

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

HOBBS OCD

SEP 12 2018

RECEIVED

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM-086150
WELL NAME & NO.:	Brad Dyer Federal 226H
SURFACE HOLE FOOTAGE:	0330' FSL & 2189' FWL
BOTTOM HOLE FOOTAGE:	0240' FNL & 2310' FWL
LOCATION:	Section 35, T. 22 S., R 32 E., NMPM
COUNTY:	County, New Mexico

10M will need to be used for drilling below 9-5/8" shoe as the 7-5/8" X 7" will be in the Wolfcamp and average mud weight is 12 lb per e-mail exchange with Matador on 06/11/2018.

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☐ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 3933612

1. A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the Delaware formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

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

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

Wait on cement (WOC) for Water Basin:

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

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.

Possibility of water flows in the Salado and Castile.

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

Abnormal pressures may be 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 **1235 feet** (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 13-3/8" 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 and the mud weight for the bottom of the hole. Report results to BLM office.

9-5/8" Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the **9-5/8 inch 1st** intermediate casing is:

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

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

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 7" 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 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).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface 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.**
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be psi.

10M 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.

Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi.)

- 5. Operator has the option to utilize a multi-bowl wellhead assembly.**
 - 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.**
- 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 082318

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
LEASE NO.:	NMNM 086150
WELL NAME & NO.:	226H:BRAD DYER FEDERAL
SURFACE HOLE FOOTAGE:	330'/S & 2189'/W
BOTTOM HOLE FOOTAGE:	240'/N & 2310'/W
LOCATION:	T-22S, R-32E, S35. NMPM
COUNTY:	LEA, NM

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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.

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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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Cattle Guard Requirement

Any new or existing cattle guards on the access 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. Once the road is abandoned, the fence would be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Livestock Watering Requirement

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to fences, cattle guards, 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 Matador. Matador must notify the grazing allottee or the private surface landowner and the BLM-CFO (575-234-5972) if any damage occurs to pipelines or structures that provide water to livestock.

Production facilities on the well pads would be bermed to prevent oil, salt, and other chemical contaminants from leaving the pads. 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. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control.

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

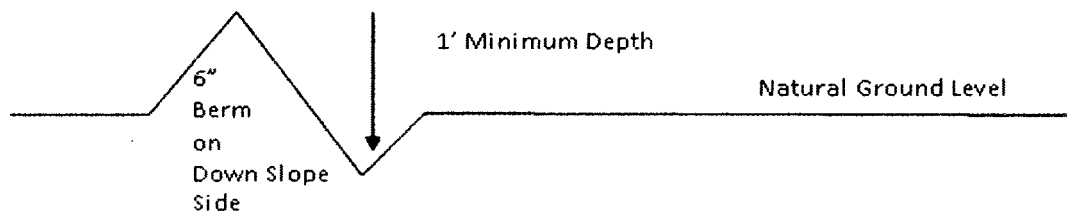
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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

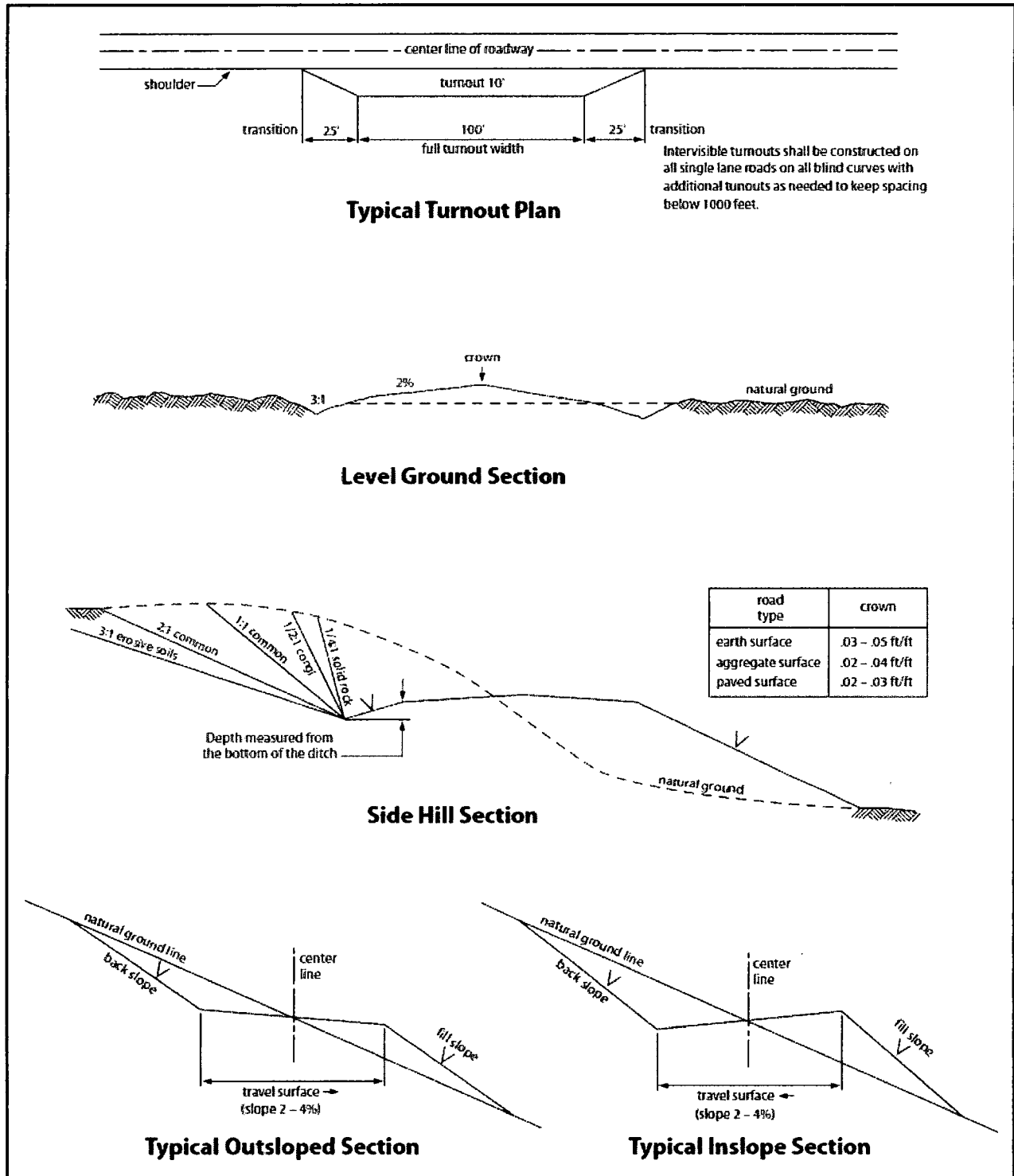


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

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

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

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

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

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

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

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

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

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the

Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

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

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery 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 will be tested and the viability testing of seed shall 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 will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. 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 Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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



Hydrogen Sulfide Drilling

Operations Plan

1 H2S Safety Instructions:

- Characteristics of H2S
- Physical effects and 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 drill 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 tank area will be high enough to be visible.
- Windssock 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:

- Attached

6 Communication:

- 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 most drilling foreman's trailer or living quarters.



7 Drilling 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, then 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
Brad Dyer Federal wells
Matador Production Company
Sec. 35, T22S, R32E Lea 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
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Adam Lange	Drilling Engineer	972-371-5292	214-458-0788
Lea County			
Ambulance			911
Nor Lea General Hospital (Hobbs)		575-397-0560	
State Police (Hobbs)		575-392-5580	
City Police (Hobbs)		575-397-9625	
Sheriff's Office (Lovington)		575-396-3611	
Fire Marshall (Lovington)		575-391-2983	
Volunteer Fire Dept. (Eunice)		575-394-3258	
Emergency Management (Lovington)		575-391-2983	
New Mexico Oil Conservation Division (Hobbs)		575-393-6161	575-390-3186
BLM (Hobbs)		575-393-3612	
Hobbs Animal Clinic		575-392-5563	
Dal Paso Animal Hospital (Hobbs)		575-397-2286	
Mountain States Equine (Hobbs)		575-392-7488	
Carlsbad			
BLM		575-234-5972	
Santa Fe			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hours		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
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 SE, D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop SE; 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	
NM Dept. of Transportation (Roswell)		575-637-7200	

Rig Diagram

Wind Direction Indicator

H2S Monitors

Briefing Areas

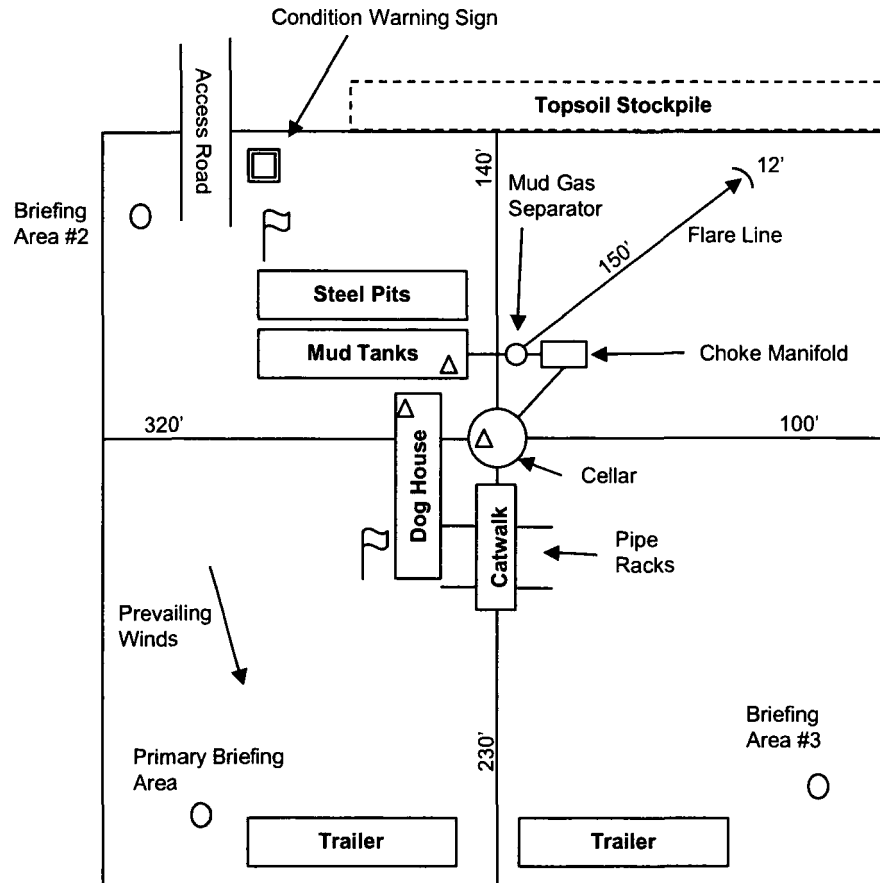


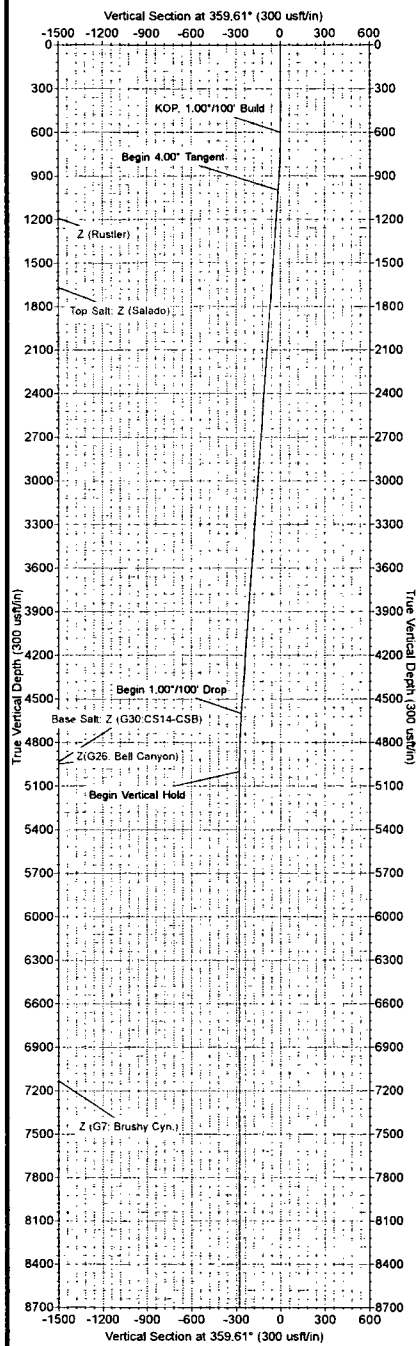
Exhibit E-3: Rig Diagram
 Brad Dyer #226H
 Matador Resources Company
 35-22S-32E
 SHL 330' FSL & 2189' FWL
 BHL 240' FNL & 2310' FWL
 Lea County, NM



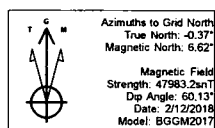


Company: Matador Resources
Site: Brad Dyer 35-22S-32E AR
Well: #226H
Project: Lea County, New Mexico (NAD 27)
Rig: Patterson 282

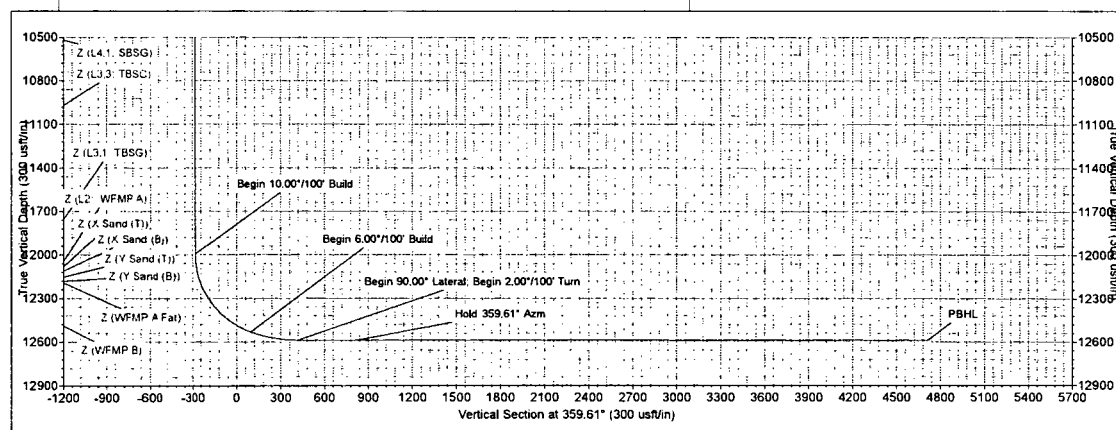
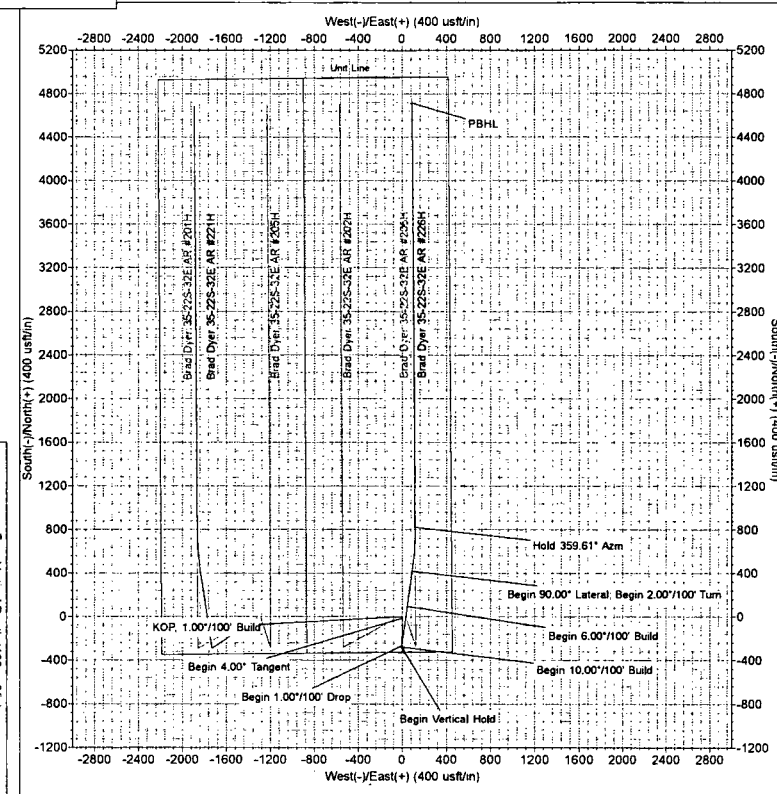
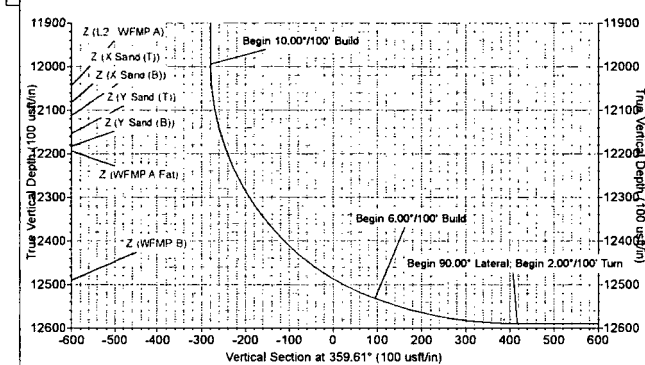
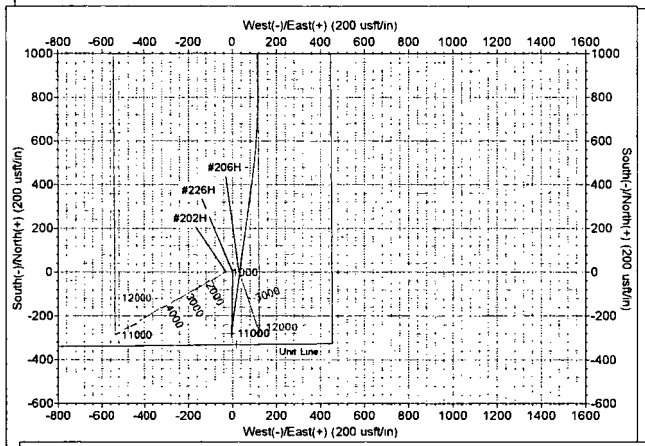
MS Directional



ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	KOP, 1.00°/100' Build	
999.52	4.00	181.03	999.52	-13.92	-0.25	-13.92	13.92	Begin 4.00° Tangent	
4609.90	4.00	181.03	4609.90	-265.43	-4.75	-265.39	265.47	Begin 1.00°/100' Drop	
5009.42	0.00	0.00	5000.00	-279.35	-5.00	-279.31	279.39	Begin Vertical Hold	
12003.43	0.00	0.00	11994.01	-279.35	-5.00	-279.31	279.39	Begin 10.00°/100' Build	
12703.43	70.00	7.72	12532.41	94.23	45.64	93.91	656.39	Begin 6.00°/100' Build	
13036.76	90.00	7.72	12590.00	417.87	89.52	417.25	982.59	Begin 90.00° Lateral; Begin 2.00°/100' Turn	
13442.21	90.00	359.61	12590.00	822.15	115.42	821.35	1388.44	Hold 359.61° Azm	
17334.15	90.00	359.61	12590.00	4714.00	89.00	4713.28	5280.38	PBHL	



WELL DETAILS: #226H			
+N/-S	+E/-W	Nothing	3732.00
0.00	0.00	488723.00	Latitude
		712151.00	Longitude
		32° 20' 30.282 N	03° 38' 47.076 W
US State Plane 1927 (Exact solution) New Mexico East 3001			
Created By: HLH Date: 15.18. February 15 2018 Plan: Design #2			

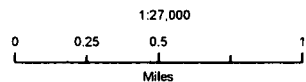


Matador Production Company

Brad Dyer Federal #226H
H₂S Contingency Plan:
2 Mile Radius Map

Section 35, Township 22S, Range 32E
Lea County, New Mexico

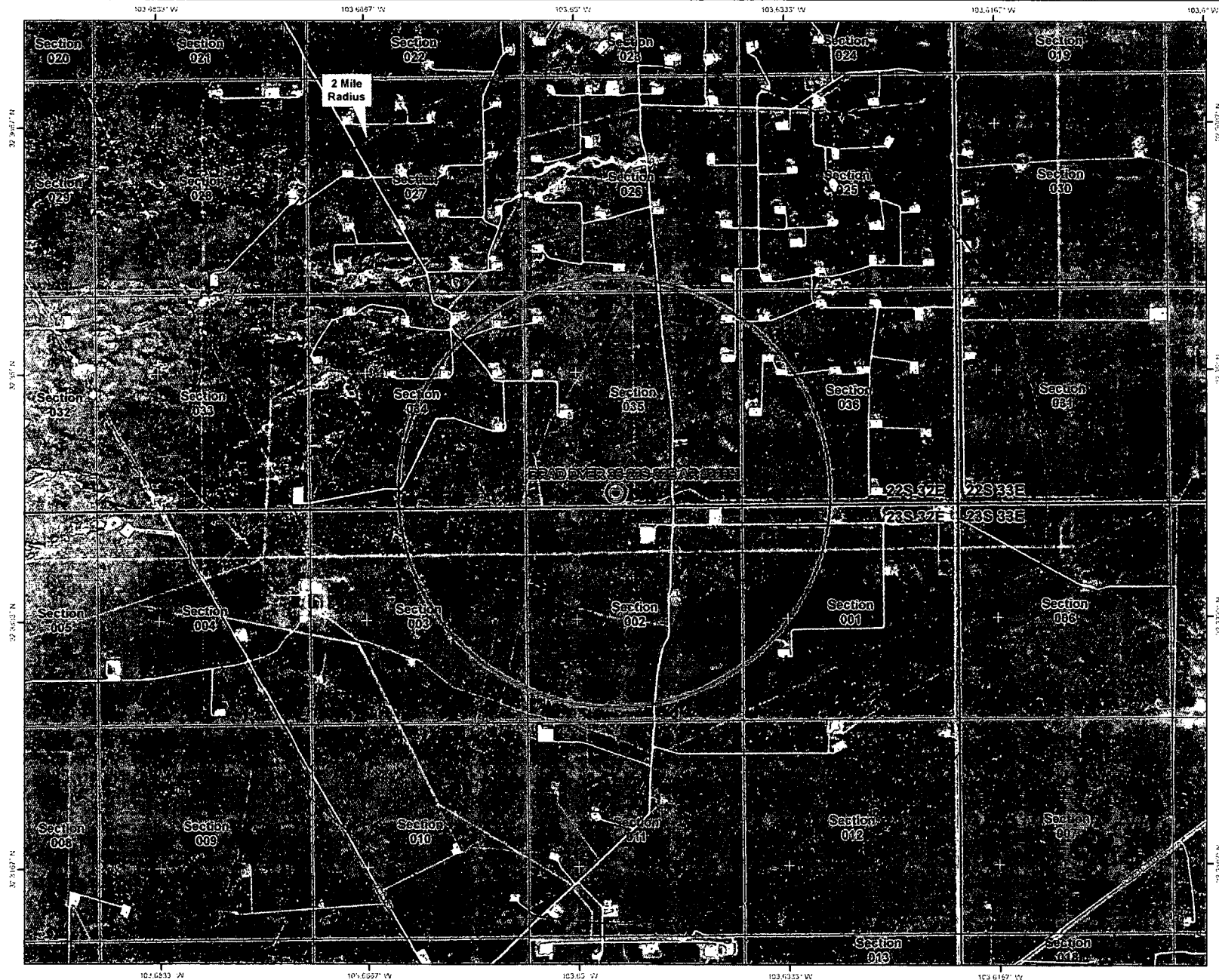
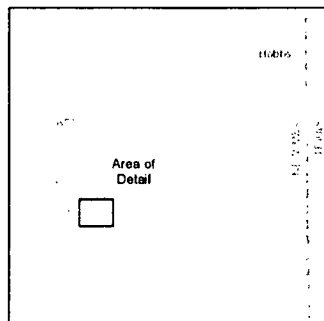
⊙ Surface Hole Location



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., March 28, 2018
for Matador Production Company





Matador Resources

Lea County, New Mexico (NAD 27)

Brad Dyer 35-22S-32E AR

#226H

Wellbore #1

Plan: Design #2

Standard Planning Report

15 February, 2018





MS Directional Planning Report



Database: EDM Conroe
Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Site: Brad Dyer 35-22S-32E AR
Well: #226H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, New Mexico (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	#226H			
Well Position	+N/-S	488,723.00 usft	Northing:	488,723.00 usft
	+E/-W	712,151.00 usft	Easting:	712,151.00 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	Ground Level: 3,732.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2017	2/12/2018	6.99	60.13	47,983

Design	Design #2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.61

Plan Survey Tool Program Date 2/15/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1 0.00	17,333.69	Design #2 (Wellbore #1)	MWD	
			OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
999.52	4.00	181.03	999.20	-13.92	-0.25	1.00	1.00	0.00	181.03	
4,609.90	4.00	181.03	4,600.80	-265.43	-4.75	0.00	0.00	0.00	0.00	
5,009.42	0.00	0.00	5,000.00	-279.35	-5.00	1.00	-1.00	0.00	180.00	VP v2 - Brad Dyer #
12,003.43	0.00	0.00	11,994.01	-279.35	-5.00	0.00	0.00	0.00	0.00	
12,703.43	70.00	7.72	12,532.41	94.23	45.64	10.00	10.00	0.00	7.72	
13,036.76	90.00	7.72	12,590.00	417.87	89.52	6.00	6.00	0.00	0.00	
13,442.21	90.00	359.61	12,590.00	822.15	115.42	2.00	0.00	-2.00	-90.00	
17,334.15	90.00	359.61	12,590.00	4,714.00	89.00	0.00	0.00	0.00	0.00	PBHL - Brad Dyer #



MS Directional
Planning Report



Database: EDM Conroe
Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Site: Brad Dyer 35-22S-32E AR
Well: #226H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 1.00°/100' Build									
700.00	1.00	181.03	699.99	-0.87	-0.02	-0.87	1.00	1.00	0.00
800.00	2.00	181.03	799.96	-3.49	-0.06	-3.49	1.00	1.00	0.00
900.00	3.00	181.03	899.86	-7.85	-0.14	-7.85	1.00	1.00	0.00
999.52	4.00	181.03	999.20	-13.92	-0.25	-13.92	1.00	1.00	0.00
Begin 4.00° Tangent									
1,100.00	4.00	181.03	1,099.43	-20.92	-0.37	-20.92	0.00	0.00	0.00
1,200.00	4.00	181.03	1,199.19	-27.89	-0.50	-27.88	0.00	0.00	0.00
1,300.00	4.00	181.03	1,298.95	-34.85	-0.62	-34.85	0.00	0.00	0.00
1,400.00	4.00	181.03	1,398.70	-41.82	-0.75	-41.81	0.00	0.00	0.00
1,500.00	4.00	181.03	1,498.46	-48.79	-0.87	-48.78	0.00	0.00	0.00
1,600.00	4.00	181.03	1,598.22	-55.75	-1.00	-55.74	0.00	0.00	0.00
1,700.00	4.00	181.03	1,697.97	-62.72	-1.12	-62.71	0.00	0.00	0.00
1,800.00	4.00	181.03	1,797.73	-69.68	-1.25	-69.67	0.00	0.00	0.00
1,900.00	4.00	181.03	1,897.49	-76.65	-1.37	-76.64	0.00	0.00	0.00
2,000.00	4.00	181.03	1,997.25	-83.62	-1.50	-83.60	0.00	0.00	0.00
2,100.00	4.00	181.03	2,097.00	-90.58	-1.62	-90.57	0.00	0.00	0.00
2,200.00	4.00	181.03	2,196.76	-97.55	-1.75	-97.54	0.00	0.00	0.00
2,300.00	4.00	181.03	2,296.52	-104.52	-1.87	-104.50	0.00	0.00	0.00
2,400.00	4.00	181.03	2,396.27	-111.48	-2.00	-111.47	0.00	0.00	0.00
2,500.00	4.00	181.03	2,496.03	-118.45	-2.12	-118.43	0.00	0.00	0.00
2,600.00	4.00	181.03	2,595.79	-125.41	-2.24	-125.40	0.00	0.00	0.00
2,700.00	4.00	181.03	2,695.54	-132.38	-2.37	-132.36	0.00	0.00	0.00
2,800.00	4.00	181.03	2,795.30	-139.35	-2.49	-139.33	0.00	0.00	0.00
2,900.00	4.00	181.03	2,895.06	-146.31	-2.62	-146.29	0.00	0.00	0.00
3,000.00	4.00	181.03	2,994.81	-153.28	-2.74	-153.26	0.00	0.00	0.00
3,100.00	4.00	181.03	3,094.57	-160.25	-2.87	-160.22	0.00	0.00	0.00
3,200.00	4.00	181.03	3,194.33	-167.21	-2.99	-167.19	0.00	0.00	0.00
3,300.00	4.00	181.03	3,294.09	-174.18	-3.12	-174.15	0.00	0.00	0.00
3,400.00	4.00	181.03	3,393.84	-181.14	-3.24	-181.12	0.00	0.00	0.00
3,500.00	4.00	181.03	3,493.60	-188.11	-3.37	-188.08	0.00	0.00	0.00
3,600.00	4.00	181.03	3,593.36	-195.08	-3.49	-195.05	0.00	0.00	0.00
3,700.00	4.00	181.03	3,693.11	-202.04	-3.62	-202.01	0.00	0.00	0.00
3,800.00	4.00	181.03	3,792.87	-209.01	-3.74	-208.98	0.00	0.00	0.00
3,900.00	4.00	181.03	3,892.63	-215.98	-3.87	-215.94	0.00	0.00	0.00
4,000.00	4.00	181.03	3,992.38	-222.94	-3.99	-222.91	0.00	0.00	0.00
4,100.00	4.00	181.03	4,092.14	-229.91	-4.12	-229.87	0.00	0.00	0.00
4,200.00	4.00	181.03	4,191.90	-236.87	-4.24	-236.84	0.00	0.00	0.00
4,300.00	4.00	181.03	4,291.66	-243.84	-4.36	-243.80	0.00	0.00	0.00
4,400.00	4.00	181.03	4,391.41	-250.81	-4.49	-250.77	0.00	0.00	0.00
4,500.00	4.00	181.03	4,491.17	-257.77	-4.61	-257.74	0.00	0.00	0.00
4,609.90	4.00	181.03	4,600.80	-265.43	-4.75	-265.39	0.00	0.00	0.00
Begin 1.00°/100' Drop									
4,700.00	3.09	181.03	4,690.73	-271.00	-4.85	-270.96	1.00	-1.00	0.00
4,800.00	2.09	181.03	4,790.63	-275.52	-4.93	-275.48	1.00	-1.00	0.00
4,900.00	1.09	181.03	4,890.59	-278.31	-4.98	-278.27	1.00	-1.00	0.00



MS Directional
Planning Report



Database: EDM Conroe
Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Site: Brad Dyer 35-22S-32E AR
Well: #226H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,009.42	0.00	0.00	5,000.00	-279.35	-5.00	-279.31	1.00	-1.00	0.00
Begin Vertical Hold									
5,100.00	0.00	0.00	5,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,200.00	0.00	0.00	5,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,300.00	0.00	0.00	5,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,400.00	0.00	0.00	5,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,500.00	0.00	0.00	5,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,600.00	0.00	0.00	5,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,700.00	0.00	0.00	5,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,800.00	0.00	0.00	5,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
5,900.00	0.00	0.00	5,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,000.00	0.00	0.00	5,990.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,100.00	0.00	0.00	6,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,200.00	0.00	0.00	6,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,300.00	0.00	0.00	6,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,400.00	0.00	0.00	6,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,500.00	0.00	0.00	6,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,600.00	0.00	0.00	6,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,700.00	0.00	0.00	6,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,800.00	0.00	0.00	6,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
6,900.00	0.00	0.00	6,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,000.00	0.00	0.00	6,990.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,100.00	0.00	0.00	7,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,200.00	0.00	0.00	7,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,300.00	0.00	0.00	7,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,400.00	0.00	0.00	7,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,500.00	0.00	0.00	7,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,600.00	0.00	0.00	7,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,700.00	0.00	0.00	7,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,800.00	0.00	0.00	7,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
7,900.00	0.00	0.00	7,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,000.00	0.00	0.00	7,990.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,100.00	0.00	0.00	8,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,200.00	0.00	0.00	8,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,300.00	0.00	0.00	8,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,400.00	0.00	0.00	8,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,500.00	0.00	0.00	8,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,600.00	0.00	0.00	8,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,700.00	0.00	0.00	8,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,800.00	0.00	0.00	8,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
8,900.00	0.00	0.00	8,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,000.00	0.00	0.00	8,990.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,100.00	0.00	0.00	9,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,200.00	0.00	0.00	9,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,300.00	0.00	0.00	9,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,400.00	0.00	0.00	9,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,500.00	0.00	0.00	9,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,600.00	0.00	0.00	9,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,700.00	0.00	0.00	9,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,800.00	0.00	0.00	9,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
9,900.00	0.00	0.00	9,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,000.00	0.00	0.00	9,990.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,100.00	0.00	0.00	10,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,200.00	0.00	0.00	10,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00



MS Directional Planning Report



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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.00	0.00	0.00	10,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,400.00	0.00	0.00	10,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,500.00	0.00	0.00	10,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,600.00	0.00	0.00	10,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,700.00	0.00	0.00	10,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,800.00	0.00	0.00	10,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
10,900.00	0.00	0.00	10,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,000.00	0.00	0.00	10,990.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,100.00	0.00	0.00	11,090.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,200.00	0.00	0.00	11,190.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,300.00	0.00	0.00	11,290.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,400.00	0.00	0.00	11,390.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,500.00	0.00	0.00	11,490.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,600.00	0.00	0.00	11,590.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,700.00	0.00	0.00	11,690.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,800.00	0.00	0.00	11,790.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
11,900.00	0.00	0.00	11,890.58	-279.35	-5.00	-279.31	0.00	0.00	0.00
12,003.43	0.00	0.00	11,994.01	-279.35	-5.00	-279.31	0.00	0.00	0.00
Begin 10.00°/100' Build									
12,050.00	4.66	7.72	12,040.53	-277.48	-4.75	-277.44	10.00	10.00	0.00
12,100.00	9.66	7.72	12,090.12	-271.30	-3.91	-271.27	10.00	10.00	0.00
12,150.00	14.66	7.72	12,138.99	-260.87	-2.50	-260.85	10.00	10.00	0.00
12,200.00	19.66	7.72	12,186.75	-246.26	-0.51	-246.25	10.00	10.00	0.00
12,250.00	24.66	7.72	12,233.04	-227.58	2.02	-227.59	10.00	10.00	0.00
12,300.00	29.66	7.72	12,277.51	-204.98	5.08	-205.00	10.00	10.00	0.00
12,350.00	34.66	7.72	12,319.83	-178.61	8.66	-178.67	10.00	10.00	0.00
12,400.00	39.66	7.72	12,359.67	-148.70	12.71	-148.78	10.00	10.00	0.00
12,450.00	44.66	7.72	12,396.72	-115.45	17.22	-115.57	10.00	10.00	0.00
12,500.00	49.66	7.72	12,430.71	-79.14	22.14	-79.28	10.00	10.00	0.00
12,550.00	54.66	7.72	12,461.37	-40.02	27.44	-40.21	10.00	10.00	0.00
12,600.00	59.66	7.72	12,488.48	1.59	33.08	1.37	10.00	10.00	0.00
12,650.00	64.66	7.72	12,511.83	45.39	39.02	45.12	10.00	10.00	0.00
12,703.43	70.00	7.72	12,532.41	94.23	45.64	93.91	10.00	10.00	0.00
Begin 6.00°/100' Build									
12,750.00	72.79	7.72	12,547.27	137.96	51.57	137.60	6.00	6.00	0.00
12,800.00	75.79	7.72	12,560.80	185.65	58.04	185.25	6.00	6.00	0.00
12,850.00	78.79	7.72	12,571.80	233.98	64.59	233.53	6.00	6.00	0.00
12,900.00	81.79	7.72	12,580.23	282.81	71.21	282.32	6.00	6.00	0.00
12,950.00	84.79	7.72	12,586.06	332.01	77.88	331.48	6.00	6.00	0.00
13,000.00	87.79	7.72	12,589.30	381.45	84.58	380.87	6.00	6.00	0.00
13,036.76	90.00	7.72	12,590.00	417.87	89.52	417.25	6.00	6.00	0.00
Begin 90.00° Lateral; Begin 2.00°/100' Turn									
13,100.00	90.00	6.46	12,590.00	480.62	97.32	479.95	2.00	0.00	-2.00
13,200.00	90.00	4.46	12,590.00	580.17	106.82	579.43	2.00	0.00	-2.00
13,300.00	90.00	2.46	12,590.00	679.98	112.85	679.20	2.00	0.00	-2.00
13,400.00	90.00	0.46	12,590.00	779.94	115.39	779.14	2.00	0.00	-2.00
13,442.21	90.00	359.61	12,590.00	822.15	115.42	821.35	2.00	0.00	-2.00
Hold 359.61° Azm									
13,500.00	90.00	359.61	12,590.00	879.94	115.02	879.14	0.00	0.00	0.00
13,600.00	90.00	359.61	12,590.00	979.94	114.34	979.14	0.00	0.00	0.00
13,700.00	90.00	359.61	12,590.00	1,079.94	113.67	1,079.14	0.00	0.00	0.00
13,800.00	90.00	359.61	12,590.00	1,179.93	112.99	1,179.14	0.00	0.00	0.00
13,900.00	90.00	359.61	12,590.00	1,279.93	112.31	1,279.14	0.00	0.00	0.00



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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.00	90.00	359.61	12,590.00	1,379.93	111.63	1,379.14	0.00	0.00	0.00
14,100.00	90.00	359.61	12,590.00	1,479.93	110.95	1,479.14	0.00	0.00	0.00
14,200.00	90.00	359.61	12,590.00	1,579.92	110.27	1,579.14	0.00	0.00	0.00
14,300.00	90.00	359.61	12,590.00	1,679.92	109.59	1,679.14	0.00	0.00	0.00
14,400.00	90.00	359.61	12,590.00	1,779.92	108.91	1,779.14	0.00	0.00	0.00
14,500.00	90.00	359.61	12,590.00	1,879.92	108.24	1,879.14	0.00	0.00	0.00
14,600.00	90.00	359.61	12,590.00	1,979.91	107.56	1,979.14	0.00	0.00	0.00
14,700.00	90.00	359.61	12,590.00	2,079.91	106.88	2,079.14	0.00	0.00	0.00
14,800.00	90.00	359.61	12,590.00	2,179.91	106.20	2,179.14	0.00	0.00	0.00
14,900.00	90.00	359.61	12,590.00	2,279.91	105.52	2,279.14	0.00	0.00	0.00
15,000.00	90.00	359.61	12,590.00	2,379.91	104.84	2,379.14	0.00	0.00	0.00
15,100.00	90.00	359.61	12,590.00	2,479.90	104.16	2,479.14	0.00	0.00	0.00
15,200.00	90.00	359.61	12,590.00	2,579.90	103.48	2,579.14	0.00	0.00	0.00
15,300.00	90.00	359.61	12,590.00	2,679.90	102.81	2,679.14	0.00	0.00	0.00
15,400.00	90.00	359.61	12,590.00	2,779.90	102.13	2,779.14	0.00	0.00	0.00
15,500.00	90.00	359.61	12,590.00	2,879.89	101.45	2,879.14	0.00	0.00	0.00
15,600.00	90.00	359.61	12,590.00	2,979.89	100.77	2,979.14	0.00	0.00	0.00
15,700.00	90.00	359.61	12,590.00	3,079.89	100.09	3,079.14	0.00	0.00	0.00
15,800.00	90.00	359.61	12,590.00	3,179.89	99.41	3,179.14	0.00	0.00	0.00
15,900.00	90.00	359.61	12,590.00	3,279.88	98.73	3,279.14	0.00	0.00	0.00
16,000.00	90.00	359.61	12,590.00	3,379.88	98.06	3,379.14	0.00	0.00	0.00
16,100.00	90.00	359.61	12,590.00	3,479.88	97.38	3,479.14	0.00	0.00	0.00
16,200.00	90.00	359.61	12,590.00	3,579.88	96.70	3,579.14	0.00	0.00	0.00
16,300.00	90.00	359.61	12,590.00	3,679.88	96.02	3,679.14	0.00	0.00	0.00
16,400.00	90.00	359.61	12,590.00	3,779.87	95.34	3,779.14	0.00	0.00	0.00
16,500.00	90.00	359.61	12,590.00	3,879.87	94.66	3,879.14	0.00	0.00	0.00
16,600.00	90.00	359.61	12,590.00	3,979.87	93.98	3,979.14	0.00	0.00	0.00
16,700.00	90.00	359.61	12,590.00	4,079.87	93.30	4,079.14	0.00	0.00	0.00
16,800.00	90.00	359.61	12,590.00	4,179.86	92.63	4,179.14	0.00	0.00	0.00
16,900.00	90.00	359.61	12,590.00	4,279.86	91.95	4,279.14	0.00	0.00	0.00
17,000.00	90.00	359.61	12,590.00	4,379.86	91.27	4,379.14	0.00	0.00	0.00
17,100.00	90.00	359.61	12,590.00	4,479.86	90.59	4,479.14	0.00	0.00	0.00
17,200.00	90.00	359.61	12,590.00	4,579.85	89.91	4,579.14	0.00	0.00	0.00
17,300.00	90.00	359.61	12,590.00	4,679.85	89.23	4,679.14	0.00	0.00	0.00
17,334.15	90.00	359.61	12,590.00	4,714.00	89.00	4,713.29	0.00	0.00	0.00

PBHL

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP v2 - Brad Dyer #2; - plan hits target center - Point	0.00	0.00	5,000.00	-279.35	-5.00	488,443.65	712,146.00	32° 20' 27.518 N	103° 38' 47.157 W
VP - Brad Dyer #226H - plan misses target center by 54.23usft at 5718.25usft MD (5708.83 TVD, -279.35 N, -5.00 E) - Point	0.00	0.00	5,708.83	-328.81	17.23	488,394.19	712,168.23	32° 20' 27.027 N	103° 38' 46.902 W
PBHL - Brad Dyer #2; - plan hits target center - Point	0.00	0.00	12,590.00	4,714.00	89.00	493,437.00	712,240.00	32° 21' 16.924 N	103° 38' 45.688 W



MS Directional
Planning Report



Database: EDM Conroe
Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Site: Brad Dyer 35-22S-32E AR
Well: #226H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,190.60	1,189.81	Z (Rustler)		0.00	
1,668.19	1,666.24	Top Salt: Z (Salado)		0.00	
4,942.31	4,932.89	Base Salt: Z (G30:CS14-CSB)		0.00	
4,956.46	4,947.04	Z(G26: Bell Canyon)		0.00	
7,142.12	7,132.70	Z (G7: Brushy Cyn.)		0.00	
8,713.95	8,704.53	Z(G4: BSGI (CS9))		0.00	
9,816.96	9,807.54	Z(L5.3: FBSC)		0.00	
9,838.47	9,829.05	Z (L5.1: FBSC)		0.00	
10,172.06	10,162.64	Z (L4.3: SBSC)		0.00	
10,529.75	10,520.33	Z (L4.1: SBSC)		0.00	
10,978.34	10,968.92	Z (L3.3: TBSC)		0.00	
11,763.56	11,754.14	Z (L3.1: TBSC)		0.00	
12,052.17	12,042.69	Z (L2: WFMP A)		0.00	
12,091.30	12,081.53	Z (X Sand (T))		0.00	
12,123.18	12,112.89	Z (X Sand (B))		0.00	
12,165.20	12,153.64	Z (Y Sand (T))		0.00	
12,195.68	12,182.67	Z (Y Sand (B))		0.00	
12,207.43	12,193.73	Z (WFMP A Fat)		0.00	
12,603.94	12,490.46	Z (WFMP B)		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
600.00	600.00	0.00	0.00	KOP, 1.00°/100' Build
999.52	999.20	-13.92	-0.25	Begin 4.00° Tangent
4,609.90	4,600.80	-265.43	-4.75	Begin 1.00°/100' Drop
5,009.42	5,000.00	-279.35	-5.00	Begin Vertical Hold
12,003.43	11,994.01	-279.35	-5.00	Begin 10.00°/100' Build
12,703.43	12,532.41	94.23	45.64	Begin 6.00°/100' Build
13,036.76	12,590.00	417.87	89.52	Begin 90.00° Lateral; Begin 2.00°/100' Turn
13,442.21	12,590.00	822.15	115.42	Hold 359.61° Azm
17,334.15	12,590.00	4,714.00	89.00	PBHL



Matador Resources

Lea County, New Mexico (NAD 27)

Brad Dyer 35-22S-32E AR

#226H

Wellbore #1

Design #2

Anticollision Report

15 February, 2018





MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Reference	Design #2
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 u
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program Date 2/15/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17,333.69	Design #2 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Brad Dyer 35-22S-32E AR						
#201H - Wellbore #1 - Design #1	600.00	602.00	1,350.06	1,346.21	350.830	CC, ES
#201H - Wellbore #1 - Design #1	17,334.15	16,919.32	2,028.40	1,850.85	11.424	SF
#202H - Wellbore #1 - Design #2	678.44	677.43	30.00	25.61	6.839	CC
#202H - Wellbore #1 - Design #2	800.00	801.04	30.14	24.91	5.759	ES
#202H - Wellbore #1 - Design #2	17,334.15	16,942.54	781.80	620.48	4.846	SF
#205H - Wellbore #1 - Design #2	11,860.85	11,863.46	1,192.08	1,109.16	14.376	CC
#205H - Wellbore #1 - Design #2	12,000.00	11,995.83	1,192.49	1,108.67	14.227	ES
#205H - Wellbore #1 - Design #2	17,334.15	17,119.49	1,338.61	1,159.85	7.488	SF
#206H - Wellbore #1 - Design #2	600.00	600.00	30.00	26.16	7.810	CC
#206H - Wellbore #1 - Design #2	800.00	800.04	30.26	25.03	5.786	ES
#206H - Wellbore #1 - Design #2	11,900.00	11,899.99	128.37	45.18	1.543	SF
#221H - Wellbore #1 - Design #2	1,008.92	1,009.57	1,319.74	1,313.04	197.034	CC
#221H - Wellbore #1 - Design #2	1,100.00	1,084.43	1,320.26	1,312.98	181.463	ES
#221H - Wellbore #1 - Design #2	17,334.15	17,350.06	1,980.11	1,799.05	10.936	SF

Offset Design Brad Dyer 35-22S-32E AR - #201H - Wellbore #1 - Design #1

Survey Program: 0-MWD

Offset Site Error: 0.00 usft

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)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	2.00	2.00	0.00	0.00	-90.55	-13.00	-1,350.00	1,350.06				
100.00	100.00	102.00	102.00	0.13	0.14	-90.55	-13.00	-1,350.00	1,350.06	1,349.80	0.26	5,124.026	
200.00	200.00	202.00	202.00	0.49	0.49	-90.55	-13.00	-1,350.00	1,350.06	1,349.08	0.98	1,377.025	
300.00	300.00	302.00	302.00	0.85	0.85	-90.55	-13.00	-1,350.00	1,350.06	1,348.37	1.70	795.388	
400.00	400.00	402.00	402.00	1.20	1.21	-90.55	-13.00	-1,350.00	1,350.06	1,347.65	2.41	559.193	
500.00	500.00	502.00	502.00	1.56	1.57	-90.55	-13.00	-1,350.00	1,350.06	1,346.93	3.13	431.158	
600.00	600.00	602.00	602.00	1.92	1.93	-90.55	-13.00	-1,350.00	1,350.06	1,346.21	3.85	350.830	CC, ES
700.00	699.99	684.50	684.50	2.26	2.21	-90.53	-13.30	-1,350.54	1,350.70	1,346.23	4.47	301.885	
800.00	799.96	767.32	767.30	2.59	2.49	-90.45	-14.19	-1,352.13	1,352.56	1,347.47	5.09	265.939	
900.00	899.86	850.08	850.00	2.93	2.78	-90.33	-15.65	-1,354.77	1,355.64	1,349.94	5.71	237.573	
999.52	999.20	932.36	932.18	3.28	3.06	-90.16	-17.69	-1,358.42	1,359.93	1,353.60	6.33	214.746	
1,000.00	999.68	932.76	932.57	3.28	3.07	-90.16	-17.70	-1,358.44	1,359.95	1,353.62	6.34	214.647	
1,100.00	1,099.43	1,015.35	1,014.98	3.63	3.36	-89.97	-20.32	-1,363.15	1,365.51	1,358.54	6.97	195.828	
1,200.00	1,199.19	1,097.85	1,097.22	3.99	3.65	-89.82	-23.51	-1,368.89	1,372.34	1,364.72	7.62	180.197	

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #201H - Wellbore #1 - Design #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWVD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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)					
1,300.00	1,298.95	1,180.22	1,179.23	4.35	3.95	-89.68	-27.28	-1,375.65	1,380.42	1,372.16	8.26	167.060			
1,400.00	1,398.70	1,275.65	1,274.13	4.71	4.31	-89.60	-32.11	-1,384.33	1,389.40	1,380.43	8.97	154.975			
1,500.00	1,498.46	1,375.22	1,373.17	5.08	4.68	-89.52	-37.17	-1,393.43	1,398.41	1,388.72	9.69	144.343			
1,600.00	1,598.22	1,474.80	1,472.20	5.44	5.06	-89.45	-42.23	-1,402.52	1,407.43	1,397.01	10.42	135.132			
1,700.00	1,697.97	1,574.37	1,571.23	5.81	5.44	-89.37	-47.30	-1,411.62	1,416.44	1,405.30	11.15	127.090			
1,800.00	1,797.73	1,673.95	1,670.26	6.18	5.82	-89.30	-52.36	-1,420.71	1,425.46	1,413.59	11.88	120.013			
1,900.00	1,897.49	1,773.53	1,769.29	6.55	6.20	-89.23	-57.42	-1,429.81	1,434.49	1,421.87	12.61	113.739			
2,000.00	1,997.25	1,873.10	1,868.32	6.92	6.59	-89.16	-62.48	-1,438.90	1,443.51	1,430.16	13.35	108.142			
2,100.00	2,097.00	1,972.68	1,967.35	7.29	6.98	-89.09	-67.54	-1,448.00	1,452.54	1,438.45	14.09	103.120			
2,200.00	2,196.76	2,072.25	2,066.38	7.67	7.36	-89.02	-72.61	-1,457.09	1,461.57	1,446.74	14.82	98.589			
2,300.00	2,296.52	2,171.83	2,165.41	8.04	7.75	-88.95	-77.67	-1,466.19	1,470.60	1,455.03	15.56	94.482			
2,400.00	2,396.27	2,271.41	2,264.44	8.41	8.14	-88.88	-82.73	-1,475.28	1,479.63	1,463.33	16.31	90.743			
2,500.00	2,496.03	2,370.98	2,363.47	8.78	8.53	-88.82	-87.79	-1,484.38	1,488.67	1,471.62	17.05	87.324			
2,600.00	2,595.79	2,470.56	2,462.50	9.16	8.92	-88.75	-92.85	-1,493.47	1,497.70	1,479.91	17.79	84.187			
2,700.00	2,695.54	2,570.13	2,561.53	9.53	9.31	-88.68	-97.92	-1,502.57	1,506.74	1,488.21	18.53	81.299			
2,800.00	2,795.30	2,669.71	2,660.56	9.91	9.70	-88.62	-102.98	-1,511.66	1,515.78	1,496.51	19.28	78.632			
2,900.00	2,895.06	2,769.29	2,759.59	10.28	10.09	-88.56	-108.04	-1,520.75	1,524.83	1,504.81	20.02	76.160			
3,000.00	2,994.81	2,868.86	2,858.62	10.66	10.48	-88.49	-113.10	-1,529.85	1,533.87	1,513.11	20.77	73.864			
3,100.00	3,094.57	2,968.44	2,957.65	11.03	10.87	-88.43	-118.16	-1,538.94	1,542.92	1,521.41	21.51	71.726			
3,200.00	3,194.33	3,068.01	3,056.68	11.41	11.27	-88.37	-123.23	-1,548.04	1,551.97	1,529.71	22.26	69.730			
3,300.00	3,294.09	3,167.59	3,155.72	11.78	11.66	-88.31	-128.29	-1,557.13	1,561.02	1,538.01	23.00	67.862			
3,400.00	3,393.84	3,267.17	3,254.75	12.16	12.05	-88.25	-133.35	-1,566.23	1,570.07	1,546.32	23.75	66.111			
3,500.00	3,493.60	3,366.74	3,353.78	12.53	12.44	-88.19	-138.41	-1,575.32	1,579.12	1,554.63	24.50	64.466			
3,600.00	3,593.36	3,466.32	3,452.81	12.91	12.84	-88.13	-143.48	-1,584.42	1,588.18	1,562.94	25.24	62.917			
3,700.00	3,693.11	3,565.89	3,551.84	13.28	13.23	-88.07	-148.54	-1,593.51	1,597.24	1,571.25	25.99	61.457			
3,800.00	3,792.87	3,665.47	3,650.87	13.66	13.62	-88.02	-153.60	-1,602.61	1,606.29	1,579.56	26.74	60.078			
3,900.00	3,892.63	3,765.05	3,749.90	14.03	14.01	-87.96	-158.66	-1,611.70	1,615.35	1,587.87	27.48	58.773			
4,000.00	3,992.38	3,864.62	3,848.93	14.41	14.41	-87.90	-163.72	-1,620.80	1,624.42	1,596.18	28.23	57.538			
4,100.00	4,092.14	3,964.20	3,947.96	14.78	14.80	-87.85	-168.79	-1,629.89	1,633.48	1,604.50	28.98	56.365			
4,200.00	4,191.90	4,063.77	4,046.99	15.16	15.19	-87.79	-173.85	-1,638.99	1,642.54	1,612.81	29.73	55.252			
4,300.00	4,291.66	4,163.35	4,146.02	15.54	15.59	-87.74	-178.91	-1,648.08	1,651.61	1,621.13	30.48	54.192			
4,400.00	4,391.41	4,262.93	4,245.05	15.91	15.98	-87.68	-183.97	-1,657.17	1,660.68	1,629.45	31.23	53.184			
4,500.00	4,491.17	4,362.50	4,344.08	16.29	16.38	-87.63	-189.03	-1,666.27	1,669.75	1,637.77	31.97	52.222			
4,600.00	4,590.93	4,462.08	4,443.11	16.67	16.77	-87.58	-194.10	-1,675.36	1,678.82	1,646.09	32.72	51.304			
4,609.90	4,600.80	4,471.93	4,452.91	16.70	16.81	-87.57	-194.60	-1,676.26	1,679.71	1,646.92	32.80	51.215			
4,700.00	4,690.73	4,561.66	4,542.15	17.04	17.16	-87.55	-199.16	-1,684.46	1,687.88	1,654.41	33.47	50.432			
4,800.00	4,790.63	4,661.25	4,641.19	17.40	17.56	-87.58	-204.22	-1,693.56	1,696.90	1,662.69	34.21	49.608			
4,900.00	4,890.59	4,760.81	4,740.20	17.76	17.95	-87.67	-209.28	-1,702.65	1,705.89	1,670.95	34.94	48.830			
5,000.00	4,990.58	4,860.31	4,839.16	18.10	18.34	-87.82	-214.34	-1,711.74	1,714.85	1,679.21	35.64	48.116			
5,009.42	5,000.00	4,869.68	4,848.48	18.13	18.38	-87.84	-214.82	-1,712.59	1,715.69	1,679.99	35.71	48.050			
5,100.00	5,090.58	4,959.76	4,938.07	18.42	18.74	-88.00	-219.40	-1,720.82	1,723.81	1,687.48	36.33	47.451			
5,200.00	5,190.58	5,059.21	5,036.97	18.74	19.13	-88.18	-224.45	-1,729.90	1,732.78	1,695.76	37.02	46.812			
5,300.00	5,290.58	5,158.66	5,135.88	19.06	19.53	-88.35	-229.51	-1,738.99	1,741.77	1,704.06	37.70	46.196			
5,400.00	5,390.58	5,258.12	5,234.79	19.38	19.92	-88.53	-234.56	-1,748.07	1,750.77	1,712.38	38.39	45.600			
5,500.00	5,490.58	5,357.57	5,333.70	19.70	20.31	-88.70	-239.62	-1,757.15	1,759.79	1,720.71	39.08	45.025			
5,600.00	5,590.58	5,457.02	5,432.60	20.02	20.71	-88.87	-244.67	-1,766.24	1,768.83	1,729.05	39.78	44.469			
5,700.00	5,690.58	5,556.47	5,531.51	20.35	21.10	-89.04	-249.73	-1,775.32	1,777.88	1,737.41	40.47	43.931			
5,800.00	5,790.58	5,655.93	5,630.42	20.68	21.50	-89.21	-254.79	-1,784.40	1,786.95	1,745.78	41.16	43.410			
5,900.00	5,890.58	5,755.38	5,729.33	21.00	21.89	-89.38	-259.84	-1,793.49	1,796.03	1,754.17	41.86	42.906			
6,000.00	5,990.58	5,854.83	5,828.23	21.33	22.28	-89.54	-264.90	-1,802.57	1,805.12	1,762.57	42.56	42.418			
6,100.00	6,090.58	5,954.28	5,927.14	21.66	22.68	-89.70	-269.95	-1,811.65	1,814.24	1,770.98	43.25	41.945			
6,200.00	6,190.58	6,053.73	6,026.05	21.99	23.07	-89.86	-275.01	-1,820.74	1,823.36	1,779.41	43.95	41.487			

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #201H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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		
6,300.00	6,290.58	6,153.65	6,125.41	22.32	23.47	-90.02	-280.09	-1,829.86	1,832.50	1,787.85	44.65	41.041		
6,400.00	6,390.58	6,292.08	6,263.25	22.65	24.01	-90.22	-286.30	-1,841.02	1,840.58	1,795.06	45.52	40.432		
6,500.00	6,490.58	6,431.05	6,401.90	22.99	24.52	-90.36	-290.90	-1,849.28	1,846.55	1,800.17	46.37	39.818		
6,600.00	6,590.58	6,570.40	6,541.12	23.32	25.02	-90.45	-293.87	-1,854.62	1,850.40	1,803.19	47.20	39.199		
6,700.00	6,690.58	6,709.97	6,680.65	23.65	25.50	-90.49	-295.19	-1,857.00	1,852.11	1,804.10	48.01	38.578		
6,800.00	6,790.58	6,821.90	6,792.58	23.99	25.86	-90.49	-295.27	-1,857.14	1,852.21	1,803.50	48.70	38.031		
6,900.00	6,890.58	6,921.90	6,892.58	24.32	26.17	-90.49	-295.27	-1,857.14	1,852.21	1,802.84	49.36	37.522		
7,000.00	6,990.58	7,021.90	6,992.58	24.66	26.49	-90.49	-295.27	-1,857.14	1,852.21	1,802.18	50.02	37.026		
7,100.00	7,090.58	7,121.90	7,092.58	25.00	26.80	-90.49	-295.27	-1,857.14	1,852.21	1,801.52	50.69	36.542		
7,200.00	7,190.58	7,221.90	7,192.58	25.33	27.12	-90.49	-295.27	-1,857.14	1,852.21	1,800.85	51.35	36.069		
7,300.00	7,290.58	7,321.90	7,292.58	25.67	27.43	-90.49	-295.27	-1,857.14	1,852.21	1,800.19	52.02	35.608		
7,400.00	7,390.58	7,421.90	7,392.58	26.01	27.75	-90.49	-295.27	-1,857.14	1,852.21	1,799.52	52.68	35.157		
7,500.00	7,490.58	7,521.90	7,492.58	26.35	28.07	-90.49	-295.27	-1,857.14	1,852.21	1,798.85	53.35	34.717		
7,600.00	7,590.58	7,621.90	7,592.58	26.69	28.39	-90.49	-295.27	-1,857.14	1,852.21	1,798.18	54.02	34.287		
7,700.00	7,690.58	7,721.90	7,692.58	27.03	28.71	-90.49	-295.27	-1,857.14	1,852.21	1,797.51	54.69	33.866		
7,800.00	7,790.58	7,821.90	7,792.58	27.37	29.03	-90.49	-295.27	-1,857.14	1,852.21	1,796.84	55.36	33.455		
7,900.00	7,890.58	7,921.90	7,892.58	27.71	29.36	-90.49	-295.27	-1,857.14	1,852.21	1,796.17	56.04	33.053		
8,000.00	7,990.58	8,021.90	7,992.58	28.05	29.68	-90.49	-295.27	-1,857.14	1,852.21	1,795.49	56.71	32.660		
8,100.00	8,090.58	8,121.90	8,092.58	28.39	30.01	-90.49	-295.27	-1,857.14	1,852.21	1,794.82	57.39	32.276		
8,200.00	8,190.58	8,221.90	8,192.58	28.73	30.33	-90.49	-295.27	-1,857.14	1,852.21	1,794.14	58.06	31.900		
8,300.00	8,290.58	8,321.90	8,292.58	29.08	30.66	-90.49	-295.27	-1,857.14	1,852.21	1,793.47	58.74	31.533		
8,400.00	8,390.58	8,421.90	8,392.58	29.42	30.98	-90.49	-295.27	-1,857.14	1,852.21	1,792.79	59.42	31.173		
8,500.00	8,490.58	8,521.90	8,492.58	29.76	31.31	-90.49	-295.27	-1,857.14	1,852.21	1,792.11	60.10	30.821		
8,600.00	8,590.58	8,621.90	8,592.58	30.11	31.64	-90.49	-295.27	-1,857.14	1,852.21	1,791.43	60.78	30.476		
8,700.00	8,690.58	8,721.90	8,692.58	30.45	31.97	-90.49	-295.27	-1,857.14	1,852.21	1,790.75	61.46	30.139		
8,800.00	8,790.58	8,821.90	8,792.58	30.80	32.30	-90.49	-295.27	-1,857.14	1,852.21	1,790.07	62.14	29.808		
8,900.00	8,890.58	8,921.90	8,892.58	31.14	32.63	-90.49	-295.27	-1,857.14	1,852.21	1,789.39	62.82	29.484		
9,000.00	8,990.58	9,021.90	8,992.58	31.49	32.96	-90.49	-295.27	-1,857.14	1,852.21	1,788.70	63.50	29.167		
9,100.00	9,090.58	9,121.90	9,092.58	31.83	33.29	-90.49	-295.27	-1,857.14	1,852.21	1,788.02	64.19	28.857		
9,200.00	9,190.58	9,221.90	9,192.58	32.18	33.62	-90.49	-295.27	-1,857.14	1,852.21	1,787.33	64.87	28.552		
9,300.00	9,290.58	9,321.90	9,292.58	32.52	33.95	-90.49	-295.27	-1,857.14	1,852.21	1,786.65	65.56	28.254		
9,400.00	9,390.58	9,421.90	9,392.58	32.87	34.28	-90.49	-295.27	-1,857.14	1,852.21	1,785.96	66.24	27.961		
9,500.00	9,490.58	9,521.90	9,492.58	33.21	34.62	-90.49	-295.27	-1,857.14	1,852.21	1,785.28	66.93	27.675		
9,600.00	9,590.58	9,621.90	9,592.58	33.56	34.95	-90.49	-295.27	-1,857.14	1,852.21	1,784.59	67.62	27.393		
9,700.00	9,690.58	9,721.90	9,692.58	33.91	35.29	-90.49	-295.27	-1,857.14	1,852.21	1,783.90	68.30	27.118		
9,800.00	9,790.58	9,821.90	9,792.58	34.26	35.62	-90.49	-295.27	-1,857.14	1,852.21	1,783.21	68.99	26.847		
9,900.00	9,890.58	9,921.90	9,892.58	34.60	35.95	-90.49	-295.27	-1,857.14	1,852.21	1,782.53	69.68	26.582		
10,000.00	9,990.58	10,021.90	9,992.58	34.95	36.29	-90.49	-295.27	-1,857.14	1,852.21	1,781.84	70.37	26.321		
10,100.00	10,090.58	10,121.90	10,092.58	35.30	36.63	-90.49	-295.27	-1,857.14	1,852.21	1,781.15	71.06	26.066		
10,200.00	10,190.58	10,221.90	10,192.58	35.65	36.96	-90.49	-295.27	-1,857.14	1,852.21	1,780.46	71.75	25.815		
10,300.00	10,290.58	10,321.90	10,292.58	35.99	37.30	-90.49	-295.27	-1,857.14	1,852.21	1,779.76	72.44	25.569		
10,400.00	10,390.58	10,421.90	10,392.58	36.34	37.64	-90.49	-295.27	-1,857.14	1,852.21	1,779.07	73.13	25.327		
10,500.00	10,490.58	10,521.90	10,492.58	36.69	37.97	-90.49	-295.27	-1,857.14	1,852.21	1,778.38	73.82	25.089		
10,600.00	10,590.58	10,621.90	10,592.58	37.04	38.31	-90.49	-295.27	-1,857.14	1,852.21	1,777.69	74.52	24.856		
10,700.00	10,690.58	10,721.90	10,692.58	37.39	38.65	-90.49	-295.27	-1,857.14	1,852.21	1,777.00	75.21	24.627		
10,800.00	10,790.58	10,821.90	10,792.58	37.74	38.99	-90.49	-295.27	-1,857.14	1,852.21	1,776.30	75.90	24.402		
10,900.00	10,890.58	10,921.90	10,892.58	38.09	39.33	-90.49	-295.27	-1,857.14	1,852.21	1,775.61	76.60	24.181		
11,000.00	10,990.58	11,021.90	10,992.58	38.44	39.67	-90.49	-295.27	-1,857.14	1,852.21	1,774.91	77.29	23.964		
11,100.00	11,090.58	11,121.90	11,092.58	38.79	40.01	-90.49	-295.27	-1,857.14	1,852.21	1,774.22	77.99	23.751		
11,200.00	11,190.58	11,221.90	11,192.58	39.14	40.35	-90.49	-295.27	-1,857.14	1,852.21	1,773.52	78.68	23.541		
11,300.00	11,290.58	11,321.90	11,292.58	39.49	40.69	-90.49	-295.27	-1,857.14	1,852.21	1,772.83	79.38	23.335		
11,400.00	11,390.58	11,421.90	11,392.58	39.84	41.03	-90.49	-295.27	-1,857.14	1,852.21	1,772.13	80.07	23.132		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #201H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,500.00	11,490.58	11,521.90	11,492.58	40.19	41.37	-90.49	-295.27	-1,857.14	1,852.21	1,771.44	80.77	22.932		
11,600.00	11,590.58	11,622.00	11,592.68	40.54	41.71	-90.48	-294.94	-1,857.14	1,852.20	1,770.74	81.46	22.737		
11,642.51	11,633.09	11,664.53	11,635.09	40.69	41.85	-90.39	-291.92	-1,857.16	1,852.20	1,770.45	81.76	22.655		
11,700.00	11,690.58	11,720.89	11,690.73	40.89	42.03	-90.12	-283.09	-1,857.22	1,852.22	1,770.08	82.14	22.549		
11,800.00	11,790.58	11,813.16	11,779.13	41.24	42.29	-89.31	-257.00	-1,857.40	1,852.58	1,769.80	82.78	22.378		
11,900.00	11,890.58	11,895.32	11,853.43	41.59	42.50	-88.23	-222.09	-1,857.63	1,853.93	1,770.56	83.38	22.236		
12,000.00	11,990.58	11,966.16	11,912.92	41.94	42.64	-87.05	-183.72	-1,857.89	1,857.07	1,773.17	83.90	22.134		
12,003.43	11,994.01	11,968.39	11,914.72	41.95	42.64	-87.00	-182.39	-1,857.90	1,857.22	1,773.30	83.92	22.131		
12,050.00	12,040.53	11,998.33	11,938.28	42.11	42.70	-86.49	-163.93	-1,858.03	1,859.68	1,775.54	84.14	22.103		
12,100.00	12,090.12	12,029.93	11,962.07	42.28	42.75	-86.05	-143.14	-1,858.17	1,863.23	1,778.88	84.35	22.090		
12,150.00	12,138.99	12,061.06	11,984.35	42.44	42.79	-85.70	-121.40	-1,858.32	1,867.64	1,783.10	84.54	22.092		
12,200.00	12,186.75	12,091.76	12,005.13	42.59	42.83	-85.46	-98.81	-1,858.47	1,872.82	1,788.12	84.70	22.110		
12,250.00	12,233.04	12,122.11	12,024.46	42.73	42.86	-85.32	-75.42	-1,858.63	1,878.70	1,793.85	84.85	22.141		
12,300.00	12,277.51	12,150.00	12,041.11	42.87	42.89	-85.34	-53.05	-1,858.78	1,885.18	1,800.21	84.97	22.186		
12,350.00	12,319.83	12,181.90	12,058.79	42.99	42.91	-85.34	-26.50	-1,858.96	1,892.17	1,807.08	85.09	22.237		
12,400.00	12,359.67	12,211.42	12,073.81	43.12	42.93	-85.49	-1.09	-1,859.13	1,899.59	1,814.40	85.19	22.298		
12,450.00	12,396.72	12,240.74	12,087.41	43.23	42.94	-85.72	24.88	-1,859.31	1,907.34	1,822.06	85.28	22.365		
12,500.00	12,430.71	12,269.88	12,099.60	43.35	42.95	-86.03	51.34	-1,859.49	1,915.34	1,829.97	85.37	22.435		
12,550.00	12,461.37	12,300.00	12,110.76	43.46	42.96	-86.38	79.31	-1,859.68	1,923.49	1,838.02	85.47	22.506		
12,600.00	12,488.48	12,327.72	12,119.73	43.56	42.96	-86.86	105.54	-1,859.86	1,931.71	1,846.15	85.56	22.579		
12,650.00	12,511.83	12,350.00	12,126.01	43.67	42.96	-87.54	126.92	-1,860.00	1,939.93	1,854.30	85.64	22.653		
12,700.00	12,531.23	12,385.12	12,134.20	43.78	42.97	-87.90	161.06	-1,860.23	1,948.04	1,862.27	85.77	22.712		
12,703.43	12,532.41	12,387.08	12,134.60	43.78	42.97	-87.93	162.98	-1,860.25	1,948.59	1,862.81	85.78	22.717		
12,750.00	12,547.27	12,415.88	12,139.72	43.89	42.99	-88.40	191.32	-1,860.44	1,956.11	1,870.21	85.90	22.772		
12,800.00	12,560.80	12,450.00	12,144.57	44.00	43.04	-88.82	225.09	-1,860.67	1,964.15	1,878.10	86.06	22.824		
12,850.00	12,571.80	12,484.07	12,148.21	44.12	43.12	-89.26	258.96	-1,860.90	1,972.12	1,885.89	86.23	22.871		
12,900.00	12,580.23	12,518.05	12,150.63	44.25	43.21	-89.70	292.85	-1,861.13	1,979.97	1,893.56	86.42	22.912		
12,950.00	12,586.06	12,551.96	12,151.85	44.39	43.30	-90.16	326.74	-1,861.36	1,987.70	1,901.08	86.62	22.947		
13,000.00	12,589.30	12,606.54	12,152.00	44.53	43.46	-90.39	368.24	-1,861.64	1,995.23	1,908.32	86.90	22.959		
13,036.76	12,590.00	12,629.85	12,152.00	44.63	43.54	-90.39	404.63	-1,861.89	2,000.44	1,913.36	87.08	22.972		
13,100.00	12,590.00	12,707.45	12,152.00	44.83	43.81	-90.39	467.32	-1,862.31	2,008.47	1,920.93	87.53	22.945		
13,200.00	12,590.00	12,807.98	12,152.00	45.19	44.21	-90.39	566.80	-1,862.99	2,018.40	1,930.12	88.28	22.864		
13,300.00	12,590.00	12,908.21	12,152.00	45.61	44.67	-90.39	666.56	-1,863.67	2,024.94	1,935.82	89.13	22.719		
13,400.00	12,590.00	13,008.26	12,152.00	46.08	45.17	-90.39	766.50	-1,864.34	2,028.09	1,938.00	90.08	22.513		
13,442.21	12,590.00	13,033.95	12,152.00	46.30	45.32	-90.39	808.71	-1,864.63	2,028.39	1,937.96	90.43	22.430		
13,500.00	12,590.00	13,091.74	12,152.00	46.60	45.64	-90.39	866.50	-1,865.02	2,028.39	1,937.34	91.05	22.279		
13,600.00	12,590.00	13,208.26	12,152.00	47.18	46.34	-90.39	966.50	-1,865.70	2,028.39	1,936.09	92.30	21.976		
13,700.00	12,590.00	13,308.26	12,152.00	47.81	47.00	-90.39	1,066.50	-1,866.38	2,028.39	1,934.83	93.56	21.680		
13,800.00	12,590.00	13,408.26	12,152.00	48.48	47.71	-90.39	1,166.49	-1,867.06	2,028.39	1,933.48	94.91	21.371		
13,900.00	12,590.00	13,491.74	12,152.00	49.20	48.33	-90.39	1,266.49	-1,867.74	2,028.39	1,932.16	96.23	21.078		
14,000.00	12,590.00	13,608.26	12,152.00	49.97	49.25	-90.39	1,366.49	-1,868.42	2,028.39	1,930.50	97.89	20.721		
14,100.00	12,590.00	13,708.26	12,152.00	50.77	50.09	-90.39	1,466.49	-1,869.09	2,028.39	1,928.88	99.51	20.384		
14,200.00	12,590.00	13,808.26	12,152.00	51.62	50.97	-90.39	1,566.48	-1,869.77	2,028.39	1,927.19	101.20	20.043		
14,300.00	12,590.00	13,891.74	12,152.00	52.51	51.73	-90.39	1,666.48	-1,870.45	2,028.39	1,925.57	102.82	19.727		
14,400.00	12,590.00	14,008.26	12,152.00	53.44	52.83	-90.39	1,766.48	-1,871.13	2,028.39	1,923.58	104.81	19.352		
14,500.00	12,590.00	14,108.26	12,152.00	54.40	53.82	-90.39	1,866.48	-1,871.81	2,028.39	1,921.67	106.72	19.006		
14,600.00	12,590.00	14,191.74	12,152.00	55.39	54.67	-90.39	1,966.48	-1,872.49	2,028.39	1,919.86	108.53	18.690		
14,700.00	12,590.00	14,308.26	12,152.00	56.41	55.88	-90.39	2,066.47	-1,873.17	2,028.39	1,917.66	110.73	18.318		
14,800.00	12,590.00	14,408.26	12,152.00	57.47	56.96	-90.39	2,166.47	-1,873.85	2,028.39	1,915.57	112.82	17.979		
14,900.00	12,590.00	14,508.26	12,152.00	58.55	58.06	-90.39	2,266.47	-1,874.52	2,028.39	1,913.42	114.97	17.643		
15,000.00	12,590.00	14,591.74	12,152.00	59.66	59.01	-90.39	2,366.47	-1,875.20	2,028.39	1,911.41	116.98	17.340		
15,100.00	12,590.00	14,708.26	12,152.00	60.79	60.35	-90.39	2,466.46	-1,875.88	2,028.39	1,908.98	119.41	16.987		

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



MS Directional
Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #201H - Wellbore #1 - Design #1											Offset Site Error: 0.00 usft	
Survey Program: 0-MWD											Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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)				
15,200.00	12,590.00	14,808.26	12,152.00	61.95	61.52	-90.39	2,566.46	-1,876.56	2,028.39	1,906.69	121.70	16.667
15,300.00	12,590.00	14,891.74	12,152.00	63.13	62.52	-90.39	2,666.46	-1,877.24	2,028.39	1,904.55	123.84	16.379
15,400.00	12,590.00	15,008.26	12,152.00	64.33	63.94	-90.39	2,766.46	-1,877.92	2,028.39	1,901.98	126.41	16.046
15,500.00	12,590.00	15,108.26	12,152.00	65.55	65.18	-90.39	2,866.45	-1,878.60	2,028.39	1,899.57	128.82	15.746
15,600.00	12,590.00	15,208.26	12,152.00	66.79	66.44	-90.39	2,966.45	-1,879.27	2,028.39	1,897.12	131.27	15.452
15,700.00	12,590.00	15,291.74	12,152.00	68.05	67.50	-90.39	3,066.45	-1,879.95	2,028.39	1,894.84	133.55	15.188
15,800.00	12,590.00	15,408.26	12,152.00	69.32	69.00	-90.39	3,166.45	-1,880.63	2,028.39	1,892.11	136.27	14.885
15,900.00	12,590.00	15,508.26	12,152.00	70.61	70.31	-90.39	3,266.45	-1,881.31	2,028.39	1,889.57	138.82	14.611
16,000.00	12,590.00	15,608.26	12,152.00	71.92	71.63	-90.39	3,366.44	-1,881.99	2,028.39	1,886.99	141.40	14.345
16,100.00	12,590.00	15,691.74	12,152.00	73.24	72.74	-90.39	3,466.44	-1,882.67	2,028.39	1,884.60	143.79	14.107
16,200.00	12,590.00	15,791.74	12,152.00	74.57	74.09	-90.39	3,566.44	-1,883.35	2,028.39	1,881.97	146.41	13.854
16,300.00	12,590.00	15,908.26	12,152.00	75.92	75.67	-90.39	3,666.44	-1,884.03	2,028.39	1,879.10	149.29	13.587
16,400.00	12,590.00	15,991.74	12,152.00	77.28	76.81	-90.39	3,766.43	-1,884.70	2,028.39	1,876.64	151.75	13.367
16,500.00	12,590.00	16,108.26	12,152.00	78.65	78.42	-90.39	3,866.43	-1,885.38	2,028.39	1,873.72	154.67	13.114
16,600.00	12,590.00	16,208.26	12,152.00	80.03	79.82	-90.39	3,966.43	-1,886.06	2,028.39	1,871.00	157.39	12.887
16,700.00	12,590.00	16,308.26	12,152.00	81.42	81.22	-90.39	4,066.43	-1,886.74	2,028.39	1,868.25	160.13	12.667
16,800.00	12,590.00	16,391.74	12,152.00	82.82	82.40	-90.39	4,166.42	-1,887.42	2,028.39	1,865.72	162.67	12.470
16,900.00	12,590.00	16,508.26	12,152.00	84.23	84.05	-90.39	4,266.42	-1,888.10	2,028.39	1,862.71	165.67	12.243
17,000.00	12,590.00	16,608.26	12,152.00	85.65	85.48	-90.39	4,366.42	-1,888.78	2,028.39	1,859.92	168.47	12.040
17,100.00	12,590.00	16,691.74	12,152.00	87.08	86.68	-90.39	4,466.42	-1,889.46	2,028.39	1,857.34	171.05	11.858
17,200.00	12,590.00	16,808.26	12,152.00	88.52	88.37	-90.39	4,566.42	-1,890.13	2,028.39	1,854.28	174.11	11.650
17,300.00	12,590.00	16,891.74	12,152.00	89.96	89.58	-90.39	4,666.41	-1,890.81	2,028.39	1,851.67	176.72	11.478
17,328.62	12,590.00	16,920.35	12,152.00	90.33	90.00	-90.39	4,695.03	-1,891.01	2,028.39	1,850.90	177.48	11.429
17,334.15	12,590.00	16,919.32	12,152.00	90.40	89.98	-90.58	4,694.00	-1,891.00	2,028.40	1,850.85	177.55	11.424 SF



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #202H - Wellbore #1 - Design #2														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														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 Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	-1.00	0.00	0.00	0.00	0.00	-90.00	0.00	-30.00	30.00				
100.00	100.00	101.00	99.00	0.13	0.13	0.13	0.13	-90.00	0.00	-30.00	30.00	29.74	0.26	115.432	
200.00	200.00	201.00	199.00	0.49	0.49	0.49	0.49	-90.00	0.00	-30.00	30.00	29.02	0.98	30.711	
300.00	300.00	301.00	299.00	0.85	0.85	0.85	0.85	-90.00	0.00	-30.00	30.00	28.31	1.69	17.712	
400.00	400.00	401.00	399.00	1.20	1.21	1.20	1.21	-90.00	0.00	-30.00	30.00	27.59	2.41	12.444	
500.00	500.00	501.00	499.00	1.56	1.57	1.56	1.57	-90.00	0.00	-30.00	30.00	26.87	3.13	9.592	
600.00	600.00	601.00	599.00	1.92	1.92	1.92	1.92	-90.00	0.00	-30.00	30.00	26.16	3.84	7.803	
678.44	678.43	677.43	677.43	2.19	2.20	2.19	2.20	-88.97	0.00	-30.00	30.00	25.61	4.39	6.839 CC	
700.00	699.99	701.01	698.99	2.26	2.28	2.26	2.28	-88.33	0.00	-30.00	30.00	25.45	4.54	6.601	
800.00	799.96	801.04	798.96	2.59	2.64	2.59	2.64	-83.35	0.00	-30.00	30.14	24.91	5.23	5.759 ES	
900.00	899.86	901.14	898.86	2.93	3.00	2.93	3.00	-75.27	0.00	-30.00	30.87	24.94	5.93	5.205	
999.52	999.20	998.20	998.20	3.28	3.35	3.28	3.35	-64.92	0.00	-30.00	32.85	26.22	6.62	4.959	
1,000.00	999.68	998.68	998.68	3.28	3.35	3.28	3.35	-64.87	0.00	-30.00	32.86	26.23	6.63	4.959	
1,100.00	1,099.43	1,098.16	1,098.15	3.63	3.69	3.63	3.69	-55.96	-0.41	-30.73	36.64	29.32	7.32	5.004	
1,200.00	1,199.19	1,197.69	1,197.66	3.99	4.03	3.99	4.03	-51.09	-1.67	-32.97	41.74	33.73	8.01	5.212	
1,300.00	1,298.95	1,297.24	1,297.10	4.35	4.37	4.35	4.37	-49.27	-3.78	-36.72	47.64	38.94	8.70	5.474	
1,400.00	1,398.70	1,396.72	1,396.40	4.71	4.71	4.71	4.71	-49.59	-6.73	-41.97	54.15	44.75	9.40	5.759	
1,500.00	1,498.46	1,496.09	1,495.47	5.08	5.06	5.08	5.06	-51.34	-10.51	-48.71	61.30	51.19	10.11	6.063	
1,600.00	1,598.22	1,605.66	1,594.18	5.44	5.45	5.44	5.45	-54.01	-15.13	-56.93	69.19	58.33	10.86	6.371	
1,700.00	1,697.97	1,705.17	1,693.21	5.81	5.82	5.81	5.82	-56.79	-20.24	-66.01	77.65	66.07	11.58	6.704	
1,800.00	1,797.73	1,805.59	1,792.24	6.18	6.18	6.18	6.18	-59.01	-25.34	-75.09	86.25	73.94	12.31	7.005	
1,900.00	1,897.49	1,906.01	1,891.28	6.55	6.56	6.55	6.56	-60.84	-30.44	-84.17	94.97	81.92	13.05	7.278	
2,000.00	1,997.25	2,006.44	1,990.31	6.92	6.93	6.92	6.93	-62.35	-35.54	-93.25	103.76	89.97	13.78	7.527	
2,100.00	2,097.00	2,106.86	2,089.34	7.29	7.31	7.29	7.31	-63.63	-40.65	-102.34	112.61	98.09	14.52	7.754	
2,200.00	2,196.76	2,207.28	2,188.37	7.67	7.69	7.67	7.69	-64.72	-45.75	-111.42	121.51	106.25	15.26	7.960	
2,300.00	2,296.52	2,307.70	2,287.40	8.04	8.07	8.04	8.07	-65.66	-50.85	-120.50	130.45	114.44	16.01	8.150	
2,400.00	2,396.27	2,408.12	2,386.43	8.41	8.46	8.41	8.46	-66.48	-55.96	-129.58	139.42	122.67	16.75	8.323	
2,500.00	2,496.03	2,508.55	2,485.47	8.78	8.84	8.78	8.84	-67.20	-61.06	-138.66	148.42	130.92	17.50	8.483	
2,600.00	2,595.79	2,608.97	2,584.50	9.16	9.23	9.16	9.23	-68.41	-66.16	-147.74	157.43	139.19	18.24	8.630	
2,700.00	2,695.54	2,709.39	2,683.53	9.53	9.62	9.53	9.62	-69.84	-71.27	-156.82	166.47	147.48	18.99	8.766	
2,800.00	2,795.30	2,809.81	2,782.56	9.91	10.00	9.91	10.00	-68.92	-76.37	-165.90	175.52	155.78	19.74	8.892	
2,900.00	2,895.06	2,889.77	2,881.59	10.28	10.31	10.28	10.31	-69.38	-81.47	-174.98	184.58	164.17	20.41	9.043	
3,000.00	2,994.81	2,989.34	2,980.63	10.66	10.70	10.66	10.70	-69.80	-86.57	-184.06	193.65	172.49	21.16	9.153	
3,100.00	3,094.57	3,088.92	3,079.66	11.03	11.09	11.03	11.09	-70.18	-91.68	-193.15	202.73	180.83	21.90	9.255	
3,200.00	3,194.33	3,188.50	3,178.69	11.41	11.48	11.41	11.48	-70.53	-96.78	-202.23	211.82	189.17	22.65	9.351	
3,300.00	3,294.09	3,288.08	3,277.72	11.78	11.86	11.78	11.86	-70.85	-101.88	-211.31	220.92	197.52	23.40	9.441	
3,400.00	3,393.84	3,387.66	3,376.75	12.16	12.25	12.16	12.25	-71.14	-106.99	-220.39	230.02	205.88	24.15	9.526	
3,500.00	3,493.60	3,487.23	3,475.78	12.53	12.64	12.53	12.64	-71.42	-112.09	-229.47	239.13	214.24	24.90	9.605	
3,600.00	3,593.36	3,586.81	3,574.82	12.91	13.03	12.91	13.03	-71.67	-117.19	-238.55	248.25	222.60	25.65	9.680	
3,700.00	3,693.11	3,686.39	3,673.85	13.28	13.42	13.28	13.42	-71.90	-122.29	-247.63	257.37	230.97	26.40	9.750	
3,800.00	3,792.87	3,785.97	3,772.88	13.66	13.81	13.66	13.81	-72.12	-127.40	-256.71	266.49	239.34	27.15	9.817	
3,900.00	3,892.63	3,885.55	3,871.91	14.03	14.20	14.03	14.20	-72.32	-132.50	-265.79	275.61	247.72	27.90	9.880	
4,000.00	3,992.38	3,985.12	3,970.94	14.41	14.59	14.41	14.59	-72.51	-137.60	-274.88	284.74	256.10	28.65	9.940	
4,100.00	4,092.14	4,084.70	4,069.97	14.78	14.98	14.78	14.98	-72.69	-142.71	-283.96	293.88	264.48	29.40	9.997	
4,200.00	4,191.90	4,184.28	4,169.01	15.16	15.37	15.16	15.37	-72.86	-147.81	-293.04	303.01	272.86	30.15	10.051	
4,300.00	4,291.66	4,283.86	4,268.04	15.54	15.76	15.54	15.76	-73.02	-152.91	-302.12	312.15	281.25	30.90	10.102	
4,400.00	4,391.41	4,383.44	4,367.07	15.91	16.15	15.91	16.15	-73.17	-158.02	-311.20	321.29	289.64	31.65	10.151	
4,500.00	4,491.17	4,483.01	4,466.10	16.29	16.55	16.29	16.55	-73.31	-163.12	-320.28	330.43	298.03	32.40	10.198	
4,600.00	4,590.93	4,582.59	4,565.13	16.67	16.94	16.67	16.94	-73.44	-168.22	-329.36	339.57	306.42	33.15	10.243	
4,609.90	4,600.80	4,607.55	4,574.93	16.70	17.04	16.70	17.04	-73.45	-168.73	-330.26	340.48	307.19	33.28	10.229	
4,700.00	4,690.73	4,682.18	4,664.17	17.04	17.33	17.04	17.33	-73.68	-173.32	-338.44	348.54	314.64	33.90	10.281	
4,800.00	4,790.63	4,781.77	4,763.21	17.40	17.72	17.40	17.72	-74.18	-178.43	-347.53	357.07	322.43	34.64	10.308	

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design: Brad Dyer 35-22S-32E AR - #202H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor	
4,900.00	4,890.59	4,881.32	4,862.23	17.76	18.11	-74.92	-183.53	-356.60	365.20	329.83	35.37	10.326		
5,000.00	4,990.58	4,980.82	4,961.18	18.10	18.51	-75.88	-188.63	-365.68	372.99	336.93	36.07	10.342		
5,009.42	5,000.00	5,009.81	4,970.50	18.13	18.62	-75.98	-189.11	-366.53	373.71	337.51	36.21	10.322		
5,100.00	5,090.58	5,080.28	5,060.09	18.42	18.90	-76.96	-193.73	-374.75	380.68	343.93	36.75	10.359		
5,200.00	5,190.58	5,179.73	5,158.99	18.74	19.29	-78.00	-198.82	-383.82	388.49	351.06	37.43	10.379		
5,300.00	5,290.58	5,279.18	5,257.90	19.06	19.68	-79.00	-203.92	-392.89	396.42	358.31	38.11	10.402		
5,400.00	5,390.58	5,378.63	5,356.80	19.38	20.08	-79.95	-209.01	-401.96	404.47	365.68	38.79	10.426		
5,500.00	5,490.58	5,478.08	5,455.71	19.70	20.47	-80.87	-214.11	-411.03	412.63	373.15	39.48	10.453		
5,600.00	5,590.58	5,577.53	5,554.61	20.02	20.86	-81.76	-219.21	-420.10	420.88	380.73	40.16	10.480		
5,700.00	5,690.58	5,676.98	5,653.52	20.35	21.25	-82.61	-224.30	-429.16	429.24	388.40	40.84	10.509		
5,800.00	5,790.58	5,776.44	5,752.43	20.68	21.65	-83.42	-229.40	-438.23	437.68	396.16	41.53	10.539		
5,900.00	5,890.58	5,875.89	5,851.33	21.00	22.04	-84.21	-234.50	-447.30	446.21	404.00	42.21	10.570		
6,000.00	5,990.58	5,975.34	5,950.24	21.33	22.43	-84.97	-239.59	-456.37	454.83	411.92	42.90	10.602		
6,100.00	6,090.58	6,074.79	6,049.14	21.66	22.83	-85.70	-244.69	-465.44	463.51	419.92	43.59	10.634		
6,200.00	6,190.58	6,174.24	6,148.05	21.99	23.22	-86.40	-249.79	-474.51	472.27	428.00	44.28	10.667		
6,300.00	6,290.58	6,273.69	6,246.95	22.32	23.61	-87.07	-254.88	-483.58	481.10	436.13	44.97	10.699		
6,400.00	6,390.58	6,373.14	6,345.86	22.65	24.00	-87.73	-259.98	-492.65	489.99	444.34	45.65	10.733		
6,500.00	6,490.58	6,472.60	6,444.77	22.99	24.40	-88.35	-265.08	-501.72	498.94	452.60	46.35	10.766		
6,600.00	6,590.58	6,573.13	6,544.75	23.32	24.79	-88.97	-270.22	-510.87	507.94	460.89	47.04	10.797		
6,700.00	6,690.58	6,681.06	6,652.21	23.65	25.21	-89.53	-275.12	-519.60	515.97	468.18	47.79	10.796		
6,800.00	6,790.58	6,789.32	6,760.18	23.99	25.62	-89.97	-279.05	-526.58	522.41	473.88	48.53	10.764		
6,900.00	6,890.58	6,897.85	6,868.54	24.32	26.02	-90.29	-281.98	-531.80	527.22	477.96	49.26	10.703		
7,000.00	6,990.58	7,006.57	6,977.19	24.66	26.41	-90.49	-283.90	-535.22	530.39	480.41	49.98	10.613		
7,100.00	7,090.58	7,115.40	7,086.00	25.00	26.78	-90.59	-284.82	-536.85	531.89	481.22	50.68	10.496		
7,200.00	7,190.58	7,218.98	7,189.58	25.33	27.11	-90.60	-284.90	-537.00	532.03	480.68	51.35	10.361		
7,300.00	7,290.58	7,318.98	7,289.58	25.67	27.43	-90.60	-284.90	-537.00	532.03	480.02	52.01	10.229		
7,400.00	7,390.58	7,418.98	7,389.58	26.01	27.75	-90.60	-284.90	-537.00	532.03	479.35	52.68	10.099		
7,500.00	7,490.58	7,518.98	7,489.58	26.35	28.07	-90.60	-284.90	-537.00	532.03	478.68	53.35	9.973		
7,600.00	7,590.58	7,618.98	7,589.58	26.69	28.39	-90.60	-284.90	-537.00	532.03	478.01	54.02	9.849		
7,700.00	7,690.58	7,718.98	7,689.58	27.03	28.71	-90.60	-284.90	-537.00	532.03	477.34	54.69	9.728		
7,800.00	7,790.58	7,818.98	7,789.58	27.37	29.03	-90.60	-284.90	-537.00	532.03	476.67	55.36	9.610		
7,900.00	7,890.58	7,918.98	7,889.58	27.71	29.35	-90.60	-284.90	-537.00	532.03	476.00	56.03	9.495		
8,000.00	7,990.58	8,018.98	7,989.58	28.05	29.68	-90.60	-284.90	-537.00	532.03	475.32	56.71	9.382		
8,100.00	8,090.58	8,118.98	8,089.58	28.39	30.00	-90.60	-284.90	-537.00	532.03	474.65	57.38	9.272		
8,200.00	8,190.58	8,218.98	8,189.58	28.73	30.33	-90.60	-284.90	-537.00	532.03	473.97	58.06	9.164		
8,300.00	8,290.58	8,318.98	8,289.58	29.08	30.65	-90.60	-284.90	-537.00	532.03	473.29	58.73	9.058		
8,400.00	8,390.58	8,418.98	8,389.58	29.42	30.98	-90.60	-284.90	-537.00	532.03	472.62	59.41	8.955		
8,500.00	8,490.58	8,518.98	8,489.58	29.76	31.30	-90.60	-284.90	-537.00	532.03	471.94	60.09	8.854		
8,600.00	8,590.58	8,618.98	8,589.58	30.11	31.63	-90.60	-284.90	-537.00	532.03	471.26	60.77	8.755		
8,700.00	8,690.58	8,718.98	8,689.58	30.45	31.96	-90.60	-284.90	-537.00	532.03	470.58	61.45	8.658		
8,800.00	8,790.58	8,818.98	8,789.58	30.80	32.29	-90.60	-284.90	-537.00	532.03	469.90	62.13	8.563		
8,900.00	8,890.58	8,918.98	8,889.58	31.14	32.62	-90.60	-284.90	-537.00	532.03	469.21	62.81	8.470		
9,000.00	8,990.58	9,018.98	8,989.58	31.49	32.95	-90.60	-284.90	-537.00	532.03	468.53	63.50	8.379		
9,100.00	9,090.58	9,118.98	9,089.58	31.83	33.28	-90.60	-284.90	-537.00	532.03	467.85	64.18	8.290		
9,200.00	9,190.58	9,218.98	9,189.58	32.18	33.61	-90.60	-284.90	-537.00	532.03	467.16	64.86	8.202		
9,300.00	9,290.58	9,318.98	9,289.58	32.52	33.94	-90.60	-284.90	-537.00	532.03	466.48	65.55	8.116		
9,400.00	9,390.58	9,418.98	9,389.58	32.87	34.28	-90.60	-284.90	-537.00	532.03	465.79	66.24	8.032		
9,500.00	9,490.58	9,518.98	9,489.58	33.21	34.61	-90.60	-284.90	-537.00	532.03	465.11	66.92	7.950		
9,600.00	9,590.58	9,618.98	9,589.58	33.56	34.94	-90.60	-284.90	-537.00	532.03	464.42	67.61	7.869		
9,700.00	9,690.58	9,718.98	9,689.58	33.91	35.28	-90.60	-284.90	-537.00	532.03	463.73	68.30	7.790		
9,800.00	9,790.58	9,818.98	9,789.58	34.26	35.61	-90.60	-284.90	-537.00	532.03	463.04	68.98	7.712		
9,900.00	9,890.58	9,918.98	9,889.58	34.60	35.95	-90.60	-284.90	-537.00	532.03	462.36	69.67	7.636		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #202H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Azimuth from North (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)						
10,000.00	9,990.58	10,018.98	9,989.58	34.95	36.28	-90.60	-284.90	-537.00	532.03	461.67	70.36	7.561		
10,100.00	10,090.58	10,118.98	10,089.58	35.30	36.62	-90.60	-284.90	-537.00	532.03	460.98	71.05	7.488		
10,200.00	10,190.58	10,218.98	10,189.58	35.65	36.96	-90.60	-284.90	-537.00	532.03	460.29	71.74	7.416		
10,300.00	10,290.58	10,318.98	10,289.58	35.99	37.29	-90.60	-284.90	-537.00	532.03	459.60	72.43	7.345		
10,400.00	10,390.58	10,418.98	10,389.58	36.34	37.63	-90.60	-284.90	-537.00	532.03	458.90	73.12	7.276		
10,500.00	10,490.58	10,518.98	10,489.58	36.69	37.97	-90.60	-284.90	-537.00	532.03	458.21	73.82	7.207		
10,600.00	10,590.58	10,618.98	10,589.58	37.04	38.30	-90.60	-284.90	-537.00	532.03	457.52	74.51	7.140		
10,700.00	10,690.58	10,718.98	10,689.58	37.39	38.64	-90.60	-284.90	-537.00	532.03	456.83	75.20	7.075		
10,800.00	10,790.58	10,818.98	10,789.58	37.74	38.98	-90.60	-284.90	-537.00	532.03	456.13	75.90	7.010		
10,900.00	10,890.58	10,918.98	10,889.58	38.09	39.32	-90.60	-284.90	-537.00	532.03	455.44	76.59	6.947		
11,000.00	10,990.58	11,018.98	10,989.58	38.44	39.66	-90.60	-284.90	-537.00	532.03	454.75	77.28	6.884		
11,100.00	11,090.58	11,118.98	11,089.58	38.79	40.00	-90.60	-284.90	-537.00	532.03	454.05	77.98	6.823		
11,200.00	11,190.58	11,218.98	11,189.58	39.14	40.34	-90.60	-284.90	-537.00	532.03	453.36	78.67	6.763		
11,300.00	11,290.58	11,318.98	11,289.58	39.49	40.68	-90.60	-284.90	-537.00	532.03	452.66	79.37	6.703		
11,400.00	11,390.58	11,418.98	11,389.58	39.84	41.02	-90.60	-284.90	-537.00	532.03	451.97	80.06	6.645		
11,500.00	11,490.58	11,518.98	11,489.58	40.19	41.36	-90.60	-284.90	-537.00	532.03	451.27	80.76	6.588		
11,600.00	11,590.58	11,618.98	11,589.58	40.54	41.70	-90.60	-284.90	-537.00	532.03	450.57	81.46	6.531		
11,648.61	11,639.19	11,667.64	11,638.19	40.71	41.87	-90.39	-282.97	-537.01	532.03	450.23	81.79	6.504		
11,700.00	11,690.58	11,718.35	11,688.48	40.89	42.03	-89.70	-276.59	-537.06	532.06	449.91	82.15	6.477		
11,800.00	11,790.58	11,812.18	11,779.23	41.24	42.30	-87.19	-253.18	-537.22	532.96	450.13	82.83	6.434		
11,900.00	11,890.58	11,896.49	11,856.56	41.59	42.52	-83.62	-219.77	-537.44	536.78	453.36	83.42	6.435		
12,000.00	11,990.58	11,969.63	11,919.05	41.94	42.67	-79.63	-181.86	-537.70	546.12	462.40	83.73	6.523		
12,003.43	11,994.01	11,971.94	11,920.94	41.95	42.68	-79.49	-180.54	-537.71	546.57	462.84	83.73	6.528		
12,050.00	12,040.53	12,002.89	11,945.76	42.11	42.74	-77.78	-162.05	-537.84	553.44	469.73	83.71	6.611		
12,100.00	12,090.12	12,035.52	11,970.80	42.28	42.79	-76.30	-141.15	-537.98	562.29	478.71	83.58	6.727		
12,150.00	12,138.99	12,067.60	11,994.23	42.44	42.84	-75.19	-119.23	-538.13	572.39	489.04	83.35	6.868		
12,200.00	12,186.75	12,100.00	12,016.60	42.59	42.88	-74.37	-95.81	-538.29	583.48	500.44	83.04	7.027		
12,250.00	12,233.04	12,130.42	12,036.37	42.73	42.91	-74.01	-72.69	-538.45	595.30	512.67	82.62	7.205		
12,300.00	12,277.51	12,161.27	12,055.14	42.87	42.94	-73.92	-48.21	-538.61	607.60	525.43	82.17	7.394		
12,350.00	12,319.83	12,191.81	12,072.40	42.99	42.96	-74.13	-23.02	-538.78	620.18	538.49	81.69	7.592		
12,400.00	12,359.67	12,222.08	12,088.16	43.12	42.98	-74.64	2.82	-538.96	632.83	551.62	81.21	7.793		
12,450.00	12,396.72	12,250.00	12,101.46	43.23	43.00	-75.60	27.36	-539.13	645.37	564.67	80.70	7.997		
12,500.00	12,430.71	12,281.96	12,115.20	43.35	43.01	-76.45	56.21	-539.32	657.63	577.33	80.31	8.189		
12,550.00	12,461.37	12,311.62	12,126.49	43.46	43.01	-77.70	83.63	-539.51	669.48	589.55	79.93	8.376		
12,600.00	12,488.48	12,341.13	12,136.31	43.56	43.02	-79.14	111.46	-539.70	680.79	601.18	79.61	8.551		
12,650.00	12,511.83	12,370.53	12,144.65	43.67	43.02	-80.75	139.65	-539.89	691.46	612.08	79.38	8.711		
12,700.00	12,531.23	12,400.00	12,151.54	43.78	43.03	-82.48	168.30	-540.09	701.39	622.14	79.25	8.851		
12,703.43	12,532.41	12,400.00	12,151.54	43.78	43.03	-82.79	168.30	-540.09	702.04	622.82	79.22	8.862		
12,750.00	12,547.27	12,430.59	12,157.17	43.89	43.05	-84.17	198.36	-540.29	710.88	631.68	79.20	8.976		
12,800.00	12,560.80	12,465.27	12,162.21	44.00	43.09	-85.51	232.67	-540.53	720.11	640.87	79.24	9.087		
12,850.00	12,571.80	12,500.00	12,166.01	44.12	43.17	-86.86	267.19	-540.76	728.97	649.63	79.35	9.187		
12,900.00	12,580.23	12,534.35	12,168.53	44.25	43.25	-88.26	301.44	-540.99	737.43	657.93	79.51	9.275		
12,950.00	12,586.06	12,568.79	12,169.82	44.39	43.35	-89.64	335.85	-541.23	745.47	665.75	79.72	9.351		
13,000.00	12,589.30	12,610.12	12,170.00	44.53	43.47	-90.39	377.19	-541.51	752.98	672.96	80.01	9.411		
13,036.76	12,590.00	12,646.51	12,170.00	44.63	43.59	-90.39	413.57	-541.76	757.69	677.39	80.29	9.437		
13,100.00	12,590.00	12,709.21	12,170.00	44.83	43.80	-90.39	476.27	-542.18	764.56	683.75	80.81	9.461		
13,200.00	12,590.00	12,808.68	12,170.00	45.19	44.19	-90.39	575.74	-542.86	773.09	691.44	81.65	9.468		
13,300.00	12,590.00	12,908.45	12,170.00	45.61	44.63	-90.39	675.51	-543.54	778.74	696.21	82.53	9.436		
13,400.00	12,590.00	13,008.40	12,170.00	46.08	45.12	-90.39	775.45	-544.22	781.46	698.02	83.44	9.366		
13,442.21	12,590.00	13,050.60	12,170.00	46.30	45.35	-90.39	817.65	-544.51	781.72	697.88	83.83	9.325		
13,500.00	12,590.00	13,108.39	12,170.00	46.60	45.67	-90.39	875.45	-544.90	781.72	697.34	84.38	9.264		
13,600.00	12,590.00	13,208.39	12,170.00	47.18	46.27	-90.39	975.44	-545.58	781.72	696.31	85.41	9.152		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #202H - Wellbore #1 - Design #2														Offset Site Error: 0.00 usft	
Survey Program: 0-MWD														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Azimuth from North (°)	Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
13,700.00	12,590.00	13,308.39	12,170.00	47.81	46.92	-90.39	1,075.44	-546.27	781.72	695.19	86.53	9.034			
13,800.00	12,590.00	13,408.39	12,170.00	48.48	47.62	-90.39	1,175.44	-546.95	781.73	693.99	87.73	8.910			
13,900.00	12,590.00	13,508.39	12,170.00	49.20	48.36	-90.39	1,275.44	-547.63	781.73	692.72	89.01	8.782			
14,000.00	12,590.00	13,608.39	12,170.00	49.97	49.15	-90.39	1,375.43	-548.31	781.73	691.36	90.37	8.651			
14,100.00	12,590.00	13,708.39	12,170.00	50.77	49.97	-90.39	1,475.43	-548.99	781.73	689.93	91.80	8.516			
14,200.00	12,590.00	13,808.39	12,170.00	51.62	50.84	-90.39	1,575.43	-549.67	781.73	688.44	93.30	8.379			
14,300.00	12,590.00	13,908.39	12,170.00	52.51	51.75	-90.39	1,675.43	-550.35	781.74	686.87	94.86	8.241			
14,400.00	12,590.00	14,008.39	12,170.00	53.44	52.69	-90.39	1,775.42	-551.03	781.74	685.25	96.49	8.102			
14,500.00	12,590.00	14,108.39	12,170.00	54.40	53.67	-90.39	1,875.42	-551.71	781.74	683.56	98.18	7.962			
14,600.00	12,590.00	14,208.39	12,170.00	55.39	54.68	-90.39	1,975.42	-552.40	781.74	681.81	99.93	7.823			
14,700.00	12,590.00	14,308.39	12,170.00	56.41	55.72	-90.39	2,075.42	-553.08	781.74	680.02	101.73	7.685			
14,800.00	12,590.00	14,408.39	12,170.00	57.47	56.79	-90.39	2,175.41	-553.76	781.75	678.17	103.58	7.547			
14,900.00	12,590.00	14,508.39	12,170.00	58.55	57.88	-90.39	2,275.41	-554.44	781.75	676.27	105.48	7.411			
15,000.00	12,590.00	14,608.39	12,170.00	59.66	59.01	-90.39	2,375.41	-555.12	781.75	674.32	107.43	7.277			
15,100.00	12,590.00	14,708.39	12,170.00	60.79	60.16	-90.39	2,475.41	-555.80	781.75	672.34	109.42	7.145			
15,200.00	12,590.00	14,808.39	12,170.00	61.95	61.33	-90.39	2,575.41	-556.48	781.75	670.31	111.45	7.015			
15,300.00	12,590.00	14,908.39	12,170.00	63.13	62.52	-90.39	2,675.40	-557.16	781.76	668.24	113.52	6.887			
15,400.00	12,590.00	15,008.39	12,170.00	64.33	63.73	-90.39	2,775.40	-557.84	781.76	666.13	115.62	6.761			
15,500.00	12,590.00	15,108.39	12,170.00	65.55	64.97	-90.39	2,875.40	-558.52	781.76	663.99	117.77	6.638			
15,600.00	12,590.00	15,208.39	12,170.00	66.79	66.22	-90.39	2,975.40	-559.21	781.76	661.82	119.94	6.518			
15,700.00	12,590.00	15,308.39	12,170.00	68.05	67.49	-90.39	3,075.39	-559.89	781.76	659.62	122.15	6.400			
15,800.00	12,590.00	15,408.39	12,170.00	69.32	68.77	-90.39	3,175.39	-560.57	781.77	657.38	124.38	6.285			
15,900.00	12,590.00	15,508.39	12,170.00	70.61	70.08	-90.39	3,275.39	-561.25	781.77	655.12	126.65	6.173			
16,000.00	12,590.00	15,608.39	12,170.00	71.92	71.39	-90.39	3,375.39	-561.93	781.77	652.83	128.94	6.063			
16,100.00	12,590.00	15,708.39	12,170.00	73.24	72.73	-90.39	3,475.38	-562.61	781.77	650.52	131.25	5.956			
16,200.00	12,590.00	15,808.39	12,170.00	74.57	74.07	-90.39	3,575.38	-563.29	781.77	648.18	133.59	5.852			
16,300.00	12,590.00	15,908.39	12,170.00	75.92	75.43	-90.39	3,675.38	-563.97	781.77	645.82	135.95	5.750			
16,400.00	12,590.00	16,008.39	12,170.00	77.28	76.79	-90.39	3,775.38	-564.65	781.78	643.44	138.34	5.651			
16,500.00	12,590.00	16,108.39	12,170.00	78.65	78.17	-90.39	3,875.38	-565.34	781.78	641.04	140.74	5.555			
16,600.00	12,590.00	16,208.39	12,170.00	80.03	79.56	-90.39	3,975.37	-566.02	781.78	638.61	143.17	5.461			
16,700.00	12,590.00	16,308.39	12,170.00	81.42	80.96	-90.39	4,075.37	-566.70	781.78	636.17	145.61	5.369			
16,800.00	12,590.00	16,408.39	12,170.00	82.82	82.37	-90.39	4,175.37	-567.38	781.78	633.72	148.07	5.280			
16,900.00	12,590.00	16,508.39	12,170.00	84.23	83.79	-90.39	4,275.37	-568.06	781.79	631.24	150.54	5.193			
17,000.00	12,590.00	16,608.39	12,170.00	85.65	85.22	-90.39	4,375.36	-568.74	781.79	628.75	153.04	5.109			
17,100.00	12,590.00	16,708.39	12,170.00	87.08	86.66	-90.39	4,475.36	-569.42	781.79	626.25	155.54	5.026			
17,200.00	12,590.00	16,808.39	12,170.00	88.52	88.10	-90.39	4,575.36	-570.10	781.79	623.73	158.06	4.946			
17,300.00	12,590.00	16,908.39	12,170.00	89.96	89.55	-90.39	4,675.36	-570.78	781.79	621.20	160.60	4.868			
17,334.15	12,590.00	16,942.54	12,170.00	90.40	90.00	-90.39	4,709.50	-571.02	781.80	620.48	161.32	4.846 SF			

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #205H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Azimuth from North (°)	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	2.00	2.00	0.00	0.00	-90.58	-13.00	-1,290.00	1,290.07					
100.00	100.00	102.00	102.00	0.13	0.14	-90.58	-13.00	-1,290.00	1,290.07	1,289.80	0.26	4,896.313		
200.00	200.00	202.00	202.00	0.49	0.49	-90.58	-13.00	-1,290.00	1,290.07	1,289.09	0.98	1,315.829		
300.00	300.00	302.00	302.00	0.85	0.85	-90.58	-13.00	-1,290.00	1,290.07	1,288.37	1.70	760.041		
400.00	400.00	402.00	402.00	1.20	1.21	-90.58	-13.00	-1,290.00	1,290.07	1,287.65	2.41	534.342		
500.00	500.00	502.00	502.00	1.56	1.57	-90.58	-13.00	-1,290.00	1,290.07	1,286.93	3.13	411.997		
600.00	600.00	602.00	602.00	1.92	1.93	-90.58	-13.00	-1,290.00	1,290.07	1,286.22	3.85	335.239		
700.00	699.99	701.99	701.99	2.26	2.29	-90.54	-13.00	-1,290.00	1,290.04	1,285.49	4.55	283.667		
800.00	799.96	801.96	801.96	2.59	2.64	-90.42	-13.00	-1,290.00	1,289.97	1,284.74	5.24	246.316		
900.00	899.86	901.86	901.86	2.93	3.00	-90.23	-13.00	-1,290.00	1,289.87	1,283.94	5.93	217.364		
999.52	999.20	1,001.29	1,001.29	3.28	3.36	-89.96	-13.00	-1,290.00	1,289.75	1,283.12	6.63	194.386		
1,000.00	999.68	1,001.80	1,001.80	3.28	3.36	-89.96	-13.00	-1,290.00	1,289.75	1,283.11	6.64	194.286		
1,100.00	1,099.43	1,109.37	1,109.37	3.63	3.73	-89.69	-13.99	-1,289.67	1,289.34	1,281.98	7.36	175.231		
1,200.00	1,199.19	1,217.13	1,217.08	3.99	4.08	-89.51	-16.90	-1,288.69	1,288.34	1,280.27	8.07	159.682		
1,300.00	1,298.95	1,325.01	1,324.83	4.35	4.44	-89.42	-21.74	-1,287.08	1,286.74	1,277.95	8.79	146.397		
1,400.00	1,398.70	1,430.49	1,430.10	4.71	4.80	-89.39	-28.25	-1,284.90	1,284.56	1,275.04	9.51	135.056		
1,500.00	1,498.46	1,530.47	1,529.82	5.08	5.15	-89.38	-34.87	-1,282.68	1,282.22	1,272.00	10.22	125.438		
1,600.00	1,598.22	1,630.44	1,629.55	5.44	5.50	-89.36	-41.48	-1,280.47	1,279.89	1,268.95	10.94	117.011		
1,700.00	1,697.97	1,730.41	1,729.28	5.81	5.85	-89.34	-48.09	-1,278.26	1,277.56	1,265.90	11.66	109.577		
1,800.00	1,797.73	1,830.38	1,829.01	6.18	6.21	-89.33	-54.71	-1,276.05	1,275.22	1,262.84	12.38	102.977		
1,900.00	1,897.49	1,930.36	1,928.74	6.55	6.57	-89.31	-61.32	-1,273.83	1,272.89	1,259.78	13.11	97.083		
2,000.00	1,997.25	2,030.33	2,028.47	6.92	6.93	-89.29	-67.93	-1,271.62	1,270.56	1,256.71	13.84	91.792		
2,100.00	2,097.00	2,130.30	2,128.20	7.29	7.29	-89.28	-74.55	-1,269.41	1,268.22	1,253.65	14.57	87.017		
2,200.00	2,196.76	2,230.27	2,227.92	7.67	7.65	-89.26	-81.16	-1,267.19	1,265.89	1,250.58	15.31	82.689		
2,300.00	2,296.52	2,330.24	2,327.65	8.04	8.02	-89.24	-87.77	-1,264.98	1,263.56	1,247.51	16.05	78.750		
2,400.00	2,396.27	2,430.22	2,427.38	8.41	8.38	-89.22	-94.39	-1,262.77	1,261.22	1,244.44	16.78	75.149		
2,500.00	2,496.03	2,530.19	2,527.11	8.78	8.75	-89.21	-101.00	-1,260.56	1,258.89	1,241.37	17.52	71.847		
2,600.00	2,595.79	2,630.16	2,626.84	9.16	9.12	-89.19	-107.61	-1,258.34	1,256.56	1,238.30	18.26	68.807		
2,700.00	2,695.54	2,730.13	2,726.57	9.53	9.49	-89.17	-114.23	-1,256.13	1,254.23	1,235.22	19.00	66.001		
2,800.00	2,795.30	2,830.10	2,826.30	9.91	9.86	-89.15	-120.84	-1,253.92	1,251.90	1,232.15	19.75	63.403		
2,900.00	2,895.06	2,930.08	2,926.02	10.28	10.23	-89.13	-127.45	-1,251.70	1,249.56	1,229.08	20.49	60.991		
3,000.00	2,994.81	3,030.05	3,025.75	10.66	10.60	-89.12	-134.07	-1,249.49	1,247.23	1,226.00	21.23	58.745		
3,100.00	3,094.57	3,130.02	3,125.48	11.03	10.97	-89.10	-140.68	-1,247.28	1,244.90	1,222.93	21.98	56.650		
3,200.00	3,194.33	3,229.99	3,225.21	11.41	11.34	-89.08	-147.29	-1,245.07	1,242.57	1,219.85	22.72	54.691		
3,300.00	3,294.09	3,329.96	3,324.94	11.78	11.71	-89.06	-153.91	-1,242.85	1,240.24	1,216.77	23.46	52.855		
3,400.00	3,393.84	3,429.94	3,424.67	12.16	12.08	-89.05	-160.52	-1,240.64	1,237.91	1,213.70	24.21	51.131		
3,500.00	3,493.60	3,529.91	3,524.39	12.53	12.45	-89.03	-167.13	-1,238.43	1,235.57	1,210.62	24.96	49.509		
3,600.00	3,593.36	3,629.88	3,624.12	12.91	12.83	-89.01	-173.75	-1,236.21	1,233.24	1,207.54	25.70	47.981		
3,700.00	3,693.11	3,729.85	3,723.85	13.28	13.20	-88.99	-180.36	-1,234.00	1,230.91	1,204.46	26.45	46.538		
3,800.00	3,792.87	3,829.82	3,823.58	13.66	13.57	-88.97	-186.97	-1,231.79	1,228.58	1,201.38	27.20	45.174		
3,900.00	3,892.63	3,929.80	3,923.31	14.03	13.94	-88.95	-193.59	-1,229.58	1,226.25	1,198.31	27.94	43.883		
4,000.00	3,992.38	4,029.77	4,023.04	14.41	14.32	-88.94	-200.20	-1,227.36	1,223.92	1,195.23	28.69	42.658		
4,100.00	4,092.14	4,129.74	4,122.77	14.78	14.69	-88.92	-206.81	-1,225.15	1,221.59	1,192.15	29.44	41.495		
4,200.00	4,191.90	4,229.71	4,222.49	15.16	15.06	-88.90	-213.43	-1,222.94	1,219.26	1,189.07	30.19	40.390		
4,300.00	4,291.66	4,329.68	4,322.22	15.54	15.44	-88.88	-220.04	-1,220.73	1,216.93	1,185.99	30.94	39.337		
4,400.00	4,391.41	4,429.66	4,421.95	15.91	15.81	-88.86	-226.65	-1,218.51	1,214.60	1,182.91	31.68	38.335		
4,500.00	4,491.17	4,529.63	4,521.68	16.29	16.19	-88.84	-233.27	-1,216.30	1,212.27	1,179.84	32.43	37.378		
4,600.00	4,590.93	4,629.60	4,621.41	16.67	16.56	-88.82	-239.88	-1,214.09	1,209.94	1,176.76	33.18	36.464		
4,609.90	4,600.80	4,639.50	4,631.28	16.70	16.60	-88.82	-240.53	-1,213.87	1,209.71	1,176.45	33.26	36.376		
4,700.00	4,690.73	4,729.57	4,721.14	17.04	16.94	-88.84	-246.49	-1,211.87	1,207.61	1,173.68	33.93	35.593		
4,800.00	4,790.63	4,829.52	4,820.84	17.40	17.31	-88.83	-253.10	-1,209.66	1,205.27	1,170.60	34.67	34.767		
4,900.00	4,890.59	4,929.42	4,920.50	17.76	17.68	-89.11	-259.71	-1,207.45	1,202.94	1,167.54	35.40	33.982		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Survey Program: 0-MWD													Offset Site Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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	4,990.58	5,029.24	5,020.07	18.10	18.06	-89.38	-266.32	-1,205.24	1,200.63	1,164.52	36.11	33.250		
5,009.42	5,000.00	5,038.64	5,029.45	18.13	18.09	-89.41	-266.94	-1,205.03	1,200.41	1,164.24	36.18	33.183		
5,100.00	5,090.58	5,129.00	5,119.59	18.42	18.43	-89.69	-272.92	-1,203.03	1,198.35	1,161.55	36.80	32.563		
5,200.00	5,190.58	5,226.96	5,217.32	18.74	18.80	-90.00	-279.34	-1,200.88	1,196.14	1,158.65	37.49	31.908		
5,300.00	5,290.58	5,320.63	5,310.84	19.06	19.15	-90.24	-284.39	-1,199.19	1,194.34	1,156.19	38.16	31.302		
5,400.00	5,390.58	5,414.45	5,404.58	19.38	19.49	-90.42	-288.00	-1,197.99	1,193.08	1,154.26	38.82	30.734		
5,500.00	5,490.58	5,508.37	5,498.47	19.70	19.82	-90.52	-290.15	-1,197.27	1,192.33	1,152.85	39.48	30.203		
5,600.00	5,590.58	5,602.49	5,592.58	20.02	20.14	-90.55	-290.85	-1,197.03	1,192.09	1,151.97	40.12	29.714		
5,700.00	5,690.58	5,702.49	5,692.58	20.35	20.46	-90.55	-290.85	-1,197.03	1,192.09	1,151.32	40.77	29.241		
5,800.00	5,790.58	5,802.49	5,792.58	20.68	20.79	-90.55	-290.85	-1,197.03	1,192.09	1,150.67	41.42	28.781		
5,900.00	5,890.58	5,902.49	5,892.58	21.00	21.11	-90.55	-290.85	-1,197.03	1,192.09	1,150.02	42.07	28.334		
6,000.00	5,990.58	6,002.49	5,992.58	21.33	21.44	-90.55	-290.85	-1,197.03	1,192.09	1,149.36	42.73	27.900		
6,100.00	6,090.58	6,102.49	6,092.58	21.66	21.77	-90.55	-290.85	-1,197.03	1,192.09	1,148.70	43.38	27.477		
6,200.00	6,190.58	6,202.49	6,192.58	21.99	22.09	-90.55	-290.85	-1,197.03	1,192.09	1,148.05	44.04	27.066		
6,300.00	6,290.58	6,302.49	6,292.58	22.32	22.42	-90.55	-290.85	-1,197.03	1,192.09	1,147.38	44.70	26.666		
6,400.00	6,390.58	6,402.49	6,392.58	22.65	22.75	-90.55	-290.85	-1,197.03	1,192.09	1,146.72	45.37	26.277		
6,500.00	6,490.58	6,502.49	6,492.58	22.99	23.09	-90.55	-290.85	-1,197.03	1,192.09	1,146.06	46.03	25.898		
6,600.00	6,590.58	6,602.49	6,592.58	23.32	23.42	-90.55	-290.85	-1,197.03	1,192.09	1,145.39	46.70	25.529		
6,700.00	6,690.58	6,702.49	6,692.58	23.65	23.75	-90.55	-290.85	-1,197.03	1,192.09	1,144.73	47.36	25.169		
6,800.00	6,790.58	6,802.49	6,792.58	23.99	24.08	-90.55	-290.85	-1,197.03	1,192.09	1,144.06	48.03	24.819		
6,900.00	6,890.58	6,902.49	6,892.58	24.32	24.42	-90.55	-290.85	-1,197.03	1,192.09	1,143.39	48.70	24.477		
7,000.00	6,990.58	7,002.49	6,992.58	24.66	24.75	-90.55	-290.85	-1,197.03	1,192.09	1,142.72	49.37	24.144		
7,100.00	7,090.58	7,102.49	7,092.58	25.00	25.09	-90.55	-290.85	-1,197.03	1,192.09	1,142.04	50.05	23.820		
7,200.00	7,190.58	7,202.49	7,192.58	25.33	25.42	-90.55	-290.85	-1,197.03	1,192.09	1,141.37	50.72	23.504		
7,300.00	7,290.58	7,302.49	7,292.58	25.67	25.76	-90.55	-290.85	-1,197.03	1,192.09	1,140.69	51.39	23.195		
7,400.00	7,390.58	7,402.49	7,392.58	26.01	26.10	-90.55	-290.85	-1,197.03	1,192.09	1,140.02	52.07	22.894		
7,500.00	7,490.58	7,502.49	7,492.58	26.35	26.44	-90.55	-290.85	-1,197.03	1,192.09	1,139.34	52.75	22.600		
7,600.00	7,590.58	7,602.49	7,592.58	26.69	26.77	-90.55	-290.85	-1,197.03	1,192.09	1,138.66	53.43	22.313		
7,700.00	7,690.58	7,702.49	7,692.58	27.03	27.11	-90.55	-290.85	-1,197.03	1,192.09	1,137.98	54.11	22.033		
7,800.00	7,790.58	7,802.49	7,792.58	27.37	27.45	-90.55	-290.85	-1,197.03	1,192.09	1,137.30	54.79	21.759		
7,900.00	7,890.58	7,902.49	7,892.58	27.71	27.79	-90.55	-290.85	-1,197.03	1,192.09	1,136.62	55.47	21.492		
8,000.00	7,990.58	8,002.49	7,992.58	28.05	28.13	-90.55	-290.85	-1,197.03	1,192.09	1,135.94	56.15	21.231		
8,100.00	8,090.58	8,102.49	8,092.58	28.39	28.47	-90.55	-290.85	-1,197.03	1,192.09	1,135.26	56.83	20.976		
8,200.00	8,190.58	8,202.49	8,192.58	28.73	28.82	-90.55	-290.85	-1,197.03	1,192.09	1,134.57	57.51	20.727		
8,300.00	8,290.58	8,302.49	8,292.58	29.08	29.16	-90.55	-290.85	-1,197.03	1,192.09	1,133.89	58.20	20.483		
8,400.00	8,390.58	8,402.49	8,392.58	29.42	29.50	-90.55	-290.85	-1,197.03	1,192.09	1,133.20	58.88	20.245		
8,500.00	8,490.58	8,502.49	8,492.58	29.76	29.84	-90.55	-290.85	-1,197.03	1,192.09	1,132.52	59.57	20.011		
8,600.00	8,590.58	8,602.49	8,592.58	30.11	30.18	-90.55	-290.85	-1,197.03	1,192.09	1,131.83	60.26	19.783		
8,700.00	8,690.58	8,702.49	8,692.58	30.45	30.53	-90.55	-290.85	-1,197.03	1,192.09	1,131.14	60.94	19.560		
8,800.00	8,790.58	8,802.49	8,792.58	30.80	30.87	-90.55	-290.85	-1,197.03	1,192.09	1,130.46	61.63	19.342		
8,900.00	8,890.58	8,902.49	8,892.58	31.14	31.21	-90.55	-290.85	-1,197.03	1,192.09	1,129.77	62.32	19.128		
9,000.00	8,990.58	9,002.49	8,992.58	31.49	31.56	-90.55	-290.85	-1,197.03	1,192.09	1,129.08	63.01	18.919		
9,100.00	9,090.58	9,102.49	9,092.58	31.83	31.90	-90.55	-290.85	-1,197.03	1,192.09	1,128.39	63.70	18.714		
9,200.00	9,190.58	9,202.49	9,192.58	32.18	32.25	-90.55	-290.85	-1,197.03	1,192.09	1,127.70	64.39	18.513		
9,300.00	9,290.58	9,302.49	9,292.58	32.52	32.59	-90.55	-290.85	-1,197.03	1,192.09	1,127.01	65.08	18.317		
9,400.00	9,390.58	9,402.49	9,392.58	32.87	32.94	-90.55	-290.85	-1,197.03	1,192.09	1,126.31	65.77	18.124		
9,500.00	9,490.58	9,502.49	9,492.58	33.21	33.28	-90.55	-290.85	-1,197.03	1,192.09	1,125.62	66.47	17.935		
9,600.00	9,590.58	9,602.49	9,592.58	33.56	33.63	-90.55	-290.85	-1,197.03	1,192.09	1,124.93	67.16	17.750		
9,700.00	9,690.58	9,702.49	9,692.58	33.91	33.98	-90.55	-290.85	-1,197.03	1,192.09	1,124.24	67.85	17.569		
9,800.00	9,790.58	9,802.49	9,792.58	34.26	34.32	-90.55	-290.85	-1,197.03	1,192.09	1,123.54	68.55	17.391		
9,900.00	9,890.58	9,902.49	9,892.58	34.60	34.67	-90.55	-290.85	-1,197.03	1,192.09	1,122.85	69.24	17.217		
10,000.00	9,990.58	10,002.49	9,992.58	34.95	35.02	-90.55	-290.85	-1,197.03	1,192.09	1,122.15	69.93	17.046		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #205H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor	
10,100.00	10,090.58	10,102.49	10,092.58	35.30	35.36	-90.55	-290.85	-1,197.03	1,192.09	1,121.46	70.63		16.878	
10,200.00	10,190.58	10,202.49	10,192.58	35.65	35.71	-90.55	-290.85	-1,197.03	1,192.09	1,120.76	71.33		16.713	
10,300.00	10,290.58	10,302.49	10,292.58	35.99	36.06	-90.55	-290.85	-1,197.03	1,192.09	1,120.07	72.02		16.552	
10,400.00	10,390.58	10,402.49	10,392.58	36.34	36.41	-90.55	-290.85	-1,197.03	1,192.09	1,119.37	72.72		16.393	
10,500.00	10,490.58	10,502.49	10,492.58	36.69	36.75	-90.55	-290.85	-1,197.03	1,192.09	1,118.67	73.41		16.238	
10,600.00	10,590.58	10,602.49	10,592.58	37.04	37.10	-90.55	-290.85	-1,197.03	1,192.09	1,117.98	74.11		16.085	
10,700.00	10,690.58	10,702.49	10,692.58	37.39	37.45	-90.55	-290.85	-1,197.03	1,192.09	1,117.28	74.81		15.935	
10,800.00	10,790.58	10,802.49	10,792.58	37.74	37.80	-90.55	-290.85	-1,197.03	1,192.09	1,116.58	75.51		15.788	
10,900.00	10,890.58	10,902.49	10,892.58	38.09	38.15	-90.55	-290.85	-1,197.03	1,192.09	1,115.88	76.20		15.643	
11,000.00	10,990.58	11,002.49	10,992.58	38.44	38.50	-90.55	-290.85	-1,197.03	1,192.09	1,115.19	76.90		15.501	
11,100.00	11,090.58	11,102.49	11,092.58	38.79	38.85	-90.55	-290.85	-1,197.03	1,192.09	1,114.49	77.60		15.362	
11,200.00	11,190.58	11,202.49	11,192.58	39.14	39.20	-90.55	-290.85	-1,197.03	1,192.09	1,113.79	78.30		15.224	
11,300.00	11,290.58	11,302.49	11,292.58	39.49	39.55	-90.55	-290.85	-1,197.03	1,192.09	1,113.09	79.00		15.090	
11,400.00	11,390.58	11,402.49	11,392.58	39.84	39.90	-90.55	-290.85	-1,197.03	1,192.09	1,112.39	79.70		14.957	
11,500.00	11,490.58	11,502.49	11,492.58	40.19	40.24	-90.55	-290.85	-1,197.03	1,192.09	1,111.69	80.40		14.827	
11,600.00	11,590.58	11,602.49	11,592.58	40.54	40.59	-90.55	-290.85	-1,197.03	1,192.09	1,110.99	81.10		14.699	
11,700.00	11,690.58	11,702.49	11,692.58	40.89	40.94	-90.55	-290.85	-1,197.03	1,192.09	1,110.29	81.80		14.573	
11,800.00	11,790.58	11,802.49	11,792.58	41.24	41.30	-90.55	-290.85	-1,197.03	1,192.09	1,109.59	82.50		14.449	
11,860.85	11,851.43	11,863.46	11,853.43	41.45	41.50	-90.39	-287.46	-1,197.06	1,192.08	1,109.16	82.92		14.376 CC	
11,900.00	11,890.58	11,902.03	11,891.61	41.59	41.63	-90.13	-281.99	-1,197.09	1,192.10	1,108.91	83.19		14.330	
12,000.00	11,990.58	11,995.83	11,982.20	41.94	41.92	-88.98	-258.09	-1,197.26	1,192.49	1,108.67	83.82		14.227 ES	
12,003.43	11,994.01	11,998.89	11,985.08	41.95	41.93	-88.93	-257.06	-1,197.26	1,192.52	1,108.68	83.84		14.224	
12,050.00	12,040.53	12,039.91	12,023.15	42.11	42.04	-88.29	-241.82	-1,197.37	1,193.31	1,109.20	84.11		14.188	
12,100.00	12,090.12	12,082.98	12,061.85	42.28	42.16	-87.68	-222.92	-1,197.50	1,194.95	1,110.57	84.38		14.149	
12,150.00	12,138.99	12,125.14	12,098.25	42.44	42.27	-87.16	-201.66	-1,197.64	1,197.37	1,112.75	84.63		14.149	
12,200.00	12,186.75	12,166.49	12,132.33	42.59	42.37	-86.75	-178.26	-1,197.80	1,200.54	1,115.69	84.85		14.149	
12,250.00	12,233.04	12,207.11	12,164.08	42.73	42.46	-86.44	-152.95	-1,197.97	1,204.40	1,119.35	85.05		14.160	
12,300.00	12,277.51	12,247.07	12,193.49	42.87	42.55	-86.24	-125.91	-1,198.16	1,208.90	1,123.66	85.24		14.183	
12,350.00	12,319.83	12,286.45	12,220.56	42.99	42.64	-86.15	-97.32	-1,198.35	1,213.97	1,128.57	85.40		14.215	
12,400.00	12,359.67	12,325.30	12,245.28	43.12	42.72	-86.16	-67.36	-1,198.55	1,219.56	1,134.01	85.55		14.256	
12,450.00	12,396.72	12,363.69	12,267.66	43.23	42.81	-86.27	-36.17	-1,198.77	1,225.59	1,139.91	85.69		14.303	
12,500.00	12,430.71	12,400.00	12,286.86	43.35	42.88	-86.54	-5.37	-1,198.98	1,232.01	1,146.20	85.81		14.358	
12,550.00	12,461.37	12,439.33	12,305.41	43.46	42.97	-86.77	29.30	-1,199.21	1,238.73	1,152.79	85.94		14.414	
12,600.00	12,488.48	12,476.66	12,320.78	43.56	43.05	-87.13	63.32	-1,199.44	1,245.69	1,159.62	86.07		14.474	
12,650.00	12,511.83	12,513.75	12,333.82	43.67	43.13	-87.57	98.03	-1,199.68	1,252.82	1,166.62	86.20		14.535	
12,700.00	12,531.23	12,550.00	12,344.38	43.78	43.21	-88.08	132.70	-1,199.92	1,260.06	1,173.72	86.33		14.596	
12,703.43	12,532.41	12,553.15	12,345.19	43.78	43.21	-88.09	135.75	-1,199.94	1,260.55	1,174.21	86.34		14.599	
12,750.00	12,547.27	12,587.28	12,352.92	43.89	43.29	-88.58	168.98	-1,200.16	1,267.42	1,180.94	86.48		14.656	
12,800.00	12,560.80	12,626.30	12,359.53	44.00	43.38	-89.01	207.43	-1,200.42	1,274.96	1,188.32	86.64		14.715	
12,850.00	12,571.80	12,666.78	12,364.66	44.12	43.47	-89.38	247.58	-1,200.70	1,282.52	1,195.70	86.82		14.772	
12,900.00	12,580.23	12,707.13	12,368.07	44.25	43.57	-89.78	287.78	-1,200.97	1,290.09	1,203.07	87.02		14.826	
12,950.00	12,586.06	12,747.37	12,369.78	44.39	43.68	-90.18	327.98	-1,201.24	1,297.62	1,210.39	87.23		14.876	
13,000.00	12,589.30	12,807.91	12,370.00	44.53	43.84	-90.39	372.70	-1,201.55	1,305.06	1,217.54	87.52		14.912	
13,036.76	12,590.00	12,828.48	12,370.00	44.63	43.91	-90.39	409.08	-1,201.80	1,310.29	1,222.60	87.69		14.943	
13,100.00	12,590.00	12,891.17	12,370.00	44.83	44.11	-90.39	471.78	-1,202.22	1,318.40	1,230.31	88.09		14.967	
13,200.00	12,590.00	12,990.65	12,370.00	45.19	44.49	-90.39	571.25	-1,202.90	1,328.44	1,239.62	88.82		14.957	
13,300.00	12,590.00	13,109.58	12,370.00	45.61	45.01	-90.39	671.02	-1,203.58	1,335.05	1,245.30	89.75		14.876	
13,400.00	12,590.00	13,209.64	12,370.00	46.08	45.51	-90.39	770.96	-1,204.26	1,338.22	1,247.52	90.71		14.753	
13,442.21	12,590.00	13,232.57	12,370.00	46.30	45.63	-90.39	813.17	-1,204.55	1,338.53	1,247.49	91.04		14.702	
13,500.00	12,590.00	13,309.64	12,370.00	46.60	46.06	-90.39	870.96	-1,204.94	1,338.53	1,246.77	91.77		14.586	
13,600.00	12,590.00	13,390.36	12,370.00	47.18	46.55	-90.39	970.95	-1,205.62	1,338.53	1,245.72	92.81		14.422	
13,700.00	12,590.00	13,509.64	12,370.00	47.81	47.33	-90.39	1,070.95	-1,206.30	1,338.54	1,244.34	94.20		14.210	

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #205H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,800.00	12,590.00	13,609.64	12,370.00	48.48	48.03	-90.39	1,170.95	-1,206.98	1,338.54	1,242.98	95.56	14.007		
13,900.00	12,590.00	13,709.64	12,370.00	49.20	48.79	-90.39	1,270.95	-1,207.66	1,338.54	1,241.52	97.01	13.797		
14,000.00	12,590.00	13,809.64	12,370.00	49.97	49.58	-90.39	1,370.94	-1,208.34	1,338.54	1,239.98	98.56	13.581		
14,100.00	12,590.00	13,909.64	12,370.00	50.77	50.42	-90.39	1,470.94	-1,209.02	1,338.54	1,238.36	100.18	13.361		
14,200.00	12,590.00	14,009.64	12,370.00	51.62	51.30	-90.39	1,570.94	-1,209.70	1,338.55	1,236.66	101.89	13.137		
14,300.00	12,590.00	14,109.64	12,370.00	52.51	52.21	-90.39	1,670.94	-1,210.38	1,338.55	1,234.88	103.67	12.912		
14,400.00	12,590.00	14,209.64	12,370.00	53.44	53.17	-90.39	1,770.94	-1,211.07	1,338.55	1,233.03	105.52	12.685		
14,500.00	12,590.00	14,309.64	12,370.00	54.40	54.15	-90.39	1,870.93	-1,211.75	1,338.55	1,231.11	107.44	12.458		
14,600.00	12,590.00	14,409.64	12,370.00	55.39	55.17	-90.39	1,970.93	-1,212.43	1,338.55	1,229.12	109.43	12.232		
14,700.00	12,590.00	14,509.64	12,370.00	56.41	56.22	-90.39	2,070.93	-1,213.11	1,338.55	1,227.07	111.48	12.007		
14,800.00	12,590.00	14,609.64	12,370.00	57.47	57.30	-90.39	2,170.93	-1,213.79	1,338.56	1,224.97	113.59	11.785		
14,900.00	12,590.00	14,709.64	12,370.00	58.55	58.40	-90.39	2,270.92	-1,214.47	1,338.56	1,222.81	115.75	11.565		
15,000.00	12,590.00	14,809.64	12,370.00	59.66	59.53	-90.39	2,370.92	-1,215.15	1,338.56	1,220.60	117.96	11.348		
15,100.00	12,590.00	14,909.64	12,370.00	60.79	60.69	-90.39	2,470.92	-1,215.83	1,338.56	1,218.34	120.22	11.134		
15,200.00	12,590.00	15,009.64	12,370.00	61.95	61.87	-90.39	2,570.92	-1,216.51	1,338.56	1,216.04	122.53	10.925		
15,300.00	12,590.00	15,109.64	12,370.00	63.13	63.07	-90.39	2,670.91	-1,217.19	1,338.57	1,213.69	124.88	10.719		
15,400.00	12,590.00	15,209.64	12,370.00	64.33	64.29	-90.39	2,770.91	-1,217.87	1,338.57	1,211.30	127.27	10.517		
15,500.00	12,590.00	15,309.64	12,370.00	65.55	65.53	-90.39	2,870.91	-1,218.55	1,338.57	1,208.87	129.70	10.320		
15,600.00	12,590.00	15,409.64	12,370.00	66.79	66.78	-90.39	2,970.91	-1,219.23	1,338.57	1,206.40	132.17	10.128		
15,700.00	12,590.00	15,509.64	12,370.00	68.05	68.06	-90.39	3,070.91	-1,219.91	1,338.57	1,203.90	134.67	9.939		
15,800.00	12,590.00	15,609.64	12,370.00	69.32	69.35	-90.39	3,170.90	-1,220.59	1,338.57	1,201.36	137.21	9.756		
15,900.00	12,590.00	15,709.64	12,370.00	70.61	70.66	-90.39	3,270.90	-1,221.27	1,338.58	1,198.80	139.78	9.576		
16,000.00	12,590.00	15,809.64	12,370.00	71.92	71.98	-90.39	3,370.90	-1,221.95	1,338.58	1,196.20	142.37	9.402		
16,100.00	12,590.00	15,909.64	12,370.00	73.24	73.31	-90.39	3,470.90	-1,222.63	1,338.58	1,193.58	145.00	9.232		
16,200.00	12,590.00	16,009.64	12,370.00	74.57	74.66	-90.39	3,570.89	-1,223.32	1,338.58	1,190.93	147.65	9.066		
16,300.00	12,590.00	16,109.64	12,370.00	75.92	76.02	-90.39	3,670.89	-1,224.00	1,338.58	1,188.26	150.33	8.905		
16,400.00	12,590.00	16,190.36	12,370.00	77.28	77.13	-90.39	3,770.89	-1,224.68	1,338.58	1,185.82	152.76	8.763		
16,500.00	12,590.00	16,309.64	12,370.00	78.65	78.78	-90.39	3,870.89	-1,225.36	1,338.59	1,182.84	155.75	8.595		
16,600.00	12,590.00	16,409.64	12,370.00	80.03	80.17	-90.39	3,970.88	-1,226.04	1,338.59	1,180.10	158.49	8.446		
16,700.00	12,590.00	16,490.36	12,370.00	81.42	81.30	-90.39	4,070.88	-1,226.72	1,338.59	1,177.61	160.98	8.315		
16,800.00	12,590.00	16,609.64	12,370.00	82.82	82.99	-90.39	4,170.88	-1,227.40	1,338.59	1,174.56	164.04	8.160		
16,900.00	12,590.00	16,709.64	12,370.00	84.23	84.41	-90.39	4,270.88	-1,228.08	1,338.59	1,171.76	166.84	8.023		
17,000.00	12,590.00	16,809.64	12,370.00	85.65	85.84	-90.39	4,370.88	-1,228.76	1,338.60	1,168.94	169.65	7.890		
17,100.00	12,590.00	16,909.64	12,370.00	87.08	87.28	-90.39	4,470.87	-1,229.44	1,338.60	1,166.11	172.49	7.761		
17,200.00	12,590.00	17,009.64	12,370.00	88.52	88.72	-90.39	4,570.87	-1,230.12	1,338.60	1,163.26	175.34	7.634		
17,300.00	12,590.00	17,090.36	12,370.00	89.96	89.90	-90.39	4,670.87	-1,230.80	1,338.60	1,160.68	177.93	7.523		
17,301.73	12,590.00	17,092.09	12,370.00	89.98	89.92	-90.39	4,672.60	-1,230.81	1,338.60	1,160.63	177.97	7.521		
17,334.15	12,590.00	17,119.49	12,370.00	90.40	90.32	-90.61	4,700.00	-1,231.00	1,338.61	1,159.85	178.77	7.488 SF		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
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Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #206H - Wellbore #1 - Design #2														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	30.00	30.00						
100.00	100.00	100.00	100.00	0.13	0.13	90.00	0.00	30.00	30.00	29.74	0.26	117.047			
200.00	200.00	200.00	200.00	0.49	0.49	90.00	0.00	30.00	30.00	29.03	0.97	30.825			
300.00	300.00	300.00	300.00	0.85	0.85	90.00	0.00	30.00	30.00	28.31	1.69	17.749			
400.00	400.00	400.00	400.00	1.20	1.20	90.00	0.00	30.00	30.00	27.59	2.41	12.463			
500.00	500.00	500.00	500.00	1.56	1.56	90.00	0.00	30.00	30.00	26.88	3.12	9.603			
600.00	600.00	600.00	600.00	1.92	1.92	90.00	0.00	30.00	30.00	26.16	3.84	7.810 CC			
700.00	699.99	700.01	699.99	2.26	2.28	88.33	0.00	30.00	30.03	25.49	4.54	6.613			
800.00	799.96	800.04	799.96	2.59	2.64	83.38	0.00	30.00	30.26	25.03	5.23	5.786 ES			
900.00	899.86	900.14	899.86	2.93	3.00	75.40	0.00	30.00	31.15	25.22	5.93	5.254			
999.52	999.20	999.20	999.20	3.28	3.35	65.29	0.00	30.00	33.30	26.67	6.63	5.025			
1,000.00	999.68	999.68	999.68	3.28	3.35	65.24	0.00	30.00	33.31	26.68	6.63	5.024			
1,100.00	1,099.43	1,099.60	1,099.59	3.63	3.69	56.74	-0.82	30.28	36.65	29.33	7.32	5.006			
1,200.00	1,199.19	1,199.69	1,199.65	3.99	4.02	52.12	-3.30	31.11	40.05	32.04	8.00	5.004			
1,300.00	1,298.95	1,299.89	1,299.76	4.35	4.36	50.38	-7.44	32.49	43.00	34.31	8.69	4.947			
1,400.00	1,398.70	1,400.14	1,399.82	4.71	4.70	50.92	-13.24	34.44	45.35	35.95	9.39	4.828			
1,500.00	1,498.46	1,500.11	1,499.54	5.08	5.04	52.37	-19.85	36.66	47.40	37.30	10.10	4.694			
1,600.00	1,598.22	1,600.08	1,599.27	5.44	5.39	53.70	-26.46	38.87	49.49	38.68	10.81	4.578			
1,700.00	1,697.97	1,700.06	1,699.00	5.81	5.74	54.92	-33.07	41.09	51.59	40.07	11.53	4.476			
1,800.00	1,797.73	1,800.03	1,798.73	6.18	6.10	56.05	-39.68	43.31	53.72	41.47	12.25	4.386			
1,900.00	1,897.49	1,900.00	1,898.46	6.55	6.46	57.08	-46.29	45.53	55.87	42.90	12.97	4.306			
2,000.00	1,997.25	2,000.03	1,998.19	6.92	6.82	58.05	-52.90	47.74	58.04	44.34	13.70	4.236			
2,100.00	2,097.00	2,100.06	2,097.91	7.29	7.18	58.94	-59.51	49.96	60.22	45.79	14.43	4.172			
2,200.00	2,196.76	2,200.08	2,197.64	7.67	7.54	59.77	-66.12	52.18	62.42	47.25	15.17	4.115			
2,300.00	2,296.52	2,300.11	2,297.37	8.04	7.91	60.54	-72.73	54.39	64.63	48.72	15.90	4.064			
2,400.00	2,396.27	2,400.14	2,397.10	8.41	8.27	61.26	-79.34	56.61	66.84	50.20	16.64	4.017			
2,500.00	2,496.03	2,500.17	2,496.83	8.78	8.64	61.94	-85.95	58.83	69.07	51.69	17.38	3.975			
2,600.00	2,595.79	2,600.20	2,596.56	9.16	9.01	62.57	-92.56	61.04	71.31	53.19	18.12	3.936			
2,700.00	2,695.54	2,700.22	2,696.29	9.53	9.38	63.16	-99.18	63.26	73.56	54.70	18.86	3.900			
2,800.00	2,795.30	2,800.25	2,796.01	9.91	9.75	63.72	-105.79	65.48	75.81	56.21	19.60	3.868			
2,900.00	2,895.06	2,900.28	2,895.74	10.28	10.12	64.25	-112.40	67.69	78.07	57.73	20.34	3.838			
3,000.00	2,994.81	3,000.31	2,995.47	10.66	10.49	64.75	-119.01	69.91	80.34	59.25	21.09	3.810			
3,100.00	3,094.57	3,100.34	3,095.20	11.03	10.86	65.21	-125.62	72.13	82.61	60.78	21.83	3.784			
3,200.00	3,194.33	3,200.36	3,194.93	11.41	11.23	65.66	-132.23	74.34	84.89	62.31	22.58	3.760			
3,300.00	3,294.09	3,300.39	3,294.66	11.78	11.60	66.08	-138.84	76.56	87.17	63.85	23.32	3.738			
3,400.00	3,393.84	3,400.42	3,394.39	12.16	11.97	66.48	-145.45	78.78	89.45	65.39	24.07	3.717			
3,500.00	3,493.60	3,500.45	3,494.11	12.53	12.34	66.86	-152.06	81.00	91.75	66.93	24.81	3.697			
3,600.00	3,593.36	3,600.48	3,593.84	12.91	12.72	67.22	-158.67	83.21	94.04	68.48	25.56	3.679			
3,700.00	3,693.11	3,700.51	3,693.57	13.28	13.09	67.57	-165.28	85.43	96.34	70.03	26.31	3.662			
3,800.00	3,792.87	3,799.47	3,793.30	13.66	13.46	67.89	-171.89	87.65	98.64	71.59	27.05	3.646			
3,900.00	3,892.63	3,900.56	3,893.03	14.03	13.84	68.21	-178.50	89.86	100.94	73.14	27.81	3.630			
4,000.00	3,992.38	4,000.59	3,992.76	14.41	14.21	68.51	-185.11	92.08	103.25	74.70	28.55	3.616			
4,100.00	4,092.14	4,100.62	4,092.49	14.78	14.58	68.79	-191.72	94.30	105.56	76.26	29.30	3.603			
4,200.00	4,191.90	4,200.65	4,192.21	15.16	14.96	69.06	-198.33	96.51	107.88	77.82	30.05	3.590			
4,300.00	4,291.66	4,300.67	4,291.94	15.54	15.33	69.33	-204.94	98.73	110.19	79.39	30.80	3.578			
4,400.00	4,391.41	4,400.70	4,391.67	15.91	15.70	69.58	-211.55	100.95	112.51	80.96	31.55	3.566			
4,500.00	4,491.17	4,500.73	4,491.40	16.29	16.08	69.82	-218.16	103.16	114.83	82.53	32.30	3.555			
4,600.00	4,590.93	4,600.76	4,591.13	16.67	16.45	70.05	-224.77	105.38	117.15	84.10	33.05	3.545			
4,609.90	4,600.80	4,609.14	4,601.00	16.70	16.48	70.07	-225.42	105.60	117.38	84.26	33.12	3.544			
4,700.00	4,690.73	4,700.79	4,690.86	17.04	16.83	70.59	-231.38	107.60	119.22	85.43	33.80	3.527			
4,800.00	4,790.63	4,800.84	4,790.56	17.40	17.20	71.89	-237.99	109.81	120.73	86.18	34.55	3.495			
4,900.00	4,890.59	4,900.94	4,890.22	17.76	17.58	73.93	-244.59	112.03	121.77	86.48	35.29	3.451			

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #206H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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		
5,000.00	4,990.58	5,001.12	4,989.79	18.10	17.95	76.72	-251.19	114.24	122.52	86.51	36.01	3.402		
5,009.42	5,000.00	5,008.28	4,999.17	18.13	17.98	77.02	-251.82	114.45	122.59	86.51	36.07	3.398		
5,100.00	5,090.58	5,101.36	5,089.31	18.42	18.33	79.93	-257.79	116.46	123.36	86.65	36.71	3.360		
5,200.00	5,190.58	5,198.40	5,188.82	18.74	18.69	83.10	-264.39	118.67	124.58	87.18	37.40	3.331		
5,300.00	5,290.58	5,298.67	5,288.90	19.06	19.06	85.88	-270.29	120.65	125.99	87.90	38.09	3.308		
5,400.00	5,390.58	5,399.16	5,389.29	19.38	19.43	87.84	-274.55	122.08	127.17	88.40	38.77	3.280		
5,500.00	5,490.58	5,499.78	5,489.87	19.70	19.79	89.01	-277.14	122.94	127.96	88.51	39.45	3.244		
5,600.00	5,590.58	5,600.46	5,590.55	20.02	20.13	89.42	-278.05	123.25	128.26	88.14	40.11	3.197		
5,700.00	5,690.58	5,700.49	5,690.58	20.35	20.46	89.42	-278.05	123.25	128.26	87.49	40.76	3.146		
5,800.00	5,790.58	5,800.49	5,790.58	20.68	20.78	89.42	-278.05	123.25	128.26	86.84	41.41	3.097		
5,900.00	5,890.58	5,900.49	5,890.58	21.00	21.11	89.42	-278.05	123.25	128.26	86.19	42.07	3.049		
6,000.00	5,990.58	6,000.49	5,990.58	21.33	21.43	89.42	-278.05	123.25	128.26	85.53	42.72	3.002		
6,100.00	6,090.58	6,100.49	6,090.58	21.66	21.76	89.42	-278.05	123.25	128.26	84.88	43.38	2.957		
6,200.00	6,190.58	6,200.49	6,190.58	21.99	22.09	89.42	-278.05	123.25	128.26	84.22	44.04	2.912		
6,300.00	6,290.58	6,300.49	6,290.58	22.32	22.42	89.42	-278.05	123.25	128.26	83.56	44.70	2.869		
6,400.00	6,390.58	6,400.49	6,390.58	22.65	22.75	89.42	-278.05	123.25	128.26	82.90	45.36	2.827		
6,500.00	6,490.58	6,500.49	6,490.58	22.99	23.08	89.42	-278.05	123.25	128.26	82.23	46.03	2.787		
6,600.00	6,590.58	6,600.49	6,590.58	23.32	23.41	89.42	-278.05	123.25	128.26	81.57	46.69	2.747		
6,700.00	6,690.58	6,700.49	6,690.58	23.65	23.74	89.42	-278.05	123.25	128.26	80.90	47.36	2.708		
6,800.00	6,790.58	6,800.49	6,790.58	23.99	24.08	89.42	-278.05	123.25	128.26	80.23	48.03	2.671		
6,900.00	6,890.58	6,900.49	6,890.58	24.32	24.41	89.42	-278.05	123.25	128.26	79.56	48.70	2.634		
7,000.00	6,990.58	7,000.49	6,990.58	24.66	24.75	89.42	-278.05	123.25	128.26	78.89	49.37	2.598		
7,100.00	7,090.58	7,100.49	7,090.58	25.00	25.08	89.42	-278.05	123.25	128.26	78.22	50.04	2.563		
7,200.00	7,190.58	7,200.49	7,190.58	25.33	25.42	89.42	-278.05	123.25	128.26	77.54	50.71	2.529		
7,300.00	7,290.58	7,300.49	7,290.58	25.67	25.76	89.42	-278.05	123.25	128.26	76.87	51.39	2.496		
7,400.00	7,390.58	7,400.49	7,390.58	26.01	26.09	89.42	-278.05	123.25	128.26	76.19	52.06	2.463		
7,500.00	7,490.58	7,500.49	7,490.58	26.35	26.43	89.42	-278.05	123.25	128.26	75.51	52.74	2.432		
7,600.00	7,590.58	7,600.49	7,590.58	26.69	26.77	89.42	-278.05	123.25	128.26	74.84	53.42	2.401		
7,700.00	7,690.58	7,700.49	7,690.58	27.03	27.11	89.42	-278.05	123.25	128.26	74.16	54.10	2.371		
7,800.00	7,790.58	7,800.49	7,790.58	27.37	27.45	89.42	-278.05	123.25	128.26	73.48	54.78	2.341		
7,900.00	7,890.58	7,900.49	7,890.58	27.71	27.79	89.42	-278.05	123.25	128.26	72.80	55.46	2.313		
8,000.00	7,990.58	8,000.49	7,990.58	28.05	28.13	89.42	-278.05	123.25	128.26	72.11	56.14	2.284		
8,100.00	8,090.58	8,100.49	8,090.58	28.39	28.47	89.42	-278.05	123.25	128.26	71.43	56.83	2.257		
8,200.00	8,190.58	8,200.49	8,190.58	28.73	28.81	89.42	-278.05	123.25	128.26	70.75	57.51	2.230		
8,300.00	8,290.58	8,300.49	8,290.58	29.08	29.15	89.42	-278.05	123.25	128.26	70.06	58.19	2.204		
8,400.00	8,390.58	8,400.49	8,390.58	29.42	29.49	89.42	-278.05	123.25	128.26	69.38	58.88	2.178		
8,500.00	8,490.58	8,500.49	8,490.58	29.76	29.84	89.42	-278.05	123.25	128.26	68.69	59.56	2.153		
8,600.00	8,590.58	8,600.49	8,590.58	30.11	30.18	89.42	-278.05	123.25	128.26	68.01	60.25	2.129		
8,700.00	8,690.58	8,700.49	8,690.58	30.45	30.52	89.42	-278.05	123.25	128.26	67.32	60.94	2.105		
8,800.00	8,790.58	8,800.49	8,790.58	30.80	30.86	89.42	-278.05	123.25	128.26	66.63	61.63	2.081		
8,900.00	8,890.58	8,900.49	8,890.58	31.14	31.21	89.42	-278.05	123.25	128.26	65.94	62.32	2.058		
9,000.00	8,990.58	9,000.49	8,990.58	31.49	31.55	89.42	-278.05	123.25	128.26	65.25	63.00	2.036		
9,100.00	9,090.58	9,100.49	9,090.58	31.83	31.90	89.42	-278.05	123.25	128.26	64.56	63.69	2.014		
9,200.00	9,190.58	9,200.49	9,190.58	32.18	32.24	89.42	-278.05	123.25	128.26	63.87	64.38	1.992		
9,300.00	9,290.58	9,300.49	9,290.58	32.52	32.59	89.42	-278.05	123.25	128.26	63.18	65.08	1.971		
9,400.00	9,390.58	9,400.49	9,390.58	32.87	32.93	89.42	-278.05	123.25	128.26	62.49	65.77	1.950		
9,500.00	9,490.58	9,500.49	9,490.58	33.21	33.28	89.42	-278.05	123.25	128.26	61.80	66.46	1.930		
9,600.00	9,590.58	9,600.49	9,590.58	33.56	33.62	89.42	-278.05	123.25	128.26	61.10	67.15	1.910		
9,700.00	9,690.58	9,700.49	9,690.58	33.91	33.97	89.42	-278.05	123.25	128.26	60.41	67.85	1.890		
9,800.00	9,790.58	9,800.49	9,790.58	34.26	34.32	89.42	-278.05	123.25	128.26	59.72	68.54	1.871		
9,900.00	9,890.58	9,900.49	9,890.58	34.60	34.66	89.42	-278.05	123.25	128.26	59.02	69.23	1.853		
10,000.00	9,990.58	10,000.49	9,990.58	34.95	35.01	89.42	-278.05	123.25	128.26	58.33	69.93	1.834		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #206H - Wellbore #1 - Design #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWVD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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)			
10,100.00	10,090.58	10,100.49	10,090.58	35.30	35.36	89.42	-278.05	123.25	128.26	57.63	70.62	1.816	
10,200.00	10,190.58	10,200.49	10,190.58	35.65	35.70	89.42	-278.05	123.25	128.26	56.94	71.32	1.798	
10,300.00	10,290.58	10,300.49	10,290.58	35.99	36.05	89.42	-278.05	123.25	128.26	56.24	72.01	1.781	
10,400.00	10,390.58	10,400.49	10,390.58	36.34	36.40	89.42	-278.05	123.25	128.26	55.55	72.71	1.764	
10,500.00	10,490.58	10,500.49	10,490.58	36.69	36.75	89.42	-278.05	123.25	128.26	54.85	73.41	1.747	
10,600.00	10,590.58	10,600.49	10,590.58	37.04	37.10	89.42	-278.05	123.25	128.26	54.15	74.10	1.731	
10,700.00	10,690.58	10,700.49	10,690.58	37.39	37.44	89.42	-278.05	123.25	128.26	53.45	74.80	1.715	
10,800.00	10,790.58	10,800.49	10,790.58	37.74	37.79	89.42	-278.05	123.25	128.26	52.76	75.50	1.699	
10,900.00	10,890.58	10,900.49	10,890.58	38.09	38.14	89.42	-278.05	123.25	128.26	52.06	76.20	1.683	
11,000.00	10,990.58	11,000.49	10,990.58	38.44	38.49	89.42	-278.05	123.25	128.26	51.36	76.90	1.668	
11,100.00	11,090.58	11,100.49	11,090.58	38.79	38.84	89.42	-278.05	123.25	128.26	50.66	77.60	1.653	
11,200.00	11,190.58	11,200.49	11,190.58	39.14	39.19	89.42	-278.05	123.25	128.26	49.96	78.30	1.638	
11,300.00	11,290.58	11,300.49	11,290.58	39.49	39.54	89.42	-278.05	123.25	128.26	49.26	78.99	1.624	
11,400.00	11,390.58	11,400.49	11,390.58	39.84	39.89	89.42	-278.05	123.25	128.26	48.56	79.69	1.609	
11,500.00	11,490.58	11,500.49	11,490.58	40.19	40.24	89.42	-278.05	123.25	128.26	47.86	80.39	1.595	
11,600.00	11,590.58	11,600.49	11,590.58	40.54	40.59	89.42	-278.05	123.25	128.26	47.16	81.10	1.582	
11,700.00	11,690.58	11,700.49	11,690.58	40.89	40.94	89.42	-278.05	123.25	128.26	46.46	81.80	1.568	
11,800.00	11,790.58	11,800.49	11,790.58	41.24	41.29	89.42	-278.05	123.25	128.26	45.76	82.50	1.555	
11,803.18	11,793.76	11,803.67	11,793.76	41.25	41.30	89.42	-278.05	123.25	128.26	45.74	82.52	1.554	
11,900.00	11,890.58	11,899.99	11,889.86	41.59	41.63	87.18	-273.04	123.22	128.37	45.18	83.19	1.543 SF	
12,000.00	11,990.58	11,995.10	11,982.66	41.94	41.93	78.26	-252.74	123.08	131.05	47.30	83.75	1.565	
12,003.43	11,994.01	11,998.23	11,985.65	41.95	41.94	77.86	-251.81	123.07	131.27	47.50	83.76	1.567	
12,050.00	12,040.53	12,040.16	12,025.17	42.11	42.06	72.75	-237.81	122.98	134.62	50.83	83.79	1.607	
12,100.00	12,090.12	12,084.27	12,065.51	42.28	42.18	67.97	-220.01	122.85	138.94	55.39	83.56	1.663	
12,150.00	12,138.99	12,127.52	12,103.63	42.44	42.30	63.92	-199.60	122.72	143.81	60.80	83.01	1.732	
12,200.00	12,186.75	12,169.98	12,139.45	42.59	42.40	60.57	-176.82	122.56	149.02	66.89	82.13	1.814	
12,250.00	12,233.04	12,211.73	12,172.93	42.73	42.50	57.84	-151.89	122.39	154.38	73.44	80.94	1.907	
12,300.00	12,277.51	12,252.85	12,204.04	42.87	42.60	55.68	-125.02	122.21	159.72	80.26	79.46	2.010	
12,350.00	12,319.83	12,293.38	12,232.75	42.99	42.69	54.05	-96.42	122.01	164.89	87.17	77.72	2.121	
12,400.00	12,359.67	12,333.41	12,259.04	43.12	42.77	52.92	-66.25	121.81	169.78	93.99	75.79	2.240	
12,450.00	12,396.72	12,372.98	12,282.90	43.23	42.86	52.27	-34.70	121.59	174.27	100.56	73.71	2.364	
12,500.00	12,430.71	12,412.15	12,304.32	43.35	42.94	52.11	-1.91	121.37	178.28	106.74	71.53	2.492	
12,550.00	12,461.37	12,450.00	12,322.85	43.46	43.02	52.81	31.09	121.15	181.73	112.52	69.21	2.626	
12,600.00	12,488.48	12,489.48	12,339.81	43.56	43.10	53.43	66.74	120.90	184.55	117.41	67.14	2.749	
12,650.00	12,511.83	12,527.75	12,353.86	43.67	43.19	55.11	102.32	120.66	186.70	121.66	65.04	2.871	
12,700.00	12,531.23	12,565.81	12,365.46	43.78	43.27	57.71	138.57	120.41	188.14	125.04	63.09	2.982	
12,703.43	12,532.41	12,568.42	12,366.16	43.78	43.28	57.93	141.07	120.40	188.21	125.24	62.97	2.989	
12,750.00	12,547.27	12,603.66	12,374.57	43.89	43.35	61.44	175.29	120.16	189.53	128.20	61.33	3.090	
12,800.00	12,560.80	12,643.04	12,381.59	44.00	43.44	65.36	214.03	119.90	191.70	131.82	59.88	3.201	
12,850.00	12,571.80	12,684.40	12,387.08	44.12	43.54	69.07	255.03	119.62	193.89	135.13	58.76	3.299	
12,900.00	12,580.23	12,725.64	12,390.78	44.25	43.64	74.57	296.09	119.34	195.92	138.04	57.87	3.385	
12,950.00	12,586.06	12,766.76	12,392.70	44.39	43.75	82.87	337.17	119.06	197.77	140.54	57.23	3.455	
13,000.00	12,589.30	12,811.28	12,393.00	44.53	43.87	89.61	381.69	118.75	199.25	142.44	56.81	3.508	
13,036.76	12,590.00	12,847.67	12,393.00	44.63	43.98	89.61	418.07	118.50	199.12	142.57	56.55	3.521	
13,100.00	12,590.00	12,910.37	12,393.00	44.83	44.18	89.61	480.77	118.07	198.09	141.82	56.28	3.520	
13,200.00	12,590.00	13,009.84	12,393.00	45.19	44.55	89.61	580.24	117.39	197.29	141.07	56.22	3.509	
13,300.00	12,590.00	13,109.61	12,393.00	45.61	44.98	89.61	680.01	116.70	197.04	140.60	56.44	3.491	
13,400.00	12,590.00	13,209.56	12,393.00	46.08	45.46	89.61	779.95	116.02	197.00	140.19	56.82	3.467	
13,442.21	12,590.00	13,251.76	12,393.00	46.30	45.69	89.61	822.15	115.73	197.00	140.01	56.99	3.457	
13,500.00	12,590.00	13,309.55	12,393.00	46.60	46.00	89.61	879.94	115.33	197.00	139.75	57.25	3.441	
13,600.00	12,590.00	13,409.55	12,393.00	47.18	46.60	89.61	979.94	114.64	197.00	139.28	57.72	3.413	
13,700.00	12,590.00	13,509.55	12,393.00	47.81	47.24	89.61	1,079.94	113.96	197.00	138.77	58.24	3.383	

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #206H - Wellbore #1 - Design #2														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Distance				Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
13,800.00	12,590.00	13,609.55	12,393.00	48.48	47.94	89.61	1,179.93	113.27	197.00	138.22	58.79	3.351			
13,900.00	12,590.00	13,709.55	12,393.00	49.20	48.68	89.61	1,279.93	112.58	197.00	137.63	59.37	3.318			
14,000.00	12,590.00	13,809.55	12,393.00	49.97	49.46	89.61	1,379.93	111.90	197.00	137.01	60.00	3.284			
14,100.00	12,590.00	13,909.55	12,393.00	50.77	50.29	89.61	1,479.93	111.21	197.00	136.35	60.65	3.248			
14,200.00	12,590.00	14,009.55	12,393.00	51.62	51.16	89.61	1,579.93	110.52	197.00	135.66	61.34	3.212			
14,300.00	12,590.00	14,109.55	12,393.00	52.51	52.06	89.62	1,679.92	109.84	197.00	134.94	62.06	3.174			
14,400.00	12,590.00	14,209.55	12,393.00	53.44	53.01	89.62	1,779.92	109.15	197.00	134.19	62.82	3.136			
14,500.00	12,590.00	14,309.55	12,393.00	54.40	53.98	89.62	1,879.92	108.46	197.00	133.40	63.60	3.098			
14,600.00	12,590.00	14,409.55	12,393.00	55.39	54.99	89.62	1,979.92	107.78	197.00	132.59	64.41	3.059			
14,700.00	12,590.00	14,509.55	12,393.00	56.41	56.04	89.62	2,079.91	107.09	197.00	131.75	65.25	3.019			
14,800.00	12,590.00	14,609.55	12,393.00	57.47	57.11	89.62	2,179.91	106.40	197.00	130.89	66.12	2.980			
14,900.00	12,590.00	14,709.55	12,393.00	58.55	58.20	89.62	2,279.91	105.72	197.00	130.00	67.01	2.940			
15,000.00	12,590.00	14,809.55	12,393.00	59.66	59.33	89.62	2,379.91	105.03	197.00	129.08	67.92	2.900			
15,100.00	12,590.00	14,909.55	12,393.00	60.79	60.48	89.62	2,479.90	104.34	197.00	128.14	68.86	2.861			
15,200.00	12,590.00	15,009.55	12,393.00	61.95	61.65	89.62	2,579.90	103.66	197.00	127.18	69.82	2.821			
15,300.00	12,590.00	15,109.55	12,393.00	63.13	62.84	89.62	2,679.90	102.97	197.00	126.19	70.81	2.782			
15,400.00	12,590.00	15,209.55	12,393.00	64.33	64.06	89.62	2,779.90	102.28	197.00	125.19	71.81	2.743			
15,500.00	12,590.00	15,309.55	12,393.00	65.55	65.29	89.62	2,879.89	101.60	197.00	124.17	72.84	2.705			
15,600.00	12,590.00	15,409.55	12,393.00	66.79	66.54	89.62	2,979.89	100.91	197.00	123.12	73.88	2.667			
15,700.00	12,590.00	15,509.55	12,393.00	68.05	67.81	89.62	3,079.89	100.22	197.00	122.06	74.94	2.629			
15,800.00	12,590.00	15,609.55	12,393.00	69.32	69.10	89.62	3,179.89	99.54	197.00	120.98	76.02	2.591			
15,900.00	12,590.00	15,709.55	12,393.00	70.61	70.40	89.62	3,279.89	98.85	197.00	119.88	77.12	2.555			
16,000.00	12,590.00	15,809.55	12,393.00	71.92	71.72	89.63	3,379.88	98.16	197.00	118.77	78.23	2.518			
16,100.00	12,590.00	15,909.55	12,393.00	73.24	73.05	89.63	3,479.88	97.48	197.00	117.64	79.36	2.482			
16,200.00	12,590.00	16,009.55	12,393.00	74.57	74.39	89.63	3,579.88	96.79	197.00	116.50	80.50	2.447			
16,300.00	12,590.00	16,109.55	12,393.00	75.92	75.75	89.63	3,679.88	96.10	197.00	115.34	81.66	2.413			
16,400.00	12,590.00	16,209.55	12,393.00	77.28	77.12	89.63	3,779.87	95.42	197.00	114.17	82.83	2.378			
16,500.00	12,590.00	16,309.55	12,393.00	78.65	78.50	89.64	3,879.87	94.73	197.00	112.99	84.01	2.345			
16,600.00	12,590.00	16,409.55	12,393.00	80.03	79.89	89.64	3,979.87	94.04	197.00	111.79	85.21	2.312			
16,700.00	12,590.00	16,509.55	12,393.00	81.42	81.29	89.65	4,079.87	93.36	197.00	110.59	86.41	2.280			
16,800.00	12,590.00	16,609.55	12,393.00	82.82	82.70	89.66	4,179.86	92.67	197.00	109.37	87.63	2.248			
16,900.00	12,590.00	16,709.55	12,393.00	84.23	84.12	89.67	4,279.86	91.98	197.00	108.14	88.86	2.217			
17,000.00	12,590.00	16,809.55	12,393.00	85.65	85.55	89.68	4,379.86	91.29	197.00	106.89	90.11	2.186			
17,100.00	12,590.00	16,909.55	12,393.00	87.08	86.98	89.72	4,479.86	90.61	197.00	105.64	91.36	2.156			
17,200.00	12,590.00	17,009.55	12,393.00	88.52	88.43	89.80	4,579.85	89.92	197.00	104.38	92.62	2.127			
17,300.00	12,590.00	17,109.55	12,393.00	89.96	89.88	90.37	4,679.85	89.23	197.00	103.11	93.89	2.098			
17,334.15	12,590.00	17,143.70	12,393.00	90.40	90.37	0.00	4,714.00	89.00	197.00	102.79	94.21	2.091			

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:		0.00 usft
Survey Program: 0-MWD													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (")	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)							
0.00	0.00	1.00	1.00	0.00	0.00	-90.56	-13.00	-1,320.00	1,320.06						
100.00	100.00	101.00	101.00	0.13	0.13	-90.56	-13.00	-1,320.00	1,320.06	1,319.80	0.26	5,079.275			
200.00	200.00	201.00	201.00	0.49	0.49	-90.56	-13.00	-1,320.00	1,320.06	1,319.09	0.98	1,351.368			
300.00	300.00	301.00	301.00	0.85	0.85	-90.56	-13.00	-1,320.00	1,320.06	1,318.37	1.69	779.361			
400.00	400.00	401.00	401.00	1.20	1.21	-90.56	-13.00	-1,320.00	1,320.06	1,317.65	2.41	547.580			
500.00	500.00	501.00	501.00	1.56	1.57	-90.56	-13.00	-1,320.00	1,320.06	1,316.94	3.13	422.061			
600.00	600.00	601.00	601.00	1.92	1.92	-90.56	-13.00	-1,320.00	1,320.06	1,316.22	3.84	343.355			
700.00	699.99	700.99	700.99	2.26	2.28	-90.53	-13.00	-1,320.00	1,320.04	1,315.50	4.54	290.492			
800.00	799.96	800.96	800.96	2.59	2.64	-90.41	-13.00	-1,320.00	1,319.97	1,314.74	5.23	252.217			
900.00	899.86	900.86	900.86	2.93	3.00	-90.22	-13.00	-1,320.00	1,319.87	1,313.94	5.93	222.554			
999.52	999.20	1,000.20	1,000.20	3.28	3.36	-89.96	-13.00	-1,320.00	1,319.75	1,313.12	6.63	199.018			
1,000.00	999.68	1,000.68	1,000.68	3.28	3.36	-89.96	-13.00	-1,320.00	1,319.75	1,313.12	6.63	198.917			
1,008.92	1,008.57	1,009.57	1,009.57	3.31	3.39	-89.93	-13.00	-1,320.00	1,319.74	1,313.04	6.70	197.034	CC		
1,100.00	1,099.43	1,084.43	1,084.43	3.63	3.65	-89.67	-13.35	-1,320.51	1,320.26	1,312.98	7.28	181.463	ES		
1,200.00	1,199.19	1,168.36	1,168.34	3.99	3.93	-89.42	-14.40	-1,322.04	1,322.00	1,314.08	7.91	167.048			
1,300.00	1,298.95	1,252.32	1,252.24	4.35	4.21	-89.19	-16.13	-1,324.59	1,324.95	1,316.40	8.56	154.873			
1,400.00	1,398.70	1,336.27	1,336.08	4.71	4.50	-89.00	-18.57	-1,328.15	1,329.12	1,319.92	9.20	144.465			
1,500.00	1,498.46	1,420.17	1,419.79	5.08	4.79	-88.83	-21.69	-1,332.72	1,334.50	1,324.65	9.85	135.502			
1,600.00	1,598.22	1,503.99	1,503.34	5.44	5.08	-88.70	-25.50	-1,338.29	1,341.07	1,330.57	10.50	127.731			
1,700.00	1,697.97	1,587.70	1,586.67	5.81	5.38	-88.60	-29.99	-1,344.87	1,348.82	1,337.67	11.15	120.950			
1,800.00	1,797.73	1,684.98	1,683.41	6.18	5.74	-88.56	-35.72	-1,353.25	1,357.34	1,345.47	11.86	114.427			
1,900.00	1,897.49	1,784.61	1,782.50	6.55	6.10	-88.52	-41.59	-1,361.85	1,365.86	1,353.28	12.59	108.524			
2,000.00	1,997.25	1,884.24	1,881.59	6.92	6.47	-88.49	-47.47	-1,370.45	1,374.39	1,361.08	13.31	103.239			
2,100.00	2,097.00	1,983.87	1,980.67	7.29	6.84	-88.45	-53.34	-1,379.05	1,382.91	1,368.87	14.04	98.481			
2,200.00	2,196.76	2,083.50	2,079.76	7.67	7.22	-88.42	-59.22	-1,387.65	1,391.44	1,376.67	14.77	94.178			
2,300.00	2,296.52	2,183.14	2,178.85	8.04	7.59	-88.38	-65.09	-1,396.24	1,399.97	1,384.46	15.51	90.270			
2,400.00	2,396.27	2,282.77	2,277.93	8.41	7.97	-88.35	-70.97	-1,404.84	1,408.50	1,392.25	16.24	86.705			
2,500.00	2,496.03	2,382.40	2,377.02	8.78	8.35	-88.31	-76.84	-1,413.44	1,417.03	1,400.04	16.98	83.443			
2,600.00	2,595.79	2,482.03	2,476.10	9.16	8.73	-88.28	-82.72	-1,422.04	1,425.56	1,407.84	17.72	80.445			
2,700.00	2,695.54	2,581.66	2,575.19	9.53	9.11	-88.24	-88.59	-1,430.64	1,434.09	1,415.63	18.46	77.683			
2,800.00	2,795.30	2,681.30	2,674.28	9.91	9.50	-88.21	-94.47	-1,439.24	1,442.62	1,423.41	19.20	75.129			
2,900.00	2,895.06	2,780.93	2,773.36	10.28	9.88	-88.18	-100.34	-1,447.84	1,451.15	1,431.20	19.94	72.762			
3,000.00	2,994.81	2,880.56	2,872.45	10.66	10.27	-88.15	-106.22	-1,456.44	1,459.68	1,438.99	20.69	70.561			
3,100.00	3,094.57	2,980.19	2,971.54	11.03	10.66	-88.11	-112.09	-1,465.04	1,468.21	1,446.78	21.43	68.511			
3,200.00	3,194.33	3,079.83	3,070.62	11.41	11.04	-88.08	-117.97	-1,473.64	1,476.74	1,454.57	22.17	66.597			
3,300.00	3,294.09	3,179.46	3,169.71	11.78	11.43	-88.05	-123.84	-1,482.23	1,485.27	1,462.35	22.92	64.805			
3,400.00	3,393.84	3,279.09	3,268.80	12.16	11.82	-88.02	-129.72	-1,490.83	1,493.81	1,470.14	23.66	63.124			
3,500.00	3,493.60	3,378.72	3,367.88	12.53	12.21	-87.99	-135.60	-1,499.43	1,502.34	1,477.93	24.41	61.545			
3,600.00	3,593.36	3,478.35	3,466.97	12.91	12.60	-87.96	-141.47	-1,508.03	1,510.87	1,485.72	25.16	60.058			
3,700.00	3,693.11	3,577.99	3,566.05	13.28	12.98	-87.93	-147.35	-1,516.63	1,519.41	1,493.50	25.90	58.656			
3,800.00	3,792.87	3,677.62	3,665.14	13.66	13.37	-87.90	-153.22	-1,525.23	1,527.94	1,501.29	26.65	57.331			
3,900.00	3,892.63	3,777.25	3,764.23	14.03	13.76	-87.87	-159.10	-1,533.83	1,536.48	1,509.08	27.40	56.079			
4,000.00	3,992.38	3,876.88	3,863.31	14.41	14.16	-87.84	-164.97	-1,542.43	1,545.01	1,516.87	28.15	54.892			
4,100.00	4,092.14	3,976.51	3,962.40	14.78	14.55	-87.81	-170.85	-1,551.03	1,553.55	1,524.65	28.89	53.766			
4,200.00	4,191.90	4,076.15	4,061.49	15.16	14.94	-87.79	-176.72	-1,559.62	1,562.09	1,532.44	29.64	52.696			
4,300.00	4,291.66	4,175.78	4,160.57	15.54	15.33	-87.76	-182.60	-1,568.22	1,570.62	1,540.23	30.39	51.678			
4,400.00	4,391.41	4,275.41	4,259.66	15.91	15.72	-87.73	-188.47	-1,576.82	1,579.16	1,548.02	31.14	50.709			
4,500.00	4,491.17	4,375.04	4,358.74	16.29	16.11	-87.70	-194.35	-1,585.42	1,587.70	1,555.81	31.89	49.786			
4,600.00	4,590.93	4,474.67	4,457.83	16.67	16.50	-87.68	-200.22	-1,594.02	1,596.23	1,563.59	32.64	48.904			
4,609.90	4,600.80	4,484.54	4,467.64	16.70	16.54	-87.67	-200.80	-1,594.87	1,597.08	1,564.36	32.71	48.819			
4,700.00	4,690.73	4,574.31	4,556.92	17.04	16.90	-87.67	-206.10	-1,602.62	1,604.76	1,571.37	33.39	48.066			
4,800.00	4,790.63	4,673.93	4,656.00	17.40	17.29	-87.73	-211.97	-1,611.22	1,613.25	1,579.13	34.12	47.275			

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #221H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,890.59	4,773.51	4,755.03	17.76	17.68	-87.86	-217.84	-1,619.81	1,621.72	1,586.87	34.85	46.528		
5,000.00	4,990.58	4,873.02	4,853.99	18.10	18.07	-88.04	-223.71	-1,628.40	1,630.17	1,594.61	35.56	45.842		
5,009.42	5,000.00	4,882.39	4,863.31	18.13	18.11	-88.06	-224.26	-1,629.21	1,630.97	1,595.34	35.63	45.778		
5,100.00	5,090.58	4,972.47	4,952.90	18.42	18.46	-88.25	-229.58	-1,636.98	1,638.62	1,602.37	36.25	45.204		
5,200.00	5,190.58	5,071.93	5,051.81	18.74	18.86	-88.47	-235.44	-1,645.57	1,647.10	1,610.16	36.94	44.591		
5,300.00	5,290.58	5,171.38	5,150.72	19.06	19.25	-88.68	-241.31	-1,654.15	1,655.59	1,617.97	37.63	44.000		
5,400.00	5,390.58	5,270.83	5,249.62	19.38	19.64	-88.89	-247.17	-1,662.73	1,664.11	1,625.79	38.32	43.429		
5,500.00	5,490.58	5,370.28	5,348.53	19.70	20.03	-89.10	-253.03	-1,671.32	1,672.65	1,633.64	39.01	42.877		
5,600.00	5,590.58	5,469.73	5,447.44	20.02	20.43	-89.30	-258.90	-1,679.90	1,681.22	1,641.51	39.70	42.344		
5,700.00	5,690.58	5,569.19	5,546.35	20.35	20.82	-89.50	-264.76	-1,688.49	1,689.80	1,649.40	40.40	41.829		
5,800.00	5,790.58	5,668.64	5,645.25	20.68	21.21	-89.70	-270.63	-1,697.07	1,698.41	1,657.31	41.09	41.331		
5,900.00	5,890.58	5,774.02	5,750.07	21.00	21.63	-89.91	-276.81	-1,706.12	1,707.00	1,665.18	41.82	40.821		
6,000.00	5,990.58	5,906.29	5,881.80	21.33	22.14	-90.14	-283.44	-1,715.83	1,714.35	1,671.69	42.66	40.188		
6,100.00	6,090.58	6,039.03	6,014.25	21.66	22.63	-90.30	-288.37	-1,723.04	1,719.80	1,676.32	43.48	39.552		
6,200.00	6,190.58	6,172.10	6,147.20	21.99	23.11	-90.41	-291.57	-1,727.72	1,723.34	1,679.05	44.29	38.912		
6,300.00	6,290.58	6,305.37	6,280.44	22.32	23.57	-90.45	-293.03	-1,729.86	1,724.95	1,679.87	45.08	38.268		
6,400.00	6,390.58	6,416.50	6,391.58	22.65	23.93	-90.46	-293.13	-1,730.00	1,725.06	1,679.29	45.77	37.692		
6,500.00	6,490.58	6,516.50	6,491.58	22.99	24.25	-90.46	-293.13	-1,730.00	1,725.06	1,678.63	46.43	37.156		
6,600.00	6,590.58	6,616.50	6,591.58	23.32	24.57	-90.46	-293.13	-1,730.00	1,725.06	1,677.97	47.09	36.635		
6,700.00	6,690.58	6,716.50	6,691.58	23.65	24.89	-90.46	-293.13	-1,730.00	1,725.06	1,677.30	47.75	36.126		
6,800.00	6,790.58	6,816.50	6,791.58	23.99	25.21	-90.46	-293.13	-1,730.00	1,725.06	1,676.64	48.41	35.631		
6,900.00	6,890.58	6,916.50	6,891.58	24.32	25.53	-90.46	-293.13	-1,730.00	1,725.06	1,675.97	49.08	35.148		
7,000.00	6,990.58	7,016.50	6,991.58	24.66	25.85	-90.46	-293.13	-1,730.00	1,725.06	1,675.31	49.75	34.676		
7,100.00	7,090.58	7,116.50	7,091.58	25.00	26.18	-90.46	-293.13	-1,730.00	1,725.06	1,674.64	50.42	34.216		
7,200.00	7,190.58	7,216.50	7,191.58	25.33	26.50	-90.46	-293.13	-1,730.00	1,725.06	1,673.97	51.09	33.768		
7,300.00	7,290.58	7,316.50	7,291.58	25.67	26.83	-90.46	-293.13	-1,730.00	1,725.06	1,673.30	51.76	33.330		
7,400.00	7,390.58	7,416.50	7,391.58	26.01	27.16	-90.46	-293.13	-1,730.00	1,725.06	1,672.63	52.43	32.903		
7,500.00	7,490.58	7,516.50	7,491.58	26.35	27.48	-90.46	-293.13	-1,730.00	1,725.06	1,671.95	53.10	32.485		
7,600.00	7,590.58	7,616.50	7,591.58	26.69	27.81	-90.46	-293.13	-1,730.00	1,725.06	1,671.28	53.78	32.078		
7,700.00	7,690.58	7,716.50	7,691.58	27.03	28.14	-90.46	-293.13	-1,730.00	1,725.06	1,670.60	54.45	31.680		
7,800.00	7,790.58	7,816.50	7,791.58	27.37	28.47	-90.46	-293.13	-1,730.00	1,725.06	1,669.93	55.13	31.291		
7,900.00	7,890.58	7,916.50	7,891.58	27.71	28.80	-90.46	-293.13	-1,730.00	1,725.06	1,669.25	55.81	30.911		
8,000.00	7,990.58	8,016.50	7,991.58	28.05	29.13	-90.46	-293.13	-1,730.00	1,725.06	1,668.57	56.49	30.540		
8,100.00	8,090.58	8,116.50	8,091.58	28.39	29.46	-90.46	-293.13	-1,730.00	1,725.06	1,667.89	57.17	30.177		
8,200.00	8,190.58	8,216.50	8,191.58	28.73	29.80	-90.46	-293.13	-1,730.00	1,725.06	1,667.21	57.85	29.822		
8,300.00	8,290.58	8,316.50	8,291.58	29.08	30.13	-90.46	-293.13	-1,730.00	1,725.06	1,666.53	58.53	29.474		
8,400.00	8,390.58	8,416.50	8,391.58	29.42	30.46	-90.46	-293.13	-1,730.00	1,725.06	1,665.85	59.21	29.135		
8,500.00	8,490.58	8,516.50	8,491.58	29.76	30.80	-90.46	-293.13	-1,730.00	1,725.06	1,665.16	59.89	28.803		
8,600.00	8,590.58	8,616.50	8,591.58	30.11	31.13	-90.46	-293.13	-1,730.00	1,725.06	1,664.48	60.58	28.478		
8,700.00	8,690.58	8,716.50	8,691.58	30.45	31.47	-90.46	-293.13	-1,730.00	1,725.06	1,663.79	61.26	28.159		
8,800.00	8,790.58	8,816.50	8,791.58	30.80	31.80	-90.46	-293.13	-1,730.00	1,725.06	1,663.11	61.95	27.848		
8,900.00	8,890.58	8,916.50	8,891.58	31.14	32.14	-90.46	-293.13	-1,730.00	1,725.06	1,662.42	62.63	27.543		
9,000.00	8,990.58	9,016.50	8,991.58	31.49	32.47	-90.46	-293.13	-1,730.00	1,725.06	1,661.74	63.32	27.244		
9,100.00	9,090.58	9,116.50	9,091.58	31.83	32.81	-90.46	-293.13	-1,730.00	1,725.06	1,661.05	64.01	26.952		
9,200.00	9,190.58	9,216.50	9,191.58	32.18	33.15	-90.46	-293.13	-1,730.00	1,725.06	1,660.36	64.69	26.665		
9,300.00	9,290.58	9,316.50	9,291.58	32.52	33.49	-90.46	-293.13	-1,730.00	1,725.06	1,659.67	65.38	26.384		
9,400.00	9,390.58	9,416.50	9,391.58	32.87	33.82	-90.46	-293.13	-1,730.00	1,725.06	1,658.98	66.07	26.109		
9,500.00	9,490.58	9,516.50	9,491.58	33.21	34.16	-90.46	-293.13	-1,730.00	1,725.06	1,658.29	66.76	25.839		
9,600.00	9,590.58	9,616.50	9,591.58	33.56	34.50	-90.46	-293.13	-1,730.00	1,725.06	1,657.60	67.45	25.575		
9,700.00	9,690.58	9,716.50	9,691.58	33.91	34.84	-90.46	-293.13	-1,730.00	1,725.06	1,656.91	68.14	25.315		
9,800.00	9,790.58	9,816.50	9,791.58	34.26	35.18	-90.46	-293.13	-1,730.00	1,725.06	1,656.22	68.83	25.061		
9,900.00	9,890.58	9,916.50	9,891.58	34.60	35.52	-90.46	-293.13	-1,730.00	1,725.06	1,655.53	69.53	24.812		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
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Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #221H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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		
10,000.00	9,990.58	10,016.50	9,991.58	34.95	35.86	-90.46	-293.13	-1,730.00	1,725.06	1,654.84	70.22	24.567		
10,100.00	10,090.58	10,116.50	10,091.58	35.30	36.20	-90.46	-293.13	-1,730.00	1,725.06	1,654.14	70.91	24.327		
10,200.00	10,190.58	10,216.50	10,191.58	35.65	36.55	-90.46	-293.13	-1,730.00	1,725.06	1,653.45	71.60	24.091		
10,300.00	10,290.58	10,316.50	10,291.58	35.99	36.89	-90.46	-293.13	-1,730.00	1,725.06	1,652.76	72.30	23.860		
10,400.00	10,390.58	10,416.50	10,391.58	36.34	37.23	-90.46	-293.13	-1,730.00	1,725.06	1,652.06	72.99	23.633		
10,500.00	10,490.58	10,516.50	10,491.58	36.69	37.57	-90.46	-293.13	-1,730.00	1,725.06	1,651.37	73.69	23.410		
10,600.00	10,590.58	10,616.50	10,591.58	37.04	37.91	-90.46	-293.13	-1,730.00	1,725.06	1,650.67	74.38	23.192		
10,700.00	10,690.58	10,716.50	10,691.58	37.39	38.26	-90.46	-293.13	-1,730.00	1,725.06	1,649.98	75.08	22.977		
10,800.00	10,790.58	10,816.50	10,791.58	37.74	38.60	-90.46	-293.13	-1,730.00	1,725.06	1,649.28	75.77	22.766		
10,900.00	10,890.58	10,916.50	10,891.58	38.09	38.94	-90.46	-293.13	-1,730.00	1,725.06	1,648.58	76.47	22.558		
11,000.00	10,990.58	11,016.50	10,991.58	38.44	39.29	-90.46	-293.13	-1,730.00	1,725.06	1,647.89	77.17	22.355		
11,100.00	11,090.58	11,116.50	11,091.58	38.79	39.63	-90.46	-293.13	-1,730.00	1,725.06	1,647.19	77.86	22.155		
11,200.00	11,190.58	11,216.50	11,191.58	39.14	39.98	-90.46	-293.13	-1,730.00	1,725.06	1,646.49	78.56	21.958		
11,300.00	11,290.58	11,316.50	11,291.58	39.49	40.32	-90.46	-293.13	-1,730.00	1,725.06	1,645.80	79.26	21.765		
11,400.00	11,390.58	11,416.50	11,391.58	39.84	40.66	-90.46	-293.13	-1,730.00	1,725.06	1,645.10	79.96	21.575		
11,500.00	11,490.58	11,516.50	11,491.58	40.19	41.01	-90.46	-293.13	-1,730.00	1,725.06	1,644.40	80.66	21.388		
11,600.00	11,590.58	11,616.50	11,591.58	40.54	41.36	-90.46	-293.13	-1,730.00	1,725.06	1,643.70	81.36	21.204		
11,700.00	11,690.58	11,716.50	11,691.58	40.89	41.70	-90.46	-293.13	-1,730.00	1,725.06	1,643.00	82.05	21.023		
11,800.00	11,790.58	11,816.50	11,791.58	41.24	42.05	-90.46	-293.13	-1,730.00	1,725.06	1,642.30	82.75	20.846		
11,900.00	11,890.58	11,916.50	11,891.58	41.59	42.39	-90.46	-293.13	-1,730.00	1,725.06	1,641.60	83.45	20.671		
12,000.00	11,990.58	12,016.50	11,991.58	41.94	42.74	-90.46	-293.13	-1,730.00	1,725.06	1,640.90	84.15	20.499		
12,003.43	11,994.01	12,019.94	11,995.01	41.95	42.75	-90.46	-293.13	-1,730.00	1,725.06	1,640.88	84.18	20.493		
12,050.00	12,040.53	12,053.95	12,029.01	42.11	42.87	-90.49	-292.35	-1,730.12	1,725.48	1,641.02	84.46	20.429		
12,100.00	12,090.12	12,089.21	12,064.14	42.28	42.99	-90.60	-289.45	-1,730.55	1,726.94	1,642.19	84.75	20.377		
12,150.00	12,138.99	12,124.50	12,099.06	42.44	43.10	-90.78	-284.42	-1,731.29	1,729.44	1,644.42	85.02	20.341		
12,200.00	12,186.75	12,159.83	12,133.64	42.59	43.21	-91.03	-277.26	-1,732.36	1,732.96	1,647.69	85.28	20.321		
12,250.00	12,233.04	12,195.22	12,167.75	42.73	43.32	-91.33	-267.99	-1,733.73	1,737.49	1,651.97	85.52	20.316		
12,300.00	12,277.51	12,230.67	12,201.29	42.87	43.42	-91.70	-256.64	-1,735.42	1,742.98	1,657.23	85.75	20.326		
12,350.00	12,319.83	12,266.21	12,234.13	42.99	43.52	-92.12	-243.21	-1,737.42	1,749.42	1,663.45	85.97	20.350		
12,400.00	12,359.67	12,300.00	12,264.52	43.12	43.61	-92.61	-228.61	-1,739.59	1,756.75	1,670.58	86.17	20.387		
12,450.00	12,396.72	12,337.64	12,297.27	43.23	43.70	-93.09	-210.28	-1,742.31	1,764.94	1,678.56	86.38	20.433		
12,500.00	12,430.71	12,373.59	12,327.36	43.35	43.78	-93.62	-190.83	-1,745.20	1,773.94	1,687.37	86.57	20.491		
12,550.00	12,461.37	12,409.74	12,356.32	43.46	43.85	-94.17	-169.43	-1,748.38	1,783.69	1,696.92	86.76	20.558		
12,600.00	12,488.48	12,446.15	12,384.03	43.56	43.92	-94.73	-146.09	-1,751.84	1,794.13	1,707.18	86.95	20.634		
12,650.00	12,511.83	12,482.85	12,410.41	43.67	43.98	-95.29	-120.85	-1,755.59	1,805.21	1,718.07	87.14	20.716		
12,700.00	12,531.23	12,519.93	12,435.33	43.78	44.03	-95.84	-93.71	-1,759.63	1,816.85	1,729.52	87.33	20.805		
12,703.43	12,532.41	12,522.48	12,436.99	43.78	44.03	-95.88	-91.78	-1,759.91	1,817.67	1,730.33	87.34	20.811		
12,750.00	12,547.27	12,557.65	12,458.82	43.89	44.07	-96.36	-64.52	-1,763.96	1,828.98	1,741.46	87.52	20.898		
12,800.00	12,560.80	12,596.35	12,480.84	44.00	44.12	-96.83	-33.05	-1,768.64	1,841.50	1,753.78	87.72	20.993		
12,850.00	12,571.80	12,636.06	12,501.16	44.12	44.15	-97.23	0.69	-1,773.65	1,854.37	1,766.44	87.93	21.090		
12,900.00	12,580.23	12,676.80	12,519.49	44.25	44.18	-97.58	36.67	-1,778.99	1,867.52	1,779.38	88.14	21.188		
12,950.00	12,586.06	12,718.59	12,535.56	44.39	44.21	-97.86	74.82	-1,784.66	1,880.92	1,792.56	88.36	21.287		
13,000.00	12,589.30	12,762.51	12,549.87	44.53	44.26	-98.06	115.88	-1,790.76	1,894.48	1,805.89	88.59	21.385		
13,036.76	12,590.00	12,795.24	12,559.28	44.63	44.33	-98.18	146.89	-1,795.37	1,904.53	1,815.76	88.77	21.455		
13,100.00	12,590.00	12,852.82	12,573.20	44.83	44.47	-98.33	202.14	-1,803.58	1,921.27	1,832.17	89.10	21.564		
13,200.00	12,590.00	12,947.59	12,588.71	45.19	44.76	-98.44	294.59	-1,817.31	1,945.21	1,855.52	89.70	21.686		
13,300.00	12,590.00	13,045.36	12,594.93	45.61	45.10	-98.45	391.06	-1,831.64	1,965.84	1,875.45	90.40	21.747		
13,400.00	12,590.00	13,400.00	12,595.00	46.08	46.61	-94.60	621.40	-1,857.02	1,978.78	1,886.46	92.32	21.435		
13,442.21	12,590.00	13,442.21	12,595.00	46.30	46.86	-90.99	787.82	-1,864.14	1,979.86	1,887.10	92.75	21.346		
13,500.00	12,590.00	13,522.38	12,595.00	46.60	47.30	-90.39	866.41	-1,864.85	1,979.92	1,886.44	93.48	21.180		
13,600.00	12,590.00	13,622.38	12,595.00	47.18	47.89	-90.39	966.41	-1,865.53	1,979.93	1,885.29	94.64	20.921		
13,700.00	12,590.00	13,722.38	12,595.00	47.81	48.53	-90.39	1,066.41	-1,866.21	1,979.93	1,884.03	95.90	20.646		

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



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Offset Design Brad Dyer 35-22S-32E AR - #221H - Wellbore #1 - Design #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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)					
13,800.00	12,590.00	13,822.38	12,595.00	48.48	49.21	-90.39	1,166.41	-1,866.90	1,979.94	1,882.68	97.25	20.358	
13,900.00	12,590.00	13,922.38	12,595.00	49.20	49.94	-90.39	1,266.40	-1,867.58	1,979.94	1,881.24	98.70	20.059	
14,000.00	12,590.00	14,022.38	12,595.00	49.97	50.71	-90.39	1,366.40	-1,868.26	1,979.94	1,879.70	100.24	19.752	
14,100.00	12,590.00	14,122.38	12,595.00	50.77	51.52	-90.39	1,466.40	-1,868.95	1,979.95	1,878.08	101.87	19.437	
14,200.00	12,590.00	14,222.38	12,595.00	51.62	52.37	-90.39	1,566.40	-1,869.63	1,979.95	1,876.38	103.57	19.117	
14,300.00	12,590.00	14,322.38	12,595.00	52.51	53.26	-90.39	1,666.39	-1,870.31	1,979.96	1,874.61	105.35	18.794	
14,400.00	12,590.00	14,422.38	12,595.00	53.44	54.19	-90.39	1,766.39	-1,871.00	1,979.96	1,872.76	107.21	18.469	
14,500.00	12,590.00	14,522.38	12,595.00	54.40	55.15	-90.39	1,866.39	-1,871.68	1,979.97	1,870.84	109.13	18.143	
14,600.00	12,590.00	14,622.38	12,595.00	55.39	56.14	-90.39	1,966.39	-1,872.36	1,979.97	1,868.85	111.12	17.818	
14,700.00	12,590.00	14,722.38	12,595.00	56.41	57.16	-90.39	2,066.38	-1,873.05	1,979.98	1,866.80	113.17	17.495	
14,800.00	12,590.00	14,822.38	12,595.00	57.47	58.21	-90.39	2,166.38	-1,873.73	1,979.98	1,864.70	115.28	17.175	
14,900.00	12,590.00	14,922.38	12,595.00	58.55	59.29	-90.39	2,266.38	-1,874.41	1,979.98	1,862.53	117.45	16.858	
15,000.00	12,590.00	15,022.38	12,595.00	59.66	60.40	-90.39	2,366.38	-1,875.10	1,979.99	1,860.32	119.67	16.545	
15,100.00	12,590.00	15,122.38	12,595.00	60.79	61.53	-90.39	2,466.38	-1,875.78	1,979.99	1,858.05	121.94	16.238	
15,200.00	12,590.00	15,222.38	12,595.00	61.95	62.68	-90.39	2,566.37	-1,876.46	1,980.00	1,855.74	124.26	15.935	
15,300.00	12,590.00	15,322.38	12,595.00	63.13	63.86	-90.39	2,666.37	-1,877.15	1,980.00	1,853.38	126.62	15.638	
15,400.00	12,590.00	15,422.38	12,595.00	64.33	65.06	-90.39	2,766.37	-1,877.83	1,980.01	1,850.99	129.02	15.346	
15,500.00	12,590.00	15,522.38	12,595.00	65.55	66.27	-90.39	2,866.37	-1,878.51	1,980.01	1,848.55	131.47	15.061	
15,600.00	12,590.00	15,622.38	12,595.00	66.79	67.51	-90.39	2,966.36	-1,879.20	1,980.02	1,846.07	133.95	14.782	
15,700.00	12,590.00	15,722.38	12,595.00	68.05	68.76	-90.39	3,066.36	-1,879.88	1,980.02	1,843.56	136.46	14.510	
15,800.00	12,590.00	15,822.38	12,595.00	69.32	70.03	-90.39	3,166.36	-1,880.56	1,980.03	1,841.01	139.01	14.243	
15,900.00	12,590.00	15,922.38	12,595.00	70.61	71.32	-90.39	3,266.36	-1,881.25	1,980.03	1,838.43	141.60	13.984	
16,000.00	12,590.00	16,022.38	12,595.00	71.92	72.62	-90.39	3,366.35	-1,881.93	1,980.03	1,835.83	144.21	13.730	
16,100.00	12,590.00	16,122.38	12,595.00	73.24	73.94	-90.39	3,466.35	-1,882.61	1,980.04	1,833.19	146.85	13.483	
16,200.00	12,590.00	16,222.38	12,595.00	74.57	75.27	-90.39	3,566.35	-1,883.30	1,980.04	1,830.53	149.52	13.243	
16,300.00	12,590.00	16,322.38	12,595.00	75.92	76.61	-90.39	3,666.35	-1,883.98	1,980.05	1,827.84	152.21	13.008	
16,400.00	12,590.00	16,422.38	12,595.00	77.28	77.96	-90.39	3,766.34	-1,884.66	1,980.05	1,825.12	154.93	12.780	
16,500.00	12,590.00	16,522.38	12,595.00	78.65	79.33	-90.39	3,866.34	-1,885.35	1,980.06	1,822.39	157.67	12.558	
16,600.00	12,590.00	16,622.38	12,595.00	80.03	80.70	-90.39	3,966.34	-1,886.03	1,980.06	1,819.63	160.43	12.342	
16,700.00	12,590.00	16,722.38	12,595.00	81.42	82.09	-90.39	4,066.34	-1,886.71	1,980.07	1,816.85	163.22	12.131	
16,800.00	12,590.00	16,822.38	12,595.00	82.82	83.49	-90.39	4,166.34	-1,887.39	1,980.07	1,814.05	166.02	11.927	
16,900.00	12,590.00	16,922.38	12,595.00	84.23	84.90	-90.39	4,266.33	-1,888.08	1,980.07	1,811.23	168.84	11.727	
17,000.00	12,590.00	17,022.38	12,595.00	85.65	86.31	-90.39	4,366.33	-1,888.76	1,980.08	1,808.40	171.68	11.533	
17,100.00	12,590.00	17,122.38	12,595.00	87.08	87.74	-90.39	4,466.33	-1,889.44	1,980.08	1,805.55	174.54	11.345	
17,200.00	12,590.00	17,222.38	12,595.00	88.52	89.17	-90.39	4,566.33	-1,890.13	1,980.09	1,802.68	177.41	11.161	
17,300.00	12,590.00	17,322.38	12,595.00	89.96	90.58	-90.39	4,666.32	-1,890.81	1,980.09	1,799.83	180.26	10.985	
17,300.80	12,590.00	17,323.18	12,595.00	89.97	90.59	-90.39	4,667.12	-1,890.82	1,980.09	1,799.81	180.28	10.983	
17,334.15	12,590.00	17,350.06	12,595.00	90.40	90.96	-90.58	4,694.00	-1,891.00	1,980.11	1,799.05	181.06	10.936 SF	



MS Directional Anticollision Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Reference Site: Brad Dyer 35-22S-32E AR
Site Error: 0.00 usft
Reference Well: #226H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #2

Local Co-ordinate Reference: Well #226H
TVD Reference: WELL @ 3760.50usft (Patterson 282)
MD Reference: WELL @ 3760.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM Conroe
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 3760.50usft (Patterson 282) Coordinates are relative to: #226H

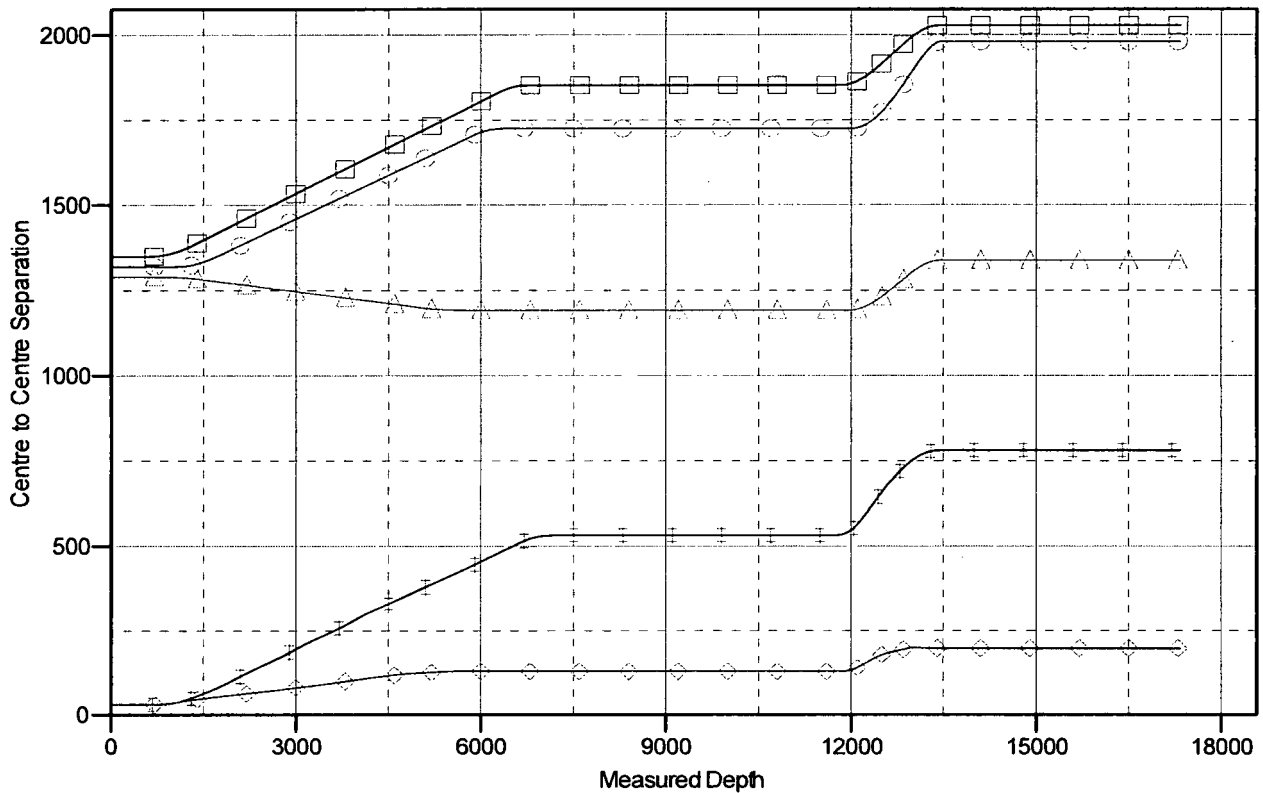
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

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

Grid Convergence at Surface is: 0.37°

Ladder Plot



LEGEND

#201H-Wellbore #1, Design #1 V0 #202H-Wellbore #1, Design #2 V0 #203H-Wellbore #1, Design #2 V0



MS Directional Anticollision Report



Company: Matador Resources
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Reference Site: Brad Dyer 35-22S-32E AR
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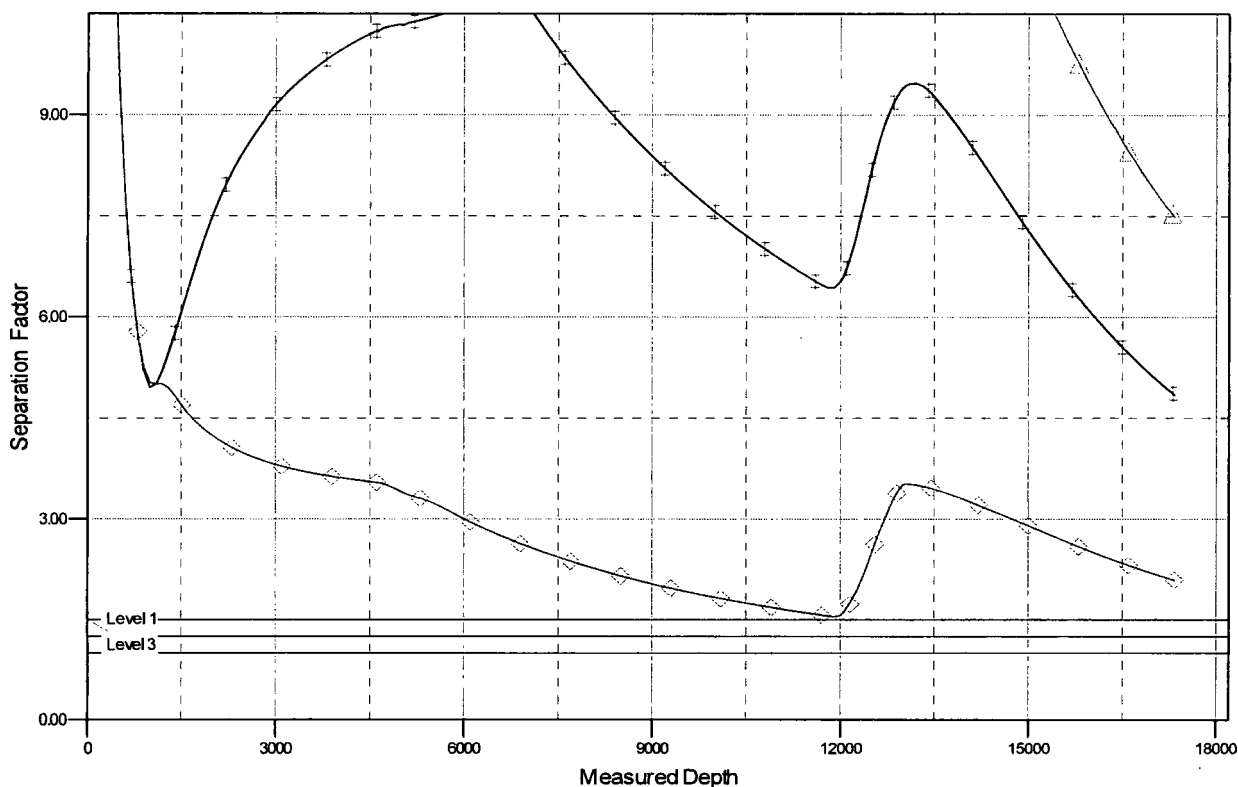
Offset Depths are relative to Offset Datum

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

Central Meridian is 104° 20' 0.000 W

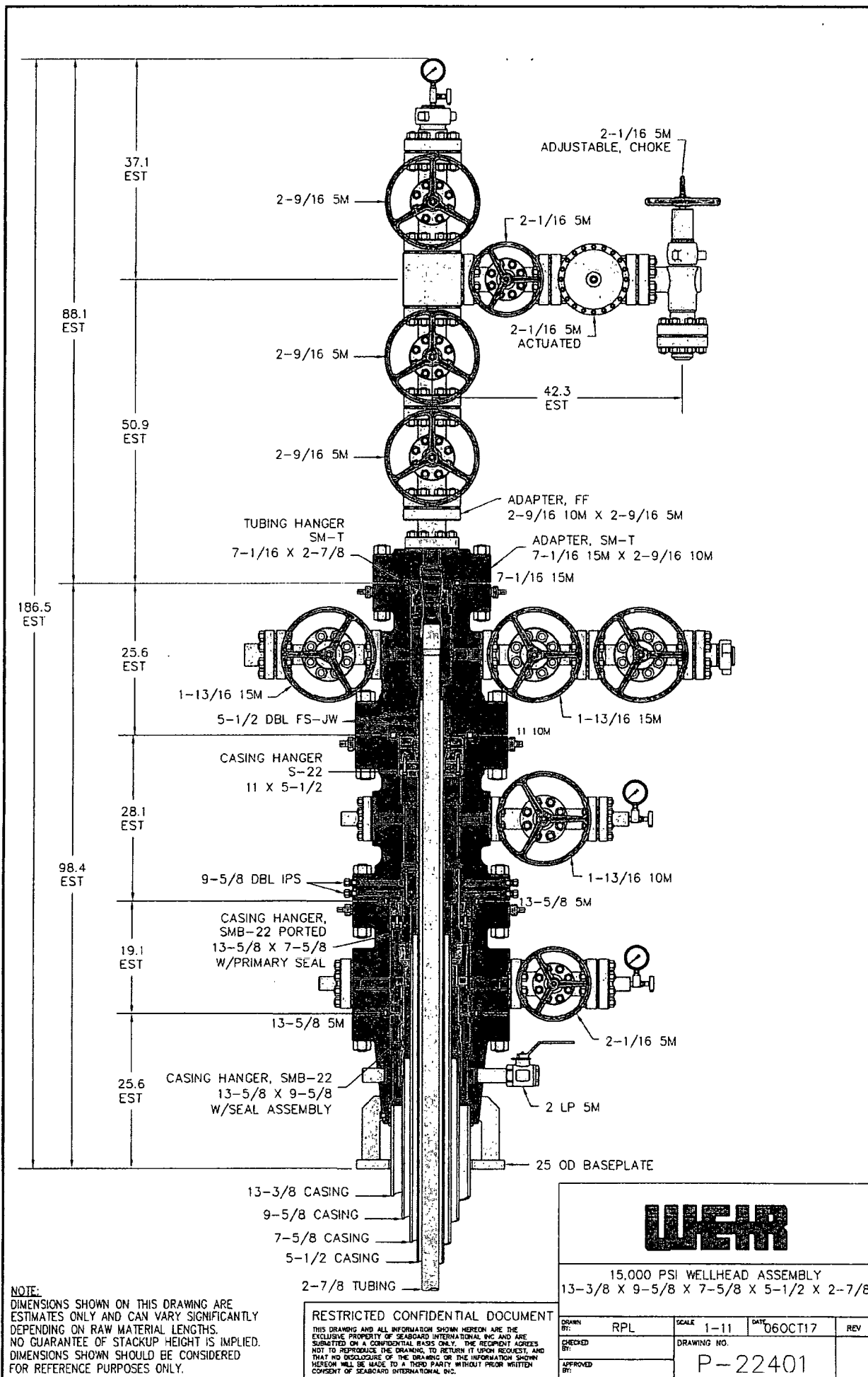
Grid Convergence at Surface is: 0.37°

Separation Factor Plot



LEGEND

#2011-Wellbore #1, Design#1 VO #2021-Wellbore #1, Design#2 VO #2031-Wellbore #1, Design#3 VO
#2051-Wellbore #1, Design#4 VO #2061-Wellbore #1, Design#5 VO #2071-Wellbore #1, Design#6 VO



Surface Use Plan

1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 – 5)

From the junction of US 285 and US 62/180 in Carlsbad...
Go NE 32.8 miles on US 62/180 to the equivalent of Mile Post 67.8
Then turn right and go East 6.5 miles on paved NM 176
Then turn right and go South 0.6 mile on a caliche road to a junction
Then bear right and go SW 1.6 mile on a caliche road
Then bear left and go SE 2.2 miles on a caliche road
Then bear right and go South 7.5 miles on a caliche road
Then turn right and go West 1.5 miles on a caliche road
Then turn left and go South 1.75 miles on a caliche road
Then turn right and go W 1280.7' cross-country to the proposed pad

Non-state 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 MAPS 4 & 5)

The 1280.7' of new resource road will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. A 3" O. D. poly surface flowline on the west side of the existing road will be padded. Maximum disturbed width = 30'. Maximum grade = 2%. Maximum cut or fill = 1'. No culvert, cattle guard, or vehicle turn out is needed. Upgrading will consist of filling potholes with caliche.

3. EXISTING WELLS (See MAP 6)

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

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

Production equipment will be located on the south and west sides of the pad. A 3-phase overhead raptor-safe power line will be built south and east 2,924.64' from an existing power pole at OXY's Red Tank 35 Federal 3 SWD. No pipeline plans have been finalized at this time.

5. WATER SUPPLY (See MAP 10)

Water will be trucked from an existing water station on private land. Berry's water station (CP 00802) is in NWNE 2-21s-33e.

6. CONSTRUCTION MATERIALS & METHODS (See MAPS 11 - 14)

NM One Call (811) will be notified before construction starts. Top ≈6" of soil and brush will be stockpiled north of the pad. V-door will face south. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Berry) land in E2NE4 35-20s-34e.

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Lea County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to R360's state approved (NM-01-0006) disposal site at Halfway. Human waste will be disposed of in chemical toilets and hauled to the Hobbs 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 11)

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 15 & 16)

Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad ≈12% (0.45 acre) by removing caliche and reclaiming a 140' x 140' area in the southeast corner of the pad. This will leave 3.20 acres for production equipment (e. g., tank battery, heater-treaters, separators,

**Matador Production Company
Brad Dyer Federal 226H
SHL 330' FSL & 2189' FWL
Sec. 35, T. 22 S., R. 32 E., Lea County, NM**

SURFACE PLAN PAGE 3

flare/CBU, pump jacks), and tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the surface owners' requirements.

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 1280.7' of new road will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

Land use:

2924.64' x 15' power line = 1.01 acre
1280.7' x 30' road = 0.88 acre
+ 370' x 430' pad = 3.65 acres
5.54 acres short term
- 2924.64' x 15' power line = 1.01 acre
- 0.45 acre interim reclamation
4.08 acres long term (0.88 ac. road + 3.20 ac. pad)

11. SURFACE OWNER

All construction will be on BLM. BLM office is the Carlsbad Field Office, 620 E. Greene, Carlsbad NM 88220. Phone is 575 234-5972.

12. OTHER INFORMATION

On site inspection was held with Vance Wolf (BLM) on November 13, 2017. Lone Mountain will file an archaeology report.

**Matador Production Company
Brad Dyer Federal 226H
SHL 330' FSL & 2189' FWL
Sec. 35, T. 22 S., R. 32 E., Lea County, NM**

SURFACE PLAN PAGE 4

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 27th day of March, 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

Matador Production Company
Brad Dyer Federal 226H
SHL 330' FSL & 2189' FWL
Sec. 35, T. 22 S., R. 32 E., Lea County, NM

SURFACE PLAN PAGE 5

5400 LBJ Freeway, Suite 1500
Dallas TX 75240
Phone: (972) 371-5241
FAX: (214) 866-4841



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

PWD Data Report

08/24/2018

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: