.00	8,594.76	45.63	129.04	26.14	-540.12	3,936.35	4,372.82	4,229.25	143.57	30.457	
11,800.00	10,934.00	15,935.00	8,594.76	47.10	129.04	26.14	-540.12	3,936.35	4,292.92	4,150.14	142.78	30.067	
11,900.00	10,934.00	15,935.00	8,594.76	48.69	129.04	26.14	-540.12	3,936.35	4,213.87	4,071.91	141.97	29.682	
12,000.00	10,934.00	15,935.00	8,594.76	50.38	129.04	26.14	-540.12	3,936.35	4,135.73	3,994.60	141.14	29.302	
12,100.00	10,934.00	15,935.00	8,594.76	52.18	129.04	26.14	-540.12	3,936.35	4,058.56	3,918.26	140.30	28.928	
12,200.00	10,934.00	15,935.00	8,594.76	54.06	129.04	26.14	-540.12	3,936.35	3,982.40	3,842.95	139.45	28.559	
12,300.00	10,934.00	15,935.00	8,594.76	56.03	129.04	26.14	-540.12	3,936.35	3,907.31	3,768.73	138.58	28.195	
12,400.00	10,934.00	15,935.00	8,594.76	58.06	129.04	26.14	-540.12	3,936.35	3,833.36	3,695.66	137.70	27.838	
12,500.00	10,934.00	15,935.00	8,594.76	60.16	129.04	26.14	-540.12	3,936.35	3,760.62	3,623.81	136.81	27.488	
12,600.00	10,934.00	15,935.00	8,594.76	62.32	129.04	26.14	-540.12	3,936.35	3,689.15	3,553.24	135.91	27.144	
12,700.00	10,934.00	15,935.00	8,594.76	64.53	129.04	26.14	-540.12	3,936.35	3,619.04	3,484.04	135.00	26.808	
12,800.00	10,934.00	15,935.00	8,594.76	66.79	129.04	26.14	-540.12	3,936.35	3,550.35	3,416.28	134.08	26.480	
12,900.00	10,934.00	15,935.00	8,594.76	69.09	129.04	26.14	-540.12	3,936.35	3,483.19	3,350.04	133.15	26.160	
13,000.00	10,934.00	15,935.00	8,594.76	71.43	129.04	26.14	-540.12	3,936.35	3,417.63	3,285.42	132.21	25.850	
13,100.00	10,934.00	15,935.00	8,594.76	73.81	129.04	26.14	-540.12	3,936.35	3,353.77	3,222.50	131.27	25.549	
13,200.00	10,934.00	15,935.00	8,594.76	76.21	129.04	26.14	-540.12	3,936.35	3,291.71	3,161.39	130.32	25.259	
13,300.00	10,934.00	15,935.00	8,594.76	78.65	129.04	26.14	-540.12	3,936.35	3,231.56	3,102.19	129.37	24.980	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Corral Canyon Fed Com Pad (OFFSET) - #4H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,400.00	10,934.00	15,935.00	8,594.76	81.11	129.04	26.14	-540.12	3,936.35	3,173.41	3,045.00	128.41	24.713	
13,500.00	10,934.00	15,935.00	8,594.76	83.60	129.04	26.14	-540.12	3,936.35	3,117.39	2,989.93	127.46	24.458	
13,600.00	10,934.00	15,935.00	8,594.76	86.10	129.04	26.14	-540.12	3,936.35	3,063.61	2,937.10	126.51	24.217	
13,700.00	10,934.00	15,935.00	8,594.76	88.63	129.04	26.14	-540.12	3,936.35	3,012.19	2,886.63	125.57	23.988	
13,800.00	10,934.00	15,935.00	8,594.76	91.17	129.04	26.14	-540.12	3,936.35	2,963.26	2,838.62	124.64	23.774	
13,900.00	10,934.00	15,935.00	8,594.76	93.74	129.04	26.14	-540.12	3,936.35	2,916.93	2,793.19	123.74	23.573	
14,000.00	10,934.00	15,935.00	8,594.76	96.31	129.04	26.14	-540.12	3,936.35	2,873.34	2,750.47	122.87	23.385	
14,100.00	10,934.00	15,935.00	8,594.76	98.91	129.04	26.14	-540.12	3,936.35	2,832.61	2,710.57	122.04	23.210	
14,200.00	10,934.00	15,935.00	8,594.76	101.51	129.04	26.14	-540.12	3,936.35	2,794.86	2,673.59	121.28	23.046	
14,300.00	10,934.00	15,935.00	8,594.76	104.13	129.04	26.14	-540.12	3,936.35	2,760.23	2,639.64	120.59	22.890	
14,400.00	10,934.00	15,935.00	8,594.76	106.76	129.04	26.14	-540.12	3,936.35	2,728.82	2,608.82	120.00	22.741	
14,500.00	10,934.00	15,935.00	8,594.76	109.39	129.04	26.14	-540.12	3,936.35	2,700.74	2,581.21	119.53	22.594	
14,600.00	10,934.00	15,935.00	8,594.76	112.04	129.04	26.14	-540.12	3,936.35	2,676.12	2,556.89	119.22	22.446	
14,700.00	10,934.00	15,935.00	8,594.76	114.70	129.04	26.14	-540.12	3,936.35	2,655.03	2,535.93	119.10	22.293	
14,800.00	10,934.00	15,935.00	8,594.76	117.37	129.04	26.14	-540.12	3,936.35	2,637.57	2,518.38	119.19	22.129	
14,900.00	10,934.00	15,935.00	8,594.76	120.04	129.04	26.14	-540.12	3,936.35	2,623.81	2,504.29	119.52	21.952	
15,000.00	10,934.00	15,935.00	8,594.76	122.72	129.04	26.14	-540.12	3,936.35	2,613.80	2,493.68	120.13	21.759	
15,100.00	10,934.00	15,935.00	8,594.76	125.41	129.04	26.14	-540.12	3,936.35	2,607.60	2,486.58	121.02	21.547	
15,200.00	10,934.00	15,935.00	8,594.76	128.11	129.04	26.14	-540.12	3,936.35	2,605.22	2,483.01	122.21	21.318	
15,212.06	10,934.00	15,935.00	8,594.76	128.43	129.04	26.14	-540.12	3,936.35	2,605.19	2,482.81	122.37	21.289 CC, ES	
15,300.00	10,934.00	15,935.00	8,594.76	130.81	129.04	26.14	-540.12	3,936.35	2,606.67	2,482.98	123.70	21.073	
15,400.00	10,934.00	15,935.00	8,594.76	133.51	129.04	26.14	-540.12	3,936.35	2,611.96	2,486.49	125.47	20.818	
15,500.00	10,934.00	15,935.00	8,594.76	136.23	129.04	26.14	-540.12	3,936.35	2,621.05	2,493.56	127.49	20.559	
15,600.00	10,934.00	15,935.00	8,594.76	138.94	129.04	26.14	-540.12	3,936.35	2,633.91	2,504.17	129.74	20.301	
15,700.00	10,934.00	15,935.00	8,594.76	141.67	129.04	26.14	-540.12	3,936.35	2,650.49	2,518.31	132.18	20.052	
15,718.17	10,934.00	15,935.00	8,594.76	142.16	129.04	26.14	-540.12	3,936.35	2,653.89	2,521.25	132.64	20.008 SF	

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Emerald State Com #1 (OFFSET) - Com #1 - Original Hole - Original Hole													Offset Site Error:	0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highslide Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	71.84		275.71	840.53	884.60				
100.00	100.00	97.07	97.07	0.13	0.17	71.86		275.35	840.68	884.62	884.32	0.30	2,925.495	
200.00	200.00	198.68	198.67	0.49	0.53	71.94		274.29	840.98	884.58	883.56	1.02	866.820	
290.46	290.46	287.97	287.96	0.81	0.85	72.01		273.23	841.26	884.52	882.85	1.67	531.068 CC	
300.00	300.00	297.39	297.37	0.85	0.89	72.01		273.14	841.29	884.52	882.79	1.73	510.231	
400.00	400.00	394.69	394.67	1.20	1.24	72.10		271.95	841.84	884.68	882.24	2.44	362.327	
500.00	500.00	491.37	491.34	1.56	1.58	72.19		270.74	842.75	885.19	882.04	3.15	281.293 ES	
600.00	600.00	585.34	585.30	1.92	1.92	72.26		270.03	843.99	886.21	882.38	3.84	230.917	
700.00	699.99	679.01	678.95	2.28	2.25	120.32		269.87	845.74	888.61	884.08	4.52	196.399	
800.00	799.91	775.09	775.00	2.63	2.59	120.51		270.11	848.01	892.93	887.71	5.22	171.151	
900.00	899.69	872.41	872.28	2.99	2.93	120.81		270.37	850.63	898.92	893.00	5.92	151.912	
1,000.00	999.27	970.19	970.02	3.35	3.28	121.23		270.81	853.43	906.52	899.90	6.62	136.885	
1,068.29	1,067.11	1,037.28	1,037.08	3.60	3.51	121.56		271.45	855.33	912.62	905.51	7.11	128.401	
1,100.00	1,098.59	1,068.51	1,068.30	3.72	3.63	121.76		271.74	856.23	915.63	908.30	7.33	124.849	
1,200.00	1,197.84	1,173.39	1,173.14	4.09	4.00	122.43		272.58	859.07	925.00	916.92	8.07	114.594	
1,300.00	1,297.09	1,273.08	1,272.80	4.47	4.35	123.07		273.23	861.23	933.91	925.12	8.79	106.196	
1,400.00	1,396.34	1,369.51	1,369.20	4.85	4.69	123.62		274.56	863.34	943.14	933.64	9.50	99.234	
1,500.00	1,495.59	1,465.99	1,465.61	5.23	5.03	124.09		277.32	865.40	952.75	942.53	10.21	93.289	
1,600.00	1,594.84	1,559.59	1,559.11	5.62	5.36	124.46		281.21	867.47	962.79	951.88	10.91	88.242	
1,700.00	1,694.09	1,653.10	1,652.45	6.00	5.69	124.75		286.37	869.90	973.54	961.93	11.61	83.854	
1,800.00	1,793.34	1,746.80	1,745.92	6.39	6.02	125.00		292.32	872.65	984.84	972.53	12.31	79.994	
1,900.00	1,892.59	1,840.59	1,839.45	6.78	6.35	125.24		298.52	875.95	996.77	983.76	13.02	76.583	
2,000.00	1,991.83	1,940.86	1,939.44	7.16	6.71	125.51		304.68	879.91	1,009.06	995.31	13.75	73.392	
2,100.00	2,091.08	2,045.61	2,043.98	7.55	7.09	125.84		310.27	883.61	1,020.78	1,006.28	14.50	70.388	
2,200.00	2,190.33	2,130.46	2,128.65	7.94	7.40	126.09		314.88	886.64	1,032.65	1,017.48	15.17	68.062	
2,300.00	2,289.58	2,200.00	2,197.84	8.33	7.65	126.22		320.45	890.74	1,047.19	1,031.42	15.77	66.408	
2,400.00	2,388.83	2,317.29	2,314.57	8.72	8.09	126.48		328.81	898.30	1,062.18	1,045.59	16.59	64.026	
2,500.00	2,488.08	2,415.54	2,412.53	9.11	8.45	126.81		333.58	904.14	1,076.27	1,058.95	17.32	62.141	
2,600.00	2,587.33	2,512.26	2,508.98	9.50	8.81	127.15		337.80	910.16	1,090.56	1,072.52	18.04	60.445	
2,700.00	2,686.58	2,619.12	2,615.55	9.89	9.20	127.54		342.15	916.65	1,104.72	1,085.90	18.81	58.723	
2,800.00	2,785.83	2,741.86	2,738.09	10.28	9.65	128.00		346.18	922.26	1,117.29	1,097.64	19.65	56.857	
2,900.00	2,885.08	2,854.06	2,850.20	10.67	10.06	128.43		349.13	925.57	1,128.22	1,107.78	20.44	55.201	
3,000.00	2,984.33	2,958.97	2,955.06	11.07	10.44	128.84		351.56	927.93	1,138.47	1,117.28	21.19	53.718	
3,100.00	3,083.58	3,065.08	3,061.13	11.46	10.82	129.25		353.82	929.82	1,148.29	1,126.34	21.95	52.308	
3,200.00	3,182.83	3,165.81	3,161.84	11.85	11.18	129.64		355.58	931.17	1,157.67	1,134.98	22.69	51.025	
3,300.00	3,282.08	3,265.36	3,261.36	12.24	11.53	130.04		357.24	932.56	1,167.15	1,143.73	23.42	49.836	
3,400.00	3,381.33	3,367.11	3,363.09	12.63	11.89	130.45		358.41	933.91	1,176.55	1,152.39	24.16	48.699	
3,500.00	3,480.58	3,466.49	3,464.46	13.03	12.25	130.87		359.33	935.05	1,185.79	1,160.89	24.90	47.626	
3,600.00	3,579.83	3,571.26	3,567.22	13.42	12.62	131.30		360.04	936.02	1,194.88	1,169.24	25.64	46.600	
3,700.00	3,679.08	3,678.49	3,674.46	13.81	12.99	131.76		360.44	936.57	1,203.57	1,177.18	26.39	45.599	
3,800.00	3,778.32	3,777.18	3,773.14	14.20	13.33	132.18		360.48	936.44	1,211.67	1,184.56	27.11	44.699	
3,900.00	3,877.57	3,825.00	3,820.94	14.60	13.50	132.36		361.26	937.46	1,222.23	1,194.62	27.61	44.267	
4,000.00	3,976.82	3,857.00	3,852.79	14.99	13.62	132.42		363.04	938.85	1,237.88	1,209.90	27.98	44.237	
4,100.00	4,076.07	3,904.05	3,899.29	15.38	13.80	132.44		367.38	945.55	1,258.44	1,230.05	28.39	44.325	
4,200.00	4,175.32	4,005.98	3,999.84	15.77	14.20	132.46		377.36	958.97	1,280.64	1,251.48	29.15	43.927	
4,300.00	4,274.57	4,118.03	4,110.89	16.17	14.63	132.66		384.10	972.25	1,301.10	1,271.12	29.98	43.403	
4,400.00	4,373.82	4,217.77	4,209.67	16.56	15.02	132.79		391.19	984.14	1,321.83	1,291.11	30.72	43.026	
4,500.00	4,473.07	4,319.19	4,310.13	16.95	15.41	132.90		398.80	995.77	1,342.15	1,310.67	31.48	42.637	
4,600.00	4,572.32	4,423.21	4,413.20	17.35	15.82	133.00		406.62	1,007.42	1,362.21	1,329.95	32.25	42.235	
4,700.00	4,671.57	4,528.42	4,517.50	17.74	16.23	133.11		414.52	1,018.65	1,381.75	1,348.72	33.03	41.828	
4,800.00	4,770.82	4,615.01	4,603.32	18.13	16.57	133.18		421.31	1,028.00	1,401.46	1,367.76	33.70	41.588	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Emerald State Com #1 (OFFSET) - Com #1 - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,870.07	4,716.18	4,703.50	18.53	16.97	133.23	429.85	1,039.26	1,421.53	1,387.08	34.46	41.254	
5,000.00	4,969.32	4,844.75	4,830.59	18.92	17.48	133.18	443.70	1,052.23	1,440.88	1,405.49	35.39	40.711	
5,100.00	5,068.57	4,904.00	4,887.94	19.31	17.73	132.84	457.63	1,057.16	1,459.73	1,423.83	35.90	40.657 SF	
5,200.00	5,167.82	4,936.00	4,917.77	19.70	17.87	132.53	468.59	1,060.77	1,482.51	1,446.32	36.19	40.963	
5,300.00	5,267.07	4,981.72	4,957.97	20.10	18.08	131.87	489.45	1,066.71	1,509.17	1,472.63	36.54	41.302	
5,400.00	5,366.32	5,019.98	4,988.89	20.49	18.26	131.15	511.35	1,071.79	1,539.36	1,502.58	36.78	41.853	
5,500.00	5,465.57	5,045.66	5,008.02	20.88	18.39	130.59	528.09	1,075.45	1,573.73	1,536.88	36.85	42.708	
5,600.00	5,564.81	5,062.00	5,019.33	21.28	18.47	130.20	539.60	1,077.98	1,612.55	1,575.79	36.76	43.864	
5,700.00	5,664.06	5,079.51	5,030.66	21.67	18.57	129.76	552.61	1,080.96	1,655.78	1,619.15	36.63	45.199	
5,800.00	5,763.31	5,094.00	5,039.41	22.07	18.64	129.38	563.82	1,083.72	1,703.28	1,666.86	36.42	46.763	
5,900.00	5,862.56	5,157.00	5,076.75	22.46	19.00	127.73	613.07	1,095.95	1,753.52	1,716.78	36.73	47.737	
6,000.00	5,961.81	5,176.30	5,087.68	22.85	19.12	127.22	628.50	1,099.76	1,806.71	1,770.17	36.54	49.444	
6,100.00	6,061.05	5,189.00	5,094.57	23.25	19.20	126.88	638.86	1,102.34	1,863.16	1,826.91	36.25	51.394	
6,200.00	6,160.31	5,205.95	5,103.24	23.64	19.31	126.42	653.00	1,105.85	1,922.69	1,886.69	36.00	53.403	
6,300.00	6,259.56	5,221.00	5,110.30	24.03	19.40	126.00	665.89	1,109.05	1,985.20	1,949.47	35.72	55.569	
6,400.00	6,358.81	5,221.00	5,110.30	24.43	19.40	126.00	665.89	1,109.05	2,050.42	2,015.15	35.27	58.128	
6,500.00	6,458.06	5,234.52	5,116.04	24.82	19.49	125.61	677.79	1,111.93	2,118.11	2,083.12	34.99	60.542	
6,523.00	6,480.89	5,236.23	5,116.72	24.91	19.50	125.56	679.31	1,112.29	2,134.02	2,099.11	34.90	61.138	
6,600.00	6,557.40	5,253.00	5,122.77	25.21	19.62	125.97	694.56	1,115.79	2,188.02	2,153.27	34.75	62.962	
6,700.00	6,657.00	5,253.00	5,122.77	25.59	19.62	127.17	694.56	1,115.79	2,258.71	2,224.40	34.31	65.825	
6,800.00	6,756.79	5,253.00	5,122.77	25.95	19.62	128.39	694.56	1,115.79	2,330.47	2,296.59	33.88	68.786	
6,900.00	6,856.72	5,253.00	5,122.77	26.30	19.62	129.63	694.56	1,115.79	2,403.16	2,369.71	33.45	71.838	
6,991.29	6,948.00	5,253.00	5,122.77	26.60	19.62	82.77	694.56	1,115.79	2,470.22	2,437.15	33.07	74.697	
7,000.00	6,956.71	5,253.00	5,122.77	26.63	19.62	82.77	694.56	1,115.79	2,476.65	2,443.62	33.03	74.976	
7,100.00	7,056.71	5,253.00	5,122.77	26.96	19.62	82.77	694.56	1,115.79	2,551.49	2,518.86	32.64	78.181	
7,200.00	7,156.71	5,269.78	5,127.73	27.29	19.73	82.26	710.24	1,119.13	2,627.57	2,595.14	32.43	81.021	
7,300.00	7,256.71	5,285.00	5,131.24	27.62	19.84	81.78	724.77	1,121.93	2,705.66	2,673.43	32.23	83.957	
7,400.00	7,356.71	5,285.00	5,131.24	27.95	19.84	81.78	724.77	1,121.93	2,784.81	2,752.91	31.91	87.279	
7,500.00	7,456.71	5,285.00	5,131.24	28.28	19.84	81.78	724.77	1,121.93	2,865.27	2,833.66	31.61	90.631	
7,600.00	7,556.71	5,285.00	5,131.24	28.61	19.84	81.78	724.77	1,121.93	2,946.93	2,915.58	31.35	94.003	
7,700.00	7,656.71	5,285.00	5,131.24	28.95	19.84	81.78	724.77	1,121.93	3,029.68	2,998.57	31.11	97.385	
7,800.00	7,756.71	5,285.00	5,131.24	29.28	19.84	81.78	724.77	1,121.93	3,113.45	3,082.55	30.90	100.769	
7,900.00	7,856.71	5,285.00	5,131.24	29.61	19.84	81.78	724.77	1,121.93	3,198.15	3,167.44	30.71	104.145	
8,000.00	7,956.71	5,285.00	5,131.24	29.95	19.84	81.78	724.77	1,121.93	3,283.71	3,253.17	30.54	107.506	
8,100.00	8,056.71	5,285.00	5,131.24	30.28	19.84	81.78	724.77	1,121.93	3,370.07	3,339.66	30.40	110.845	
8,200.00	8,156.71	5,285.00	5,131.24	30.62	19.84	81.78	724.77	1,121.93	3,457.16	3,426.87	30.28	114.156	
8,300.00	8,256.71	5,285.00	5,131.24	30.96	19.84	81.78	724.77	1,121.93	3,544.93	3,514.75	30.19	117.432	
8,400.00	8,356.71	5,285.00	5,131.24	31.29	19.84	81.78	724.77	1,121.93	3,633.34	3,603.23	30.11	120.668	
8,500.00	8,456.71	5,285.00	5,131.24	31.63	19.84	81.78	724.77	1,121.93	3,722.33	3,692.28	30.05	123.860	
8,600.00	8,556.71	5,285.00	5,131.24	31.97	19.84	81.78	724.77	1,121.93	3,811.87	3,781.85	30.01	127.002	
8,700.00	8,656.71	5,285.00	5,131.24	32.31	19.84	81.78	724.77	1,121.93	3,901.91	3,871.92	29.99	130.092	
8,800.00	8,756.71	5,285.00	5,131.24	32.64	19.84	81.78	724.77	1,121.93	3,992.43	3,962.44	29.99	133.126	
8,900.00	8,856.71	5,285.00	5,131.24	32.98	19.84	81.78	724.77	1,121.93	4,083.40	4,053.39	30.00	136.100	
9,000.00	8,956.71	5,285.00	5,131.24	33.32	19.84	81.78	724.77	1,121.93	4,174.77	4,144.74	30.03	139.014	
9,100.00	9,056.71	5,299.91	5,133.73	33.66	19.94	81.30	739.24	1,124.52	4,266.08	4,235.91	30.17	141.395	
9,200.00	9,156.71	5,300.67	5,133.84	34.00	19.94	81.28	739.99	1,124.65	4,358.16	4,327.93	30.23	144.156	
9,300.00	9,256.71	5,301.41	5,133.93	34.34	19.95	81.25	740.70	1,124.77	4,450.58	4,420.27	30.31	146.853	
9,400.00	9,356.71	5,316.00	5,135.36	34.68	20.05	80.79	755.02	1,127.20	4,543.71	4,513.23	30.48	149.086	
9,500.00	9,456.71	5,316.00	5,135.36	35.02	20.05	80.79	755.02	1,127.20	4,636.70	4,606.13	30.57	151.671	
9,600.00	9,556.71	5,316.00	5,135.36	35.37	20.05	80.79	755.02	1,127.20	4,729.99	4,699.31	30.68	154.188	
9,700.00	9,656.71	5,316.00	5,135.36	35.71	20.05	80.79	755.02	1,127.20	4,823.54	4,792.75	30.79	156.638	

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

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Emerald State Com #1 (OFFSET) - Com #1 - Original Hole - Original Hole														Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD														Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,756.71	5,316.00	5,135.36	36.05	20.05	80.79		755.02	1,127.20	4,917.35	4,886.43	30.92	159.020	
9,900.00	9,856.71	5,316.00	5,135.36	36.39	20.05	80.79		755.02	1,127.20	5,011.40	4,980.34	31.06	161.335	
10,000.00	9,956.71	5,316.00	5,135.36	36.74	20.05	80.79		755.02	1,127.20	5,105.67	5,074.46	31.21	163.583	
10,100.00	10,056.71	5,316.00	5,135.36	37.08	20.05	80.79		755.02	1,127.20	5,200.16	5,168.79	31.37	165.764	
10,200.00	10,156.71	5,316.00	5,135.36	37.42	20.05	80.79		755.02	1,127.20	5,294.85	5,263.31	31.54	167.878	
10,300.00	10,256.71	5,316.00	5,135.36	37.77	20.05	80.79		755.02	1,127.20	5,389.73	5,358.01	31.72	169.927	
10,398.53	10,355.24	5,316.00	5,135.36	38.10	20.05	80.79		755.02	1,127.20	5,483.39	5,451.49	31.90	171.883	
10,400.00	10,356.71	5,316.00	5,135.36	38.11	20.05	0.09		755.02	1,127.20	5,484.79	5,452.89	31.90	171.912	
10,450.00	10,406.65	5,316.00	5,135.36	38.27	20.05	0.07		755.02	1,127.20	5,531.62	5,499.63	31.99	172.925	
10,500.00	10,456.19	5,316.00	5,135.36	38.42	20.05	0.06		755.02	1,127.20	5,576.82	5,544.77	32.05	173.977	
10,550.00	10,504.96	5,316.00	5,135.36	38.56	20.05	0.05		755.02	1,127.20	5,620.10	5,587.99	32.11	175.048	
10,600.00	10,552.59	5,316.00	5,135.36	38.70	20.05	0.04		755.02	1,127.20	5,661.16	5,629.02	32.14	176.132	
10,650.00	10,598.72	5,316.00	5,135.36	38.83	20.05	0.04		755.02	1,127.20	5,699.75	5,667.59	32.16	177.225	
10,700.00	10,643.00	5,316.00	5,135.36	38.94	20.05	0.04		755.02	1,127.20	5,735.64	5,703.47	32.17	178.319	
10,750.00	10,685.08	5,316.00	5,135.36	39.05	20.05	0.03		755.02	1,127.20	5,768.59	5,736.43	32.15	179.407	
10,800.00	10,724.66	5,316.00	5,135.36	39.16	20.05	0.03		755.02	1,127.20	5,798.41	5,766.28	32.13	180.480	
10,850.00	10,761.42	5,316.00	5,135.36	39.26	20.05	0.03		755.02	1,127.20	5,824.92	5,792.83	32.09	181.528	
10,900.00	10,795.10	5,316.00	5,135.36	39.36	20.05	0.03		755.02	1,127.20	5,847.97	5,815.94	32.04	182.538	
10,950.00	10,825.42	5,316.00	5,135.36	39.47	20.05	0.03		755.02	1,127.20	5,867.43	5,835.45	31.98	183.499	
11,000.00	10,852.17	5,316.00	5,135.36	39.60	20.05	0.03		755.02	1,127.20	5,883.17	5,851.27	31.91	184.396	
11,050.00	10,875.14	5,316.00	5,135.36	39.76	20.05	0.03		755.02	1,127.20	5,895.12	5,863.29	31.83	185.215	
11,100.00	10,894.15	5,316.00	5,135.36	39.96	20.05	0.02		755.02	1,127.20	5,903.20	5,871.45	31.75	185.941	
11,150.00	10,909.05	5,316.00	5,135.36	40.21	20.05	0.02		755.02	1,127.20	5,907.37	5,875.70	31.66	186.562	
11,198.52	10,919.49	5,316.00	5,135.36	40.48	20.05	0.02		755.02	1,127.20	5,907.65	5,876.07	31.58	187.050	
11,200.00	10,919.75	5,316.00	5,135.36	40.49	20.05	0.02		755.02	1,127.20	5,907.60	5,876.02	31.58	187.061	
11,250.00	10,927.06	5,316.00	5,135.36	40.82	20.05	0.02		755.02	1,127.20	5,904.82	5,873.32	31.50	187.453	
11,300.00	10,931.78	5,316.00	5,135.36	41.20	20.05	0.02		755.02	1,127.20	5,899.85	5,868.43	31.43	187.738	
11,350.00	10,933.88	5,316.00	5,135.36	41.61	20.05	0.03		755.02	1,127.20	5,892.70	5,861.35	31.36	187.915	
11,365.19	10,934.00	5,316.00	5,135.36	41.74	20.05	0.03		755.02	1,127.20	5,890.10	5,858.76	31.34	187.942	
11,400.00	10,934.00	5,316.00	5,135.36	42.06	20.05	-0.16		755.02	1,127.20	5,884.01	5,852.71	31.30	187.992	
11,500.00	10,934.00	5,316.00	5,135.36	43.09	20.05	-0.66		755.02	1,127.20	5,867.64	5,836.41	31.22	187.941	
11,600.00	10,934.00	5,316.00	5,135.36	44.29	20.05	-1.10		755.02	1,127.20	5,852.98	5,821.78	31.20	187.580	
11,678.26	10,934.00	5,316.00	5,135.36	45.32	20.05	-1.41		755.02	1,127.20	5,842.75	5,811.52	31.23	187.074	
11,700.00	10,934.00	5,316.00	5,135.36	45.63	20.05	-1.41		755.02	1,127.20	5,840.11	5,808.86	31.25	186.899	
11,800.00	10,934.00	5,316.00	5,135.36	47.10	20.05	-1.41		755.02	1,127.20	5,828.95	5,797.60	31.35	185.924	
11,900.00	10,934.00	5,316.00	5,135.36	48.69	20.05	-1.41		755.02	1,127.20	5,819.49	5,787.98	31.51	184.677	
12,000.00	10,934.00	5,316.00	5,135.36	50.38	20.05	-1.41		755.02	1,127.20	5,811.74	5,780.01	31.73	183.174	
12,100.00	10,934.00	5,331.06	5,136.12	52.18	20.15	-1.56		769.86	1,129.63	5,805.45	5,773.39	32.06	181.069	
12,200.00	10,934.00	5,332.27	5,136.16	54.06	20.16	-1.57		771.06	1,129.82	5,801.08	5,768.69	32.39	179.096	
12,300.00	10,934.00	5,348.00	5,136.42	56.03	20.27	-1.72		786.59	1,132.29	5,798.67	5,765.84	32.83	176.611	
12,400.00	10,934.00	5,348.00	5,136.42	58.06	20.27	-1.72		786.59	1,132.29	5,797.71	5,764.45	33.26	174.330	
12,405.87	10,934.00	5,348.00	5,136.42	58.19	20.27	-1.72		786.59	1,132.29	5,797.71	5,764.42	33.28	174.190	
12,500.00	10,934.00	5,348.00	5,136.42	60.16	20.27	-1.72		786.59	1,132.29	5,798.47	5,764.74	33.73	171.921	
12,600.00	10,934.00	5,348.00	5,136.42	62.32	20.27	-1.72		786.59	1,132.29	5,800.95	5,766.71	34.24	169.409	
12,700.00	10,934.00	5,348.00	5,136.42	64.53	20.27	-1.72		786.59	1,132.29	5,805.16	5,770.36	34.80	166.824	
12,800.00	10,934.00	5,348.00	5,136.42	66.79	20.27	-1.72		786.59	1,132.29	5,811.09	5,775.69	35.39	164.189	
12,900.00	10,934.00	5,348.00	5,136.42	69.09	20.27	-1.72		786.59	1,132.29	5,818.72	5,782.70	36.02	161.529	
13,000.00	10,934.00	5,348.00	5,136.42	71.43	20.27	-1.72		786.59	1,132.29	5,828.07	5,791.38	36.69	158.865	
13,100.00	10,934.00	5,348.00	5,136.42	73.81	20.27	-1.72		786.59	1,132.29	5,839.11	5,801.73	37.38	156.216	
13,200.00	10,934.00	5,348.00	5,136.42	76.21	20.27	-1.72		786.59	1,132.29	5,851.84	5,813.74	38.10	153.599	
13,300.00	10,934.00	5,348.00	5,136.42	78.65	20.27	-1.72		786.59	1,132.29	5,866.25	5,827.41	38.84	151.030	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Emerald State Com #1 (OFFSET) - Com #1 - Original Hole - Original Hole													Offset Site Error: 0.00 usft
Survey Program: 100-MWD STANDARD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)					
13,400.00	10,934.00	5,348.00	5,136.42	81.11	20.27	-1.72	786.59	1,132.29	5,882.32	5,842.71	39.61	148.519	
13,500.00	10,934.00	5,348.00	5,136.42	83.60	20.27	-1.72	786.59	1,132.29	5,900.04	5,859.65	40.39	146.078	
13,600.00	10,934.00	5,348.00	5,136.42	86.10	20.27	-1.72	786.59	1,132.29	5,919.40	5,878.21	41.19	143.715	
13,700.00	10,934.00	5,348.00	5,136.42	88.63	20.27	-1.72	786.59	1,132.29	5,940.38	5,898.38	42.00	141.436	
13,800.00	10,934.00	5,348.00	5,136.42	91.17	20.27	-1.72	786.59	1,132.29	5,962.97	5,920.14	42.82	139.246	
13,900.00	10,934.00	5,360.25	5,136.38	93.74	20.35	-1.84	798.69	1,134.17	5,987.08	5,943.36	43.72	136.937	
14,000.00	10,934.00	5,363.51	5,136.35	96.31	20.38	-1.88	801.91	1,134.66	6,012.78	5,968.20	44.58	134.882	
14,100.00	10,934.00	5,366.73	5,136.32	98.91	20.40	-1.91	805.09	1,135.15	6,040.02	5,994.58	45.44	132.924	
14,200.00	10,934.00	5,379.00	5,136.15	101.51	20.49	-2.03	817.23	1,136.98	6,068.81	6,022.45	46.36	130.914	
14,300.00	10,934.00	5,379.00	5,136.15	104.13	20.49	-2.03	817.23	1,136.98	6,099.04	6,051.84	47.20	129.206	
14,400.00	10,934.00	6,128.39	5,159.19	106.76	28.34	-9.21	1,548.03	1,291.40	6,129.26	6,073.10	56.16	109.149	
14,500.00	10,934.00	6,140.00	5,160.19	109.39	28.48	-9.32	1,559.31	1,293.97	6,159.93	6,102.64	57.30	107.505	
14,600.00	10,934.00	6,155.96	5,161.56	112.04	28.69	-9.47	1,574.81	1,297.50	6,192.03	6,133.51	58.51	105.826	
14,700.00	10,934.00	6,172.00	5,162.93	114.70	28.89	-9.63	1,590.41	1,301.01	6,225.50	6,165.77	59.73	104.230	
14,800.00	10,934.00	6,184.98	5,164.04	117.37	29.06	-9.75	1,603.03	1,303.81	6,260.35	6,199.45	60.90	102.797	
14,900.00	10,934.00	6,197.66	5,165.12	120.04	29.22	-9.87	1,615.37	1,306.50	6,296.54	6,234.48	62.07	101.450	
15,000.00	10,934.00	6,210.00	5,166.17	122.72	29.38	-9.99	1,627.40	1,309.07	6,334.07	6,270.85	63.22	100.187	
15,100.00	10,934.00	6,221.90	5,167.20	125.41	29.54	-10.10	1,639.00	1,311.50	6,372.91	6,308.54	64.37	99.006	
15,200.00	10,934.00	6,235.00	5,168.34	128.11	29.71	-10.23	1,651.79	1,314.12	6,413.03	6,347.50	65.53	97.862	
15,300.00	10,934.00	6,235.00	5,168.34	130.81	29.71	-10.23	1,651.79	1,314.12	6,454.43	6,387.97	66.46	97.118	
15,400.00	10,934.00	6,248.12	5,169.46	133.51	29.88	-10.35	1,664.61	1,316.69	6,497.07	6,429.47	67.61	96.101	
15,500.00	10,934.00	6,255.13	5,170.05	136.23	29.97	-10.42	1,671.45	1,318.05	6,540.95	6,472.32	68.64	95.298	
15,600.00	10,934.00	6,267.00	5,171.01	138.94	30.13	-10.53	1,683.06	1,320.34	6,586.04	6,516.30	69.75	94.430	
15,700.00	10,934.00	6,267.00	5,171.01	141.67	30.13	-10.53	1,683.06	1,320.34	6,632.31	6,561.68	70.62	93.910	
15,718.17	10,934.00	6,267.00	5,171.01	142.16	30.13	-10.53	1,683.06	1,320.34	6,640.84	6,570.06	70.78	93.821	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #122H - Lateral - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-179.99	-29.92	-0.01	29.92				
100.00	100.00	100.00	100.00	0.13	0.13	-179.99	-29.92	-0.01	29.92	29.67	0.26	116.744	
200.00	200.00	200.00	200.00	0.49	0.49	-179.99	-29.92	-0.01	29.92	28.95	0.97	30.745	
300.00	300.00	300.00	300.00	0.85	0.85	-179.99	-29.92	-0.01	29.92	28.23	1.69	17.703	
400.00	400.00	400.00	400.00	1.20	1.20	-179.99	-29.92	-0.01	29.92	27.52	2.41	12.431	
500.00	500.00	500.00	500.00	1.56	1.56	-179.99	-29.92	-0.01	29.92	26.80	3.12	9.578	
600.00	600.00	600.00	600.00	1.92	1.92	-179.99	-29.92	-0.01	29.92	26.08	3.84	7.790 CC	
700.00	699.99	700.40	700.39	2.28	2.28	-131.70	-29.25	-1.14	30.13	25.58	4.55	6.619	
800.00	799.91	800.79	800.70	2.63	2.63	-130.79	-27.25	-4.56	30.77	25.51	5.26	5.848 ES	
900.00	899.69	901.17	900.86	2.99	2.99	-129.37	-23.91	-10.24	31.85	25.88	5.98	5.330	
1,000.00	999.27	1,001.54	1,000.81	3.35	3.35	-127.54	-19.25	-18.19	33.39	26.69	6.70	4.985	
1,068.29	1,067.11	1,070.07	1,068.89	3.60	3.61	-126.11	-15.30	-24.92	34.72	27.52	7.20	4.822	
1,100.00	1,098.59	1,101.90	1,100.45	3.72	3.72	-125.25	-13.25	-28.40	35.34	27.90	7.43	4.753	
1,200.00	1,197.84	1,201.96	1,199.57	4.09	4.10	-121.13	-6.27	-40.30	36.95	28.77	8.19	4.515	
1,300.00	1,297.09	1,301.91	1,298.54	4.47	4.48	-117.20	0.77	-52.29	38.71	29.76	8.95	4.327	
1,400.00	1,396.34	1,401.87	1,397.52	4.85	4.87	-113.62	7.81	-64.28	40.63	30.92	9.71	4.183	
1,500.00	1,495.59	1,501.82	1,496.50	5.23	5.26	-110.37	14.85	-76.27	42.69	32.21	10.49	4.071	
1,600.00	1,594.84	1,601.77	1,595.48	5.62	5.65	-107.44	21.89	-88.26	44.88	33.62	11.26	3.985	
1,700.00	1,694.09	1,701.72	1,694.46	6.00	6.04	-104.78	28.93	-100.25	47.18	35.14	12.04	3.918	
1,800.00	1,793.34	1,801.67	1,793.44	6.39	6.44	-102.38	35.97	-112.24	49.57	36.74	12.82	3.866	
1,900.00	1,892.59	1,901.62	1,892.42	6.78	6.83	-100.19	43.01	-124.23	52.03	38.43	13.60	3.825	
2,000.00	1,991.83	2,001.57	1,991.40	7.16	7.23	-98.21	50.05	-136.22	54.57	40.18	14.39	3.793	
2,100.00	2,091.08	2,101.52	2,090.38	7.55	7.63	-96.41	57.09	-148.21	57.16	41.99	15.17	3.768	
2,200.00	2,190.33	2,201.47	2,189.36	7.94	8.03	-94.76	64.13	-160.20	59.81	43.86	15.95	3.749	
2,300.00	2,289.58	2,301.42	2,288.33	8.33	8.43	-93.26	71.17	-172.19	62.50	45.76	16.74	3.734	
2,400.00	2,388.83	2,401.37	2,387.31	8.72	8.83	-91.88	78.21	-184.18	65.23	47.71	17.52	3.723	
2,500.00	2,488.08	2,501.33	2,486.29	9.11	9.23	-90.61	85.25	-196.17	68.00	49.69	18.30	3.715	
2,600.00	2,587.33	2,601.28	2,585.27	9.50	9.63	-89.44	92.29	-208.16	70.79	51.71	19.09	3.709	
2,700.00	2,686.58	2,701.23	2,684.25	9.89	10.03	-88.36	99.33	-220.15	73.62	53.75	19.87	3.705	
2,800.00	2,785.83	2,801.18	2,783.23	10.28	10.43	-87.36	106.37	-232.14	76.47	55.81	20.65	3.702	
2,900.00	2,885.08	2,901.13	2,882.21	10.67	10.83	-86.43	113.41	-244.13	79.34	57.90	21.44	3.701	
3,000.00	2,984.33	3,001.08	2,981.19	11.07	11.24	-85.57	120.45	-256.12	82.22	60.01	22.22	3.701	
3,100.00	3,083.58	3,101.03	3,080.17	11.46	11.64	-84.77	127.49	-268.11	85.13	62.13	23.00	3.701	
3,200.00	3,182.83	3,200.98	3,179.15	11.85	12.04	-84.02	134.53	-280.10	88.05	64.27	23.78	3.702	
3,300.00	3,282.08	3,300.93	3,278.13	12.24	12.44	-83.32	141.57	-292.09	90.99	66.42	24.57	3.704	
3,400.00	3,381.33	3,400.88	3,377.10	12.63	12.85	-82.66	148.61	-304.08	93.94	68.59	25.35	3.706	
3,500.00	3,480.58	3,500.83	3,476.08	13.03	13.25	-82.04	155.65	-316.07	96.90	70.77	26.13	3.708	
3,600.00	3,579.83	3,600.78	3,575.06	13.42	13.65	-81.46	162.69	-328.06	99.87	72.96	26.91	3.711	
3,700.00	3,679.08	3,700.74	3,674.04	13.81	14.06	-80.91	169.73	-340.05	102.85	75.16	27.69	3.714	
3,800.00	3,778.32	3,800.69	3,773.02	14.20	14.46	-80.39	176.77	-352.04	105.84	77.37	28.47	3.717	
3,900.00	3,877.57	3,900.64	3,872.00	14.60	14.87	-79.90	183.81	-364.03	108.84	79.58	29.25	3.720	
4,000.00	3,976.82	4,000.59	3,970.98	14.99	15.27	-79.44	190.85	-376.02	111.84	81.81	30.04	3.724	
4,100.00	4,076.07	4,100.54	4,059.96	15.38	15.67	-79.00	197.89	-388.01	114.85	84.04	30.82	3.727	
4,200.00	4,175.32	4,200.49	4,168.94	15.77	16.08	-78.59	204.93	-400.00	117.87	86.27	31.60	3.730	
4,300.00	4,274.57	4,300.44	4,267.92	16.17	16.48	-78.19	211.97	-411.99	120.90	88.52	32.38	3.734	
4,400.00	4,373.82	4,400.39	4,366.90	16.56	16.89	-77.82	219.01	-423.98	123.93	90.77	33.16	3.737	
4,500.00	4,473.07	4,500.34	4,465.87	16.95	17.29	-77.46	226.05	-435.97	126.96	93.02	33.94	3.741	
4,600.00	4,572.32	4,600.29	4,564.85	17.35	17.69	-77.12	233.09	-447.96	130.00	95.28	34.72	3.744	
4,700.00	4,671.57	4,700.24	4,663.83	17.74	18.10	-76.79	240.13	-459.95	133.04	97.54	35.50	3.748	
4,800.00	4,770.82	4,800.20	4,762.81	18.13	18.50	-76.48	247.16	-471.94	136.09	99.81	36.28	3.751	
4,900.00	4,870.07	4,900.15	4,861.79	18.53	18.91	-76.19	254.20	-483.93	139.14	102.08	37.06	3.755	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #122H - Lateral - Plan #1													Offset Site Error: 0 00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0 00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,969.32	5,000.10	4,960.77	18.92	19.31	-75.90	261.24	-495.92	142.20	104.36	37.84	3.758		
5,100.00	5,068.57	5,100.58	5,060.29	19.31	19.72	-75.68	268.25	-507.86	145.20	106.58	38.62	3.759		
5,200.00	5,167.82	5,202.23	5,161.24	19.70	20.12	-76.18	274.31	-518.17	147.32	107.89	39.43	3.736		
5,300.00	5,267.07	5,303.80	5,262.38	20.10	20.50	-77.61	279.00	-526.16	148.36	108.12	40.24	3.687		
5,400.00	5,366.32	5,405.14	5,363.51	20.49	20.87	-79.98	282.31	-531.81	148.48	107.42	41.06	3.616		
5,500.00	5,465.57	5,506.12	5,464.40	20.88	21.22	-83.31	284.27	-535.14	148.01	106.13	41.88	3.534		
5,600.00	5,564.81	5,606.58	5,564.86	21.28	21.55	-87.62	284.87	-536.17	147.36	104.68	42.69	3.452		
5,650.49	5,614.93	5,656.65	5,614.93	21.48	21.71	-90.00	284.88	-536.17	147.23	104.15	43.09	3.417		
5,700.00	5,664.06	5,705.79	5,664.06	21.67	21.87	-92.34	284.88	-536.17	147.36	103.89	43.47	3.390		
5,800.00	5,763.31	5,805.04	5,763.31	22.07	22.19	-97.03	284.88	-536.17	148.37	104.14	44.22	3.355		
5,900.00	5,862.56	5,904.29	5,862.56	22.46	22.51	-101.62	284.88	-536.17	150.36	105.42	44.94	3.348 SF		
6,000.00	5,961.81	6,003.53	5,961.81	22.85	22.84	-106.07	284.88	-536.17	153.31	107.68	45.63	3.360		
6,100.00	6,061.06	6,102.78	6,061.06	23.25	23.16	-110.33	284.88	-536.17	157.16	110.87	46.29	3.395		
6,200.00	6,160.31	6,202.03	6,160.31	23.64	23.49	-114.37	284.88	-536.17	161.85	114.91	46.93	3.449		
6,300.00	6,259.56	6,301.28	6,259.56	24.03	23.81	-118.17	284.88	-536.17	167.29	119.74	47.55	3.518		
6,400.00	6,358.81	6,400.53	6,358.81	24.43	24.14	-121.71	284.88	-536.17	173.43	125.27	48.17	3.601		
6,500.00	6,458.06	6,500.22	6,458.06	24.82	24.47	-125.00	284.88	-536.17	180.20	131.42	48.77	3.695		
6,523.00	6,480.89	6,522.61	6,480.89	24.91	24.55	-125.73	284.88	-536.17	181.83	132.92	48.91	3.718		
6,600.00	6,557.40	6,600.88	6,557.40	25.21	24.81	-127.93	284.88	-536.17	187.04	137.65	49.39	3.787		
6,700.00	6,657.00	6,701.28	6,657.00	25.59	25.14	-130.08	284.88	-536.17	192.67	142.65	50.01	3.852		
6,800.00	6,756.79	6,801.48	6,756.79	25.95	25.47	-131.53	284.88	-536.17	196.80	146.14	50.65	3.885		
6,900.00	6,856.72	6,901.55	6,856.72	26.30	25.81	-132.36	284.88	-536.17	199.27	147.96	51.31	3.884		
6,991.29	6,948.00	6,989.72	6,948.00	26.60	26.10	-132.36	284.88	-536.17	200.01	148.10	51.91	3.853		
7,000.00	6,956.71	7,001.56	6,956.71	26.63	26.14	-132.36	284.88	-536.17	200.01	148.03	51.98	3.848		
7,100.00	7,056.71	7,101.56	7,056.71	26.96	26.48	-132.36	284.88	-536.17	200.01	147.36	52.65	3.799		
7,200.00	7,156.71	7,201.56	7,156.71	27.29	26.81	-132.36	284.88	-536.17	200.01	146.68	53.33	3.751		
7,300.00	7,256.71	7,301.56	7,256.71	27.62	27.15	-132.36	284.88	-536.17	200.01	146.01	54.00	3.704		
7,400.00	7,356.71	7,401.56	7,356.71	27.95	27.48	-132.36	284.88	-536.17	200.01	145.33	54.68	3.658		
7,500.00	7,456.71	7,501.56	7,456.71	28.28	27.82	-132.36	284.88	-536.17	200.01	144.65	55.36	3.613		
7,600.00	7,556.71	7,601.56	7,556.71	28.61	28.16	-132.36	284.88	-536.17	200.01	143.97	56.03	3.569		
7,700.00	7,656.71	7,701.56	7,656.71	28.95	28.50	-132.36	284.88	-536.17	200.01	143.29	56.71	3.527		
7,712.77	7,669.49	7,711.21	7,669.49	28.99	28.53	-132.36	284.88	-536.17	200.01	143.22	56.79	3.522		
7,800.00	7,756.71	7,798.39	7,756.71	29.28	28.82	-132.36	284.88	-536.17	200.01	142.63	57.38	3.486		
7,900.00	7,856.71	7,896.66	7,854.28	29.61	29.11	-132.36	284.86	-525.86	200.41	142.54	57.87	3.463		
8,000.00	7,956.71	7,988.89	7,943.06	29.95	29.35	-132.36	284.82	-501.23	203.90	145.98	57.92	3.521		
8,100.00	8,056.71	8,071.46	8,018.29	30.28	29.55	-132.36	284.76	-467.36	215.73	158.63	57.09	3.779		
8,200.00	8,156.71	8,142.97	8,078.93	30.62	29.71	-132.36	284.70	-429.55	240.67	185.65	55.02	4.374		
8,300.00	8,256.71	8,203.70	8,126.40	30.96	29.86	-132.36	284.64	-391.71	280.24	228.23	52.00	5.389		
8,400.00	8,356.71	8,254.85	8,163.08	31.29	30.00	-132.36	284.58	-356.10	332.82	284.07	48.75	6.827		
8,500.00	8,456.71	8,300.00	8,192.72	31.63	30.13	-132.36	284.53	-322.05	395.67	349.75	45.92	8.617		
8,600.00	8,556.71	8,334.14	8,213.29	31.97	30.25	-132.36	284.48	-294.81	466.19	422.91	43.28	10.772		
8,700.00	8,656.71	8,364.94	8,230.44	32.31	30.38	-132.36	284.44	-269.22	542.43	501.18	41.25	13.149		
8,800.00	8,756.71	8,400.00	8,248.24	32.64	30.53	-132.36	284.39	-239.03	623.09	583.04	40.04	15.561		
8,900.00	8,856.71	8,413.93	8,254.80	32.98	30.60	-132.36	284.37	-226.74	708.76	668.37	38.39	18.410		
9,000.00	8,956.71	8,433.59	8,263.54	33.32	30.70	-132.36	284.35	-209.13	793.09	755.67	37.42	21.197		
9,100.00	9,056.71	8,450.00	8,270.37	33.66	30.79	-132.36	284.32	-194.21	881.41	844.77	36.64	24.054		
9,200.00	9,156.71	8,465.90	8,276.57	34.00	30.89	-132.36	284.30	-179.58	971.33	935.23	36.10	26.906		
9,300.00	9,256.71	8,479.28	8,281.48	34.34	30.97	-132.36	284.28	-167.13	1,062.55	1,026.87	35.68	29.779		
9,400.00	9,356.71	8,500.00	8,288.51	34.68	31.10	-132.36	284.25	-147.63	1,154.93	1,119.36	35.57	32.473		
9,500.00	9,456.71	8,500.00	8,288.51	35.02	31.10	-132.36	284.25	-147.63	1,248.00	1,212.86	35.14	35.513		
9,600.00	9,556.71	8,500.00	8,288.51	35.37	31.10	-132.36	284.25	-147.63	1,342.07	1,307.20	34.86	38.497		

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

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #122H - Lateral - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,700.00	9,656.71	8,520.19	8,294.67	35.71	31.25	116.09	284.21	-128.41	1,436.44	1,401.45	35.00	41.047	
9,800.00	9,756.71	8,528.09	8,296.89	36.05	31.30	115.68	284.20	-120.83	1,531.52	1,496.52	34.99	43.767	
9,900.00	9,856.71	8,550.00	8,302.51	36.39	31.46	114.59	284.17	-99.65	1,627.31	1,592.09	35.22	46.200	
10,000.00	9,956.71	8,550.00	8,302.51	36.74	31.46	114.59	284.17	-99.65	1,723.07	1,687.86	35.21	48.935	
10,100.00	10,056.71	8,550.00	8,302.51	37.08	31.46	114.59	284.17	-99.65	1,819.29	1,784.04	35.25	51.604	
10,200.00	10,156.71	8,550.00	8,302.51	37.42	31.46	114.59	284.17	-99.65	1,915.90	1,880.55	35.34	54.209	
10,300.00	10,256.71	8,550.00	8,302.51	37.77	31.46	114.59	284.17	-99.65	2,012.83	1,977.36	35.47	56.751	
10,398.53	10,355.24	8,550.00	8,302.51	38.10	31.46	114.59	284.17	-99.65	2,108.62	2,073.00	35.62	59.195	
10,400.00	10,356.71	8,550.00	8,302.51	38.11	31.46	33.55	284.17	-99.65	2,110.06	2,074.43	35.62	59.231	
10,450.00	10,406.65	8,550.00	8,302.51	38.27	31.46	24.68	284.17	-99.65	2,158.27	2,122.57	35.70	60.462	
10,500.00	10,456.19	8,569.70	8,306.88	38.42	31.63	19.17	284.14	-80.44	2,204.98	2,169.08	35.90	61.421	
10,550.00	10,504.96	8,573.89	8,307.72	38.56	31.66	15.80	284.13	-76.34	2,250.56	2,214.60	35.96	62.584	
10,600.00	10,552.59	8,578.71	8,308.65	38.70	31.70	13.47	284.12	-71.61	2,294.44	2,258.43	36.01	63.716	
10,650.00	10,598.72	8,600.00	8,312.29	39.83	31.88	11.77	284.09	-50.63	2,336.66	2,300.51	36.16	64.628	
10,700.00	10,643.00	8,600.00	8,312.29	38.94	31.88	10.52	284.09	-50.63	2,376.27	2,340.13	36.15	65.743	
10,750.00	10,685.08	8,600.00	8,312.29	39.05	31.88	9.54	284.09	-50.63	2,413.57	2,377.44	36.13	66.798	
10,800.00	10,724.66	8,600.00	8,312.29	39.16	31.88	8.77	284.09	-50.63	2,448.39	2,412.27	36.12	67.782	
10,850.00	10,761.42	8,600.00	8,312.29	39.26	31.88	8.15	284.09	-50.63	2,480.58	2,444.46	36.12	68.682	
10,900.00	10,795.10	8,600.00	8,312.29	39.36	31.88	7.65	284.09	-50.63	2,509.99	2,473.86	36.12	69.484	
10,950.00	10,825.42	8,626.03	8,315.67	39.47	32.12	7.31	284.05	-24.83	2,535.78	2,499.54	36.24	69.973	
11,000.00	10,852.17	8,650.00	8,317.75	39.60	32.34	7.06	284.01	-0.95	2,559.03	2,522.68	36.34	70.411	
11,050.00	10,875.14	8,650.00	8,317.75	39.76	32.34	6.80	284.01	-0.95	2,578.54	2,542.16	36.38	70.882	
11,100.00	10,894.15	8,650.00	8,317.75	39.96	32.34	6.60	284.01	-0.95	2,594.86	2,558.42	36.44	71.212	
11,150.00	10,909.05	8,650.00	8,317.75	40.21	32.34	6.45	284.01	-0.95	2,607.92	2,571.39	36.53	71.393	
11,198.52	10,919.49	8,668.24	8,318.66	40.48	32.52	6.40	283.98	17.26	2,617.07	2,580.40	36.67	71.364	
11,200.00	10,919.75	8,668.50	8,318.67	40.49	32.53	6.40	283.98	17.52	2,617.30	2,580.62	36.67	71.365	
11,250.00	10,927.06	8,687.76	8,319.00	40.82	32.72	6.41	283.95	36.78	2,624.29	2,587.45	36.84	71.232	
11,300.00	10,931.78	8,687.76	8,319.00	41.20	32.72	6.38	283.95	36.78	2,629.25	2,592.23	37.02	71.027	
11,350.00	10,933.88	8,728.19	8,319.00	41.61	33.18	6.50	283.88	77.21	2,632.25	2,595.01	37.24	70.682	
11,365.19	10,934.00	8,743.17	8,319.00	41.74	33.35	6.55	283.86	92.20	2,632.65	2,595.34	37.31	70.558	
11,400.00	10,934.00	8,777.57	8,319.00	42.06	33.75	6.68	283.80	126.59	2,633.28	2,595.80	37.48	70.260	
11,500.00	10,934.00	8,876.84	8,319.00	43.09	35.05	6.98	283.64	225.87	2,634.71	2,596.70	38.01	69.322	
11,600.00	10,934.00	8,976.61	8,319.00	44.29	36.54	7.15	283.48	325.63	2,635.53	2,596.94	38.59	68.288	
11,678.26	10,934.00	9,054.84	8,319.00	45.32	37.81	7.19	283.35	403.86	2,635.73	2,596.64	39.09	67.425	
11,700.00	10,934.00	9,076.58	8,319.00	45.63	38.18	7.19	283.32	425.61	2,635.73	2,596.50	39.23	67.181	
11,800.00	10,934.00	9,176.58	8,319.00	47.10	39.96	7.19	283.16	525.61	2,635.73	2,595.80	39.93	66.009	
11,900.00	10,934.00	9,276.58	8,319.00	48.69	41.85	7.19	282.99	625.61	2,635.73	2,595.05	40.69	64.781	
12,000.00	10,934.00	9,376.58	8,319.00	50.38	43.85	7.19	282.83	725.61	2,635.73	2,594.23	41.50	63.511	
12,100.00	10,934.00	9,476.58	8,319.00	52.18	45.93	7.19	282.67	825.61	2,635.73	2,593.37	42.37	62.211	
12,200.00	10,934.00	9,576.58	8,319.00	54.06	48.10	7.19	282.51	925.61	2,635.73	2,592.45	43.28	60.893	
12,300.00	10,934.00	9,676.58	8,319.00	56.03	50.33	7.19	282.35	1,025.61	2,635.73	2,591.49	44.25	59.567	
12,400.00	10,934.00	9,776.58	8,319.00	58.06	52.62	7.19	282.18	1,125.61	2,635.74	2,590.48	45.26	58.242	
12,500.00	10,934.00	9,876.58	8,319.00	60.16	54.96	7.19	282.02	1,225.61	2,635.74	2,589.43	46.30	56.924	
12,600.00	10,934.00	9,976.58	8,319.00	62.32	57.34	7.19	281.86	1,325.61	2,635.74	2,588.35	47.39	55.620	
12,700.00	10,934.00	10,076.58	8,319.00	64.53	59.77	7.19	281.70	1,425.61	2,635.74	2,587.23	48.51	54.335	
12,800.00	10,934.00	10,176.58	8,319.00	66.79	62.23	7.19	281.54	1,525.61	2,635.74	2,586.07	49.66	53.073	
12,900.00	10,934.00	10,276.58	8,319.00	69.09	64.72	7.19	281.37	1,625.61	2,635.74	2,584.89	50.85	51.837	
13,000.00	10,934.00	10,376.58	8,319.00	71.43	67.24	7.19	281.21	1,725.61	2,635.74	2,583.68	52.06	50.630	
13,100.00	10,934.00	10,476.58	8,319.00	73.81	69.78	7.19	281.05	1,825.60	2,635.74	2,582.44	53.30	49.453	
13,200.00	10,934.00	10,576.58	8,319.00	76.21	72.35	7.19	280.89	1,925.60	2,635.74	2,581.17	54.56	48.307	
13,300.00	10,934.00	10,676.58	8,319.00	78.65	74.93	7.19	280.73	2,025.60	2,635.74	2,579.89	55.85	47.194	

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

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #122H - Lateral - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,400.00	10,934.00	10,776.58	8,319.00	81.11	77.53	7.19	280.56	2,125.60	2,635.74	2,578.58	57.16	46.114		
13,500.00	10,934.00	10,876.58	8,319.00	83.60	80.15	7.19	280.40	2,225.60	2,635.74	2,577.25	58.49	45.066		
13,600.00	10,934.00	10,976.58	8,319.00	86.10	82.79	7.19	280.24	2,325.60	2,635.74	2,575.90	59.83	44.051		
13,700.00	10,934.00	11,076.58	8,319.00	88.63	85.43	7.19	280.08	2,425.60	2,635.74	2,574.54	61.20	43.069		
13,800.00	10,934.00	11,176.58	8,319.00	91.17	88.09	7.19	279.92	2,525.60	2,635.74	2,573.16	62.58	42.118		
13,900.00	10,934.00	11,276.58	8,319.00	93.74	90.76	7.19	279.75	2,625.60	2,635.74	2,571.76	63.98	41.199		
14,000.00	10,934.00	11,376.58	8,319.00	96.31	93.44	7.19	279.59	2,725.60	2,635.74	2,570.35	65.39	40.309		
14,100.00	10,934.00	11,476.58	8,319.00	98.91	96.13	7.19	279.43	2,825.60	2,635.74	2,568.92	66.81	39.450		
14,200.00	10,934.00	11,576.58	8,319.00	101.51	98.83	7.19	279.27	2,925.60	2,635.74	2,567.49	68.25	38.619		
14,300.00	10,934.00	11,676.58	8,319.00	104.13	101.53	7.19	279.11	3,025.60	2,635.74	2,566.04	69.70	37.816		
14,400.00	10,934.00	11,776.58	8,319.00	106.76	104.24	7.19	278.94	3,125.60	2,635.74	2,564.58	71.16	37.040		
14,500.00	10,934.00	11,876.58	8,319.00	109.39	106.96	7.19	278.78	3,225.60	2,635.74	2,563.11	72.63	36.289		
14,600.00	10,934.00	11,976.58	8,319.00	112.04	109.69	7.19	278.62	3,325.60	2,635.74	2,561.63	74.11	35.564		
14,700.00	10,934.00	12,076.58	8,319.00	114.70	112.42	7.19	278.46	3,425.60	2,635.74	2,560.13	75.60	34.863		
14,800.00	10,934.00	12,176.58	8,319.00	117.37	115.15	7.19	278.30	3,525.60	2,635.74	2,558.64	77.10	34.185		
14,900.00	10,934.00	12,276.58	8,319.00	120.04	117.89	7.19	278.13	3,625.60	2,635.74	2,557.13	78.61	33.529		
15,000.00	10,934.00	12,376.58	8,319.00	122.72	120.64	7.19	277.97	3,725.60	2,635.74	2,555.61	80.13	32.895		
15,100.00	10,934.00	12,476.58	8,319.00	125.41	123.39	7.19	277.81	3,825.60	2,635.74	2,554.09	81.65	32.281		
15,200.00	10,934.00	12,576.58	8,319.00	128.11	126.14	7.19	277.65	3,925.60	2,635.74	2,552.56	83.18	31.687		
15,300.00	10,934.00	12,676.58	8,319.00	130.81	128.90	7.19	277.49	4,025.60	2,635.74	2,551.02	84.72	31.112		
15,400.00	10,934.00	12,776.58	8,319.00	133.51	131.66	7.19	277.32	4,125.60	2,635.74	2,549.48	86.26	30.556		
15,500.00	10,934.00	12,876.58	8,319.00	136.23	134.42	7.19	277.16	4,225.60	2,635.74	2,547.93	87.81	30.017		
15,600.00	10,934.00	12,976.58	8,319.00	138.94	137.19	7.19	277.00	4,325.60	2,635.74	2,546.37	89.36	29.494		
15,700.00	10,934.00	13,076.58	8,319.00	141.67	139.96	7.19	276.84	4,425.60	2,635.74	2,544.81	90.92	28.988		
15,718.17	10,934.00	13,094.76	8,319.00	142.16	140.46	7.19	276.81	4,443.77	2,635.74	2,544.53	91.21	28.898		

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #202H - Lateral - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	0.07	30.00	0.03	30.00				
100.00	100.00	100.00	100.00	0.13	0.13	0.07	30.00	0.03	30.00	29.74	0.26	117.048	
200.00	200.00	200.00	200.00	0.49	0.49	0.07	30.00	0.03	30.00	29.03	0.97	30.825	
300.00	300.00	300.00	300.00	0.85	0.85	0.07	30.00	0.03	30.00	28.31	1.69	17.750	
400.00	400.00	400.00	400.00	1.20	1.20	0.07	30.00	0.03	30.00	27.59	2.41	12.463	
500.00	500.00	500.00	500.00	1.56	1.56	0.07	30.00	0.03	30.00	26.88	3.12	9.603	
600.00	600.00	600.00	600.00	1.92	1.92	0.07	30.00	0.03	30.00	26.16	3.84	7.810 CC	
700.00	699.99	699.43	699.41	2.28	2.27	48.22	30.95	-0.84	30.08	25.53	4.55	6.610	
800.00	799.91	798.85	798.76	2.63	2.63	48.73	33.81	-3.47	30.33	25.07	5.26	5.768	
900.00	899.69	898.28	897.97	2.99	2.99	49.56	38.57	-7.85	30.75	24.78	5.97	5.152	
1,000.00	999.27	997.70	996.98	3.35	3.35	50.69	45.22	-13.97	31.34	24.66	6.68	4.689 ES	
1,068.29	1,067.11	1,065.59	1,064.44	3.60	3.60	51.61	50.86	-19.15	31.85	24.68	7.18	4.438	
1,100.00	1,098.59	1,097.12	1,095.72	3.72	3.71	51.89	53.77	-21.84	32.20	24.80	7.41	4.347	
1,200.00	1,197.84	1,203.11	1,194.54	4.09	4.11	51.29	63.87	-31.12	34.12	25.96	8.17	4.178	
1,300.00	1,297.09	1,296.87	1,293.54	4.47	4.47	50.55	74.10	-40.54	36.17	27.28	8.89	4.069	
1,400.00	1,396.34	1,403.16	1,392.55	4.85	4.88	49.90	84.34	-49.95	38.22	28.56	9.66	3.955	
1,500.00	1,495.59	1,503.18	1,491.56	5.23	5.27	49.31	94.58	-59.37	40.27	29.86	10.41	3.867	
1,600.00	1,594.84	1,603.20	1,590.56	5.62	5.66	48.77	104.82	-68.79	42.33	31.16	11.17	3.790	
1,700.00	1,694.09	1,703.22	1,689.57	6.00	6.05	48.29	115.06	-78.21	44.39	32.47	11.93	3.723	
1,800.00	1,793.34	1,803.24	1,788.57	6.39	6.44	47.85	125.30	-87.63	46.46	33.77	12.68	3.663	
1,900.00	1,892.59	1,903.27	1,887.58	6.78	6.84	47.45	135.53	-97.04	48.52	35.08	13.44	3.610	
2,000.00	1,991.83	2,003.29	1,986.58	7.16	7.23	47.08	145.77	-106.46	50.59	36.39	14.20	3.563	
2,100.00	2,091.08	2,103.31	2,085.59	7.55	7.63	46.74	156.01	-115.88	52.66	37.70	14.96	3.520	
2,200.00	2,190.33	2,203.33	2,184.59	7.94	8.03	46.43	166.25	-125.30	54.74	39.02	15.72	3.482	
2,300.00	2,289.58	2,303.35	2,283.60	8.33	8.42	46.13	176.49	-134.72	56.81	40.33	16.48	3.447	
2,400.00	2,388.83	2,403.38	2,382.61	8.72	8.82	45.86	186.72	-144.13	58.89	41.64	17.24	3.415	
2,500.00	2,488.08	2,503.40	2,481.61	9.11	9.22	45.61	196.96	-153.55	60.96	42.96	18.00	3.386	
2,600.00	2,587.33	2,596.58	2,580.62	9.50	9.59	45.37	207.20	-162.97	63.04	44.30	18.74	3.364	
2,700.00	2,686.58	2,696.56	2,679.62	9.89	9.99	45.15	217.44	-172.39	65.12	45.62	19.50	3.339	
2,800.00	2,785.83	2,803.46	2,778.63	10.28	10.42	44.95	227.68	-181.80	67.20	46.91	20.29	3.312	
2,900.00	2,885.08	2,903.48	2,877.63	10.67	10.82	44.75	237.91	-191.22	69.28	48.23	21.05	3.291	
3,000.00	2,984.33	2,996.49	2,976.64	11.07	11.20	44.57	248.15	-200.64	71.36	49.57	21.79	3.275	
3,100.00	3,083.58	3,103.53	3,075.64	11.46	11.62	44.39	258.39	-210.06	73.44	50.86	22.58	3.253	
3,200.00	3,182.83	3,196.45	3,174.65	11.85	12.00	44.23	268.63	-219.48	75.53	52.21	23.31	3.239	
3,300.00	3,282.08	3,296.43	3,273.66	12.24	12.40	44.08	278.87	-228.89	77.61	53.53	24.08	3.223	
3,400.00	3,381.33	3,403.59	3,372.66	12.63	12.83	43.93	289.10	-238.31	79.69	54.83	24.87	3.205	
3,500.00	3,480.58	3,503.62	3,471.67	13.03	13.23	43.79	299.34	-247.73	81.78	56.15	25.63	3.191	
3,600.00	3,579.83	3,603.64	3,570.67	13.42	13.63	43.66	309.58	-257.15	83.86	57.47	26.39	3.177	
3,700.00	3,679.08	3,696.34	3,669.68	13.81	14.00	43.53	319.82	-266.57	85.95	58.82	27.13	3.168	
3,800.00	3,778.32	3,796.32	3,768.68	14.20	14.41	43.41	330.06	-275.98	88.03	60.14	27.89	3.156	
3,900.00	3,877.57	3,903.70	3,867.69	14.60	14.84	43.30	340.29	-285.40	90.12	61.44	28.68	3.142	
4,000.00	3,976.82	3,996.27	3,966.69	14.99	15.21	43.19	350.53	-294.82	92.21	62.79	29.42	3.134	
4,100.00	4,076.07	4,103.75	4,065.70	15.38	15.64	43.08	360.77	-304.24	94.29	64.08	30.21	3.121	
4,200.00	4,175.32	4,203.77	4,164.71	15.77	16.05	42.99	371.01	-313.65	96.38	65.41	30.97	3.112	
4,300.00	4,274.57	4,303.79	4,263.71	16.17	16.45	42.89	381.25	-323.07	98.47	66.73	31.74	3.103	
4,400.00	4,373.82	4,396.19	4,362.72	16.56	16.82	42.80	391.48	-332.49	100.55	68.08	32.47	3.097	
4,500.00	4,473.07	4,496.16	4,461.72	16.95	17.22	42.71	401.72	-341.91	102.64	69.41	33.23	3.088	
4,600.00	4,572.32	4,603.86	4,560.73	17.35	17.66	42.63	411.96	-351.33	104.73	70.70	34.03	3.078	
4,700.00	4,671.57	4,703.88	4,659.73	17.74	18.06	42.54	422.20	-360.74	106.82	72.03	34.79	3.070	
4,800.00	4,770.82	4,796.10	4,758.74	18.13	18.43	42.47	432.44	-370.16	108.91	73.38	35.52	3.066	
4,900.00	4,870.07	4,896.08	4,857.74	18.53	18.83	42.39	442.67	-379.58	111.00	74.71	36.29	3.059	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #202H - Lateral - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,969.32	4,996.06	4,956.75	18.92	19.24	42.32	452.91	-389.00	113.08	76.03	37.05	3.052		
5,100.00	5,068.57	5,103.97	5,055.76	19.31	19.67	42.25	463.15	-398.42	115.17	77.33	37.84	3.043		
5,200.00	5,167.82	5,203.99	5,154.76	19.70	20.08	42.18	473.39	-407.83	117.26	78.65	38.61	3.037		
5,300.00	5,267.07	5,304.01	5,253.77	20.10	20.48	42.12	483.63	-417.25	119.35	79.98	39.37	3.031		
5,400.00	5,366.32	5,404.03	5,352.77	20.49	20.88	42.06	493.86	-426.67	121.44	81.30	40.14	3.026		
5,500.00	5,465.57	5,504.05	5,451.78	20.88	21.29	41.99	504.10	-436.09	123.53	82.63	40.90	3.020		
5,600.00	5,564.81	5,604.08	5,550.78	21.28	21.69	41.94	514.34	-445.50	125.62	83.96	41.66	3.015		
5,700.00	5,664.06	5,704.10	5,649.79	21.67	22.09	41.88	524.58	-454.92	127.71	85.28	42.43	3.010		
5,800.00	5,763.31	5,804.12	5,748.79	22.07	22.50	41.83	534.82	-464.34	129.80	86.61	43.19	3.005		
5,900.00	5,862.56	5,895.86	5,847.80	22.46	22.87	41.77	545.05	-473.76	131.89	87.97	43.92	3.003		
6,000.00	5,961.81	6,004.16	5,946.81	22.85	23.30	41.72	555.29	-483.18	133.98	89.26	44.72	2.996		
6,100.00	6,061.05	6,095.81	6,045.81	23.25	23.67	41.67	565.53	-492.59	136.07	90.62	45.45	2.994		
6,200.00	6,160.31	6,195.79	6,144.82	23.64	24.08	41.62	575.77	-502.01	138.16	91.95	46.21	2.990		
6,300.00	6,259.56	6,295.77	6,243.82	24.03	24.48	41.58	586.01	-511.43	140.25	93.28	46.98	2.986		
6,400.00	6,358.81	6,398.37	6,345.56	24.43	24.89	41.77	595.78	-520.42	141.55	93.79	47.77	2.963		
6,500.00	6,458.06	6,501.40	6,448.03	24.82	25.28	42.63	603.58	-527.60	140.73	92.16	48.57	2.897		
6,523.00	6,480.89	6,525.07	6,471.62	24.91	25.37	42.92	605.09	-528.98	140.24	91.48	48.75	2.876		
6,600.00	6,557.40	6,604.28	6,550.62	25.21	25.66	43.96	609.35	-532.90	138.38	89.01	49.37	2.803		
6,700.00	6,657.00	6,707.06	6,653.27	25.59	26.02	45.29	613.07	-536.33	135.83	85.69	50.14	2.709		
6,800.00	6,756.79	6,809.72	6,755.90	25.95	26.36	46.61	614.76	-537.88	133.14	82.27	50.87	2.617		
6,900.00	6,856.72	6,910.55	6,856.72	26.30	26.69	47.73	614.87	-537.98	130.73	79.13	51.60	2.534		
6,991.29	6,948.00	7,001.82	6,948.00	26.60	26.99	0.09	614.87	-537.98	130.00	77.77	52.23	2.489		
7,000.00	6,956.71	7,010.54	6,956.71	26.63	27.01	0.09	614.87	-537.98	130.00	77.71	52.29	2.486		
7,100.00	7,056.71	7,110.54	7,056.71	26.96	27.34	0.09	614.87	-537.98	130.00	77.04	52.96	2.455		
7,200.00	7,156.71	7,210.54	7,156.71	27.29	27.66	0.09	614.87	-537.98	130.00	76.37	53.63	2.424		
7,300.00	7,256.71	7,310.54	7,256.71	27.62	27.99	0.09	614.87	-537.98	130.00	75.69	54.31	2.394		
7,400.00	7,356.71	7,410.54	7,356.71	27.95	28.32	0.09	614.87	-537.98	130.00	75.02	54.98	2.364		
7,500.00	7,456.71	7,510.54	7,456.71	28.28	28.64	0.09	614.87	-537.98	130.00	74.34	55.66	2.336		
7,600.00	7,556.71	7,610.54	7,556.71	28.61	28.97	0.09	614.87	-537.98	130.00	73.67	56.33	2.308		
7,700.00	7,656.71	7,710.54	7,656.71	28.95	29.30	0.09	614.87	-537.98	130.00	72.99	57.01	2.280		
7,800.00	7,756.71	7,810.54	7,756.71	29.28	29.63	0.09	614.87	-537.98	130.00	72.31	57.69	2.254		
7,900.00	7,856.71	7,910.54	7,856.71	29.61	29.96	0.09	614.87	-537.98	130.00	71.64	58.36	2.227		
8,000.00	7,956.71	8,010.54	7,956.71	29.95	30.29	0.09	614.87	-537.98	130.00	70.96	59.04	2.202		
8,100.00	8,056.71	8,110.54	8,056.71	30.28	30.63	0.09	614.87	-537.98	130.00	70.28	59.72	2.177		
8,200.00	8,156.71	8,210.54	8,156.71	30.62	30.96	0.09	614.87	-537.98	130.00	69.60	60.40	2.152		
8,300.00	8,256.71	8,310.54	8,256.71	30.96	31.29	0.09	614.87	-537.98	130.00	68.91	61.09	2.128		
8,400.00	8,356.71	8,410.54	8,356.71	31.29	31.63	0.09	614.87	-537.98	130.00	68.23	61.77	2.105		
8,500.00	8,456.71	8,510.54	8,456.71	31.63	31.96	0.09	614.87	-537.98	130.00	67.55	62.45	2.082		
8,600.00	8,556.71	8,610.54	8,556.71	31.97	32.29	0.09	614.87	-537.98	130.00	66.86	63.14	2.059		
8,700.00	8,656.71	8,710.54	8,656.71	32.31	32.63	0.09	614.87	-537.98	130.00	66.18	63.82	2.037		
8,800.00	8,756.71	8,810.54	8,756.71	32.64	32.96	0.09	614.87	-537.98	130.00	65.49	64.51	2.015		
8,900.00	8,856.71	8,910.54	8,856.71	32.98	33.30	0.09	614.87	-537.98	130.00	64.81	65.19	1.994		
9,000.00	8,956.71	9,010.54	8,956.71	33.32	33.64	0.09	614.87	-537.98	130.00	64.12	65.88	1.973		
9,100.00	9,056.71	9,110.54	9,056.71	33.66	33.97	0.09	614.87	-537.98	130.00	63.43	66.57	1.953		
9,200.00	9,156.71	9,210.54	9,156.71	34.00	34.31	0.09	614.87	-537.98	130.00	62.74	67.26	1.933		
9,300.00	9,256.71	9,310.54	9,256.71	34.34	34.65	0.09	614.87	-537.98	130.00	62.05	67.95	1.913		
9,300.98	9,257.70	9,311.52	9,257.70	34.35	34.65	0.09	614.87	-537.98	130.00	62.05	67.95	1.913		
9,400.00	9,356.71	9,409.46	9,355.11	34.68	34.95	4.03	614.86	-529.03	130.32	61.52	68.79	1.894 SF		
9,500.00	9,456.71	9,502.69	9,445.15	35.02	35.19	14.23	614.82	-505.24	134.56	64.81	69.74	1.929		
9,600.00	9,556.71	9,586.37	9,521.73	35.37	35.39	27.10	614.76	-471.71	150.05	80.54	69.51	2.159		
9,700.00	9,656.71	9,658.92	9,583.58	35.71	35.54	38.78	614.70	-433.87	181.90	114.82	67.08	2.712		

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #202H - Lateral - Plan #1													Offset Site Error: 0 00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0 00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.00	9,756.71	9,720.56	9,632.02	36.05	35.66	47.66	614.64	-395.80	229.49	166.12	63.37	3.621	
9,900.00	9,856.71	9,772.45	9,669.42	36.39	35.76	53.97	614.58	-359.87	289.31	229.68	59.63	4.852	
10,000.00	9,956.71	9,816.05	9,698.24	36.74	35.85	58.43	614.53	-327.16	357.99	301.59	56.40	6.348	
10,100.00	10,056.71	9,850.00	9,718.91	37.08	35.92	61.42	614.49	-300.23	433.06	379.50	53.56	8.086	
10,200.00	10,156.71	9,883.96	9,737.95	37.42	36.01	64.04	614.44	-272.12	512.79	461.14	51.65	9.929	
10,300.00	10,256.71	9,910.56	9,751.68	37.77	36.08	65.85	614.40	-249.34	596.05	546.06	49.99	11.924	
10,398.53	10,355.24	9,933.14	9,762.49	38.10	36.16	67.24	614.37	-229.52	680.73	632.03	48.70	13.978	
10,400.00	10,356.71	9,933.45	9,762.64	38.11	36.16	-13.38	614.37	-229.24	682.02	633.33	48.68	14.009	
10,450.00	10,406.65	9,950.00	9,770.06	38.27	36.21	-10.85	614.35	-214.45	724.74	676.43	48.31	15.000	
10,500.00	10,456.19	9,950.00	9,770.06	38.42	36.21	-9.58	614.35	-214.45	765.72	718.48	47.24	16.210	
10,550.00	10,504.96	9,969.41	9,778.21	38.56	36.29	-8.01	614.32	-196.83	804.73	757.86	46.87	17.169	
10,600.00	10,552.59	9,982.84	9,783.50	38.70	36.34	-6.94	614.30	-184.49	841.81	795.56	46.25	18.200	
10,650.00	10,598.72	10,000.00	9,789.83	38.83	36.41	-6.03	614.27	-168.54	876.78	831.04	45.74	19.171	
10,700.00	10,643.00	10,000.00	9,789.83	38.94	36.41	-5.59	614.27	-168.54	909.67	864.93	44.73	20.335	
10,750.00	10,685.08	10,026.26	9,798.59	39.05	36.54	-4.81	614.23	-143.79	939.88	895.42	44.46	21.142	
10,800.00	10,724.66	10,050.00	9,805.53	39.16	36.66	-4.20	614.20	-121.09	967.96	923.86	44.09	21.953	
10,850.00	10,761.42	10,050.00	9,805.53	39.26	36.66	-3.99	614.20	-121.09	993.41	950.18	43.24	22.977	
10,900.00	10,795.10	10,073.06	9,811.37	39.36	36.80	-3.54	614.16	-98.78	1,016.27	973.37	42.90	23.691	
10,950.00	10,825.42	10,100.00	9,817.04	39.47	36.97	-3.11	614.12	-72.45	1,036.72	994.09	42.64	24.315	
11,000.00	10,852.17	10,105.52	9,818.05	39.60	37.00	-2.96	614.11	-67.02	1,054.18	1,012.08	42.10	25.040	
11,050.00	10,875.14	10,126.93	9,821.59	39.76	37.15	-2.67	614.08	-45.91	1,068.99	1,027.14	41.85	25.544	
11,100.00	10,894.15	10,150.00	9,824.87	39.96	37.32	-2.40	614.04	-23.07	1,080.77	1,039.11	41.66	25.941	
11,150.00	10,909.05	10,172.20	9,827.50	40.21	37.50	-2.16	614.00	-1.03	1,089.50	1,047.97	41.52	26.238	
11,198.52	10,919.49	10,200.00	9,830.08	40.48	37.73	-1.90	613.96	26.65	1,095.04	1,053.57	41.47	26.404	
11,200.00	10,919.75	10,200.00	9,830.08	40.49	37.73	-1.90	613.96	26.65	1,095.16	1,053.69	41.47	26.410	
11,250.00	10,927.06	10,217.96	9,831.31	40.82	37.89	-1.73	613.93	44.57	1,098.58	1,057.15	41.43	26.515	
11,300.00	10,931.78	10,250.00	9,832.68	41.20	38.18	-1.46	613.88	76.58	1,100.75	1,059.26	41.49	26.529	
11,350.00	10,933.88	10,263.78	9,832.94	41.61	38.31	-1.34	613.85	90.36	1,101.37	1,059.76	41.61	26.469	
11,365.19	10,934.00	10,274.73	9,833.00	41.74	38.41	-1.24	613.84	101.30	1,101.33	1,059.68	41.65	26.442	
11,400.00	10,934.00	10,300.55	9,833.00	42.06	38.68	-1.05	613.79	127.12	1,101.19	1,059.43	41.76	26.372	
11,500.00	10,934.00	10,400.18	9,833.00	43.09	39.80	-0.43	613.63	226.40	1,101.03	1,058.96	42.07	26.172	
11,600.00	10,934.00	10,500.41	9,833.00	44.29	41.10	-0.09	613.47	326.16	1,101.00	1,058.52	42.48	25.915	
11,654.20	10,934.00	10,553.76	9,833.00	45.01	41.88	-0.01	613.38	380.34	1,101.00	1,058.25	42.75	25.754	
11,678.26	10,934.00	10,577.82	9,833.00	45.32	42.23	0.00	613.35	404.39	1,101.00	1,058.13	42.87	25.680	
11,700.00	10,934.00	10,600.44	9,833.00	45.63	42.56	0.00	613.31	426.14	1,101.00	1,058.01	42.99	25.610	
11,800.00	10,934.00	10,700.44	9,833.00	47.10	44.15	0.00	613.15	526.14	1,101.00	1,057.44	43.56	25.276	
11,900.00	10,934.00	10,800.44	9,833.00	48.69	45.86	0.00	612.99	626.14	1,101.00	1,056.82	44.18	24.922	
12,000.00	10,934.00	10,900.44	9,833.00	50.38	47.68	0.00	612.82	726.14	1,101.00	1,056.16	44.84	24.553	
12,100.00	10,934.00	11,000.44	9,833.00	52.18	49.60	0.00	612.66	826.14	1,101.00	1,055.45	45.55	24.172	
12,200.00	10,934.00	11,100.44	9,833.00	54.06	51.60	0.00	612.50	926.14	1,101.00	1,054.70	46.30	23.780	
12,300.00	10,934.00	11,200.44	9,833.00	56.03	53.68	0.00	612.34	1,026.14	1,101.00	1,053.91	47.09	23.380	
12,400.00	10,934.00	11,300.44	9,833.00	58.06	55.82	0.00	612.18	1,126.14	1,101.00	1,053.08	47.92	22.975	
12,500.00	10,934.00	11,400.44	9,833.00	60.16	58.02	0.00	612.01	1,226.14	1,101.00	1,052.21	48.79	22.568	
12,600.00	10,934.00	11,500.44	9,833.00	62.32	60.28	0.00	611.85	1,326.14	1,101.00	1,051.31	49.69	22.159	
12,700.00	10,934.00	11,600.44	9,833.00	64.53	62.59	0.00	611.69	1,426.14	1,101.00	1,050.38	50.62	21.750	
12,800.00	10,934.00	11,700.44	9,833.00	66.79	64.93	0.00	611.53	1,526.14	1,101.00	1,049.42	51.58	21.344	
12,900.00	10,934.00	11,800.44	9,833.00	69.09	67.32	0.00	611.37	1,626.14	1,101.00	1,048.42	52.58	20.941	
13,000.00	10,934.00	11,900.44	9,833.00	71.43	69.74	0.00	611.20	1,726.14	1,101.00	1,047.40	53.60	20.542	
13,100.00	10,934.00	12,000.44	9,833.00	73.81	72.19	0.00	611.04	1,826.14	1,101.00	1,046.36	54.64	20.149	
13,200.00	10,934.00	12,100.44	9,833.00	76.21	74.66	0.00	610.88	1,926.14	1,101.00	1,045.29	55.71	19.762	
13,300.00	10,934.00	12,200.44	9,833.00	78.65	77.16	0.00	610.72	2,026.14	1,101.00	1,044.19	56.81	19.381	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #202H - Lateral - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,400.00	10,934.00	12,300.44	9,833.00	81.11	79.69	0.00	610.56	2,126.14	1,101.00	1,043.08	57.92	19.008	
13,500.00	10,934.00	12,400.44	9,833.00	83.60	82.23	0.00	610.39	2,226.14	1,101.00	1,041.94	59.06	18.642	
13,600.00	10,934.00	12,500.44	9,833.00	86.10	84.80	0.00	610.23	2,326.14	1,101.00	1,040.79	60.21	18.285	
13,700.00	10,934.00	12,600.44	9,833.00	88.63	87.38	0.00	610.07	2,426.14	1,101.00	1,039.61	61.39	17.935	
13,800.00	10,934.00	12,700.44	9,833.00	91.17	89.97	0.00	609.91	2,526.14	1,101.00	1,038.42	62.58	17.593	
13,900.00	10,934.00	12,800.44	9,833.00	93.74	92.58	0.00	609.75	2,626.14	1,101.00	1,037.21	63.79	17.260	
14,000.00	10,934.00	12,900.44	9,833.00	96.31	95.21	0.00	609.58	2,726.14	1,101.00	1,035.99	65.01	16.936	
14,100.00	10,934.00	13,000.44	9,833.00	98.91	97.84	0.00	609.42	2,826.14	1,101.00	1,034.75	66.25	16.619	
14,200.00	10,934.00	13,100.44	9,833.00	101.51	100.49	0.00	609.26	2,926.14	1,101.00	1,033.50	67.50	16.311	
14,300.00	10,934.00	13,200.44	9,833.00	104.13	103.15	0.00	609.10	3,026.14	1,101.00	1,032.24	68.76	16.011	
14,400.00	10,934.00	13,300.44	9,833.00	106.76	105.81	0.00	608.94	3,126.14	1,101.00	1,030.96	70.04	15.720	
14,500.00	10,934.00	13,400.44	9,833.00	109.39	108.49	0.00	608.77	3,226.14	1,101.00	1,029.67	71.33	15.436	
14,600.00	10,934.00	13,500.44	9,833.00	112.04	111.17	0.00	608.61	3,326.14	1,101.00	1,028.37	72.63	15.160	
14,700.00	10,934.00	13,600.44	9,833.00	114.70	113.86	0.00	608.45	3,426.14	1,101.00	1,027.06	73.94	14.891	
14,800.00	10,934.00	13,700.44	9,833.00	117.37	116.56	0.00	608.29	3,526.14	1,101.00	1,025.74	75.26	14.630	
14,900.00	10,934.00	13,800.44	9,833.00	120.04	119.26	0.00	608.13	3,626.14	1,101.00	1,024.41	76.59	14.376	
15,000.00	10,934.00	13,900.44	9,833.00	122.72	121.97	0.00	607.96	3,726.14	1,101.00	1,023.08	77.92	14.129	
15,100.00	10,934.00	14,000.44	9,833.00	125.41	124.69	0.00	607.80	3,826.14	1,101.00	1,021.73	79.27	13.889	
15,200.00	10,934.00	14,100.44	9,833.00	128.11	127.41	0.00	607.64	3,926.13	1,101.00	1,020.38	80.62	13.656	
15,300.00	10,934.00	14,200.44	9,833.00	130.81	130.14	0.00	607.48	4,026.13	1,101.00	1,019.01	81.99	13.429	
15,400.00	10,934.00	14,300.44	9,833.00	133.51	132.87	0.00	607.32	4,126.13	1,101.00	1,017.64	83.36	13.209	
15,500.00	10,934.00	14,400.44	9,833.00	136.23	135.60	0.00	607.15	4,226.13	1,101.00	1,016.27	84.73	12.994	
15,600.00	10,934.00	14,500.44	9,833.00	138.94	138.34	0.00	606.99	4,326.13	1,101.00	1,014.89	86.11	12.785	
15,700.00	10,934.00	14,600.44	9,833.00	141.67	141.09	0.00	606.83	4,426.13	1,101.00	1,013.50	87.50	12.582	
15,718.17	10,934.00	14,617.74	9,833.00	142.16	141.56	0.00	606.80	4,444.31	1,101.00	1,013.25	87.75	12.547	

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #206H - Lateral - Plan #3													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	179.99	-60.03	0.01	60.03					
100.00	100.00	100.00	100.00	0.13	0.13	179.99	-60.03	0.01	60.03	59.78	0.26	234.220		
200.00	200.00	200.00	200.00	0.49	0.49	179.99	-60.03	0.01	60.03	59.06	0.97	61.682		
300.00	300.00	300.00	300.00	0.85	0.85	179.99	-60.03	0.01	60.03	58.34	1.69	35.518		
400.00	400.00	400.00	400.00	1.20	1.20	179.99	-60.03	0.01	60.03	57.63	2.41	24.939		
500.00	500.00	500.00	500.00	1.56	1.56	179.99	-60.03	0.01	60.03	56.91	3.12	19.216		
600.00	600.00	600.00	600.00	1.92	1.92	179.99	-60.03	0.01	60.03	56.19	3.84	15.629 CC		
700.00	699.99	700.41	700.40	2.28	2.27	-131.74	-59.69	-1.26	60.57	56.01	4.55	13.308 ES		
800.00	799.91	800.80	800.70	2.63	2.63	-130.91	-58.65	-5.08	62.17	56.91	5.26	11.826		
900.00	899.69	901.14	900.83	2.99	2.98	-129.61	-56.93	-11.44	64.87	58.90	5.97	10.864		
1,000.00	999.27	1,001.41	1,000.68	3.35	3.34	-127.97	-54.52	-20.32	68.70	62.01	6.69	10.262		
1,068.29	1,067.11	1,069.84	1,068.65	3.60	3.60	-126.72	-52.48	-27.84	71.98	64.78	7.20	10.001		
1,100.00	1,098.59	1,101.60	1,100.16	3.72	3.71	-126.05	-51.42	-31.73	73.61	66.18	7.43	9.906		
1,200.00	1,197.84	1,201.48	1,199.11	4.09	4.09	-123.45	-47.86	-44.85	78.70	70.52	8.18	9.622		
1,300.00	1,297.09	1,301.29	1,297.98	4.47	4.47	-121.13	-44.29	-58.02	83.93	74.99	8.94	9.392		
1,400.00	1,396.34	1,401.10	1,396.85	4.85	4.86	-119.08	-40.72	-71.19	89.27	79.57	9.70	9.204		
1,500.00	1,495.59	1,500.91	1,495.72	5.23	5.24	-117.27	-37.14	-84.37	94.72	84.25	10.47	9.050		
1,600.00	1,594.84	1,600.72	1,594.60	5.62	5.64	-115.66	-33.57	-97.54	100.25	89.01	11.24	8.920		
1,700.00	1,694.09	1,700.53	1,693.47	6.00	6.03	-114.21	-29.99	-110.71	105.85	93.84	12.01	8.811		
1,800.00	1,793.34	1,800.33	1,792.34	6.39	6.42	-112.91	-26.42	-123.89	111.52	98.72	12.79	8.719		
1,900.00	1,892.59	1,900.14	1,891.21	6.78	6.82	-111.74	-22.85	-137.06	117.23	103.66	13.57	8.639		
2,000.00	1,991.83	2,000.05	1,990.08	7.16	7.21	-110.67	-19.27	-150.23	122.99	108.64	14.35	8.570		
2,100.00	2,091.08	2,099.76	2,088.95	7.55	7.61	-109.71	-15.70	-163.41	128.79	113.65	15.13	8.510		
2,200.00	2,190.33	2,200.43	2,187.82	7.94	8.01	-108.82	-12.13	-176.58	134.62	118.70	15.92	8.456		
2,300.00	2,289.58	2,300.62	2,285.70	8.33	8.41	-108.01	-8.55	-189.75	140.48	123.77	16.71	8.409		
2,400.00	2,388.83	2,400.81	2,385.57	8.72	8.81	-107.27	-4.98	-202.92	146.36	128.87	17.49	8.367		
2,500.00	2,488.08	2,501.00	2,484.44	9.11	9.21	-106.58	-1.40	-216.10	152.27	133.99	18.28	8.330		
2,600.00	2,587.33	2,601.19	2,583.31	9.50	9.62	-105.94	2.17	-229.27	158.20	139.13	19.07	8.297		
2,700.00	2,686.58	2,698.62	2,682.18	9.89	10.01	-105.35	5.74	-242.44	164.15	144.30	19.84	8.272		
2,800.00	2,785.83	2,801.57	2,781.05	10.28	10.42	-104.80	9.32	-255.62	170.11	149.47	20.64	8.240		
2,900.00	2,885.08	2,901.76	2,879.93	10.67	10.82	-104.29	12.89	-268.79	176.09	154.66	21.43	8.216		
3,000.00	2,984.33	3,001.95	2,978.80	11.07	11.23	-103.81	16.46	-281.96	182.08	159.86	22.22	8.194		
3,100.00	3,083.58	3,097.85	3,077.57	11.46	11.61	-103.36	20.04	-295.14	188.08	165.09	22.99	8.180		
3,200.00	3,182.83	3,202.34	3,176.54	11.85	12.03	-102.94	23.61	-308.31	194.10	170.30	23.80	8.155		
3,300.00	3,282.08	3,302.53	3,275.41	12.24	12.44	-102.55	27.19	-321.48	200.12	175.53	24.59	8.138		
3,400.00	3,381.33	3,402.72	3,374.28	12.63	12.84	-102.17	30.76	-334.66	206.15	180.77	25.38	8.123		
3,500.00	3,480.58	3,502.91	3,473.15	13.03	13.25	-101.82	34.33	-347.83	212.19	186.02	26.17	8.108		
3,600.00	3,579.83	3,603.10	3,572.03	13.42	13.65	-101.49	37.91	-361.00	218.24	191.28	26.96	8.095		
3,700.00	3,679.08	3,703.29	3,670.90	13.81	14.06	-101.18	41.48	-374.18	224.30	196.54	27.75	8.082		
3,800.00	3,778.32	3,803.48	3,769.77	14.20	14.46	-100.88	45.05	-387.35	230.36	201.82	28.54	8.071		
3,900.00	3,877.57	3,896.33	3,868.64	14.60	14.83	-100.60	48.63	-400.52	236.42	207.12	29.30	8.068		
4,000.00	3,976.82	4,003.86	3,967.51	14.99	15.27	-100.33	52.20	-413.70	242.50	212.37	30.12	8.050		
4,100.00	4,076.07	4,104.05	4,066.38	15.38	15.67	-100.08	55.77	-426.87	248.57	217.66	30.91	8.041		
4,200.00	4,175.32	4,204.24	4,165.26	15.77	16.08	-99.84	59.35	-440.04	254.66	222.95	31.70	8.032		
4,300.00	4,274.57	4,304.43	4,264.13	16.17	16.48	-99.61	62.92	-453.22	260.74	228.25	32.49	8.024		
4,400.00	4,373.82	4,404.63	4,363.00	16.56	16.89	-99.39	66.50	-466.39	266.83	233.55	33.29	8.016		
4,500.00	4,473.07	4,495.18	4,461.87	16.95	17.26	-99.17	70.07	-479.56	272.93	238.89	34.04	8.018		
4,600.00	4,572.32	4,594.99	4,560.74	17.35	17.66	-98.97	73.64	-492.73	279.02	244.20	34.83	8.012		
4,700.00	4,671.57	4,695.93	4,660.78	17.74	18.07	-98.84	77.17	-505.75	285.03	249.40	35.62	8.001		
4,800.00	4,770.82	4,798.12	4,762.33	18.13	18.46	-99.16	80.13	-516.66	290.33	253.91	36.42	7.972		
4,900.00	4,870.07	4,900.23	4,864.08	18.53	18.84	-99.97	82.38	-524.93	294.86	257.66	37.21	7.925		

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #206H - Lateral - Plan #3													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,969.32	5,002.14	4,965.82	18.92	19.21	-101.25	83.91	-530.57	298.73	260.75	37.98	7.866	
5,100.00	5,068.57	5,103.69	5,067.32	19.31	19.56	-103.00	84.73	-533.59	302.09	263.36	38.73	7.799	
5,200.00	5,167.82	5,204.19	5,167.82	19.70	19.89	-105.14	84.88	-534.15	305.22	265.75	39.47	7.734	
5,300.00	5,267.07	5,303.44	5,267.07	20.10	20.21	-107.32	84.88	-534.15	308.66	268.47	40.18	7.681	
5,400.00	5,366.32	5,402.69	5,366.32	20.49	20.53	-109.44	84.88	-534.15	312.54	271.65	40.90	7.642	
5,500.00	5,465.57	5,501.94	5,465.57	20.88	20.85	-111.52	84.88	-534.15	316.85	275.25	41.60	7.616	
5,600.00	5,564.81	5,601.19	5,564.81	21.28	21.17	-113.53	84.88	-534.15	321.56	279.26	42.30	7.602	
5,700.00	5,664.06	5,700.44	5,664.06	21.67	21.50	-115.49	84.88	-534.15	326.67	283.67	43.00	7.597	
5,800.00	5,763.31	5,800.31	5,763.31	22.07	21.82	-117.38	84.88	-534.15	332.15	288.45	43.69	7.602	
5,900.00	5,862.56	5,901.06	5,862.56	22.46	22.16	-119.21	84.88	-534.15	337.98	293.59	44.39	7.615	
6,000.00	5,961.81	6,001.81	5,961.81	22.85	22.49	-120.98	84.88	-534.15	344.14	299.07	45.08	7.635	
6,100.00	6,061.06	6,102.56	6,061.06	23.25	22.82	-122.68	84.88	-534.15	350.63	304.87	45.76	7.662	
6,200.00	6,160.31	6,203.31	6,160.31	23.64	23.16	-124.32	84.88	-534.15	357.42	310.97	46.45	7.695	
6,300.00	6,259.56	6,304.06	6,259.56	24.03	23.49	-125.90	84.88	-534.15	364.49	317.36	47.13	7.734	
6,400.00	6,358.81	6,404.81	6,358.81	24.43	23.83	-127.42	84.88	-534.15	371.82	324.01	47.81	7.777	
6,500.00	6,458.06	6,505.56	6,458.06	24.82	24.16	-128.88	84.88	-534.15	379.41	330.92	48.49	7.824	
6,523.00	6,480.89	6,517.26	6,480.89	24.91	24.20	-129.21	84.88	-534.15	381.19	332.58	48.61	7.842	
6,600.00	6,557.40	6,606.23	6,557.40	25.21	24.50	-130.26	84.88	-534.15	386.74	337.57	49.17	7.865	
6,700.00	6,657.00	6,706.63	6,657.00	25.59	24.83	-131.32	84.88	-534.15	392.59	342.73	49.85	7.875	
6,800.00	6,756.79	6,806.83	6,756.79	25.95	25.17	-132.05	84.88	-534.15	396.79	346.26	50.53	7.853	
6,900.00	6,856.72	6,906.90	6,856.72	26.30	25.51	-132.47	84.88	-534.15	399.28	348.07	51.20	7.798	
6,991.29	6,948.00	6,984.38	6,948.00	26.60	25.77	179.42	84.88	-534.15	400.01	348.24	51.77	7.726	
7,000.00	6,956.71	7,006.91	6,956.71	26.63	25.84	179.42	84.88	-534.15	400.01	348.14	51.88	7.711	
7,100.00	7,056.71	7,106.91	7,056.71	26.96	26.18	179.42	84.88	-534.15	400.01	347.46	52.55	7.612	
7,200.00	7,156.71	7,206.91	7,156.71	27.29	26.52	179.42	84.88	-534.15	400.01	346.79	53.23	7.515	
7,300.00	7,256.71	7,306.91	7,256.71	27.62	26.86	179.42	84.88	-534.15	400.01	346.11	53.90	7.421	
7,400.00	7,356.71	7,406.91	7,356.71	27.95	27.20	179.42	84.88	-534.15	400.01	345.43	54.58	7.329	
7,500.00	7,456.71	7,506.91	7,456.71	28.28	27.54	179.42	84.88	-534.15	400.01	344.76	55.26	7.239	
7,600.00	7,556.71	7,606.91	7,556.71	28.61	27.88	179.42	84.88	-534.15	400.01	344.08	55.94	7.151	
7,700.00	7,656.71	7,706.91	7,656.71	28.95	28.22	179.42	84.88	-534.15	400.01	343.40	56.62	7.065	
7,800.00	7,756.71	7,806.91	7,756.71	29.28	28.56	179.42	84.88	-534.15	400.01	342.72	57.30	6.981	
7,900.00	7,856.71	7,906.91	7,856.71	29.61	28.90	179.42	84.88	-534.15	400.01	342.04	57.98	6.899	
8,000.00	7,956.71	8,006.91	7,956.71	29.95	29.24	179.42	84.88	-534.15	400.01	341.35	58.66	6.819	
8,100.00	8,056.71	8,106.91	8,056.71	30.28	29.58	179.42	84.88	-534.15	400.01	340.67	59.34	6.741	
8,200.00	8,156.71	8,206.91	8,156.71	30.62	29.93	179.42	84.88	-534.15	400.01	339.99	60.03	6.664	
8,300.00	8,256.71	8,306.91	8,256.71	30.96	30.27	179.42	84.88	-534.15	400.01	339.30	60.71	6.589	
8,400.00	8,356.71	8,406.91	8,356.71	31.29	30.61	179.42	84.88	-534.15	400.01	338.62	61.40	6.515	
8,500.00	8,456.71	8,506.91	8,456.71	31.63	30.96	179.42	84.88	-534.15	400.01	337.93	62.08	6.443	
8,600.00	8,556.71	8,606.91	8,556.71	31.97	31.30	179.42	84.88	-534.15	400.01	337.24	62.77	6.373	
8,700.00	8,656.71	8,706.91	8,656.71	32.31	31.64	179.42	84.88	-534.15	400.01	336.56	63.46	6.304	
8,800.00	8,756.71	8,806.91	8,756.71	32.64	31.99	179.42	84.88	-534.15	400.01	335.87	64.15	6.236	
8,900.00	8,856.71	8,906.91	8,856.71	32.98	32.33	179.42	84.88	-534.15	400.01	335.18	64.84	6.170	
9,000.00	8,956.71	9,006.91	8,956.71	33.32	32.68	179.42	84.88	-534.15	400.01	334.49	65.52	6.105	
9,100.00	9,056.71	9,106.91	9,056.71	33.66	33.02	179.42	84.88	-534.15	400.01	333.80	66.21	6.041	
9,200.00	9,156.71	9,206.91	9,156.71	34.00	33.37	179.42	84.88	-534.15	400.01	333.11	66.91	5.979	
9,300.00	9,256.71	9,293.09	9,256.71	34.34	33.67	179.42	84.88	-534.15	400.01	332.47	67.55	5.922	
9,400.00	9,356.71	9,383.68	9,347.11	34.68	33.96	178.78	84.12	-529.69	400.96	332.85	68.11	5.887 SF	
9,500.00	9,456.71	9,488.91	9,430.56	35.02	34.21	176.43	81.26	-513.00	405.24	336.78	68.46	5.919	
9,600.00	9,556.71	9,547.59	9,504.60	35.37	34.42	172.84	76.81	-486.92	414.57	346.09	68.48	6.054	
9,700.00	9,656.71	9,617.88	9,567.13	35.71	34.60	168.67	71.41	-455.36	431.09	363.13	67.96	6.343	
9,800.00	9,756.71	9,679.29	9,618.19	36.05	34.76	164.48	65.67	-421.79	456.58	389.80	66.78	6.837	

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

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #206H - Lateral - Plan #3													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,900.00	9,856.71	9,732.25	9,659.09	36.39	34.90	160.61	60.01	-388.66	491.86	426.87	64.99	7.568		
10,000.00	9,956.71	9,777.65	9,691.55	36.74	35.04	157.20	54.66	-357.39	536.73	473.95	62.78	8.549		
10,100.00	10,056.71	9,816.54	9,717.29	37.08	35.17	154.29	49.75	-328.66	590.29	529.88	60.41	9.772		
10,200.00	10,156.71	9,850.00	9,737.81	37.42	35.28	151.81	45.30	-302.62	651.30	593.22	58.09	11.213		
10,300.00	10,256.71	9,878.75	9,754.19	37.77	35.40	149.73	41.32	-279.32	718.53	662.58	55.95	12.842		
10,398.53	10,355.24	9,900.00	9,765.52	38.10	35.49	148.23	38.29	-261.61	789.75	735.77	53.98	14.630		
10,400.00	10,356.71	9,900.00	9,765.52	38.11	35.49	67.38	38.29	-261.61	790.85	736.91	53.94	14.661		
10,450.00	10,406.65	9,915.82	9,773.51	38.27	35.56	61.38	35.99	-248.15	827.94	774.72	53.22	15.556		
10,500.00	10,456.19	9,928.60	9,779.70	38.42	35.62	56.14	34.11	-237.13	864.59	812.14	52.45	16.483		
10,550.00	10,504.96	9,950.00	9,789.49	38.56	35.72	51.21	30.90	-218.37	900.57	848.59	51.97	17.327		
10,600.00	10,552.59	9,950.00	9,789.49	38.70	35.72	47.53	30.90	-218.37	935.38	884.42	50.96	18.355		
10,650.00	10,598.72	9,970.25	9,798.09	38.83	35.83	43.87	27.81	-200.31	968.93	918.39	50.54	19.171		
10,700.00	10,643.00	9,984.99	9,803.95	38.94	35.91	40.85	25.54	-186.98	1,001.07	951.03	50.04	20.007		
10,750.00	10,685.08	10,000.00	9,809.55	39.05	36.00	38.28	23.19	-173.25	1,031.58	981.98	49.60	20.800		
10,800.00	10,724.66	10,015.39	9,814.91	39.16	36.09	36.10	20.76	-159.02	1,060.31	1,011.08	49.23	21.538		
10,850.00	10,761.42	10,030.97	9,819.94	39.26	36.19	34.27	18.27	-144.49	1,087.14	1,038.20	48.94	22.214		
10,900.00	10,795.10	10,050.00	9,825.54	39.36	36.31	32.75	15.21	-126.57	1,111.96	1,063.18	48.78	22.795		
10,950.00	10,825.42	10,050.00	9,825.54	39.47	36.31	31.38	15.21	-126.57	1,134.84	1,086.42	48.42	23.437		
11,000.00	10,852.17	10,078.77	9,832.85	39.60	36.52	30.41	10.52	-99.14	1,155.14	1,106.57	48.58	23.780		
11,050.00	10,875.14	10,100.00	9,837.34	39.76	36.67	29.62	7.03	-78.69	1,173.41	1,124.71	48.70	24.094		
11,100.00	10,894.15	10,111.60	9,839.47	39.96	36.76	28.91	5.11	-67.46	1,189.29	1,140.47	48.82	24.361		
11,150.00	10,909.05	10,133.46	9,843.02	40.21	36.93	28.49	1.48	-46.18	1,202.71	1,153.56	49.15	24.472		
11,198.52	10,919.49	10,150.00	9,845.38	40.48	37.07	28.17	-1.25	-30.05	1,213.24	1,163.72	49.52	24.499		
11,200.00	10,919.75	10,150.00	9,845.38	40.49	37.07	28.17	-1.25	-30.05	1,213.53	1,164.00	49.53	24.501		
11,250.00	10,927.06	10,178.44	9,848.77	40.82	37.32	28.28	-5.93	-2.20	1,222.42	1,172.32	50.09	24.402		
11,300.00	10,931.78	10,200.00	9,850.78	41.20	37.51	28.34	-9.46	18.97	1,230.18	1,179.50	50.68	24.272		
11,350.00	10,933.88	10,223.46	9,852.42	41.61	37.73	28.48	-13.28	42.06	1,236.79	1,185.43	51.36	24.080		
11,365.19	10,934.00	10,230.30	9,852.78	41.74	37.80	28.52	-14.39	48.80	1,238.57	1,186.99	51.58	24.013		
11,400.00	10,934.00	10,250.00	9,853.57	42.06	37.99	28.89	-17.58	68.22	1,242.66	1,190.55	52.11	23.849		
11,500.00	10,934.00	10,320.70	9,854.00	43.09	38.75	29.98	-28.44	138.08	1,255.30	1,201.63	53.67	23.390		
11,600.00	10,934.00	10,470.03	9,854.00	44.29	40.61	31.16	-43.25	286.63	1,263.75	1,208.31	55.44	22.793		
11,678.26	10,934.00	10,589.30	9,854.00	45.32	42.31	31.43	-46.71	405.83	1,265.70	1,208.94	56.76	22.298		
11,682.49	10,934.00	10,595.77	9,854.00	45.38	42.41	31.43	-46.69	412.30	1,265.69	1,208.86	56.83	22.272		
11,700.00	10,934.00	10,608.55	9,854.00	45.63	42.62	31.43	-46.76	425.08	1,265.71	1,208.63	57.07	22.177		
11,800.00	10,934.00	10,708.55	9,854.00	47.10	44.22	31.43	-46.92	525.08	1,265.71	1,207.10	58.61	21.597		
11,900.00	10,934.00	10,808.55	9,854.00	48.69	45.95	31.43	-47.08	625.08	1,265.71	1,205.43	60.28	20.999		
12,000.00	10,934.00	10,908.55	9,854.00	50.38	47.78	31.43	-47.24	725.08	1,265.71	1,203.64	62.07	20.392		
12,100.00	10,934.00	11,008.55	9,854.00	52.18	49.71	31.43	-47.40	825.08	1,265.71	1,201.73	63.98	19.784		
12,200.00	10,934.00	11,108.55	9,854.00	54.06	51.72	31.43	-47.56	925.08	1,265.71	1,199.72	65.99	19.181		
12,300.00	10,934.00	11,208.55	9,854.00	56.03	53.81	31.43	-47.72	1,025.08	1,265.70	1,197.61	68.09	18.587		
12,400.00	10,934.00	11,308.55	9,854.00	58.06	55.96	31.43	-47.88	1,125.08	1,265.70	1,195.42	70.29	18.007		
12,500.00	10,934.00	11,408.55	9,854.00	60.16	58.18	31.43	-48.04	1,225.08	1,265.70	1,193.15	72.56	17.444		
12,600.00	10,934.00	11,508.55	9,854.00	62.32	60.44	31.43	-48.20	1,325.08	1,265.70	1,190.80	74.90	16.898		
12,700.00	10,934.00	11,608.55	9,854.00	64.53	62.75	31.43	-48.36	1,425.08	1,265.70	1,188.39	77.31	16.372		
12,800.00	10,934.00	11,708.55	9,854.00	66.79	65.10	31.43	-48.52	1,525.08	1,265.70	1,185.93	79.78	15.866		
12,900.00	10,934.00	11,808.55	9,854.00	69.09	67.50	31.43	-48.68	1,625.08	1,265.70	1,183.41	82.30	15.380		
13,000.00	10,934.00	11,908.55	9,854.00	71.43	69.92	31.43	-48.84	1,725.08	1,265.70	1,180.84	84.87	14.914		
13,100.00	10,934.00	12,008.55	9,854.00	73.81	72.37	31.43	-49.00	1,825.08	1,265.70	1,178.22	87.48	14.468		
13,200.00	10,934.00	12,108.55	9,854.00	76.21	74.86	31.43	-49.16	1,925.08	1,265.70	1,175.57	90.14	14.042		
13,300.00	10,934.00	12,208.55	9,854.00	78.65	77.36	31.43	-49.32	2,025.08	1,265.70	1,172.87	92.83	13.635		
13,400.00	10,934.00	12,308.55	9,854.00	81.11	79.89	31.43	-49.48	2,125.08	1,265.70	1,170.15	95.55	13.246		

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #206H - Lateral - Plan #3												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,500.00	10,934.00	12,408.55	9,854.00	83.60	82.44	31.43	-49.64	2,225.08	1,265.70	1,167.39	98.31	12.874	
13,600.00	10,934.00	12,508.55	9,854.00	86.10	85.01	31.43	-49.80	2,325.08	1,265.70	1,164.60	101.10	12.519	
13,700.00	10,934.00	12,608.55	9,854.00	88.63	87.59	31.43	-49.96	2,425.08	1,265.70	1,161.79	103.91	12.180	
13,800.00	10,934.00	12,708.55	9,854.00	91.17	90.19	31.43	-50.12	2,525.08	1,265.70	1,158.95	106.75	11.857	
13,900.00	10,934.00	12,808.55	9,854.00	93.74	92.80	31.43	-50.28	2,625.08	1,265.70	1,156.09	109.61	11.547	
14,000.00	10,934.00	12,908.55	9,854.00	96.31	95.43	31.43	-50.44	2,725.08	1,265.70	1,153.21	112.49	11.252	
14,100.00	10,934.00	13,008.55	9,854.00	98.91	98.07	31.43	-50.60	2,825.08	1,265.70	1,150.31	115.39	10.969	
14,200.00	10,934.00	13,108.55	9,854.00	101.51	100.72	31.43	-50.76	2,925.08	1,265.70	1,147.39	118.31	10.698	
14,300.00	10,934.00	13,208.55	9,854.00	104.13	103.38	31.43	-50.92	3,025.08	1,265.70	1,144.46	121.24	10.439	
14,400.00	10,934.00	13,308.55	9,854.00	106.76	106.04	31.43	-51.08	3,125.08	1,265.70	1,141.51	124.19	10.191	
14,500.00	10,934.00	13,408.55	9,854.00	109.39	108.72	31.43	-51.24	3,225.08	1,265.70	1,138.54	127.16	9.954	
14,600.00	10,934.00	13,508.55	9,854.00	112.04	111.41	31.43	-51.40	3,325.08	1,265.70	1,135.56	130.13	9.726	
14,700.00	10,934.00	13,608.55	9,854.00	114.70	114.10	31.43	-51.56	3,425.08	1,265.70	1,132.57	133.12	9.508	
14,800.00	10,934.00	13,708.55	9,854.00	117.37	116.80	31.43	-51.72	3,525.08	1,265.70	1,129.57	136.12	9.298	
14,900.00	10,934.00	13,808.55	9,854.00	120.04	119.50	31.43	-51.88	3,625.08	1,265.70	1,126.56	139.14	9.097	
15,000.00	10,934.00	13,908.55	9,854.00	122.72	122.22	31.43	-52.04	3,725.08	1,265.70	1,123.54	142.16	8.903	
15,100.00	10,934.00	14,008.55	9,854.00	125.41	124.93	31.43	-52.20	3,825.08	1,265.70	1,120.51	145.19	8.718	
15,200.00	10,934.00	14,108.55	9,854.00	128.11	127.66	31.43	-52.36	3,925.08	1,265.70	1,117.47	148.23	8.539	
15,300.00	10,934.00	14,208.55	9,854.00	130.81	130.38	31.43	-52.52	4,025.08	1,265.70	1,114.42	151.28	8.367	
15,400.00	10,934.00	14,308.55	9,854.00	133.51	133.12	31.43	-52.68	4,125.08	1,265.70	1,111.36	154.34	8.201	
15,500.00	10,934.00	14,408.55	9,854.00	136.23	135.85	31.43	-52.84	4,225.08	1,265.70	1,108.29	157.40	8.041	
15,600.00	10,934.00	14,508.55	9,854.00	138.94	138.59	31.43	-53.00	4,325.08	1,265.69	1,105.22	160.47	7.887	
15,700.00	10,934.00	14,608.55	9,854.00	141.67	141.34	31.43	-53.16	4,425.08	1,265.69	1,102.14	163.55	7.739	
15,718.17	10,934.00	14,626.72	9,854.00	142.16	141.84	31.43	-53.19	4,443.25	1,265.69	1,101.58	164.11	7.712	

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #226H - Lateral - Plan #2													Offset Site Error: 0 00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0 00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	179.98	-90.01	0.04	90.01				
100.00	100.00	100.00	100.00	0.13	0.13	179.98	-90.01	0.04	90.01	89.75	0.26	351.165	
200.00	200.00	200.00	200.00	0.49	0.49	179.98	-90.01	0.04	90.01	89.03	0.97	92.480	
300.00	300.00	300.00	300.00	0.85	0.85	179.98	-90.01	0.04	90.01	88.32	1.69	53.252	
400.00	400.00	400.00	400.00	1.20	1.20	179.98	-90.01	0.04	90.01	87.60	2.41	37.391	
500.00	500.00	500.00	500.00	1.56	1.56	179.98	-90.01	0.04	90.01	86.88	3.12	28.810	
600.00	600.00	600.00	600.00	1.92	1.92	179.98	-90.01	0.04	90.01	86.17	3.84	23.433 CC, ES	
700.00	699.99	700.19	700.18	2.28	2.27	-131.82	-89.90	-1.27	90.77	86.22	4.55	19.956	
800.00	799.91	800.34	800.25	2.63	2.62	-131.18	-89.57	-5.20	93.08	87.83	5.25	17.722	
900.00	899.69	900.41	900.10	2.99	2.97	-130.18	-89.02	-11.73	96.95	90.98	5.96	16.255	
1,000.00	999.27	1,000.35	999.61	3.35	3.33	-128.91	-88.25	-20.85	102.40	95.71	6.69	15.316	
1,068.29	1,067.11	1,068.50	1,067.32	3.60	3.58	-127.93	-87.60	-28.56	107.04	99.85	7.19	14.895	
1,100.00	1,098.59	1,100.12	1,098.69	3.72	3.70	-127.43	-87.27	-32.54	109.38	101.96	7.42	14.741	
1,200.00	1,197.84	1,200.23	1,197.39	4.09	4.08	-125.41	-86.12	-46.25	116.81	108.65	8.17	14.303	
1,300.00	1,297.09	1,300.60	1,296.05	4.47	4.46	-123.56	-84.95	-60.11	124.39	115.47	8.92	13.939	
1,400.00	1,396.34	1,400.96	1,394.71	4.85	4.85	-121.93	-83.79	-73.97	132.08	122.39	9.69	13.635	
1,500.00	1,495.59	1,501.32	1,493.37	5.23	5.24	-120.47	-82.63	-87.83	139.86	129.41	10.46	13.377	
1,600.00	1,594.84	1,601.68	1,592.03	5.62	5.64	-119.17	-81.46	-101.69	147.73	136.50	11.23	13.157	
1,700.00	1,694.09	1,702.05	1,690.69	6.00	6.03	-118.00	-80.30	-115.54	155.66	143.66	12.00	12.968	
1,800.00	1,793.34	1,802.41	1,789.36	6.39	6.43	-116.95	-79.13	-129.40	163.65	150.87	12.78	12.804	
1,900.00	1,892.59	1,902.77	1,888.02	6.78	6.83	-115.99	-77.97	-143.26	171.69	158.13	13.56	12.660	
2,000.00	1,991.83	2,003.14	1,986.68	7.16	7.23	-115.12	-76.81	-157.12	179.77	165.43	14.34	12.534	
2,100.00	2,091.08	2,103.50	2,085.34	7.55	7.63	-114.33	-75.64	-170.98	187.90	172.77	15.13	12.422	
2,200.00	2,190.33	2,203.86	2,184.00	7.94	8.04	-113.60	-74.48	-184.84	196.05	180.14	15.91	12.322	
2,300.00	2,289.58	2,304.22	2,282.66	8.33	8.44	-112.93	-73.31	-198.70	204.23	187.54	16.70	12.233	
2,400.00	2,388.83	2,404.59	2,381.33	8.72	8.84	-112.31	-72.15	-212.56	212.44	194.96	17.48	12.152	
2,500.00	2,488.08	2,504.95	2,479.99	9.11	9.25	-111.73	-70.99	-226.42	220.68	202.41	18.27	12.080	
2,600.00	2,587.33	2,605.31	2,578.65	9.50	9.65	-111.20	-69.82	-240.28	228.93	209.87	19.06	12.014	
2,700.00	2,686.58	2,705.68	2,677.31	9.89	10.06	-110.71	-68.66	-254.14	237.20	217.36	19.84	11.953	
2,800.00	2,785.83	2,793.96	2,775.97	10.28	10.42	-110.24	-67.49	-268.00	245.49	224.90	20.58	11.926	
2,900.00	2,885.08	2,893.60	2,874.63	10.67	10.82	-109.81	-66.33	-281.86	253.79	232.42	21.37	11.876	
3,000.00	2,984.33	3,006.76	2,973.30	11.07	11.28	-109.41	-65.16	-295.72	262.11	239.90	22.21	11.801	
3,100.00	3,083.58	3,107.13	3,071.96	11.46	11.68	-109.03	-64.00	-309.58	270.43	247.43	23.00	11.758	
3,200.00	3,182.83	3,207.49	3,170.62	11.85	12.09	-108.67	-62.84	-323.44	278.77	254.98	23.79	11.719	
3,300.00	3,282.08	3,307.85	3,269.28	12.24	12.50	-108.34	-61.67	-337.30	287.12	262.54	24.58	11.682	
3,400.00	3,381.33	3,408.22	3,387.94	12.63	12.90	-108.02	-60.51	-351.16	295.48	270.11	25.37	11.647	
3,500.00	3,480.58	3,508.58	3,466.60	13.03	13.31	-107.72	-59.34	-365.02	303.85	277.69	26.16	11.615	
3,600.00	3,579.83	3,608.94	3,565.27	13.42	13.72	-107.44	-58.18	-378.88	312.22	285.27	26.95	11.585	
3,700.00	3,679.08	3,709.30	3,663.93	13.81	14.13	-107.17	-57.02	-392.74	320.60	292.86	27.74	11.557	
3,800.00	3,778.32	3,809.67	3,762.59	14.20	14.54	-106.91	-55.85	-406.60	328.99	300.46	28.53	11.531	
3,900.00	3,877.57	3,889.97	3,861.25	14.60	14.86	-106.67	-54.69	-420.46	337.38	308.14	29.24	11.538	
4,000.00	3,976.82	3,989.61	3,959.91	14.99	15.27	-106.44	-53.52	-434.32	345.78	315.76	30.03	11.515	
4,100.00	4,076.07	4,089.25	4,058.57	15.38	15.67	-106.22	-52.36	-448.18	354.19	323.37	30.82	11.493	
4,200.00	4,175.32	4,188.88	4,157.23	15.77	16.08	-106.01	-51.20	-462.04	362.60	330.99	31.61	11.473	
4,300.00	4,274.57	4,288.52	4,255.90	16.17	16.48	-105.81	-50.03	-475.90	371.01	338.62	32.39	11.453	
4,400.00	4,373.82	4,388.16	4,354.56	16.56	16.89	-105.62	-48.87	-489.76	379.43	346.25	33.18	11.435	
4,500.00	4,473.07	4,489.60	4,455.05	16.95	17.30	-105.48	-47.71	-503.56	387.75	353.77	33.98	11.411	
4,600.00	4,572.32	4,593.19	4,557.97	17.35	17.70	-105.66	-46.72	-515.28	395.21	360.43	34.79	11.362	
4,700.00	4,671.57	4,696.79	4,661.18	17.74	18.09	-106.22	-45.97	-524.21	401.72	366.14	35.58	11.292	
4,800.00	4,770.82	4,800.25	4,764.45	18.13	18.47	-107.12	-45.46	-530.34	407.33	370.98	36.35	11.206	
4,900.00	4,870.07	4,903.42	4,867.56	18.53	18.82	-108.36	-45.18	-533.68	412.16	375.05	37.11	11.107	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #226H - Lateral - Plan #2													Offset Site Error: 0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,969.32	5,005.18	4,969.32	18.92	19.15	-109.90	-45.12	-534.36	416.40	378.56	37.84	11.004	
5,100.00	5,068.57	5,104.43	5,068.57	19.31	19.47	-111.46	-45.12	-534.36	420.75	382.19	38.56	10.912	
5,200.00	5,167.82	5,203.68	5,167.82	19.70	19.79	-112.98	-45.12	-534.36	425.40	386.13	39.27	10.832	
5,300.00	5,267.07	5,302.93	5,267.07	20.10	20.11	-114.47	-45.12	-534.36	430.35	390.37	39.98	10.764	
5,400.00	5,366.32	5,402.18	5,366.32	20.49	20.43	-115.92	-45.12	-534.36	435.59	394.90	40.69	10.705	
5,500.00	5,465.57	5,501.43	5,465.57	20.88	20.75	-117.34	-45.12	-534.36	441.11	399.71	41.40	10.656	
5,600.00	5,564.81	5,600.68	5,564.81	21.28	21.07	-118.73	-45.12	-534.36	446.89	404.79	42.10	10.615	
5,700.00	5,664.06	5,700.07	5,664.06	21.67	21.40	-120.08	-45.12	-534.36	452.93	410.13	42.80	10.582	
5,800.00	5,763.31	5,800.83	5,763.31	22.07	21.73	-121.39	-45.12	-534.36	459.21	415.71	43.50	10.555	
5,900.00	5,862.56	5,901.58	5,862.56	22.46	22.06	-122.67	-45.12	-534.36	465.74	421.53	44.21	10.535	
6,000.00	5,961.81	6,002.33	5,961.81	22.85	22.39	-123.91	-45.12	-534.36	472.48	427.57	44.91	10.521	
6,100.00	6,061.06	6,103.08	6,061.06	23.25	22.72	-125.12	-45.12	-534.36	479.45	433.84	45.61	10.512	
6,200.00	6,160.31	6,203.83	6,160.31	23.64	23.06	-126.29	-45.12	-534.36	486.62	440.31	46.31	10.508	
6,300.00	6,259.56	6,304.58	6,259.56	24.03	23.39	-127.43	-45.12	-534.36	493.99	446.99	47.01	10.509	
6,400.00	6,358.81	6,405.33	6,358.81	24.43	23.73	-128.53	-45.12	-534.36	501.55	453.85	47.70	10.514	
6,500.00	6,458.06	6,506.08	6,458.06	24.82	24.06	-129.60	-45.12	-534.36	509.30	460.90	48.40	10.523	
6,523.00	6,480.89	6,516.75	6,480.89	24.91	24.10	-129.85	-45.12	-534.36	511.10	462.58	48.52	10.534	
6,600.00	6,557.40	6,606.74	6,557.40	25.21	24.40	-130.64	-45.12	-534.36	516.71	467.61	49.10	10.525	
6,700.00	6,657.00	6,707.14	6,657.00	25.59	24.73	-131.45	-45.12	-534.36	522.58	472.80	49.78	10.497	
6,800.00	6,756.79	6,807.34	6,756.79	25.95	25.07	-132.01	-45.12	-534.36	526.79	476.32	50.47	10.438	
6,900.00	6,856.72	6,907.42	6,856.72	26.30	25.41	-132.34	-45.12	-534.36	529.27	478.12	51.15	10.348	
6,991.29	6,948.00	6,983.86	6,948.00	26.60	25.66	-179.59	-45.12	-534.36	530.01	478.29	51.72	10.248	
7,000.00	6,956.71	7,007.42	6,956.71	26.63	25.74	-179.59	-45.12	-534.36	530.01	478.18	51.82	10.227	
7,100.00	7,056.71	7,107.42	7,056.71	26.96	26.08	-179.59	-45.12	-534.36	530.01	477.51	52.50	10.096	
7,200.00	7,156.71	7,207.42	7,156.71	27.29	26.42	-179.59	-45.12	-534.36	530.01	476.84	53.17	9.968	
7,300.00	7,256.71	7,307.42	7,256.71	27.62	26.76	-179.59	-45.12	-534.36	530.01	476.16	53.85	9.843	
7,400.00	7,356.71	7,407.42	7,356.71	27.95	27.10	-179.59	-45.12	-534.36	530.01	475.48	54.52	9.721	
7,500.00	7,456.71	7,507.42	7,456.71	28.28	27.44	-179.59	-45.12	-534.36	530.01	474.81	55.20	9.602	
7,600.00	7,556.71	7,607.42	7,556.71	28.61	27.78	-179.59	-45.12	-534.36	530.01	474.13	55.88	9.485	
7,700.00	7,656.71	7,707.42	7,656.71	28.95	28.12	-179.59	-45.12	-534.36	530.01	473.45	56.56	9.371	
7,800.00	7,756.71	7,807.42	7,756.71	29.28	28.46	-179.59	-45.12	-534.36	530.01	472.77	57.24	9.260	
7,900.00	7,856.71	7,907.42	7,856.71	29.61	28.80	-179.59	-45.12	-534.36	530.01	472.09	57.92	9.151	
8,000.00	7,956.71	8,007.42	7,956.71	29.95	29.14	-179.59	-45.12	-534.36	530.01	471.41	58.60	9.044	
8,100.00	8,056.71	8,107.42	8,056.71	30.28	29.48	-179.59	-45.12	-534.36	530.01	470.72	59.28	8.940	
8,200.00	8,156.71	8,207.42	8,156.71	30.62	29.82	-179.59	-45.12	-534.36	530.01	470.04	59.97	8.838	
8,300.00	8,256.71	8,307.42	8,256.71	30.96	30.17	-179.59	-45.12	-534.36	530.01	469.36	60.65	8.739	
8,400.00	8,356.71	8,407.42	8,356.71	31.29	30.51	-179.59	-45.12	-534.36	530.01	468.67	61.34	8.641	
8,500.00	8,456.71	8,507.42	8,456.71	31.63	30.85	-179.59	-45.12	-534.36	530.01	467.99	62.02	8.546	
8,600.00	8,556.71	8,607.42	8,556.71	31.97	31.20	-179.59	-45.12	-534.36	530.01	467.30	62.71	8.452	
8,700.00	8,656.71	8,707.42	8,656.71	32.31	31.54	-179.59	-45.12	-534.36	530.01	466.61	63.40	8.360	
8,800.00	8,756.71	8,807.42	8,756.71	32.64	31.89	-179.59	-45.12	-534.36	530.01	465.92	64.08	8.271	
8,900.00	8,856.71	8,907.42	8,856.71	32.98	32.23	-179.59	-45.12	-534.36	530.01	465.24	64.77	8.183	
9,000.00	8,956.71	9,007.42	8,956.71	33.32	32.58	-179.59	-45.12	-534.36	530.01	464.55	65.46	8.097	
9,100.00	9,056.71	9,107.42	9,056.71	33.66	32.92	-179.59	-45.12	-534.36	530.01	463.86	66.15	8.012	
9,200.00	9,156.71	9,207.42	9,156.71	34.00	33.27	-179.59	-45.12	-534.36	530.01	463.17	66.84	7.929	
9,300.00	9,256.71	9,307.42	9,256.71	34.34	33.61	-179.59	-45.12	-534.36	530.01	462.48	67.53	7.848	
9,400.00	9,356.71	9,407.42	9,356.71	34.68	33.96	-179.59	-45.12	-534.36	530.01	461.79	68.22	7.769	
9,500.00	9,456.71	9,507.42	9,456.71	35.02	34.31	-179.59	-45.12	-534.36	530.01	461.09	68.91	7.691	
9,600.00	9,556.71	9,607.42	9,556.71	35.37	34.65	-179.59	-45.12	-534.36	530.01	460.40	69.61	7.614	
9,700.00	9,656.71	9,707.42	9,656.71	35.71	35.00	-179.59	-45.12	-534.36	530.01	459.71	70.30	7.539	
9,800.00	9,756.71	9,807.42	9,756.71	36.05	35.35	-179.59	-45.12	-534.36	530.01	459.01	70.99	7.466	

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

Anticollision Report

Company: MATADOR RESOURCES
 Project: Eddy County, New Mexico
 Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
 Site Error: 0.00 usft
 Reference Well: #222H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
 TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000 14 Multi User
 Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #226H - Lateral - Plan #2												Offset Site Error:	0 00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.00	9,856.71	9,907.42	9,856.71	36.39	35.69	179.59	-45.12	-534.36	530.01	458.32	71.69	7.393	
10,000.00	9,956.71	10,007.42	9,956.71	36.74	36.04	179.59	-45.12	-534.36	530.01	457.63	72.38	7.323	
10,100.00	10,056.71	10,107.42	10,056.71	37.08	36.39	179.59	-45.12	-534.36	530.01	456.93	73.07	7.253	
10,200.00	10,156.71	10,207.42	10,156.71	37.42	36.74	179.59	-45.12	-534.36	530.01	456.24	73.77	7.185	
10,300.00	10,256.71	10,307.42	10,256.71	37.77	37.09	179.59	-45.12	-534.36	530.01	455.54	74.47	7.117	
10,398.53	10,355.24	10,391.10	10,355.24	38.10	37.38	179.59	-45.12	-534.36	530.01	454.91	75.10	7.057	
10,400.00	10,356.71	10,392.58	10,356.71	38.11	37.38	98.89	-45.12	-534.36	530.01	454.90	75.11	7.056	
10,450.00	10,406.65	10,442.35	10,406.48	38.27	37.55	99.01	-45.12	-533.56	530.37	454.93	75.44	7.030	
10,500.00	10,456.19	10,492.11	10,455.99	38.42	37.71	99.09	-45.13	-528.78	531.45	455.70	75.75	7.015	
10,550.00	10,504.96	10,542.00	10,505.03	38.56	37.86	99.10	-45.14	-519.70	533.23	457.18	76.05	7.011	
10,600.00	10,552.59	10,592.01	10,553.21	38.70	38.00	99.04	-45.16	-506.35	535.71	459.37	76.34	7.017	
10,650.00	10,598.72	10,642.13	10,600.14	38.83	38.14	98.90	-45.19	-488.80	538.86	462.24	76.62	7.033	
10,700.00	10,643.00	10,692.35	10,645.45	38.94	38.28	98.69	-45.23	-467.18	542.66	465.76	76.89	7.057	
10,750.00	10,685.08	10,742.66	10,688.77	39.05	38.41	98.41	-45.27	-441.62	547.07	469.91	77.16	7.090	
10,800.00	10,724.66	10,793.05	10,729.74	39.16	38.55	98.06	-45.31	-412.31	552.07	474.64	77.43	7.130	
10,850.00	10,761.42	10,843.51	10,768.03	39.26	38.69	97.65	-45.36	-379.47	557.62	479.91	77.71	7.175	
10,900.00	10,795.10	10,894.04	10,803.33	39.36	38.85	97.18	-45.42	-343.34	563.67	485.65	78.02	7.225	
10,950.00	10,825.42	10,944.64	10,835.34	39.47	39.02	96.65	-45.48	-304.19	570.18	491.83	78.36	7.277	
11,000.00	10,852.17	10,995.29	10,863.82	39.60	39.22	96.08	-45.55	-262.31	577.10	498.36	78.73	7.330	
11,050.00	10,875.14	11,046.02	10,888.51	39.76	39.45	95.46	-45.62	-218.03	584.37	505.20	79.17	7.382	
11,100.00	10,894.15	11,096.81	10,909.22	39.96	39.70	94.80	-45.69	-171.66	591.94	512.28	79.66	7.431	
11,150.00	10,909.05	11,147.68	10,925.77	40.21	40.00	94.11	-45.77	-123.58	599.76	519.53	80.22	7.476	
11,198.52	10,919.49	11,197.12	10,937.70	40.48	40.32	93.42	-45.84	-75.61	607.52	526.68	80.84	7.515	
11,200.00	10,919.75	11,198.63	10,938.00	40.49	40.33	93.41	-45.84	-74.13	607.76	526.90	80.86	7.516	
11,250.00	10,927.06	11,249.14	10,946.22	40.82	40.70	92.96	-45.92	-24.30	615.84	534.28	81.56	7.551	
11,300.00	10,931.78	11,299.50	10,951.71	41.20	41.11	92.51	-46.00	25.75	623.98	541.65	82.34	7.578	
11,350.00	10,933.88	11,349.89	10,954.56	41.61	41.56	92.05	-46.08	76.05	632.15	548.97	83.18	7.600	
11,365.19	10,934.00	11,365.21	10,954.90	41.74	41.70	91.91	-46.11	91.36	634.64	551.18	83.45	7.605	
11,400.00	10,934.00	11,400.11	10,955.00	42.06	42.03	91.90	-46.16	126.05	640.00	555.91	84.09	7.611	
11,500.00	10,934.00	11,500.83	10,955.00	43.09	43.11	91.85	-46.33	225.33	651.92	565.75	86.17	7.565	
11,600.00	10,934.00	11,601.07	10,955.00	44.29	44.35	91.83	-46.49	325.09	658.63	570.06	88.57	7.436	
11,678.26	10,934.00	11,677.16	10,955.00	45.32	45.39	91.82	-46.62	403.32	660.23	569.59	90.64	7.284	
11,700.00	10,934.00	11,701.09	10,955.00	45.63	45.72	91.82	-46.65	425.07	660.23	568.96	91.27	7.234	
11,800.00	10,934.00	11,801.09	10,955.00	47.10	47.22	91.82	-46.81	525.07	660.24	566.00	94.23	7.006	
11,900.00	10,934.00	11,901.09	10,955.00	48.69	48.85	91.82	-46.98	625.07	660.24	562.80	97.44	6.776	
12,000.00	10,934.00	12,001.09	10,955.00	50.38	50.58	91.82	-47.14	725.07	660.24	559.38	100.86	6.546	
12,100.00	10,934.00	12,101.09	10,955.00	52.18	52.40	91.82	-47.30	825.07	660.24	555.76	104.48	6.319	
12,200.00	10,934.00	12,201.09	10,955.00	54.06	54.32	91.82	-47.46	925.07	660.25	551.97	108.27	6.098	
12,300.00	10,934.00	12,301.09	10,955.00	56.03	56.31	91.82	-47.63	1,025.07	660.25	548.02	112.23	5.883	
12,400.00	10,934.00	12,401.09	10,955.00	58.06	58.37	91.82	-47.79	1,125.07	660.25	543.93	116.32	5.676	
12,500.00	10,934.00	12,501.09	10,955.00	60.16	60.50	91.82	-47.95	1,225.06	660.25	539.70	120.55	5.477	
12,600.00	10,934.00	12,601.09	10,955.00	62.32	62.68	91.82	-48.11	1,325.06	660.25	535.37	124.89	5.287	
12,700.00	10,934.00	12,701.09	10,955.00	64.53	64.91	91.82	-48.28	1,425.06	660.26	530.92	129.33	5.105	
12,800.00	10,934.00	12,801.09	10,955.00	66.79	67.19	91.82	-48.44	1,525.06	660.26	526.39	133.87	4.932	
12,900.00	10,934.00	12,901.09	10,955.00	69.09	69.51	91.82	-48.60	1,625.06	660.26	521.77	138.49	4.768	
13,000.00	10,934.00	13,001.09	10,955.00	71.43	71.86	91.82	-48.76	1,725.06	660.26	517.08	143.18	4.611	
13,100.00	10,934.00	13,101.09	10,955.00	73.81	74.26	91.82	-48.93	1,825.06	660.26	512.32	147.95	4.463	
13,200.00	10,934.00	13,201.09	10,955.00	76.21	76.68	91.82	-49.09	1,925.06	660.27	507.49	152.78	4.322	
13,300.00	10,934.00	13,301.09	10,955.00	78.65	79.13	91.82	-49.25	2,025.06	660.27	502.61	157.66	4.188	
13,400.00	10,934.00	13,401.09	10,955.00	81.11	81.60	91.82	-49.42	2,125.06	660.27	497.68	162.50	4.061	
13,500.00	10,934.00	13,501.09	10,955.00	83.60	84.10	91.82	-49.58	2,225.06	660.27	492.70	167.58	3.940	

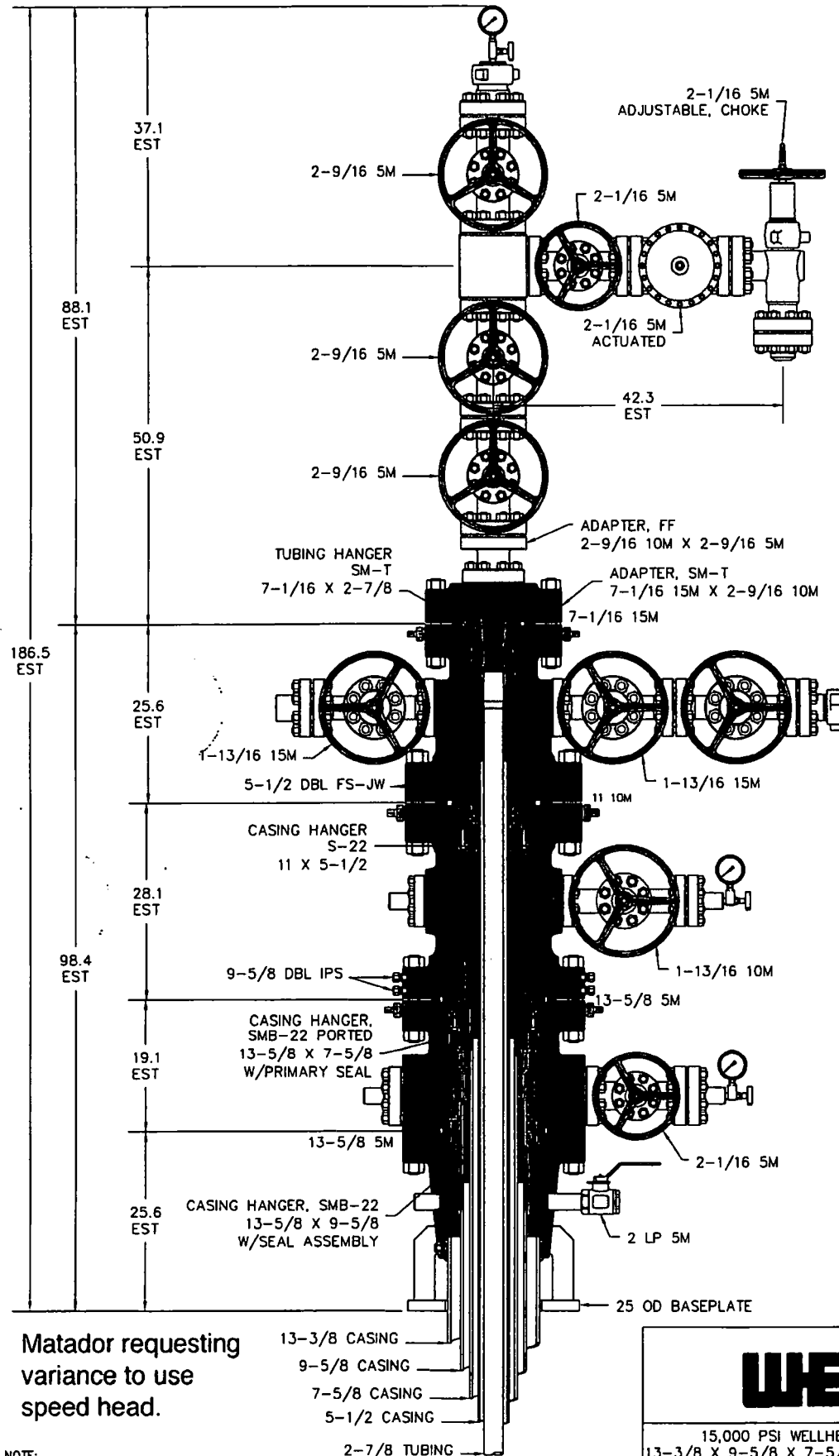
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: MATADOR RESOURCES
Project: Eddy County, New Mexico
Reference Site: Garrett Fed Com #202H, #222H, #122H, #206H, #226H
Site Error: 0.00 usft
Reference Well: #222H
Well Error: 0.00 usft
Reference Wellbore: Lateral
Reference Design: Plan #3

Local Co-ordinate Reference: Well #222H - Slot #222H
TVD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
MD Reference: 2920+28.50 @ 2948.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000 14 Multi User
Offset TVD Reference: Offset Datum

Offset Design Garrett Fed Com #202H, #222H, #122H, #206H, #226H - #226H - Lateral - Plan #2														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)										
13,600.00	10,934.00	13,601.09	10,955.00	86.10	86.62	91.82	-49.74	2,325.06	660.28	487.67	172.60	3.825			
13,700.00	10,934.00	13,701.09	10,955.00	88.63	89.15	91.82	-49.90	2,425.06	660.28	482.61	177.67	3.716			
13,800.00	10,934.00	13,801.09	10,955.00	91.17	91.71	91.82	-50.07	2,525.06	660.28	477.51	182.77	3.613			
13,900.00	10,934.00	13,901.09	10,955.00	93.74	94.28	91.82	-50.23	2,625.06	660.28	472.38	187.90	3.514			
14,000.00	10,934.00	14,001.09	10,955.00	96.31	96.87	91.82	-50.39	2,725.06	660.28	467.22	193.06	3.420			
14,100.00	10,934.00	14,101.09	10,955.00	98.91	99.47	91.82	-50.55	2,825.06	660.29	462.03	198.25	3.331			
14,200.00	10,934.00	14,201.09	10,955.00	101.51	102.08	91.82	-50.72	2,925.06	660.29	456.82	203.47	3.245			
14,300.00	10,934.00	14,301.09	10,955.00	104.13	104.70	91.82	-50.88	3,025.06	660.29	451.58	208.71	3.164			
14,400.00	10,934.00	14,401.09	10,955.00	106.76	107.34	91.82	-51.04	3,125.06	660.29	446.32	213.98	3.086			
14,500.00	10,934.00	14,501.09	10,955.00	109.39	109.99	91.82	-51.20	3,225.06	660.29	441.04	219.26	3.011			
14,600.00	10,934.00	14,601.09	10,955.00	112.04	112.64	91.82	-51.37	3,325.06	660.30	435.74	224.56	2.940			
14,700.00	10,934.00	14,701.09	10,955.00	114.70	115.30	91.82	-51.53	3,425.06	660.30	430.42	229.88	2.872			
14,800.00	10,934.00	14,801.09	10,955.00	117.37	117.98	91.82	-51.69	3,525.06	660.30	425.08	235.22	2.807			
14,900.00	10,934.00	14,901.09	10,955.00	120.04	120.66	91.82	-51.85	3,625.06	660.30	419.73	240.57	2.745			
15,000.00	10,934.00	15,001.09	10,955.00	122.72	123.34	91.82	-52.02	3,725.06	660.31	414.37	245.94	2.685			
15,100.00	10,934.00	15,101.09	10,955.00	125.41	126.04	91.82	-52.18	3,825.06	660.31	408.99	251.32	2.627			
15,200.00	10,934.00	15,201.09	10,955.00	128.11	128.74	91.82	-52.34	3,925.06	660.31	403.60	256.71	2.572			
15,300.00	10,934.00	15,301.09	10,955.00	130.81	131.44	91.82	-52.51	4,025.06	660.31	398.19	262.12	2.519			
15,400.00	10,934.00	15,401.09	10,955.00	133.51	134.15	91.82	-52.67	4,125.06	660.31	392.78	267.54	2.468			
15,500.00	10,934.00	15,501.09	10,955.00	136.23	136.87	91.82	-52.83	4,225.06	660.32	387.35	272.96	2.419			
15,600.00	10,934.00	15,601.09	10,955.00	138.94	139.59	91.82	-52.99	4,325.06	660.32	381.92	278.40	2.372			
15,700.00	10,934.00	15,701.09	10,955.00	141.67	142.32	91.82	-53.16	4,425.06	660.32	376.47	283.85	2.326			
15,718.17	10,934.00	15,717.08	10,955.00	142.16	142.75	91.82	-53.19	4,443.23	660.32	375.54	284.78	2.319 SF			



Matador requesting
variance to use
speed head.

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

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CONSENT OF SEAGUARD INTERNATIONAL, INC.

WEIR

15,000 PSI WELLHEAD ASSEMBLY
13-3/8 x 9-5/8 x 7-5/8 x 5-1/2 x 2-7/8

DRAWN BY: RPL	SCALE: 1-11	DATE: 06OCT17	REV:
CHECKED BY:	DRAWING NO. P-22401		
APPROVED BY:			

**DATA ARE INFORMATIVE ONLY.
BASED ON SI_PD-101836 P&B**

VAM® HTF-NR™
Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift	Connection
7 5/8 in.	29.70 lb/ft	0.375 in.	P110 EC	6.750 in.	VAM® HTF NR

PIPE PROPERTIES

Nominal OD	7.625 in.
Nominal ID	6.875 in.
Nominal Cross Section Area	8.541 sqin.
Grade Type	Enhanced API
Min. Yield Strength	125 ksi
Max. Yield Strength	140 ksi
Min. Ultimate Tensile Strength	135 ksi
Tensile Yield Strength	1 068 klb
Internal Yield Pressure	10 760 psi
Collapse pressure	7 360 psi

CONNECTION PROPERTIES

Connection Type	Premium Integral Flush
Connection OD (nom)	7.701 in.
Connection ID (nom)	6.782 in.
Make-Up Loss	4.657 in.
Critical Cross Section	4.971 sqin.
Tension Efficiency	58 % of pipe
Compression Efficiency	72.7 % of pipe
Compression Efficiency with Sealability	34.8 % of pipe
Internal Pressure Efficiency	100 % of pipe
External Pressure Efficiency	100 % of pipe

CONNECTION PERFORMANCES

Tensile Yield Strength	619 klb
Compression Resistance	778 klb
Compression with Sealability	372 klb
Internal Yield Pressure	10 760 psi
External Pressure Resistance	7 360 psi
Max. Bending	44 °/100ft
Max. Bending with Sealability	17 °/100ft

TORQUE VALUES

Min. Make-up torque	9 600 ft.lb
Opti. Make-up torque	11 300 ft.lb
Max. Make-up torque	13 000 ft.lb
Max. Torque with Sealability	58 500 ft.lb
Max. Torsional Value	73 000 ft.lb

VAM® HTF™ (High Torque Flush) is a flush OD integral connection providing maximum clearance along with torque strength for challenging applications such as extended reach and slim hole wells, drilling liner / casing, liner rotation to achieve better cementation in highly deviated and critical High Pressure / High Temperature wells.

Looking ahead on the outcoming testing industry standards, VAM® decided to create an upgraded design and launch on the market the VAM® HTF-NR as the new standard version of VAM® extreme high torque flush connection. The VAM® HTF-NR has extensive tests as per API RP 5C5:2015 CAL II which include the gas sealability having load points with bending, internal pressure and high temperature at 135°C.

Do you need help on this product? - Remember no one knows VAM® like VAM®

canada@vamfieldservice.com
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china@vamfieldservice.com
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singapore@vamfieldservice.com
australia@vamfieldservice.com

Over 180 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

Other Connection Data Sheets are available at www.vamservices.com

Vallourec Group



For the latest performance data, always visit our website: www.tenaris.com

July 15 2015



Connection: TenarisXP™ BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 5.500 in.
Wall: 0.361 in.
Weight: 20.00 lbs/ft
Grade: P110-IC
Min. Wall Thickness: 87.5 %

PIPE BODY DATA					
GEOMETRY					
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft	Standard Drift Diameter	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Special Drift Diameter	N/A
Plain End Weight	19.83 lbs/ft				
PERFORMANCE					
Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi	SMYS	110000 psi
Collapse	12100 psi				
TENARISXP™ BTC CONNECTION DATA					
GEOMETRY					
Connection OD	6.100 in.	Coupling Length	9.450 in.	Connection ID	4.766 in.
Critical Section Area	5.828 sq. in.	Threads per in.	5.00	Make-Up Loss	4.204 in.
PERFORMANCE					
Tension Efficiency	100 %	Joint Yield Strength	641 x 1000 lbs	Internal Pressure Capacity ⁽¹⁾	12630 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	641 x 1000 lbs	Structural Bending ⁽²⁾	92 °/100 ft
External Pressure Capacity	12100 psi				
ESTIMATED MAKE-UP TORQUES ⁽³⁾					
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs	Maximum	13770 ft-lbs
OPERATIONAL LIMIT TORQUES					
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs		

BLANKING DIMENSIONS

Blanking Dimensions

- (1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.
- (2) Structural rating, pure bending to yield (i.e no other loads applied)
- (3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at licensees@oilfield.tenaris.com. Torque values may be further reviewed.
- For additional information, please contact us at contact-tenarishydril@tenaris.com

For the latest performance data, always visit our website: www.tenaris.com

December 31 2015



Connection: TenarisXP® BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 4.500 in.
Wall: 0.290 in.
Weight: 13.50 lbs/ft
Grade: P110-ICY
Min. Wall Thickness: 87.5 %

Nominal OD	4.500 in.	Nominal Weight	13.50 lbs/ft	Standard Drift Diameter	3.795 in.
Nominal ID	3.920 in.	Wall Thickness	0.290 in.	Special Drift Diameter	N/A
Plain End Weight	13.05 lbs/ft				
Body Yield Strength	479 x 1000 lbs	Internal Yield	14100 psi	SMYS	125000 psi
Collapse	11620 psi				
Connection OD	5.000 in.	Coupling Length	9.075 in.	Connection ID	3.908 in.
Critical Section Area	3.836 sq. in.	Threads per in.	5.00	Make-Up Loss	4.016 in.
Tension Efficiency	100 %	Joint Yield Strength	479 x 1000 lbs	Internal Pressure Capacity ⁽¹⁾	14100 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	479 x 1000 lbs	Structural Bending ⁽²⁾	127 °/100 ft
External Pressure Capacity	11620 psi				
Minimum	6950 ft-lbs	Optimum	7720 ft-lbs	Maximum	8490 ft-lbs
Operating Torque	10500 ft-lbs	Yield Torque	12200 ft-lbs		

Blanking Dimensions

Matador Production Company
Garrett Fed Com 222H
SHL 2282' FNL & 585' FWL
BHL 1663' FNL & 240' FEL
Sec. 32, T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 1

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	MD	Bearing
Quaternary	0'	0'	water
Rustler anhydrite	11'	29'	N/A
Salado salt	382'	382'	N/A
Castile anhydrite	1201'	1203'	N/A
Base salt	2769'	2783'	N/A
Bell Canyon sandstone	2819'	2833'	hydrocarbons
Cherry Canyon sandstone	3729'	3750'	hydrocarbons
Brushy Canyon sandstone	4898'	4928'	hydrocarbons
Bone Spring limestone	6535'	6578'	hydrocarbons
1 st Bone Spring carbonate	7335'	7378'	hydrocarbons
1 st Bone Spring sandstone	7514'	7557'	hydrocarbons
2 nd Bone Spring carbonate	7765'	7808'	hydrocarbons
2nd Bone Spring sandstone	8260'	8403'	hydrocarbons
3 rd Bone Spring carbonate	8620'	8663'	hydrocarbon
3 rd Bone Spring sandstone	9358'	9401'	hydrocarbon
Wolfcamp A carbonate	9722'	9765'	hydrocarbon
Wolfcamp A Fat carbonate	9988'	10031'	hydrocarbons
Wolfcamp B carbonate (Goal)	10178'	10201'	hydrocarbons
(KOP	10257'	10300'	hydrocarbons)
TD	10934'	15718'	hydrocarbons

2. NOTABLE ZONES

Wolfcamp B is the goal. Hole will extend east of the last perforation point to allow for pump installation. All perforations will be $\geq 330'$ from the dedication perimeter. Closest water well (C 00856) is 4867' northwest. Depth to water was not reported in this 380' deep well.

3. PRESSURE CONTROL

**Matador Production Company
Garrett Fed Com 222H
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DRILL PLAN PAGE 2

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attached BOP, choke manifold, co-flex hose, and speed head diagrams.

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

Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as 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 the surface casing, and before drilling the surface casing shoe, a minimum 2M BOPE system will be installed. It will be tested to 250 psi low and 2000 psi high. Annular will be tested to 250 psi low and 1000 psi high.

After setting intermediate 1 casing, a minimum 3M BOPE system will be installed and tested to 250 psi low and 3000 psi high. Annular will be tested to 250 psi low and 2500 psi high.

After setting intermediate 2 casing, a minimum 5M BOPE system will be installed and tested to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 2500 psi high.

Matador requests a variance to have the option of running a speed head for setting the intermediate 1 and 2 strings. In the case of running a speed head with landing mandrel for 9.625" and 7" casing, a minimum 3M BOPE system will be installed after surface casing is set. BOP test pressures will be 250 psi low and 3000 psi high. Annular will be tested to 250 psi low and 2500 psi high before drilling below the surface shoe. After 7" casing is set in the speed head, the BOP will then be lifted to install another casing head section for setting the production casing. Matador will nipple up the casing head and BOP and a minimum 5M BOPE system will be installed. Pressure tests will be made to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 2500 psi high. A diagram of the speed head is attached.

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. Manufacturer does not require the hose to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador Production Company
Garrett Fed Com 222H
SHL 2282' FNL & 585' FWL
BHL 1663' FNL & 240' FEL
Sec. 32, T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 3

4. CASING & CEMENT

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

Hole O. D.	Set MD	Set TVD	Casing O. D.	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
17.5"	0' - 610'	0' - 610'	13.375" surface	54.5	J-55	BTC	1.125	1.125	1.8
12.25"	0' - 2900'	0' - 2885'	9.625" inter. 1	40	J-55	BTC	1.125	1.125	1.8
8.75"	0' - 2600'	0' - 2584'	7.625" inter. 2 top	29.7	P-110	BTC	1.125	1.125	1.8
8.75"	2600' - 10300'	2587' - 9164'	7.625" inter. 2 middle	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
8.75"	10300' - 11198'	10257' - 10919'	7.0" inter. 2 bottom	29	P-110	BTC	1.125	1.125	1.8
6.125"	0' - 10200'	0' - 10157'	5.5" product. top	20	P-110	BTC/TXP	1.125	1.125	1.8
6.125"	10200' - 15718'	10157' - 10934'	4.5" product. bottom	13.5	P-110	BTC/TXP	1.125	1.125	1.8

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	268	1.82	487	12.8	Class C + bentonite + 2% CaCl ₂ + 3% NaCl + LCM
	Tail	352	1.38	485	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate 1	Lead	638	2.13	1358	12.6	Class C + bentonite + 1% CaCl ₂ + 8% NaCl + LCM
	Tail	202	1.38	278	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Intermediate 2	Lead	700	2.13	1491	12.6	TXI + fluid loss + dispersant + retarder + LCM
	Tail	225	1.38	310	14.8	TXI + fluid loss + dispersant +

Matador Production Company
Garrett Fed Com 222H
SHL 2282' FNL & 585' FWL
BHL 1663' FNL & 240' FEL
Sec. 32, T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 4

						retarder + LCM
TOC = 2600'		60% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC)	
Production	Tail	530	1.17	620	15.8	Class H + fluid loss + dispersant + retarder + LCM
TOC = 9800'		25% Excess			2 on btm jt, 1 on 2nd jt, 1 every third jt to top of curve	

5. MUD PROGRAM

An electronic Pason mud monitoring system complying with Onshore Order 1 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. A closed loop system will be used.

Type	Interval (MD)	lb/gal	Viscosity	Fluid Loss
fresh water spud	0' - 610'	8.3	28	NC
brine water	610' - 2900'	10.0	30-32	NC
fresh water & cut brine	2900' - 11198'	9.0	30-31	NC
OBM	11198' - 15718'	12.5	50-60	<10

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud logging program will be used from ≈11,200' MD to TD.

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

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈7100 psi. Expected bottom hole temperature is ≈170° F.

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Garrett Fed Com 222H
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Sec. 32, T. 24 S., R. 29 E., Eddy County, NM**

DRILL PLAN PAGE 5

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H₂S from the surface to the Bone Spring to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Since Matador has an H₂S safety package on all wells, an "H₂S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. OTHER INFORMATION

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



APD ID: 10400026519

Submission Date: 01/24/2018

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Highlighted data
reflects the most
recent changes

[Show Final Text](#)

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Garrett_222H_Road_Map_20180124092859.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Garrett_222H_New_Road_Map_20180124093011.pdf

New road type: RESOURCE

Length: 764.14 Feet

Width (ft.): 30

Max slope (%): 0

Max grade (%): 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Detour borrow ditch will be frequently riprapped to slow discharge. If riprap is unavailable, then sand bags will be used. Straw wattles and geotextile fabric will not be used.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: CALICHE

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Grader

Access other construction information: No new road is needed to access the pad. However, the pad will block the existing road that crosses the pad. That road provides access to Chevron and Judah oil wells in Section 31. A 764.14' permanent detour will be built north and west of Matador's pad. The 764.14' of new resource road will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30'. Maximum grade = 4%. Maximum cut or fill = 3'.

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: New road will be crowned and ditched. No culvert, cattle guard, or vehicle turn out is needed.

Road Drainage Control Structures (DCS) description: ROAD WILL BE CROWNED AND DITCHED. NO FURTHER DRAINAGE CONSTRUCTION ANTICIPATED. Roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Garrett_222H_Well_Map_20180124093039.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: An existing tank battery on Matador's Garrett Fed Com 221H pad in NWNW 32-24s-29e will be used. Matador will bury 7 pipelines between the 122H pad and 221H pad. Five of the pipelines will be 3" O. D., X42 carbon steel, Schedule 80, MAOP 1440 psi, flow lines. Sixth pipeline will be a 2" O. D., X42 carbon steel, Schedule 80,

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

MAOP 1440 psi, gas lift supply line. Seventh pipeline will be 8.625" O. D., steel, 1.232" WT SDR-7, MAOP 200 psi, produced water pipeline. No power line is needed given the gas lift supply line. Pipelines will be buried with >48" of cover in a 75' x 2,047.64' long corridor.

Production Facilities map:

Garrett_222H_Production_Facilities_20180124093051.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL,
INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE
CASING

Water source type: GW WELL

Describe type:

Source longitude:

Source latitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: PRIVATE

Water source volume (barrels): 20000

Source volume (acre-feet): 2.577862

Source volume (gal): 840000

Water source and transportation map:

Garrett_222H_Water_Source_Map_20180124093134.pdf

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

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: NM One Call (811) will be notified before construction starts. Top 6" of soil and brush will be stockpiled east of the pad. V-door will face east. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Calderon) land in NWNE 9-24s-28e. A berm will be built around the fill sides of the pad.

Construction Materials source location attachment:

Garrett_222H_Construction_Methods_20180124093231.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to a state approved disposal site, e. g., Petro Waste Environmental LP at Orla, Texas. (Texas Railroad Commission permit number STF-0101, P012234, P012236.)

Amount of waste: 2000 barrels

Waste disposal frequency : Daily

Safe containment description: Steel roll-off tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Petro Waste Environmental LP at Orla, Texas. (Texas Railroad Commission permit number STF-0101, P012234, P012236.)

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.)

Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Steel tanks

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Garrett_222H_Well_Site_Layout_20180124093300.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: GARRETT FED COM

Multiple Well Pad Number: 122H

Recontouring attachment:

Garrett_222H_Recontour_Plat_20180124093317.pdf

Garrett_222H_Interim_Reclamation_Diagram_20180124093329.pdf

Drainage/Erosion control construction: The 764.14' of new resource road will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. No culvert, cattle guard, or vehicle turn out is needed. Detour borrow ditch will be frequently ripped to slow discharge. If riprap is unavailable, then sand bags will be used. Straw wattles and geotextile fabric will not be used. Top 6" of soil and brush will be stockpiled east of the pad.

Drainage/Erosion control reclamation: Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the State Land Office's requirements.

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Well pad proposed disturbance (acres): 3.53	Well pad interim reclamation (acres): 1.91	Well pad long term disturbance (acres): 1.74
Road proposed disturbance (acres): 0.53	Road interim reclamation (acres): 0.01	Road long term disturbance (acres): 0.52
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 3.65	Pipeline interim reclamation (acres): 3.53	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 7.71	Total interim reclamation: 5.45	Total long term disturbance: 2.26

Disturbance Comments:

Reconstruction method: Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad 52% (1.91 acre) by removing caliche and reclaiming the west (10'), south (100'), and east (100') sides. A 20' dead end road on the west side of the pad will also be reclaimed. This will leave 1.74 acres for producing 5 wells and tractor-trailer turn around.

Topsoil redistribution: Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the last well is plugged, then the rest of the pad and 764.14' of new road will be similarly reclaimed within 6 months of plugging. The old road will be re-opened. Noxious weeds will be controlled. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the State Land Office's requirements.

Soil treatment: None

Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following NMSLO requirements and policies.

Weed treatment plan attachment:

Monitoring plan description: According to NMSLO requirements

Monitoring plan attachment:

Success standards: According to NMSLO requirements

Pit closure description: No pit

Pit closure attachment:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

Military Local Office:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: GARRETT FED COM

Well Number: 222H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

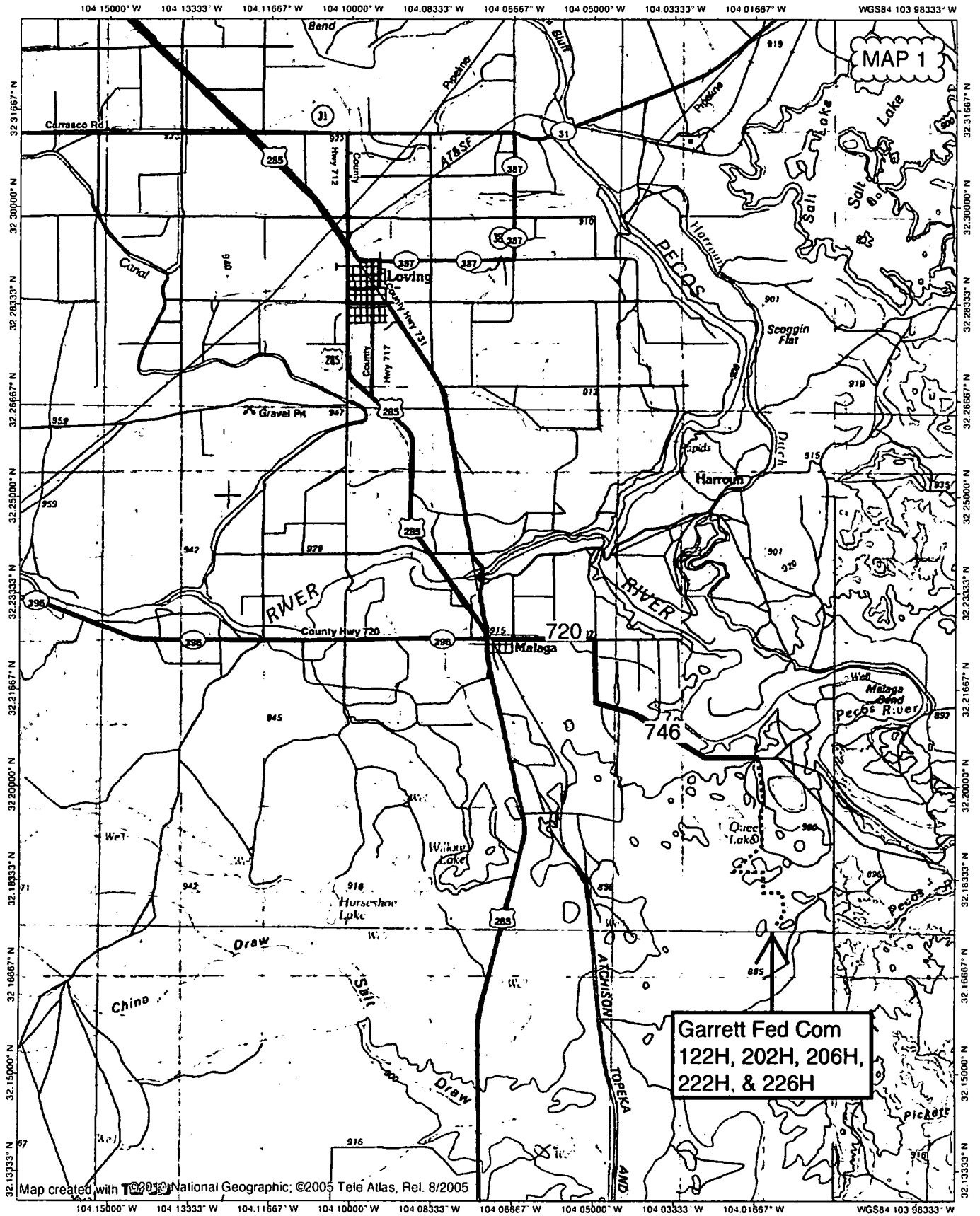
Use a previously conducted onsite? YES

Previous Onsite information: On-site inspection was held with Jim Goodbar, Vance Wolf, et al (BLM) on August 24, 2017.

Other SUPO Attachment

Garrett_222H_General_SUPO_20180124093426.pdf

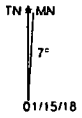
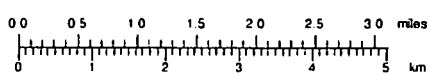
Garrett_222H_Surface_Use_Agreement_20180124093434.pdf

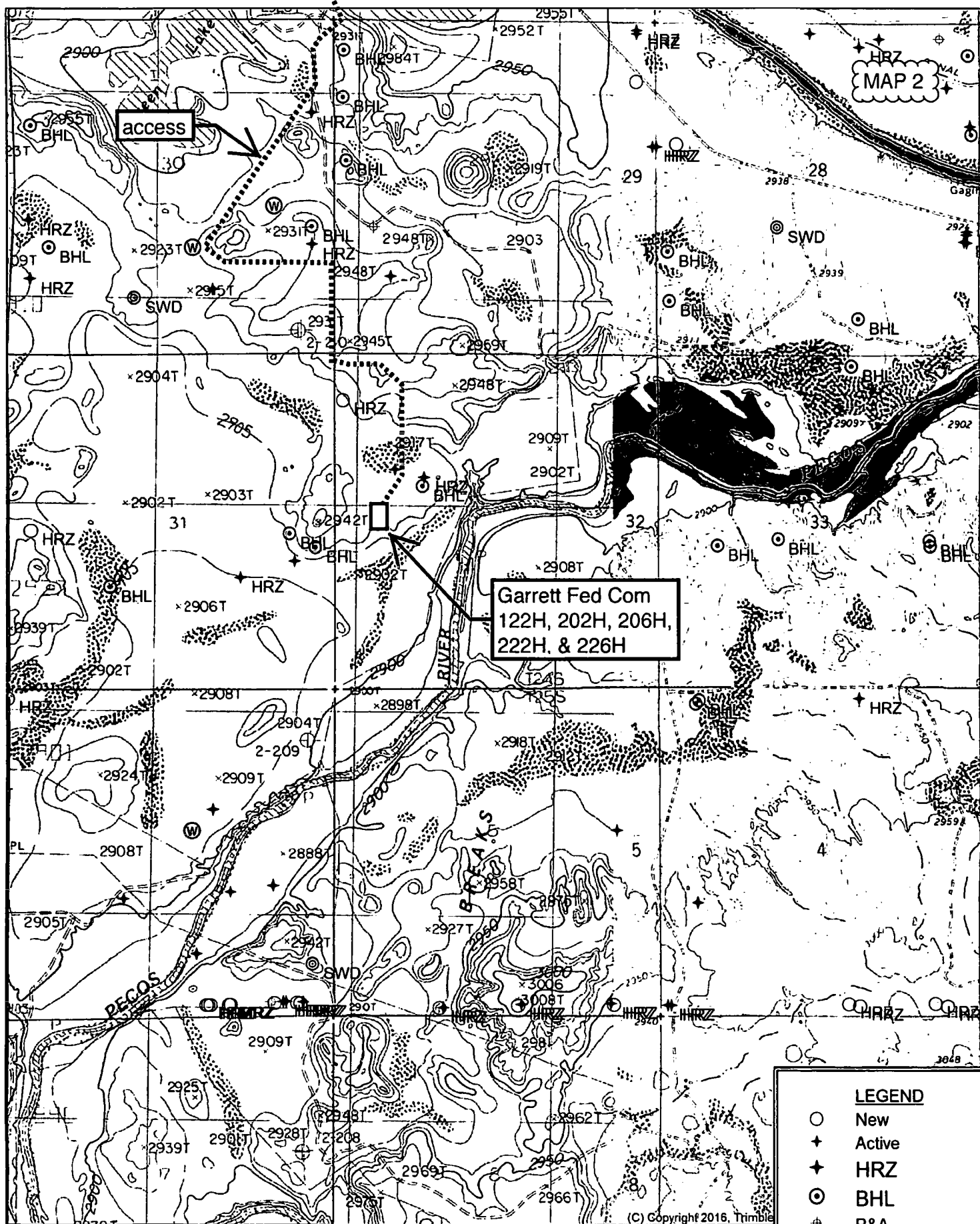


MAP 1

Garrett Fed Com
122H, 202H, 206H,
222H, & 226H

Map created with ©2010 National Geographic; ©2005 Tele Atlas, Rel. 8/2005





(C) Copyright 2016, Trimble



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

LEGEND

- New
- + Active
- + HRZ
- ⊙ BHL
- ⊕ P&A
- ⊙ INJ
- ⊙ SWD
- ⊙ Water

to CR 746



32.1752, 104.01371

32.1752, 104.01375

Garrett Fed Com
122H, 202H, 206H,
222H, 226H

32.1752, 104.01371

32.1752, 104.01375





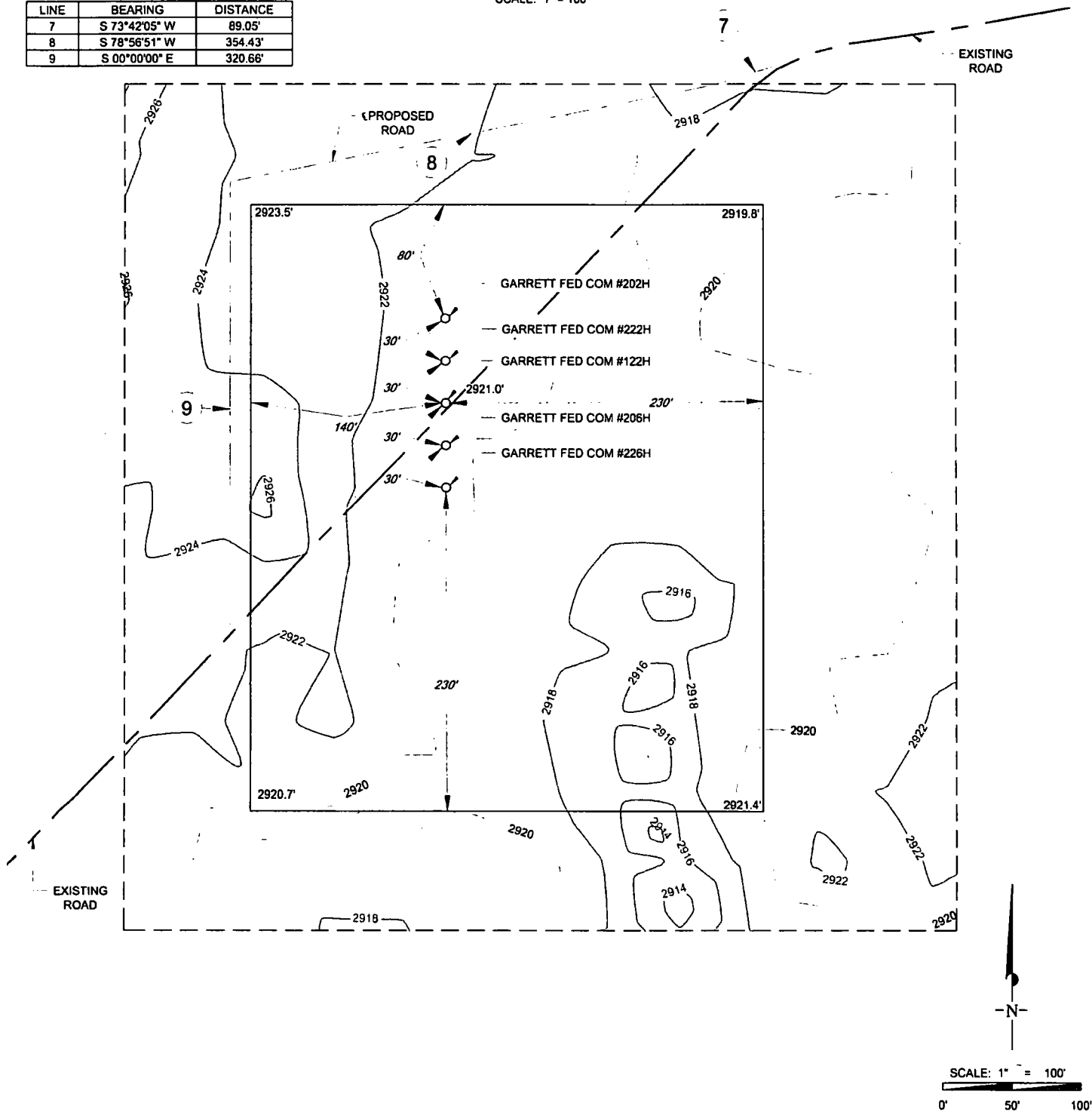
MAP 4

SECTION 32, TOWNSHIP 24S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

PROPOSED ROAD LINE TABLE

LINE	BEARING	DISTANCE
7	S 73°42'05" W	89.05'
8	S 78°56'51" W	354.43'
9	S 00°00'00" E	320.66'

DETAIL VIEW
SCALE: 1" = 100'



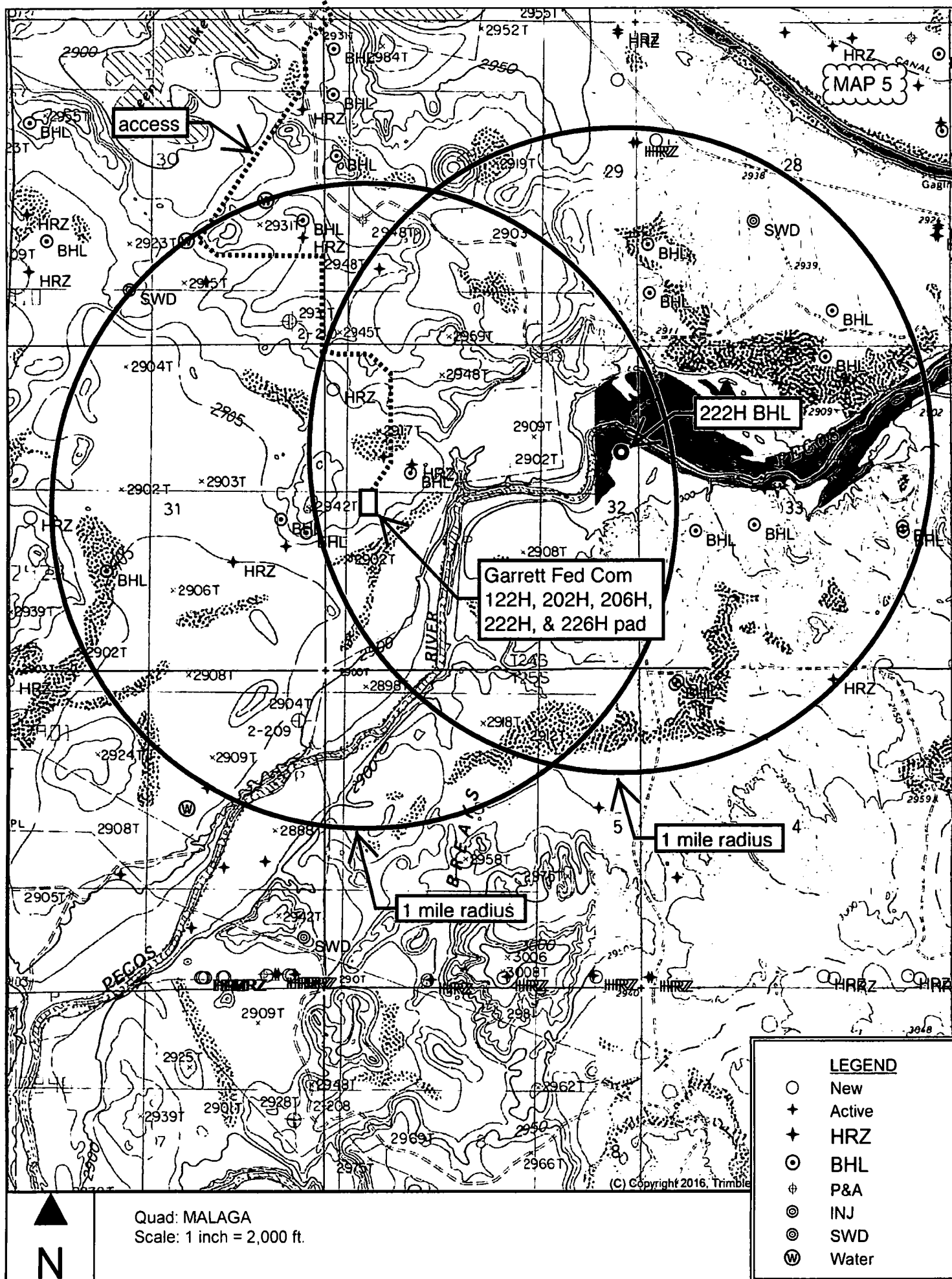
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1983, U.S. SURVEY FEET

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



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existing tank
battery

42.1754, 104.01182

42.17945, 104.01134

2047.64' proposed
pipeline route



42.1752, 104.01271

42.1754, 104.01131

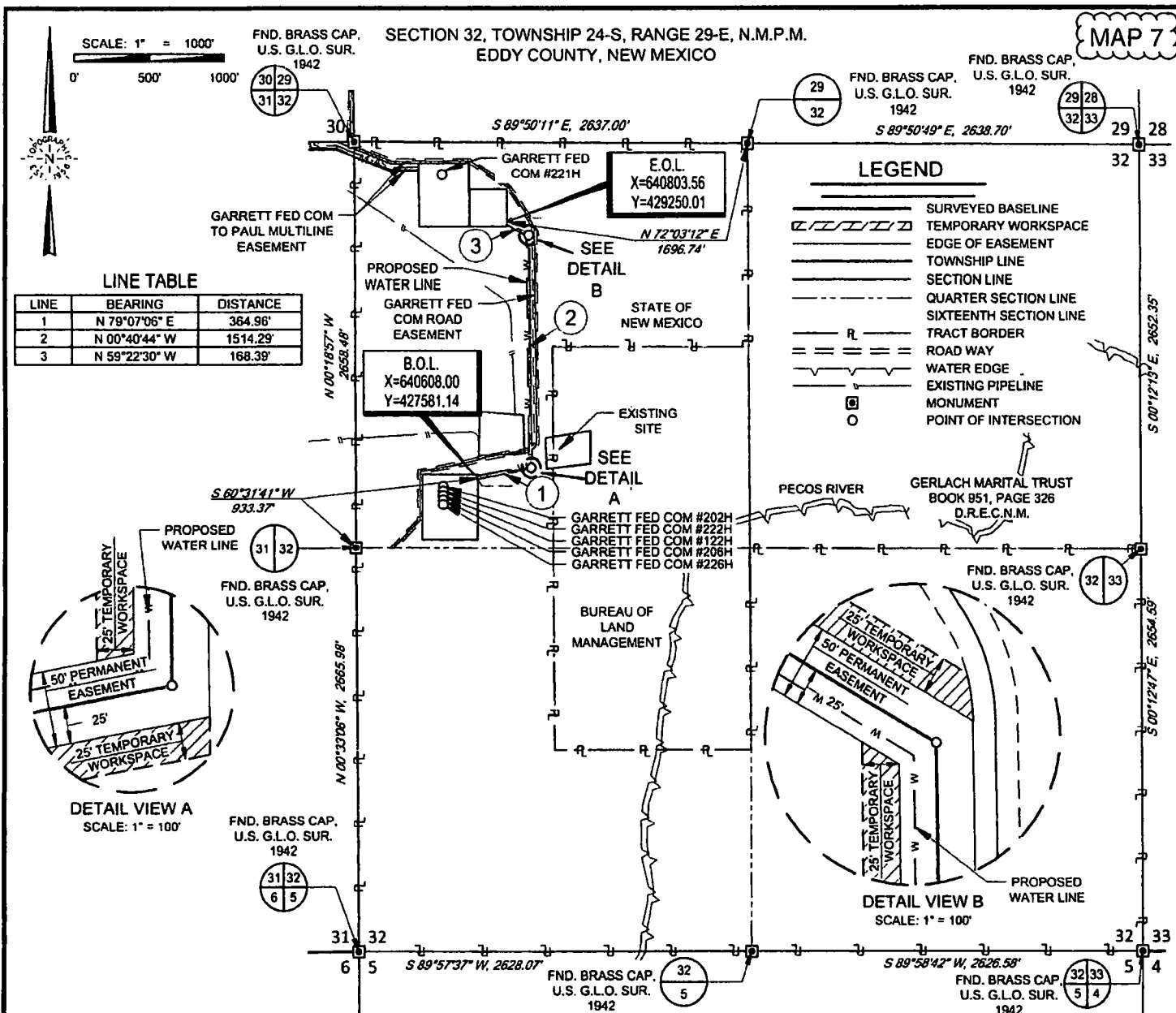
42.1752, 104.01131

Garrett Fed Com
122H, 202H,
206H, 222H,
226H pad

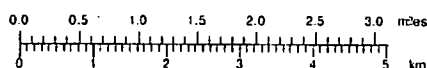
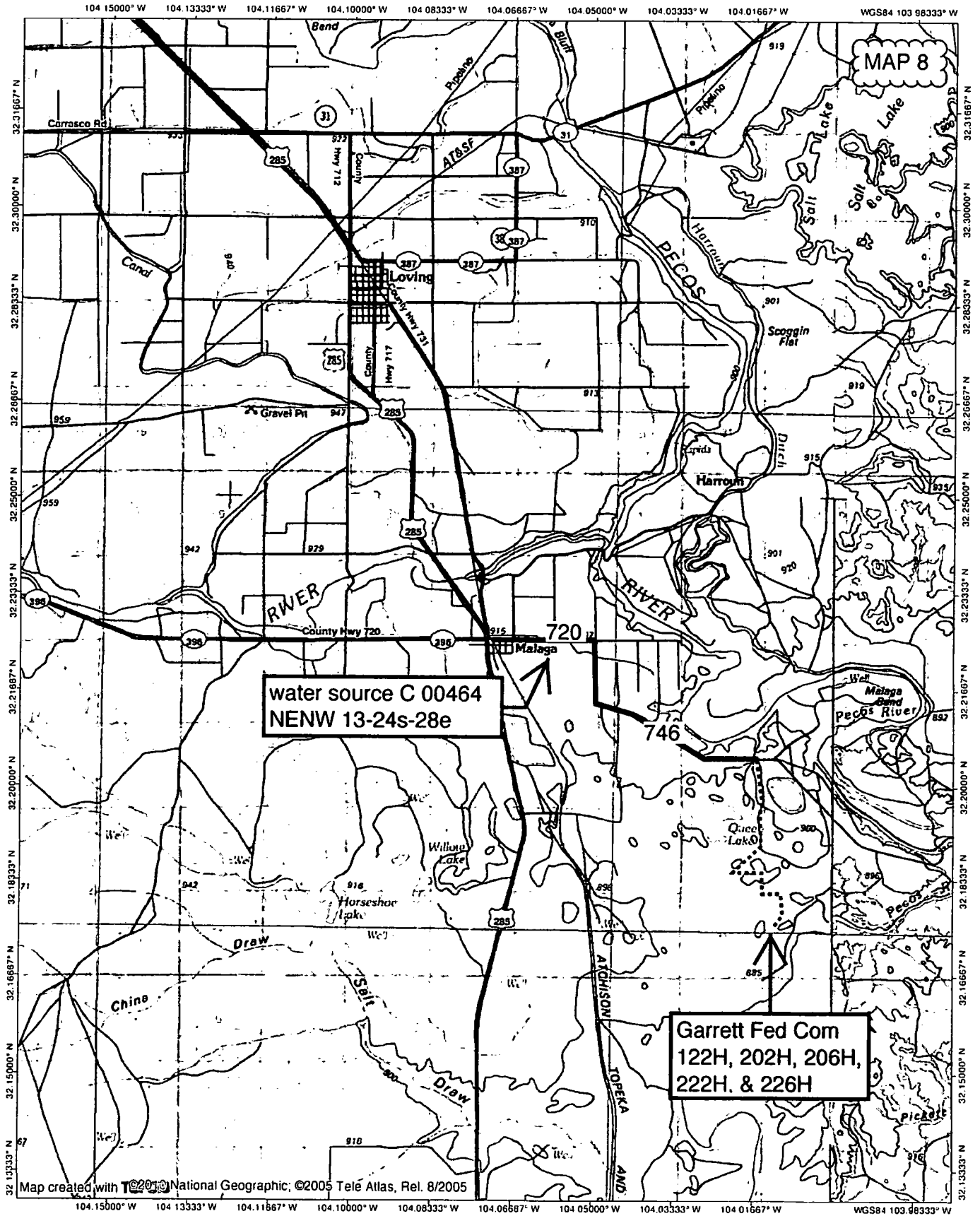
42.174, 104.01371

42.174, 104.01235





GARRETT SLOT 2 TO SLOT 1 FLOWLINE EASEMENT	REVISION:		NOTES:
	INT	DATE	
DATE: 09/08/17			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
FILE: EP GARRETT_SLOT_2_TO_SLOT_1_FLOWLINE_EASEMENT			2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1983.
DRAWN BY: MML			3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
SHEET: 1 OF 1			4. B.O.L. = BEGINNING OF LINE
			5. E.O.L. = END OF LINE
			6. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY, NEW MEXICO
			7. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.



TN 4 MN

01/15/18



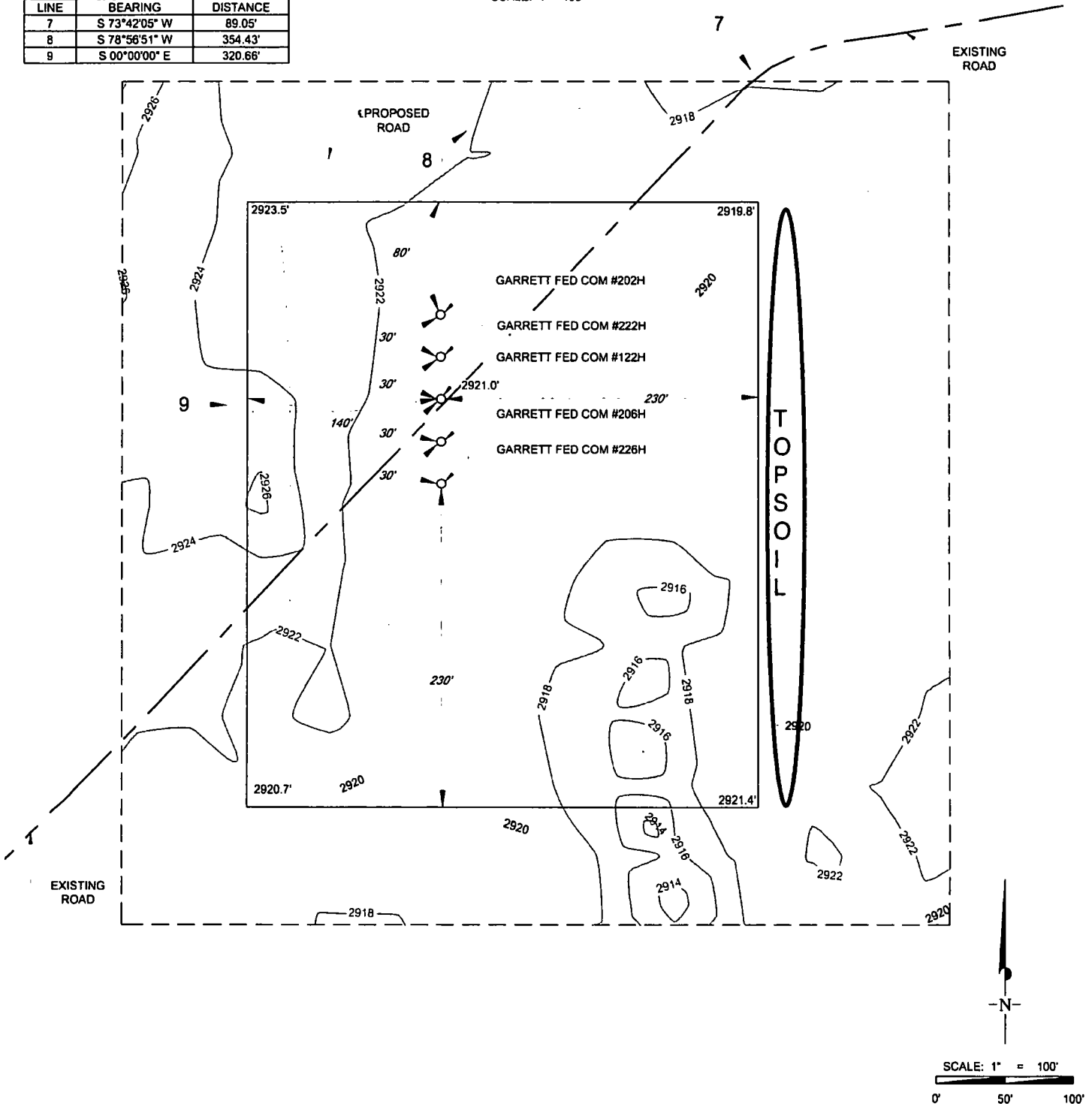
MAP 9

SECTION 32, TOWNSHIP 24S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

PROPOSED ROAD LINE TABLE

LINE	BEARING	DISTANCE
7	S 73°42'05" W	89.05'
8	S 78°56'51" W	354.43'
9	S 00°00'00" E	320.66'

DETAIL VIEW
SCALE: 1" = 100'



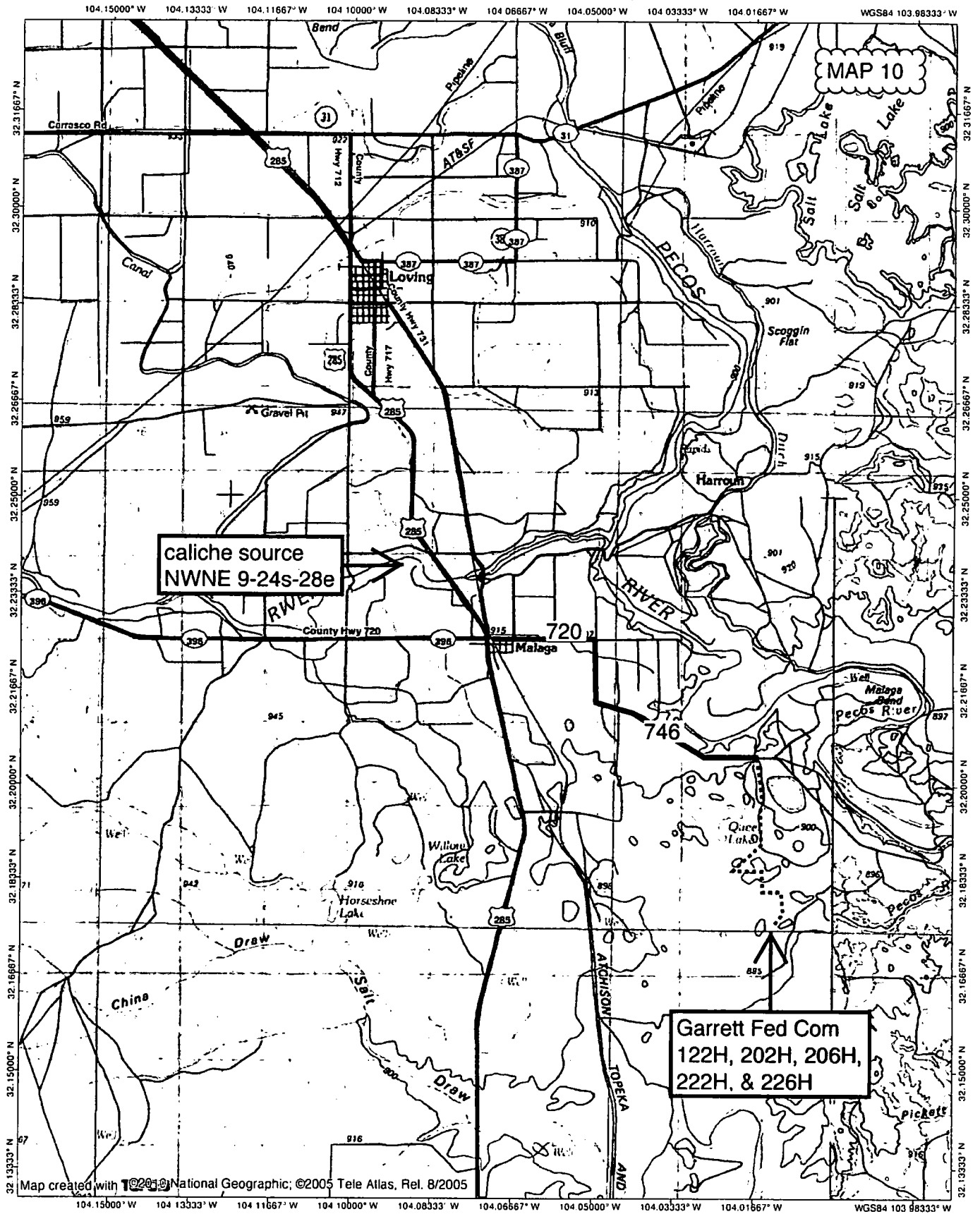
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID
BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE
NORTH AMERICAN DATUM 1983, U.S. SURVEY FEET

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Rig Diagram

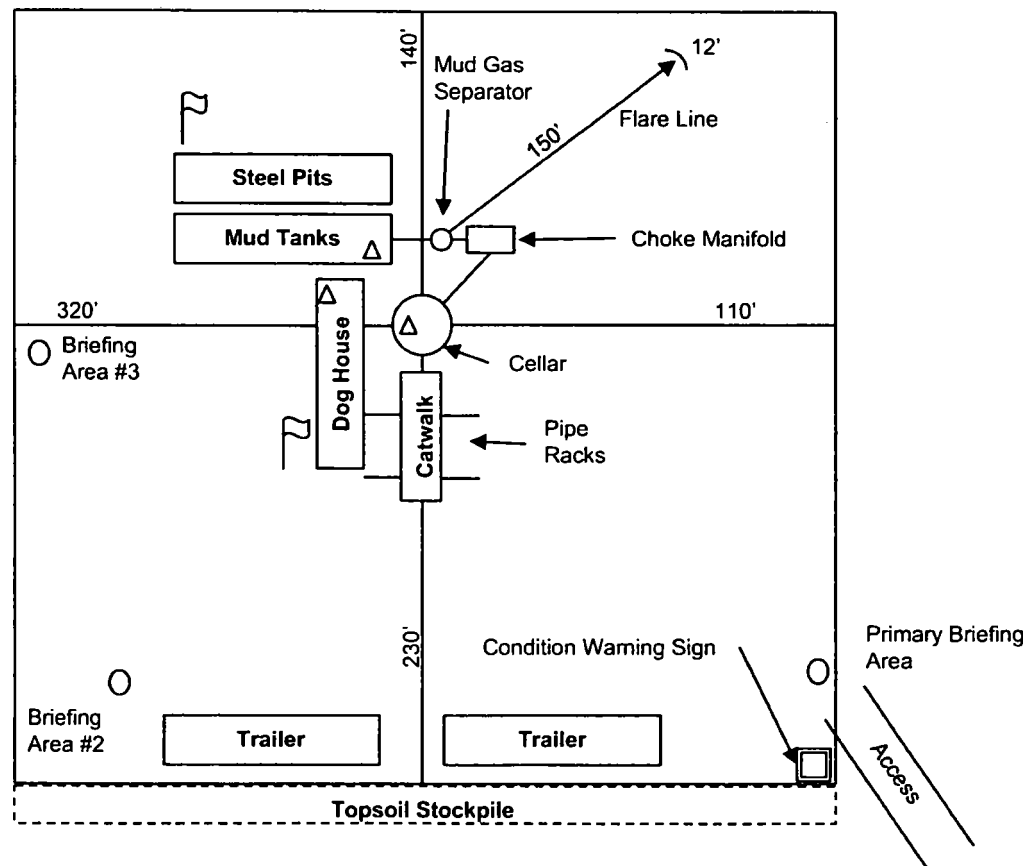
Garrett Fed Com 222H
SHL 2282' FNL & 585' FWL
32-24S-29E Eddy County, NM
(not to scale)

Wind Direction
Indicator

H2S Monitors

Briefing Areas

Prevailing
Winds → North

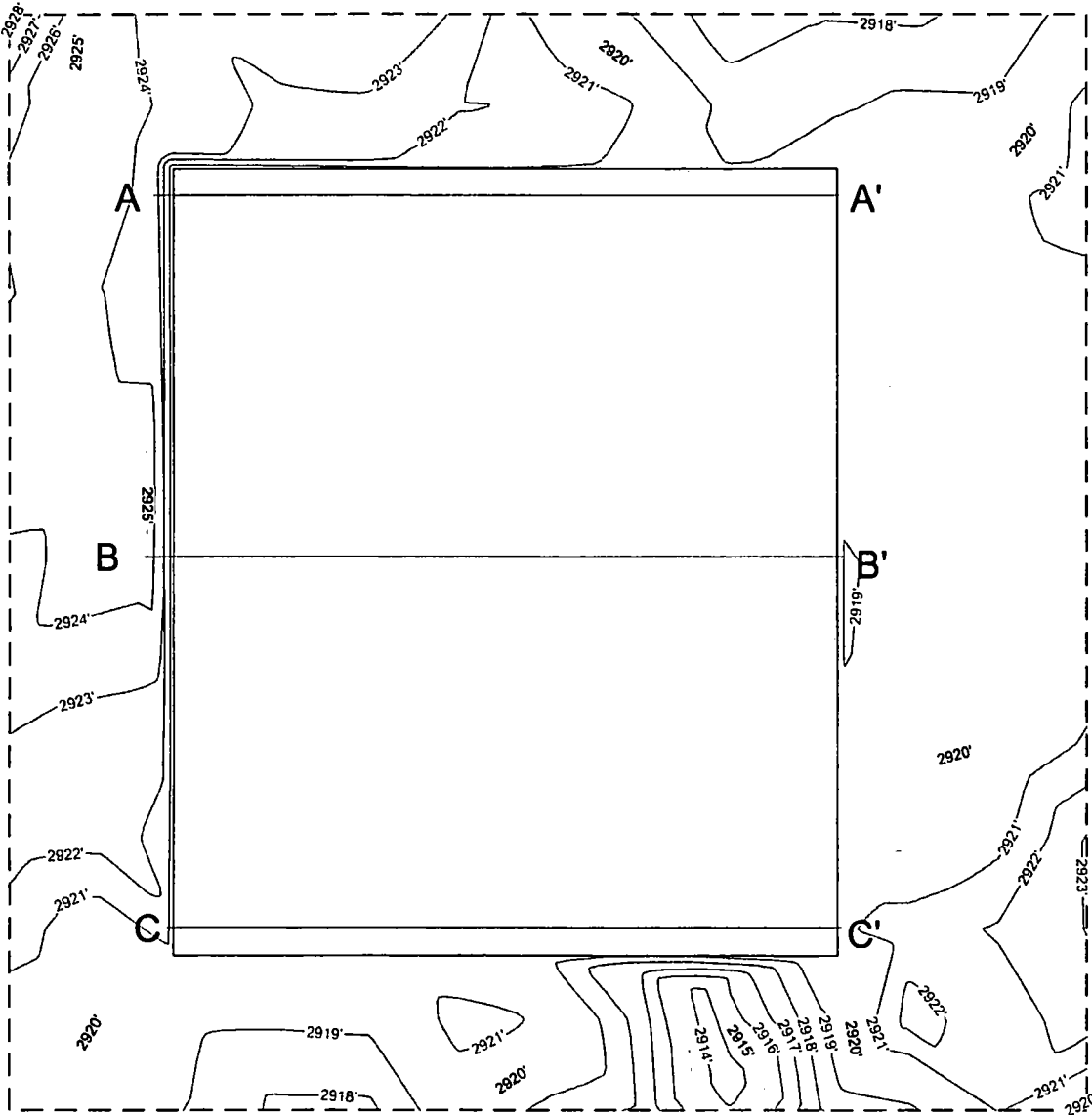


SCALE: 1" = 100'

0' 50' 100'

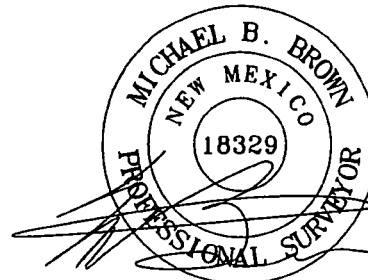
SECTION 32, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

MAP 12



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Michael Blake Brown, P.S. No. 18329

SEPTEMBER 01, 2017

Field note description of even date accompanies this plat.

GARRETT FED COM #122H
SURFACE PAD SITE
PROFILE

REVISION:

GJU	08/22/17
MML	08/30/17

DATE: 06/05/17

FILE: 00 GARRETT FED COM #122H SURFACE PAD SITE REV2

DRAWN BY: EAH

SHEET: 1 OF 2

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
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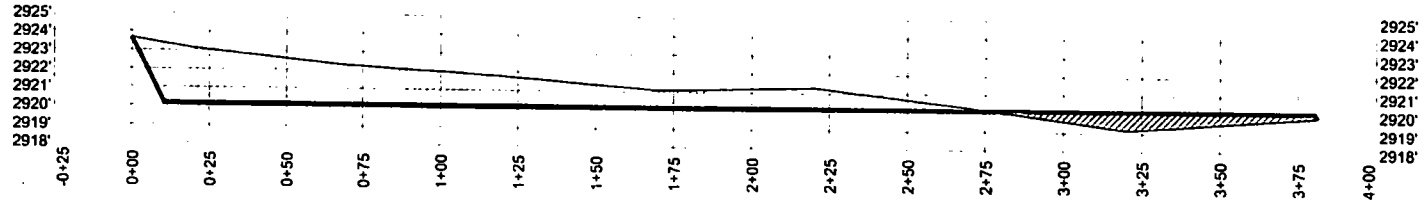
TOP OF PAD ELEVATION: 2920.1540
 CUT SLOPE: 33.33% 3,000:1 18.43"
 FILL SLOPE: 33.33% 3,000:1 18.43"
 BALANCE TOLERANCE (C.Y.): 0.00
 CUT SWELL FACTOR: 1.00
 FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
 CUT : 124,788.4 C.F., 4,621.79 C.Y.
 FILL: 124,788.4 C.F., 4,621.79 C.Y.
 AREA: 167540.1 SQ.FT., 3.846 ACRES

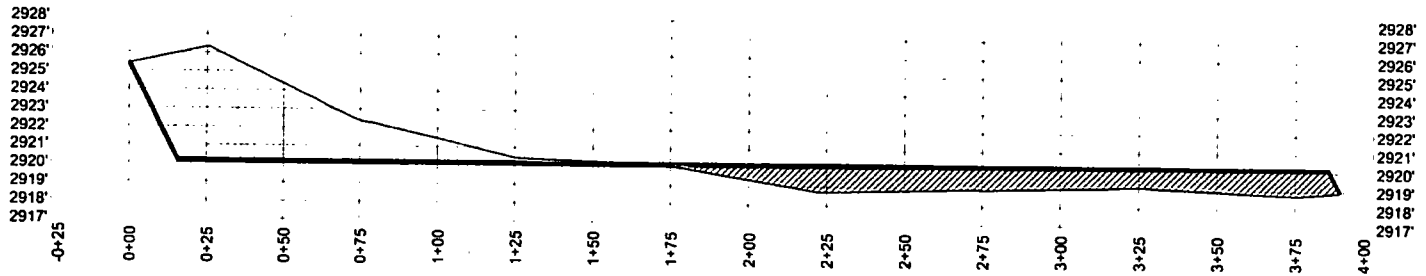
SECTION 32, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO



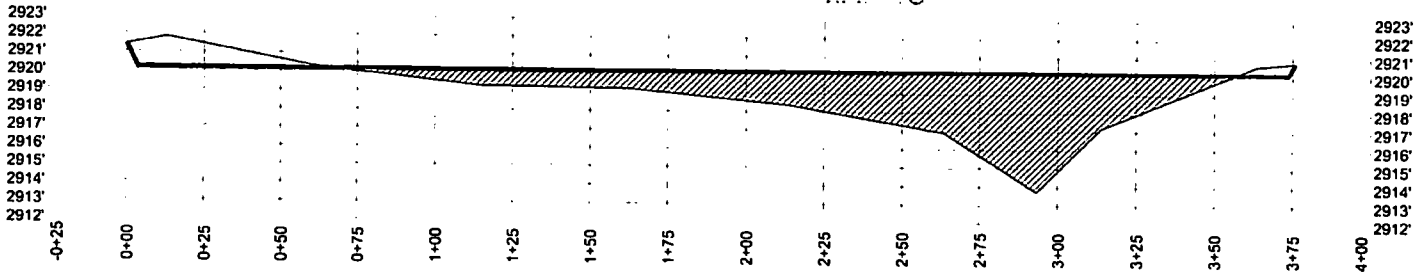
A-A'



B-B'



C-C'



Horizontal Scale = 1:60
 Vertical Scale = 1:5



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GARRETT FED COM #122H
 SURFACE PAD SITE
 PROFILE

REVISION:

GJU	08/22/17
MML	08/30/17

DATE: 06/05/17

FILE: CD GARRETT FED COM 122H SURFACE PAD SITE REV2

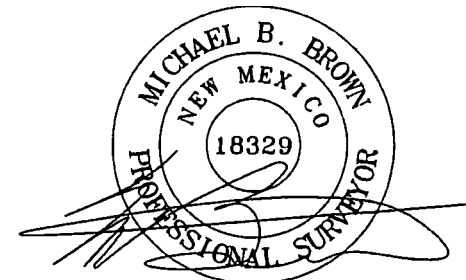
DRAWN BY: EAH

SHEET: 2 OF 2

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MAP 13



Michael Blake Brown, P.S. No. 18329

SEPTEMBER 01, 2017

Field note description of even date accompanies this plat.



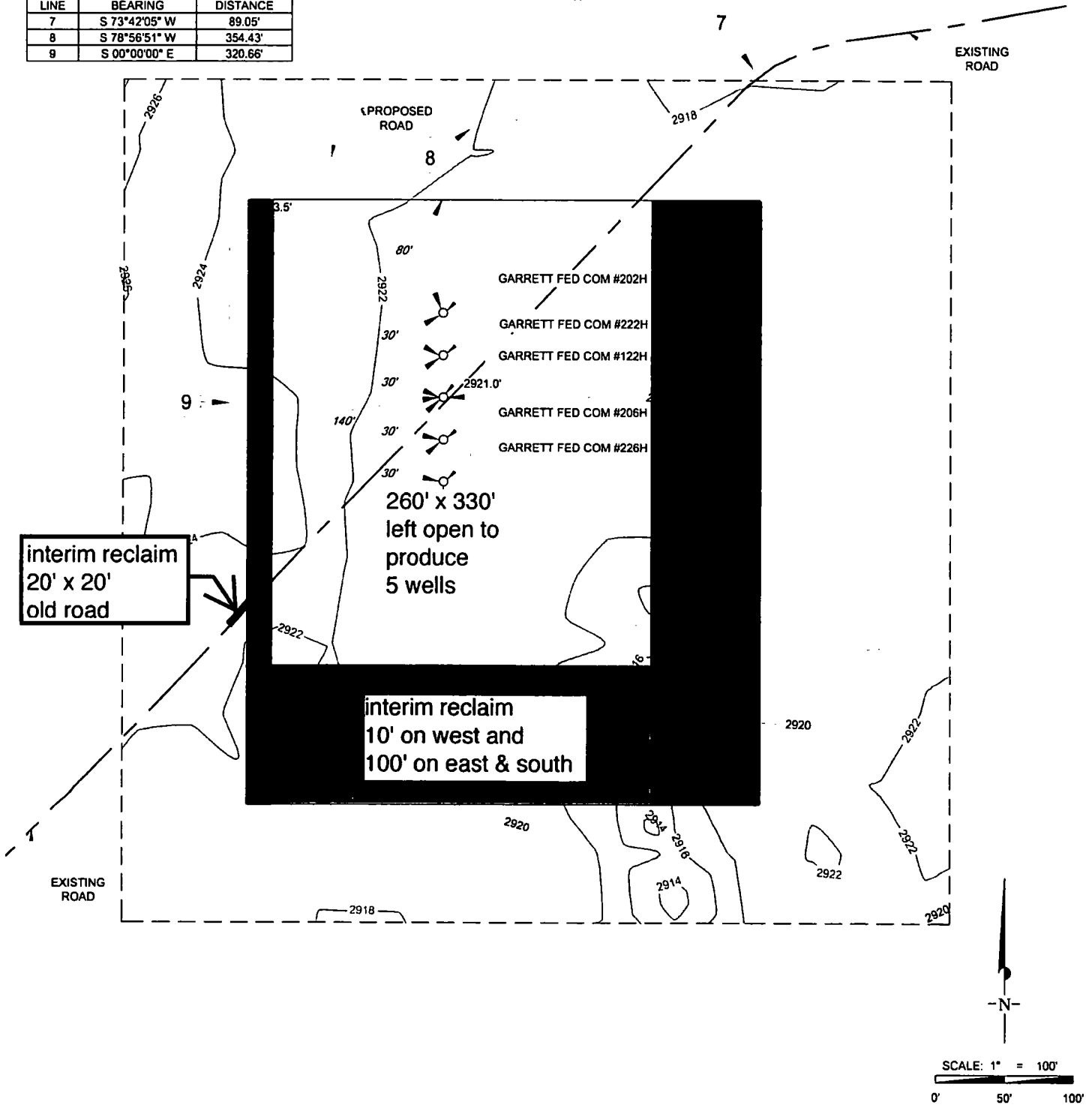
MAP 11

SECTION 32, TOWNSHIP 24S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

PROPOSED ROAD LINE TABLE

LINE	BEARING	DISTANCE
7	S 73°42'05" W	89.05'
8	S 78°56'51" W	354.43'
9	S 00°00'00" E	320.66'

DETAIL VIEW
SCALE: 1" = 100'



Matador Production Company
Garrett Fed Com 222H
SHL 2282' FNL & 585' FWL
BHL 1663' FNL & 240' FEL
Sec. 32, T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 1

Surface Use Plan

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

From the junction of US 285 & NM 396 in Malaga, NM...
Go E 1-1/3 miles on paved County Road 720
Then turn right and go SE 2.9 miles on paved County Road 746
Then turn right and go SW 1.5 miles on a caliche road
Turn left after crossing a cattle guard
Then go E, SE, S, and SW 1.3 miles on a caliche road directly onto the pad

Non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed.

2. ROAD TO BE BUILT OR UPGRADED (See MAP 4)

No new road is needed to access the pad. However, the pad will block the existing road that crosses the pad. That road provides access to Chevron and Judah oil wells in Section 31. A 764.14' permanent detour will be built north and west of Matador's pad. The 764.14' of new resource road will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30'. Maximum grade = 4%. Maximum cut or fill = 3'. No culvert, cattle guard, or vehicle turn out is needed.

Detour borrow ditch will be frequently riprapped to slow discharge. If riprap is unavailable, then sand bags will be used. Straw wattles and geotextile fabric will not be used.

Upgrading will consist of patching potholes with caliche along the quarter-mile of road south from Matador's existing well in NWNW Section 32.

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SURFACE PLAN PAGE 2

3. EXISTING WELLS (See MAP 5)

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

4. PROPOSED PRODUCTION FACILITIES (See MAPS 6 & 7)

An existing tank battery on Matador's Garrett Fed Com 221H pad in NWNW 32-24s-29e will be used. Matador will bury 7 pipelines between the 202H pad and 221H pad. Five of the pipelines will be 3" O. D., X42 carbon steel, Schedule 80, MAOP 1440 psi, flow lines. Sixth pipeline will be a 2" O. D., X42 carbon steel, Schedule 80, MAOP 1440 psi, gas lift supply line. Seventh pipeline will be 8.625" O. D., steel, 1.232" WT SDR-7, MAOP 200 psi, produced water pipeline. No power line is needed given the gas lift supply line. Pipelines will be buried with $\geq 48"$ of cover in a 75' x 2,047.64' long corridor.

5. WATER SUPPLY (See MAP 8)

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

6. CONSTRUCTION MATERIALS & METHODS (See MAPS 9 & 10)

NM One Call (811) will be notified before construction starts. Top $\approx 6"$ of soil and brush will be stockpiled east of the pad. V-door will face east. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Calderon) land in NWNE 9-24s-28e. A berm will be built around the fill sides of the pad.

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SURFACE PLAN PAGE 3

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Eddy County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to a state approved disposal site, e. g., Petro Waste Environmental LP at Orla, Texas. (Texas Railroad Commission permit number STF-0101, P012234, P012236.) Human waste will be disposed of in chemical toilets and hauled to the Carlsbad wastewater treatment plant.

8. ANCILLARY FACILITIES

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

9. WELL SITE LAYOUT (See MAP 9)

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

10. RECLAMATION (See MAPS 11 - 13)

Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad $\approx 52\%$ (1.91 acre) by removing caliche and reclaiming the west (10'), south (100'), and east (100') sides. A 20' dead end road on the west side of the pad will also be reclaimed. This will leave 1.74 acres for producing 5 wells and tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the State Land Office's requirements.

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SURFACE PLAN PAGE 4

Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the last well is plugged, then the rest of the pad and 764.14' of new road will be similarly reclaimed within 6 months of plugging. The old road will be re-opened. Noxious weeds will be controlled.

Land use:

75' x 2047.64' pipeline route = 3.53 acres
30' x 764.14' detour road = 0.53 acre
+ 370' x 430' pad = 3.65 acres
7.71 acres short term
- 75' x 2047.64' pipeline route = 3.53 acres
- 20' x 20' road = 0.01 acre
- 1.91 acre interim reclamation pad
2.26 acres long term (0.53 ac. road + 1.73 ac. pad)

11. SURFACE OWNER

All construction will be on NM State Land Office land. Their address is PO Box 1148, Santa Fe, NM 87504. Phone is 505 827-5760. APD approval by NMOCD will constitute surface use approval under the terms of NM State Land Office lease VB-0055-0000.

12. OTHER INFORMATION

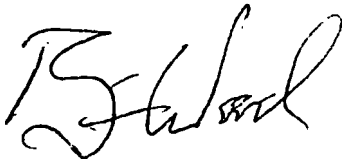
On-site inspection was held with Jim Goodbar, Vance Wolf, et al (BLM) on August 24, 2017. Boone filed archaeology report NMCRIS-138845 on August 29, 2017.

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SURFACE PLAN PAGE 5

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 20th day of January, 2018.



Brian Wood, Consultant

Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Cellular: (505) 699-2276

Field representative will be:

Sam Pryor, Senior Staff Landman

Matador Production Company

5400 LBJ Freeway, Suite 1500

Dallas TX 75240

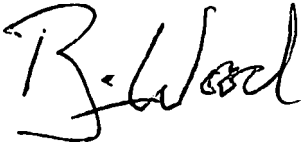
Phone: (972) 371-5241

FAX: (214) 866-4841

January 20, 2018

To Who It May Concern:

All (pad, road, pipelines) construction will be on NM State Land Office land. Their address is PO Box 1148, Santa Fe, NM 87504. Phone is 505 827-5760. In this situation where NMSLO oil and gas lease VB-0055-0000 will be communitized, then surface use is authorized when NMOCD approves the APD.

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

Brian Wood



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

07/19/2018

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



**U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT**

Bond Info Data Report

07/19/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001079

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: