PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
LEASE NO.:	NMLC0063798
WELL NAME & NO.:	Charles Ling Fed Com 202H
SURFACE HOLE FOOTAGE:	360'/N & 1875'/W
BOTTOM HOLE FOOTAGE	240'/S & 2307'/W
LOCATION:	Section 11.,T24S., R.33E., NMP
COUNTY:	LEA County, New Mexico

Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	
Other	☐4 String Area	☐Capitan Reef	☐WIPP

A. Hydrogen Sulfide

1. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13 3/8** inch surface casing shall be set at approximately **1345** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

Variance is approved to use 5M Annular which shall be tested to 5000 psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. **Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.**
e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

D. SPECIAL REQUIREMENT(S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

MHH 09292018

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

A. CASING

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

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

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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

plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMLC0063798
WELL NAME & NO.:	202H:Charles Ling Fed Com
SURFACE HOLE FOOTAGE:	360'/N & 1875'/W
BOTTOM HOLE FOOTAGE	240'/S & 2307'/W
LOCATION:	T-24S, R-33E, S11. 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.

Approval Date: 10/05/2018

V. SPECIAL REQUIREMENT(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.

Roads will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Turnout ditches and drainage leadoffs will not be constructed in such a manner as to increase or decrease the natural flow of water into or out of cave or karst features. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required.

All spills or leaks should be reported to the BLM immediately for their immediate and proper treatment.

To avoid or lessen the potential of subsidence or collapse of karst features, toxic or combustible gas buildup, or other possible impacts to cave and karst resources from buried pipelines or cables, alignments may be rerouted to avoid karst features. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required at such intersections, if any. Leak detection systems, back flow eliminators, and differential pressure shut-off valves may be required to minimize the impacts of leaking or ruptured pipelines. To eliminate these extreme possibilities, good record keeping is needed to quickly identify leaks for their immediate and proper treatment.

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.

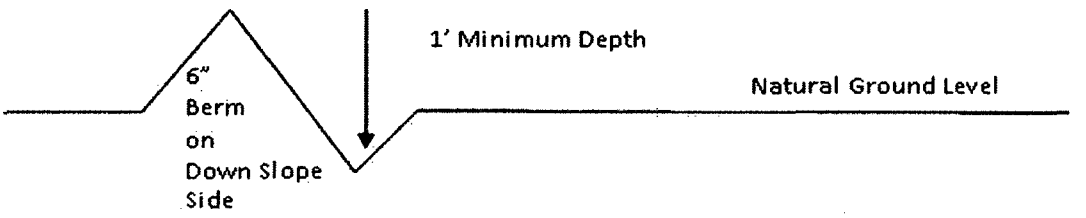
If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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.

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

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

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

( ) seed mixture 1	( ) seed mixture 3
(X) seed mixture 2	( ) seed mixture 4
( ) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

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

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

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

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

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

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

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

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

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

Seed Mixture 2, for Sandy Sites

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

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

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

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

HYDROGEN SULFIDE CONTINGENCY PLAN
Drilling, Testing, & Completion

MRC ENERGY CO.

Charles Ling Fed Com Slot 2 Wells

Reviewers

---------- Operations Manager
---------- Operations Supt.
---------- Staff RES
---------- Field Supv.
Blake Hermes---Engineering

Latitude: 32.2383" N
Longitude: 103.5452" W

Charles Ling Fed Com #132
SHL 360' FNL & 1905' FWL, Sec. 11
BHL 240' FSL & 1649' FWL, Sec. 11

Charles Ling Fed Com #202
SHL 360' FNL & 1875' FWL, Sec. 11
BHL 240' FSL & 2307' FWL, Sec. 11

Charles Ling Fed Com #212
SHL 360' FNL & 1845' FWL, Sec. 11
BHL 240' FSL & 1649' FWL, Sec. 11

H2S Contingency Plan # 0165 **Revision# 0**

This H2S Contingency Plan is subject to updating

Effective date: July 8, 2015

INTRODUCTION

The H2S equipment will be rigged up 2 days prior to reaching a potential H2S containing zone. Drilling into any potential H2S zone shall not commence until the on-site MRC Drilling Supervisor has confirmed this plan in place.

The onsite Drilling Foreman will give Total Safety one week (7 days) notice to prepare for rig up of H2S equipment)

To be effective, the plan requires the cooperation and effort of each person participating in the drilling of an H_2S well. Each person must know his/her responsibilities and all emergency and safety procedures. He/she should thoroughly understand and be able to use with accuracy, all safety equipment while performing his/her normal duties, if the circumstance should arise. He/she should therefore familiarize himself/herself with the location of all safety equipment and check to see that it is properly stored, easily accessible at all times, and routinely maintained.

It is the intention of MRC ENERGY CO. and the Drilling Contractor to make every effort to provide adequate safeguards against harm to persons on the rig and in the immediate vicinity from the effects of hydrogen sulfide, which may be released into the atmosphere under emergency conditions. However, the initiative rests with the individual in utilizing the safeguards provided. The ideas and suggestions of the individuals involved in the drilling of this well are highly welcomed and act as a fundamental tool for providing the safest working conditions possible.

The drilling representative is required to enforce these procedures. They are set up for your safety and the safety of all others.

II. PURPOSE

It is MRC Energy Co.'s intent to provide a safe working place, not only for its employees, but also for other contractors who are aiding in the drilling of this well. The safety of the general public is of utmost concern. All precautions will be taken to keep a safe working environment and protect the public.

There is a possibility of encountering toxic hydrogen sulfide gas. Safety procedures must be adhered to in order to protect all personnel connected with the operations as well as people living within the area.

A. OPERATING PROCEDURES

DEFINITIONS:

For purpose of this plan, on-site personnel shall be referred to as "In Scope Personnel" or "Out of Scope Personnel", per the following definitions:

In Scope Personnel – Personnel who will be working or otherwise present in potential H2S release areas, including the rig floor, cellar, pits, and shaker areas.

Out of Scope Personnel – Personnel who will not be working or Otherwise present in potential H2S areas. Such personnel include rig Site visitor, delivery and camp services personnel.

GENERAL:

Before this H_2S contingency plan becomes operational, all regularly assigned In Scope Personnel (primarily the MRC, drilling contractor, and certain service personnel,) shall be thoroughly trained in the use of breathing equipment, emergency procedures, and responsibilities. Total Safety Technician or a designee assigned by the MRC Drilling Foreman shall keep a list of all personnel who have been through the on-site H_2S training program at the drill site.

All In Scope Personnel shall be given H2S training and the steps to be taken during H2S conditions under which the well may be drilled. General information will be explained about toxic gases, as well as the physiological effects of H_2S and the various classified operating conditions. In addition, the reader will be informed his/her general responsibility concerning safety equipment and emergency procedures.

The Total Safety H_2S Safety Technician or MRC on-site RSE Technician shall make available the H2S Contingency Plan for all personnel to review.

Without exception, all personnel that arrive on location must proceed directly to and sign-in with the on-site MRC RSE Technician. In Scope Personnel will be required to complete an on-site H2S training and respirator fit testing before starting work, or produce evidence that they have received equivalent training. Out of Scope Personnel will be required to complete a site H2S awareness and general safety briefing. This briefing will consist of a H2S hazard overview, alarm review and required response to alarms.

C. DRILLING BELOW CONTINGENCY PLAN DEPTH

H2S response drills will be held at least once per week if possible or as often as necessary to acquaint the crews and service company personnel of their responsibilities and the proper procedures to shut-in a well. Initial drills will be performed until crews demonstrate competency donning and working under mask. After the MRC Energy Co.'s representative is satisfied with initial blowout drill procedures, a drill will be conducted weekly with each crew, as necessary. The H2S Safety Technician or designee will conduct safety talks and maintain the safety equipment, consult and carry out the instructions of the drilling supervisor. All personnel allowed in the well work area during drilling or testing operations will be instructed in the use of breathing equipment until supervisory personnel are satisfied that they are capable of using it.

After familiarization, each person must perform a drill with breathing equipment. The drill should include getting the breathing equipment, donning the breathing apparatus, and performing expected duties for a short period. A record shall be kept of all personnel drilled and the date of the drill. H2S training records will be kept on location for all personnel.

Rig crews and service company personnel shall be made aware of the location of spare air bottles, resuscitation equipment, portable fire extinguishers, H_2S monitors and detectors. Knowledge of the location of the H_2S monitors and detectors are vital in determining as our gas location and the severity of the emergency conditions.

After any device has initially detected H2S, all areas of poor ventilation shall be inspected periodically by means of a portable H_2S detector instrument. The buddy system will be utilized. (When an alarm sounds, personnel will don an SCBA, shut the well in, and proceed to SBA for roll call. The H2S Technician or designee will mask up, with a buddy and will verify source of H2S and report back to the on-site MRC Foreman.)

D. PROCEDURES PROGRAM

1. Drill Site

   a. The drilling rig will be located to allow prevailing winds to blow across the reserve pit.

   b. A Safe Briefing Area will be provided with a breathing air cascade trailer and or 30-minute SCBA's at the Primary Area. Personnel will assemble at the most up-wind station under alarm conditions, or when so ordered by the MRC Energy Co. representative, the Contractor representative, or

III. CONDITIONS AND EMERGENCY PROCEDURES
A. DEFINITION OF OPERATIONAL "CONDITIONS"

CONDITION I **"POSSIBLE DANGER"**

Warning Flags: Green

Alarms: No Alarm. Less than 10 ppm

Characterized By: Drilling operations in zones that may contain hydrogen sulfide. This condition remains in effect unless H_2S is detected and it becomes necessary to go to Condition II.

General Action:

a. Be alert for a condition change

b. Check all safety equipment for availability and proper functioning.

c. Perform all drills for familiarization and proficiency.

CONDITION II **"MODERATE DANGER"**

Warning Flags: Yellow

Alarms: Actuates at 10 ppm. Continuous flashing light.

Characterized By: Drilling operations in zones containing hydrogen sulfide. This condition will remain in effect until adding chemicals to the mud system neutralizes the hydrogen sulfide or it becomes necessary to go to Condition III.

General Action:

a. Be alert for a condition change

b. WHEN DRILLING AHEAD - Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area.

WHEN TRIPPING – Driller and two designated crewmembers will don 30 min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will

min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will don a 5-minute escape pack, descend to the rig floor, don a 30-min SCBA (if necessary) and immediately proceed to the Safe Briefing Area.

b. All In Scope Personnel should don SCBA if nearby and immediately proceed to Safe Briefing Area. If SCBA in not nearby at time of alarm, DO NOT GO TOWARDS RIG AREA, but proceed directly to the Safe Briefing Area

c. All out of Scope Personnel shall evacuate the location.

d. Remain in the Safe Briefing Area, take roll call and wait for instructions.

e. Contact the Total H2S Technician if not on location.

f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H_2S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases. Use the buddy system.

g. Remain in safe briefing area, take roll call and wait for instructions.

h. A cascade breathing air systems shall be mobilized and utilized to conduct any additional on rig work required to correct the H2S release condition.

i. If well is ignited do not assume area is safe. SO2 is hazardous and not all H2S will burn.

8. Check all of MRC Energy Co.'s monitoring devices and increase gas-monitoring activities with the portable hand-operated H_2S and gas detector units.

Do Not Panic!

The MRC Energy Co. representative will assess the situation and with assistance of the Contractor's Representative and Total Safety's H_2S Safety Technician or on site designee, will assign duties to each person to bring the situation under control.

B. RESPONSIBILITIES OF WELL-SITE PERSONNEL

In the event of a release of potentially hazardous amounts of H_2S, all personnel will immediately don their protective breathing apparatus, the well will be shut in and personnel will proceed upwind to the nearest designated safe briefing area for roll call and instructions by MRC Foreman. Consideration will be given to evacuating Out of Scope Personnel, as situation warrants.

1. MRC ENERGY CO.'S Well-site Representatives

a. If MRC Energy Co.'s well-site representative is incapacitated or not on location, this responsibility will fall to the Toolpusher/Driller.

b. Immediately upon assessing the situation, set this plan into Action by initiating the proper procedures to contain the gas and notify the appropriate people and agencies.

c. Ensure that the alarm area indicated by the fixed H_2S Monitor is checked and verified with a portable H_2S detector. (Safety Technician if on location or MRC assigned designee with a buddy utilizing SCBA's)

d. Consult Pusher/driller of remedial actions as needed.

e. Ensure that non-essential personnel proceed to the safe briefing area.

f. Ensure location entrance barricades are positioned. Keep the number of persons on location to a minimum during hazardous operations.

3. Mud Engineer

a. Run a sulfide check on the flowline mud.

b. Take steps to determine the source of the H_2S and suppress it. Lime and H_2S scavenger shall be added to the mud as necessary.

4. Total H_2S Safety Technician, if on location, or MRC Designee

a. H2S Safety Technician or designee don nearest SCBA and report to Safe Briefing Area for roll call, take a buddy masked up and check monitor and verify with a portable H_2S detector the alarm area indicated by the fixed H_2S monitor. Advise the Toolpusher/Driller and MRC Energy Co.'s well-site representative of findings. Record all findings.

b. If H_2S is flared, check for sulfur dioxide (SO_2) near the flare as necessary. Take hourly readings at different perimeters, log readings and record on location.

c. Ensure that personnel at the safe briefing area are instructed on emergency actions required.

d. Ensure that the appropriate warning flags are displayed.

e. Ensure that all personnel are in S.C.B.A. as necessary.

f. Ensure that all persons are accounted for and provide emergency assistance as necessary.

g. Be prepared to evacuate rig if order is issued.

5. General Personnel & Visitors

a. All In Scope Personnel, if not specifically designated to shut the well in or control the well, shall proceed to the (upwind) safe briefing area. All Out of Scope Personnel shall immediately proceed to the appropriate (upwind) safe briefing area or evacuate the site as conditions warrant.

c. The ignition team should have safety belts and lifeline attached and manned before attempting ignition. If the leak is not ignited on the first attempt, move in 20 to 30 feet and fire again. Continue to monitor with the explosimeter and NEVER fire from an area with over 75% of the Lower Explosive Limit (LEL). If having trouble igniting the well, try firing 40 degrees to 90 degrees on either side of the well.

d. If ignition is not possible due to the makeup of the gas, the toxic perimeter must be established and evacuation continued until the well is contained.

e. All personnel must act only as directed by the person in charge of the operations.

NOTE: After the well is ignited, burning hydrogen sulfide (H_2S) will convert to sulfur dioxide (SO_2), which is also a highly toxic gas.

DO NOT ASSUME THE AREA IS SAFE AFTER THE WELL IS IGNITED

D. CORING PROCEDURES

Only essential personnel shall be on the rig floor. Ten (10) stands prior to retrieving core barrel; all personnel on drill floor and in derrick shall confirm self-Contained breathing apparatus available and ready for use.

A Total H2S Technician will don a SCBA with a buddy assigned from the rig crew, and continuously monitor for H2S at each connection. Any levels detected will require operations to be shut down and all involved personnel to don SCBAs. Precautions will remain in place until barrel is laid down.

All involved personnel will don SCBAs when removing the inner barrel from the outer barrel. SCBAs can be removed once the absence of H2S in confirmed by the Total H2S Technician.

Cores will be appropriately marked and sealed for transportation.

5. Know the location of the "safe briefing areas".

6. Keep yourself "wind conscious". Be prepared to quickly move upwind and away in the event of any emergency involving release of H_2S.

D. Total Safety H_2S Safety Technician or MRC Designee

1. Conduct training as necessary to ensure all personnel working in well area are familiar with the contingency procedures and the operation of emergency equipment.

2. Check all H_2S safety equipment to ensure that it is ready for emergency use:

   - Check pressure weekly for each shift on breathing apparatus (both 30-minute and hip-packs) to make sure they are charged to full volume.

   - Check pressure on cascade air bottles, if on location, to see that they are capable of recharging breathing apparatus.

   - Check oxygen resuscitator, if on location, to ensure that it is charged to full volume.

   - Check H_2S detectors weekly for each shift (fixed and portable), and explosimeter, to ensure they are working properly.

3. Provide a weekly report to MRC Energy Co.'s well-site representative documenting:

   - Calibrations performed on H_2S detectors.

   - Proper location and working order of H_2S safety equipment.

   - Attendance of all personnel, trained or retrained, and their company.

   - Weekly drills, if held and a list of personnel participating and summary of actions.

SAFETY EQUIPMENT

All respirators will be designed, selected, used and maintained in conformance with ANSI Z88.2, American National Standard for respiratory protection.

Personal protective equipment must be provided and used. Those who are expected to use respiratory equipment in case of an emergency will be carefully instructed in the proper use and told why the equipment is being used. Careful attention will be given to the minute details in order to avoid possible misuse of the equipment during periods of extreme stress.

Self-contained breathing apparatus provides complete respiratory and eye protection in any concentration of toxic gases and under any condition of oxygen deficiency. The wearer is independent of the surrounding atmosphere because he/she is breathing with a system admitting no outside air. It consists of a full face mask, breathing tube, pressure demand regulator, air supply cylinder, and harness. Pure breathing air from the supply cylinder flows to the mask automatically through the pressure demand regulator which reduces the pressure to a breathing level. Upon inhalation, air flows into the mask at a rate precisely regulated to the user's demand. Upon exhalation, the flow to the mask stops and the exhaled breath passes through a valve in the face piece to the surrounding atmosphere. The apparatus includes an alarm & gauge which warns the wearer to leave the contaminated area for a new cylinder of air or cylinder refill.

The derrickman is provided with a full face piece unit attached to a 5– minute escape cylinder. He will also have his own self-contained 30-minute unit breathing apparatus located on the drilling floor. He will use the 5-minute unit to exit the derrick to the floor, donning the 30-minute unit located on the floor, if needed.

All respiratory protective equipment, when not in use, should be stored in a clean, cool, dry place, and out of direct sunlight to retard the deterioration of rubber parts. After each use, the mask assembly will be scrubbed with soap and water, rinsed thoroughly, and dried. Air cylinders can be recharged to a full condition from a cascade system.

Personnel in each crew will be trained in the proper techniques of bottle filling.

The primary piece of equipment to be utilized, should anyone be overcome by hydrogen sulfide, is the oxygen resuscitator, if on location.

When asphyxiation occurs, the victim must be moved to fresh air and immediately given artificial respiration. In order to assure readiness, the bottles of oxygen will be checked at regular intervals and an extra tank kept on hand.

Hand-operated pump-type detectors incorporating detector tubes will give more accurate readings of hydrogen sulfide. The pump-type draws air to be tested through the detector tube containing lead acetate-silica gel granules. Presence of hydrogen sulfide in the air sample is shown by the development of a dark brown stain on the granules, which is the

V – TOXICITY OF VARIOUS GASES

Common Name	Chemical Formula	Specific Gravity[1]	PEL (OSHA)[2]	STEL[3]	Lethal ppm[4]
Hydrogen Cyanide	HCN	0.94	10	150	300
Hydrogen Sulfide	H_2S	1.18	20	Peak- 50ppm	600
Note: The ACGIH(7) recommends a TWA(6) value of 10ppm as the TLV(5) for H2S and an STEL of 15ppm.					
Sulfur Dioxide	SO_2	2.21	2	5 ppm	1000
Chlorine	CL_2	2.45	1		
Carbon Monoxide	CO	0.97	35	200/1 Hour	1000
Carbon Dioxide	CO_2	1.52	5000	5%	10%
Methane	CH_4	0.55	90000		

[1] **Air = 1.0**

[2] **Permissible** - Concentration at which is believed that all workers may repeatedly be exposed, day after day, without adverse effect.

[3] **STEL** - Short Term Exposure Limit. A 15-minute time weighted average.

[4] **Lethal** - Concentration that will cause death with short-term exposure.

TLV – Threshold Limit Value; a concentration recommended by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA – Time Weighted Average; the average concentration of contaminant one can be exposed to over a given eight-hour period.

ACGIH – (American Conference of Governmental Industrial Hygienists) is an organization comprised of Occupational Health Professionals believed by many to be the top experts in the field of Industrial Hygiene. They are recognized as an expert rexource by OSHA. The ACGIH releases a bi-annual publication "Threshold Limit Values and Biological Indices" that many safety professionals consider to be the authoritative document on airborne contaminants.
Reference: API RP-49, September 1974 - Reissued August 1978

[1] Grains per 100 Cubic Feet

VII. Treatment Procedures for Hydrogen Sulfide Poisoning

A. Remove the victim to fresh air.

B. If breathing has ceased or is labored, begin resuscitation immediately.
Note: This is the quickest and preferred method of clearing victim's lungs of contaminated air; however, under disaster conditions, it may not be practical to move the victim to fresh air. In such instances, where those rendering first aid must continue to wear masks, a resuscitator should be used.

C. Apply resuscitator to help purge H_2S from the blood stream.

D. Keep the victim at rest and prevent chilling.

E. Get victim under physician's care as soon as possible.

C. SULPHUR DIOXIDE

1. Sulfur Dioxide (SO_2) is a colorless, non-flammable, transparent gas.

2. SO_2 is produced during the burning of H_2S. Although SO_2 is heavier than air, it can be picked up by a breeze and carried downwind at elevated temperatures. Since SO_2 is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of SO_2:

CONCENTRATION		EFFECTS
% SO_2	PPM	
0.0005	3 to 5	Pungent odor, normally a person can detect SO_2 in this range.
0.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of eyes.
0.015	150	So irritating that it can only be endured for a few minutes.
.05	500	Causes a sense of suffocation, event with the

NOTE: A record of attendance must be kept for weekly drills and training sessions.

IX. HYDROGEN SULFIDE TRAINING CURRICULUM

(FOR EMPLOYERS, VISITORS, AND CONTRACTORS)

EACH PERSON WILL BE INFORMED ON THE RESTRICTIONS OF HAVING BEARDS AND CONTACT LENS. THEY WILL ALSO BE INFORMED OF THE AVAILABILITY OF SPECTACLE KITS.

AFTER THE H2S EQUIPMENT IS RIGGED UP, ALL IN SCOPE PERSONNEL WILL BE H2S TRAINED AND PUT THROUGH A DRILL. ANY DEFICIENCIES WILL BE CORRECTED.

Training Completion cards are good for one year and will indicate date of completion or expiration. Personnel previously trained on another facility and visiting, must attend a "supplemental briefing" on H2S equipment and procedures before beginning duty. Visitors who remain on the location more than 24 hours must receive full H2S training given all crew members. A "supplemental briefing" will include but not be limited to: Location of respirators, familiarization with safe briefing areas, alarms with instruction on responsibilities in the event of a release and hazards of H2S and (SO2, if applicable). A training and drill log will be kept.

Topics for full H2S training shall include the following equipment if on location, but not be limited to the following:

1. **Brief Introduction on H2S**
   - A. Slide or Computer presentation (If Available)
   - B. H2S material will be distributed
   - C. Re-emphasize the properties, toxicity, and hazards of H2S
   - D. Source of SO2 (if applicable)

2. **H2S Detection**
   - A. Description of H2S sensors
   - B. Description of warning system (how it works & it's location)
   - C. Actual location of H2S sensors
   - D. Instruction on use of pump type detector (Gastec)
   - E. Use of card detectors, ampoules, or dosimeters
   - F. Use of combustible gas detector
   - G. Other personnel detectors used
   - H. Alarm conditions I & II,
   - I. SO2 alarms (if applicable)

TOTAL SAFETY US INC., FIT TEST

X. EMPLOYEE INFORMATION

Employee Name: _____ Date: _____

Date of Employee Medical Evaluation: _____

Medical Status (circle): Unrestricted Limitations on Use Use Not Authorized

RESPIRATOR INFORMATIOIN

Respirator Type (Dustmask, SCBA, etc):_____

Brand:_____

Size: (circle): XS S M L XL

FIT TEST INFORMATION

Type of Fit Test Performed:

Quantitative

Porta Count	Fit Factor:_____
Fittester 3000	Fit Factor:_____

Qualitative

Irritant Smoke	Passed / Failed
Isoamyl Acetate (Banana Oil)	Passed / Failed
Saccharin	Passed / Failed
Bitrex	Passed / Failed

I hereby certify that this fittest was conducted in accordance with the OSHA Fit Testing Protocols found in Appendix A of 1910.134.

Fit Tester Name (Print):_____

XI. H_2S SAFETY SERVICES

HYDROGEN SULFIDE SAFETY PACKAGE – Contained on location in Total Safety H2S Equipment Trailer, unless otherwise noted:

RESPIRATORY SAFETY SYSTEMS

QTY	DESCRIPTION
12	30-Minute Pressure Demand SCBA (4-Primary Safe Briefing Area, 4-Secondary Safe Briefing Area, 4-floor with one of these for derrick man)
9	Hose Line 5-minute Work Unit w/Escape Cylinder (1 in derrick, 6 on drill floor, 1 in mud pit wt area, 1 in shaker area)

The following shall be part of the package if requested by the MRC Foremen (at least one trailer with cascade system is required to be located in the MRC Magnolia asset for use as needed)

1	Breathing air cascade of 10 bottles w/regulator
2	Refill lines to refill 30-minute units on location
1	6-Man manifold that can be rigged up to work area on floor, if needed
6	25 foot hose lines
2	50 foot hose lines
100	Feet of hose line to rig cascade up to 12 man manifold on floor
12	30-minute Self Contained Breathing apparatus

DETECTION AND ALARM SAFETY SYSTEM

1	H2S Fixed Monitor w/8Channels (Loc determined at rig up) suggested. (Mud pit area, shaker area, bell nipple area, floor/driller area, & outside quarters)
5	H2S Sensors
3	Explosion Proof Alarms (Light and Siren) (1 on floor, 1 in work area, 1 in trailer area where quarters are located)
2	Personal H2S monitors
1	Portable Tri-Gas Hand Held Meter (O2, LEL, H2S)
1	Sensidyne/Gastech Manual Pump Type Detector
8	Boxes H2S Tubes Various Ranges
2	Boxes SO2 Tubes Various Ranges
1	Calibration Gas
1	Set Paper Work for Records: Training, Cal, Inspection, other

XII. EMERGENCY PHONE NUMBERS (Updated March 18, 2009)

EMERGENCY PHONE NUMBERS

MRC Energy Co. Emergency Phone #
MRC Energy Co. Permian Operations Phone----------
MRC Energy Co. Production
113 Daw Rd
Mansfield LA 71052

Title	Names	Phone	Cell
Operations Manager			
Operation Supt.			
Operations Supervisor			
Operations Supervisor			
Office Supervisor			
HSE			
Scheduler Planner			

Hydrogen Sulfide Safety Consultants

Total Safety W. Bender Blvd. Hobbs, NM	575-392-2973	After Hours 24 Hour Call Center Through Office Number
Tommy Throckmorton Operations Manager	575-392-2973	940-268-9614
Rodney Jourdan Sales Contact	575-392-2973	432-349-3928

State Police (911)

Texas DPS Loving co. 225 N.Pecos Mentone, Texas 79754	**Office Number**	**432-377-2411**
Texas DPS Winkler Co. 100 E Winkler Kermit, Texas 79745	**Office Number**	**432-586-3465**
Texas DPS Pecos Co. 148 N I-20 Frontage RD Pecos, Texas 79772	**Office Number**	**432-447-3532**
New Mexico State Police 3300 W. Main St Artesia, NM	**Office Number**	**575-748-9718**
New Mexico State Police 304 N. Canyon St Carlsbad, NM 88220	**Office Number**	**575-885-3137**
New Mexico State Police 5100 Jack Gomez Blvd. Hobbs, NM 88240	**Office Number**	**575-392-5588**

Local Law Enforcement (911) (Sheriff)

Reeves Co. Sheriff 500 N. Oak ST Pecos, Texas 79722	**Office Number**	**432-445-4901**
Winkler Co. Sheriff 1300 Bellaire St. Kermit, Texas 79745	**Office Number**	**432-586-3461**
Loving Co. Sheriff Courthouse Mentone, Texas	**Office Number**	**432-377-2411**
Lea Co. Sheriff 1417 S. Commercial St. Lovington, NM 88260	**Office Number**	
Eddy Co. Sheriff 305 N 7th St. Artesia, NM 88210	**Office Number**	**575-766-9888**
Eddy Co. Sheriff 305 N 7th St. Carlsbad, NM 88220	**Office Number**	**575-746-9888**

XIII. EVACUATION OF THE GENERAL PUBLIC

The procedure to be used in alerting nearby persons in the event of any occurrence that could pose a threat to life or property will be arranged and completed with public officials in detail, prior to drilling into the hydrogen sulfide formations.

In the event of an actual emergency, the following steps will be immediately taken:

1. The MRC Energy Co.'s representative will dispatch sufficient personnel to immediately warn each resident and transients down-wind within radius of exposure from the well site. Then warn all residence in the radius of exposure. Additional evacuation zones may be necessary as the situation warrants.

2. The MRC Energy Co.'s representative will immediately notify proper authorities, including the Sheriff's Office, Highway Patrol, and any other public officials as described above and will enlist their assistance in warning residents and transients in the calculated radius of exposure.

3. The MRC Energy Co.'s representative will dispatch sufficient personnel to divert traffic in the vicinity away from the potentially dangerous area. A guard to the entrance of the well site will be posted to monitor essential and non essential traffic.

4. General:

    A. The area included within the radius of exposure is considered to be the zone of maximum potential hazard from a hydrogen sulfide gas escape. Immediate evacuation of public areas, in accordance with the provisions of this contingency plan, is imperative. When it is determined that conditions exist which create an additional area (beyond the initial zone of maximum potential hazard) vulnerable to possible hazard, public areas in the additional hazardous area will be evacuated in accordance with the contingency plan.

    B. In the event of a disaster, after the public areas have been evacuated and traffic stopped, it is expected that local civil authorities will have arrived and within a few hours will have assumed direction of and control of the public, including all public areas. MRC Energy Co. will cooperate with these authorities to the fullest extent and will exert every effort by careful advice to such authorities to prevent panic or rumors.

    C. MRC Energy Co. will dispatch appropriate management personnel at the disaster site as soon as possible. The company's personnel

Company: Matador Resources
Site: Charles Ling Fed Com
Well: Charles Ling Fed Com #202H
Project: Lea County, New Mexico (NAD 27)
Rig: Patterson 282

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
999.50	4.00	54.06	999.18	8.17	11.27	-8.10	13.92	Begin 4.00° Tangent
8337.03	4.00	54.06	8318.68	308.19	425.18	-305.52	525.13	Begin 1.50°/100' Drop
8603.37	0.00	0.00	8585.00	313.64	432.69	-310.92	534.41	Begin Vertical Hold
11637.61	0.00	0.00	11619.24	313.64	432.69	-310.92	534.41	Begin 10.00°/100' Build
12437.61	80.00	179.64	12183.49	-159.82	435.69	162.55	1007.87	Begin 6.00 /100' Build
12604.28	90.00	179.64	12198.00	-325.63	436.74	328.37	1173.69	Begin 90.00° Lateral
16957.82	90.00	179.64	12198.00	-4679.09	464.29	4681.91	5527.24	PBHL

WELL DETAILS: Charles Ling Fed Com #202H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	451293.73	743714.52	32° 14' 17.754 N	103° 32' 42.395 W

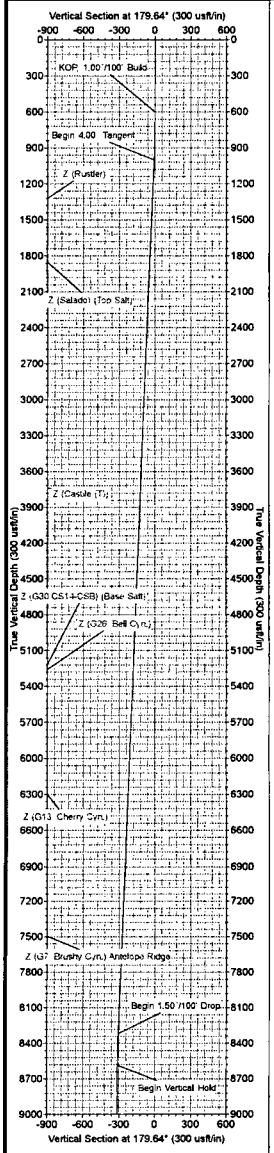
3612.00

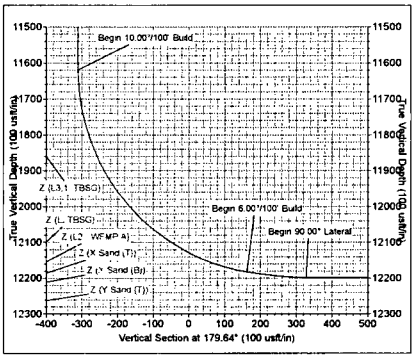
Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.49°

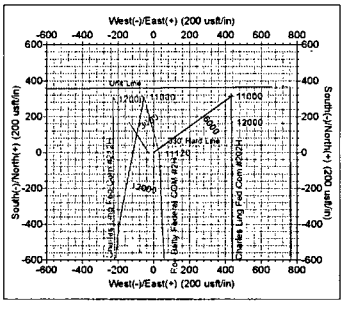
Magnetic Field
Strength: 47899.7nT
Dip Angle: 60.03°
Date: 5/1/2018
Model: BGGM2018

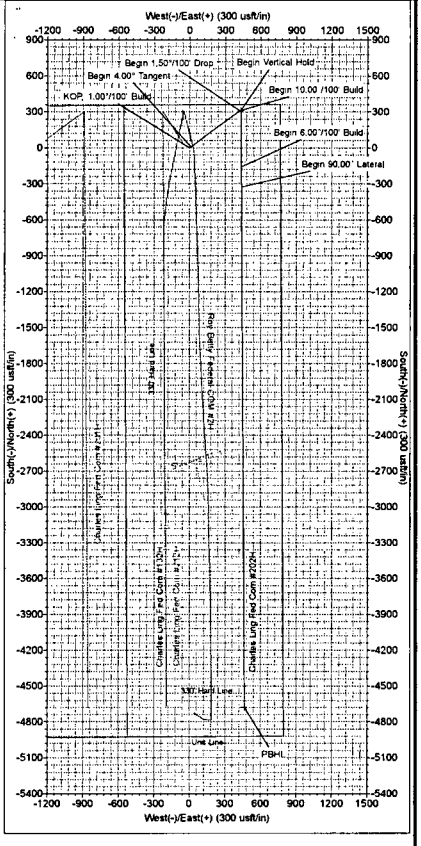
US State Plane 1927 (Exact solution)
New Mexico East 3001

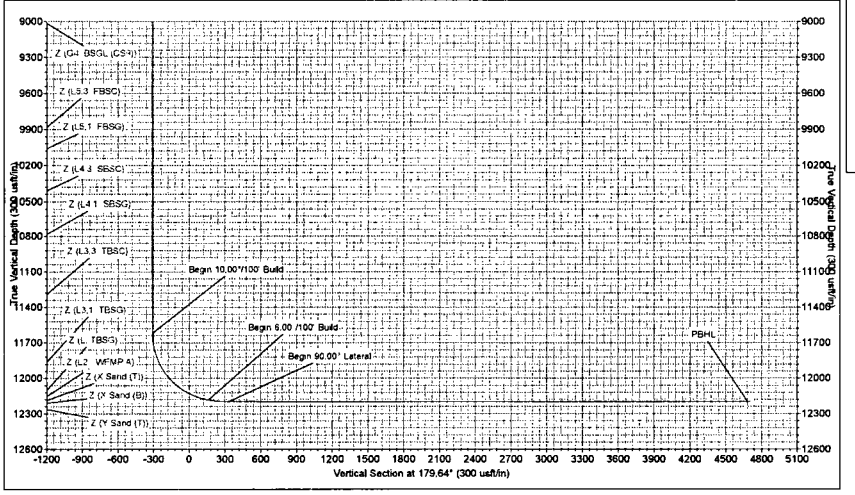
Created By: HLH
Date: 12:29, May 01 2018
Plan: Design #1











Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Company:	Matador Resources	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site:	Charles Ling Fed Com	**North Reference:**	Grid
Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	Charles Ling Fed Com #202H				
Well Position	**+N/-S**	11.47 usft	**Northing:**	451,293.73 usft	**Latitude:**	32° 14' 17.754 N
	+E/-W	1,289.46 usft	**Easting:**	743,714.52 usft	**Longitude:**	103° 32' 42.395 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,612.00 usft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2018	5/1/2018	6.92	60.03	47,900

Design	Design #1			
Audit Notes:				
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.00	0.00	0.00	179.64

Plan Survey Tool Program **Date** 5/1/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,957.82	Design #1 (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	
999.50	4.00	54.06	999.18	8.17	11.27	1.00	1.00	0.00	54.06	
8,337.03	4.00	54.06	8,318.88	308.19	425.18	0.00	0.00	0.00	0.00	
8,603.37	0.00	0.00	8,585.00	313.64	432.69	1.50	-1.50	0.00	180.00	VP - Charles Ling F
11,637.61	0.00	0.00	11,619.24	313.64	432.69	0.00	0.00	0.00	0.00	
12,437.61	80.00	179.64	12,183.49	-159.82	435.69	10.00	10.00	0.00	179.64	PBHL - Charles Lin
12,604.28	90.00	179.64	12,198.00	-325.63	436.74	6.00	6.00	0.00	0.00	
16,957.82	90.00	179.64	12,198.00	-4,679.09	464.29	0.00	0.00	0.00	0.00	PBHL - Charles Lin

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Company:	Matador Resources	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site:	Charles Ling Fed Com	**North Reference:**	Grid
Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,300.00	4.00	54.06	4,291.66	143.12	197.45	-141.88	0.00	0.00	0.00
4,400.00	4.00	54.06	4,391.41	147.21	203.09	-145.93	0.00	0.00	0.00
4,500.00	4.00	54.06	4,491.17	151.30	208.73	-149.99	0.00	0.00	0.00
4,600.00	4.00	54.06	4,590.93	155.39	214.37	-154.04	0.00	0.00	0.00
4,700.00	4.00	54.06	4,690.68	159.48	220.01	-158.09	0.00	0.00	0.00
4,800.00	4.00	54.06	4,790.44	163.57	225.65	-162.15	0.00	0.00	0.00
4,900.00	4.00	54.06	4,890.20	167.66	231.30	-166.20	0.00	0.00	0.00
5,000.00	4.00	54.06	4,989.96	171.75	236.94	-170.25	0.00	0.00	0.00
5,100.00	4.00	54.06	5,089.71	175.83	242.58	-174.31	0.00	0.00	0.00
5,200.00	4.00	54.06	5,189.47	179.92	248.22	-178.36	0.00	0.00	0.00
5,226.09	4.00	54.06	5,215.50	180.99	249.69	-179.42	0.00	0.00	0.00
Z (G30:CS14-CSB) (Base Salt)									
5,269.20	4.00	54.06	5,258.50	182.75	252.12	-181.17	0.00	0.00	0.00
Z (G26: Bell Cyn.)									
5,300.00	4.00	54.06	5,289.23	184.01	253.86	-182.41	0.00	0.00	0.00
9 5/8"									
5,400.00	4.00	54.06	5,388.98	188.10	259.50	-186.47	0.00	0.00	0.00
5,500.00	4.00	54.06	5,488.74	192.19	265.14	-190.52	0.00	0.00	0.00
5,600.00	4.00	54.06	5,588.50	196.28	270.78	-194.57	0.00	0.00	0.00
5,700.00	4.00	54.06	5,688.25	200.37	276.42	-198.63	0.00	0.00	0.00
5,800.00	4.00	54.06	5,788.01	204.46	282.06	-202.68	0.00	0.00	0.00
5,900.00	4.00	54.06	5,887.77	208.55	287.70	-206.73	0.00	0.00	0.00
6,000.00	4.00	54.06	5,987.53	212.63	293.35	-210.79	0.00	0.00	0.00
6,100.00	4.00	54.06	6,087.28	216.72	298.99	-214.84	0.00	0.00	0.00
6,200.00	4.00	54.06	6,187.04	220.81	304.63	-218.89	0.00	0.00	0.00
6,300.00	4.00	54.06	6,286.80	224.90	310.27	-222.95	0.00	0.00	0.00
6,312.73	4.00	54.06	6,299.50	225.42	310.99	-223.46	0.00	0.00	0.00
Z (G13: Cherry Cyn.)									
6,400.00	4.00	54.06	6,386.55	228.99	315.91	-227.00	0.00	0.00	0.00
6,500.00	4.00	54.06	6,486.31	233.08	321.55	-231.05	0.00	0.00	0.00
6,600.00	4.00	54.06	6,586.07	237.17	327.19	-235.11	0.00	0.00	0.00
6,700.00	4.00	54.06	6,685.82	241.26	332.83	-239.16	0.00	0.00	0.00
6,800.00	4.00	54.06	6,785.58	245.35	338.47	-243.21	0.00	0.00	0.00
6,900.00	4.00	54.06	6,885.34	249.43	344.11	-247.27	0.00	0.00	0.00
7,000.00	4.00	54.06	6,985.10	253.52	349.75	-251.32	0.00	0.00	0.00
7,100.00	4.00	54.06	7,084.85	257.61	355.40	-255.37	0.00	0.00	0.00
7,200.00	4.00	54.06	7,184.61	261.70	361.04	-259.43	0.00	0.00	0.00
7,300.00	4.00	54.06	7,284.37	265.79	366.68	-263.48	0.00	0.00	0.00
7,400.00	4.00	54.06	7,384.12	269.88	372.32	-267.53	0.00	0.00	0.00
7,500.00	4.00	54.06	7,483.88	273.97	377.96	-271.59	0.00	0.00	0.00
7,510.65	4.00	54.06	7,494.50	274.40	378.56	-272.02	0.00	0.00	0.00
Z (G7: Brushy Cyn.) Antelope Ridge									
7,600.00	4.00	54.06	7,583.64	278.06	383.60	-275.64	0.00	0.00	0.00
7,700.00	4.00	54.06	7,683.40	282.15	389.24	-279.69	0.00	0.00	0.00
7,800.00	4.00	54.06	7,783.15	286.23	394.88	-283.75	0.00	0.00	0.00
7,900.00	4.00	54.06	7,882.91	290.32	400.52	-287.80	0.00	0.00	0.00
8,000.00	4.00	54.06	7,982.67	294.41	406.16	-291.85	0.00	0.00	0.00
8,100.00	4.00	54.06	8,082.42	298.50	411.80	-295.91	0.00	0.00	0.00
8,200.00	4.00	54.06	8,182.18	302.59	417.45	-299.96	0.00	0.00	0.00
8,300.00	4.00	54.06	8,281.94	306.68	423.09	-304.01	0.00	0.00	0.00
8,337.03	4.00	54.06	8,318.88	308.19	425.18	-305.52	0.00	0.00	0.00
Begin 1.50°/100' Drop									
8,400.00	3.05	54.06	8,381.73	310.46	428.31	-307.77	1.50	-1.50	0.00

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Company:	Matador Resources	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site:	Charles Ling Fed Com	**North Reference:**	Grid
Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Z (L3.1: TBSG)									
11,900.00	26.24	179.64	11,872.56	254.60	433.06	-251.88	10.00	10.00	0.00
11,950.00	31.24	179.64	11,916.38	230.57	433.22	-227.84	10.00	10.00	0.00
12,000.00	36.24	179.64	11,957.95	202.81	433.39	-200.08	10.00	10.00	0.00
12,050.00	41.24	179.64	11,996.94	171.53	433.59	-168.80	10.00	10.00	0.00
12,100.00	46.24	179.64	12,033.05	136.97	433.81	-134.24	10.00	10.00	0.00
12,150.00	51.24	179.64	12,066.01	99.40	434.05	-96.67	10.00	10.00	0.00
12,200.00	56.24	179.64	12,095.58	59.10	434.30	-56.37	10.00	10.00	0.00
12,205.30	56.77	179.64	12,098.50	54.68	434.33	-51.95	10.00	10.00	0.00
Z (L. TBSG)									
12,250.00	61.24	179.64	12,121.52	16.37	434.57	-13.64	10.00	10.00	0.00
12,300.00	66.24	179.64	12,143.63	-28.45	434.86	31.19	10.00	10.00	0.00
12,325.82	68.82	179.64	12,153.50	-52.32	435.01	55.05	10.00	10.00	0.00
Z (L2: WFMP A)									
12,350.00	71.24	179.64	12,161.76	-75.04	435.15	77.77	10.00	10.00	0.00
12,400.00	76.24	179.64	12,175.75	-123.02	435.45	125.75	10.00	10.00	0.00
12,437.61	80.00	179.64	12,183.49	-159.82	435.69	162.55	10.00	10.00	0.00
Begin 6.00°/100' Build - 7"									
12,449.59	80.72	179.64	12,185.50	-171.63	435.76	174.36	6.00	6.00	0.00
Z (X Sand (T))									
12,450.00	80.74	179.64	12,185.57	-172.03	435.76	174.77	6.00	6.00	0.00
12,500.00	83.74	179.64	12,192.31	-221.57	436.08	224.30	6.00	6.00	0.00
12,550.00	86.74	179.64	12,196.46	-271.39	436.39	274.13	6.00	6.00	0.00
12,604.28	90.00	179.64	12,198.00	-325.63	436.74	328.37	6.00	6.00	0.00
Begin 90.00° Lateral									
12,700.00	90.00	179.64	12,198.00	-421.36	437.34	424.10	0.00	0.00	0.00
12,800.00	90.00	179.64	12,198.00	-521.35	437.97	524.10	0.00	0.00	0.00
12,900.00	90.00	179.64	12,198.00	-621.35	438.61	624.10	0.00	0.00	0.00
13,000.00	90.00	179.64	12,198.00	-721.35	439.24	724.10	0.00	0.00	0.00
13,100.00	90.00	179.64	12,198.00	-821.35	439.87	824.10	0.00	0.00	0.00
13,200.00	90.00	179.64	12,198.00	-921.35	440.51	924.10	0.00	0.00	0.00
13,300.00	90.00	179.64	12,198.00	-1,021.34	441.14	1,024.10	0.00	0.00	0.00
13,400.00	90.00	179.64	12,198.00	-1,121.34	441.77	1,124.10	0.00	0.00	0.00
13,500.00	90.00	179.64	12,198.00	-1,221.34	442.41	1,224.10	0.00	0.00	0.00
13,600.00	90.00	179.64	12,198.00	-1,321.34	443.04	1,324.10	0.00	0.00	0.00
13,700.00	90.00	179.64	12,198.00	-1,421.34	443.67	1,424.10	0.00	0.00	0.00
13,800.00	90.00	179.64	12,198.00	-1,521.33	444.30	1,524.10	0.00	0.00	0.00
13,900.00	90.00	179.64	12,198.00	-1,621.33	444.94	1,624.10	0.00	0.00	0.00
14,000.00	90.00	179.64	12,198.00	-1,721.33	445.57	1,724.10	0.00	0.00	0.00
14,100.00	90.00	179.64	12,198.00	-1,821.33	446.20	1,824.10	0.00	0.00	0.00
14,200.00	90.00	179.64	12,198.00	-1,921.33	446.84	1,924.10	0.00	0.00	0.00
14,300.00	90.00	179.64	12,198.00	-2,021.32	447.47	2,024.10	0.00	0.00	0.00
14,400.00	90.00	179.64	12,198.00	-2,121.32	448.10	2,124.10	0.00	0.00	0.00
14,500.00	90.00	179.64	12,198.00	-2,221.32	448.73	2,224.10	0.00	0.00	0.00
14,600.00	90.00	179.64	12,198.00	-2,321.32	449.37	2,324.10	0.00	0.00	0.00
14,700.00	90.00	179.64	12,198.00	-2,421.32	450.00	2,424.10	0.00	0.00	0.00
14,800.00	90.00	179.64	12,198.00	-2,521.31	450.63	2,524.10	0.00	0.00	0.00
14,900.00	90.00	179.64	12,198.00	-2,621.31	451.27	2,624.10	0.00	0.00	0.00
15,000.00	90.00	179.64	12,198.00	-2,721.31	451.90	2,724.10	0.00	0.00	0.00
15,100.00	90.00	179.64	12,198.00	-2,821.31	452.53	2,824.10	0.00	0.00	0.00
15,200.00	90.00	179.64	12,198.00	-2,921.31	453.16	2,924.10	0.00	0.00	0.00
15,300.00	90.00	179.64	12,198.00	-3,021.30	453.80	3,024.10	0.00	0.00	0.00
15,400.00	90.00	179.64	12,198.00	-3,121.30	454.43	3,124.10	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Company:	Matador Resources	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site:	Charles Ling Fed Com	**North Reference:**	Grid
Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,321.61	1,320.50	Z (Rustler)		0.00	179.64
1,851.89	1,849.50	Z (Salado) (Top Salt)		0.00	179.64
3,747.50	3,740.50	Z (Castile (T))		0.00	179.64
5,226.09	5,215.50	Z (G30:CS14-CSB) (Base Salt)		0.00	179.64
5,269.20	5,258.50	Z (G26: Bell Cyn.)		0.00	179.64
6,312.73	6,299.50	Z (G13: Cherry Cyn.)		0.00	179.64
7,510.65	7,494.50	Z (G7: Brushy Cyn.) Antelope Ridge		0.00	179.64
9,034.87	9,016.50	Z (G4: BSGL (CS9))		0.00	179.64
9,899.87	9,881.50	Z (L5.3: FBSC)		0.00	179.64
10,077.87	10,059.50	Z (L5.1: FBSG)		0.00	179.64
10,428.87	10,410.50	Z (L4.3: SBSC)		0.00	179.64
10,802.87	10,784.50	Z (L4.1: SBSG)		0.00	179.64
11,309.87	11,291.50	Z (L3.3: TBSC)		0.00	179.64
11,886.64	11,860.50	Z (L3.1: TBSG)		0.00	179.64
12,205.30	12,098.50	Z (L. TBSG)		0.00	179.64
12,325.82	12,153.50	Z (L2: WFMP A)		0.00	179.64
12,449.59	12,185.50	Z (X Sand (T))		0.00	179.64

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
600.00	600.00	0.00	0.00	KOP, 1.00°/100' Build
999.50	999.18	8.17	11.27	Begin 4.00° Tangent
8,337.03	8,318.88	308.19	425.18	Begin 1.50°/100' Drop
8,603.37	8,585.00	313.64	432.69	Begin Vertical Hold
11,637.61	11,619.24	313.64	432.69	Begin 10.00°/100' Build
12,437.61	12,183.49	-159.82	435.69	Begin 6.00°/100' Build
12,604.28	12,198.00	-325.63	436.74	Begin 90.00° Lateral
16,957.82	12,198.00	-4,679.09	464.29	PBHL

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Reference Design #1

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

Survey Tool Program **Date** 5/1/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,957.82	Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Charles Ling Fed Com						
Charles Ling Fed Com #132H - Wellbore #1 - Design #1	1,150.10	1,149.41	17.44	9.66	2.242	CC
Charles Ling Fed Com #132H - Wellbore #1 - Design #1	1,200.00	1,199.19	17.78	9.64	2.184	ES, SF
Charles Ling Fed Com #201H - Wellbore #1 - Design #1	8,173.44	8,248.44	1,312.84	1,253.64	22.175	CC
Charles Ling Fed Com #201H - Wellbore #1 - Design #1	16,957.82	16,990.85	1,319.08	1,140.20	7.374	ES, SF
Charles Ling Fed Com #212H - Wellbore #1 - Design #1	600.00	599.00	30.00	26.16	7.817	CC, ES
Charles Ling Fed Com #212H - Wellbore #1 - Design #1	16,957.82	17,231.88	714.48	544.90	4.213	SF
Roy Batty Federal COM						
Roy Batty Federal COM #2H - Wellbore #1 - Surveys	11,137.98	15,660.00	509.83	396.02	4.480	CC, ES, SF
Roy Batty Federal COM #3H - Wellbore #1 - Surveys	11,159.38	15,392.00	1,184.99	1,069.46	10.258	CC, ES
Roy Batty Federal COM #3H - Wellbore #1 - Surveys	11,200.00	15,392.00	1,185.68	1,070.01	10.250	SF
Stevens "11"						
Stevens 11 1 - Wellbore #1 - Surveys	15,215.75	12,207.22	337.76	4.50	1.014	Level 2, CC, ES, SF

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #132H - Wellbore #1 - Design #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	0.00	0.00	0.00	0.00	89.60	0.21	30.00	30.00				
100.00	100.00	100.00	100.00	0.13	0.13	89.60	0.21	30.00	30.00	29.75	0.26	117.054	
200.00	200.00	200.00	200.00	0.49	0.49	89.60	0.21	30.00	30.00	29.03	0.97	30.826	
300.00	300.00	300.00	300.00	0.85	0.85	89.60	0.21	30.00	30.00	28.31	1.69	17.750	
400.00	400.00	400.00	400.00	1.20	1.20	89.60	0.21	30.00	30.00	27.59	2.41	12.464	
500.00	500.00	500.00	500.00	1.56	1.56	89.60	0.21	30.00	30.00	26.88	3.12	9.603	
600.00	600.00	600.00	600.00	1.92	1.92	89.60	0.21	30.00	30.00	26.16	3.84	7.811	
700.00	699.99	699.99	699.99	2.28	2.28	90.59	0.21	30.00	29.30	24.74	4.55	6.432	
800.00	799.96	799.96	799.96	2.63	2.64	93.87	0.21	30.00	27.24	21.97	5.27	5.172	
900.00	899.86	899.86	899.86	2.99	3.00	100.54	0.21	30.00	24.05	18.07	5.98	4.022	
999.50	999.18	999.18	999.18	3.34	3.35	113.03	0.21	30.00	20.35	13.66	6.69	3.041	
1,000.00	999.68	999.68	999.68	3.34	3.35	113.11	0.21	30.00	20.33	13.64	6.69	3.037	
1,100.00	1,099.43	1,099.43	1,099.43	3.71	3.71	132.74	0.21	30.00	17.78	10.37	7.42	2.398	
1,150.10	1,149.41	1,149.41	1,149.41	3.89	3.89	144.06	0.21	30.00	17.44	9.66	7.78	2.242	CC

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #132H - Wellbore #1 - Design #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
6,400.00	6,386.55	6,397.46	6,386.55	23.42	23.15	-77.69	309.33	-52.14	376.71	330.56	46.15	8.162	
6,500.00	6,486.31	6,497.22	6,486.31	23.80	23.50	-78.47	309.33	-52.14	381.38	334.52	46.86	8.138	
6,600.00	6,586.07	6,596.97	6,586.07	24.17	23.85	-79.23	309.33	-52.14	386.13	338.55	47.58	8.116	
6,700.00	6,685.82	6,696.73	6,685.82	24.54	24.20	-79.97	309.33	-52.14	390.94	342.65	48.29	8.096	
6,800.00	6,785.58	6,796.49	6,785.58	24.92	24.55	-80.70	309.33	-52.14	395.81	346.81	49.00	8.078	
6,900.00	6,885.34	6,896.24	6,885.34	25.29	24.90	-81.40	309.33	-52.14	400.75	351.04	49.71	8.061	
7,000.00	6,985.10	6,996.00	6,985.10	25.66	25.25	-82.09	309.33	-52.14	405.75	355.32	50.43	8.046	
7,100.00	7,084.85	7,095.76	7,084.85	26.04	25.60	-82.77	309.33	-52.14	410.80	359.66	51.14	8.033	
7,200.00	7,184.61	7,195.51	7,184.61	26.41	25.95	-83.42	309.33	-52.14	415.91	364.06	51.85	8.021	
7,300.00	7,284.37	7,295.27	7,284.37	26.78	26.30	-84.07	309.33	-52.14	421.07	368.51	52.56	8.011	
7,400.00	7,384.12	7,395.03	7,384.12	27.16	26.65	-84.69	309.33	-52.14	426.28	373.01	53.27	8.002	
7,500.00	7,483.88	7,494.79	7,483.88	27.53	27.00	-85.30	309.33	-52.14	431.55	377.56	53.98	7.994	
7,600.00	7,583.64	7,594.54	7,583.64	27.91	27.35	-85.90	309.33	-52.14	436.86	382.16	54.70	7.987	
7,700.00	7,683.40	7,694.30	7,683.40	28.28	27.70	-86.48	309.33	-52.14	442.21	386.80	55.41	7.981	
7,800.00	7,783.15	7,794.06	7,783.15	28.65	28.05	-87.04	309.33	-52.14	447.61	391.49	56.12	7.976	
7,900.00	7,882.91	7,893.81	7,882.91	29.03	28.40	-87.60	309.33	-52.14	453.06	396.23	56.83	7.972	
8,000.00	7,982.67	7,993.57	7,982.67	29.40	28.76	-88.14	309.33	-52.14	458.54	401.00	57.54	7.969	
8,100.00	8,082.42	8,093.33	8,082.42	29.77	29.11	-88.66	309.33	-52.14	464.07	405.81	58.25	7.966	
8,200.00	8,182.18	8,193.08	8,182.18	30.15	29.46	-89.18	309.33	-52.14	469.63	410.66	58.97	7.964	
8,300.00	8,281.94	8,292.84	8,281.94	30.52	29.81	-89.68	309.33	-52.14	475.23	415.55	59.68	7.963	
8,337.03	8,318.88	8,329.79	8,318.88	30.66	29.94	-89.86	309.33	-52.14	477.31	417.37	59.94	7.963	
8,400.00	8,381.73	8,392.63	8,381.73	30.89	30.16	-90.14	309.33	-52.14	480.44	420.05	60.39	7.956	
8,500.00	8,481.64	8,492.55	8,481.64	31.25	30.52	-90.41	309.33	-52.14	483.71	422.61	61.10	7.917	
8,600.00	8,581.63	8,592.54	8,581.63	31.60	30.87	-90.51	309.33	-52.14	484.84	423.04	61.80	7.845	
8,603.37	8,585.00	8,595.90	8,585.00	31.61	30.88	-90.51	309.33	-52.14	484.84	423.02	61.83	7.842	
8,700.00	8,681.63	8,692.54	8,681.63	31.94	31.22	-90.51	309.33	-52.14	484.84	422.34	62.50	7.757	
8,800.00	8,781.63	8,792.54	8,781.63	32.28	31.58	-90.51	309.33	-52.14	484.84	421.64	63.20	7.672	
8,900.00	8,881.63	8,892.54	8,881.63	32.62	31.93	-90.51	309.33	-52.14	484.84	420.94	63.90	7.588	
9,000.00	8,981.63	8,992.54	8,981.63	32.96	32.28	-90.51	309.33	-52.14	484.84	420.24	64.60	7.505	
9,100.00	9,081.63	9,092.54	9,081.63	33.31	32.64	-90.51	309.33	-52.14	484.84	419.54	65.30	7.425	
9,200.00	9,181.63	9,192.54	9,181.63	33.65	32.99	-90.51	309.33	-52.14	484.84	418.84	66.00	7.346	
9,300.00	9,281.63	9,292.54	9,281.63	33.99	33.35	-90.51	309.33	-52.14	484.84	418.14	66.70	7.269	
9,400.00	9,381.63	9,392.54	9,381.63	34.33	33.70	-90.51	309.33	-52.14	484.84	417.44	67.40	7.193	
9,500.00	9,481.63	9,492.54	9,481.63	34.68	34.05	-90.51	309.33	-52.14	484.84	416.74	68.11	7.119	
9,600.00	9,581.63	9,592.54	9,581.63	35.02	34.41	-90.51	309.33	-52.14	484.84	416.04	68.81	7.046	
9,700.00	9,681.63	9,692.54	9,681.63	35.36	34.76	-90.51	309.33	-52.14	484.84	415.33	69.51	6.975	
9,800.00	9,781.63	9,792.54	9,781.63	35.71	35.12	-90.51	309.33	-52.14	484.84	414.63	70.21	6.905	
9,900.00	9,881.63	9,892.54	9,881.63	36.05	35.47	-90.51	309.33	-52.14	484.84	413.93	70.92	6.837	
10,000.00	9,981.63	9,992.54	9,981.63	36.40	35.83	-90.51	309.33	-52.14	484.84	413.23	71.62	6.770	
10,100.00	10,081.63	10,092.54	10,081.63	36.74	36.18	-90.51	309.33	-52.14	484.84	412.52	72.32	6.704	
10,200.00	10,181.63	10,192.54	10,181.63	37.09	36.54	-90.51	309.33	-52.14	484.84	411.82	73.03	6.639	
10,300.00	10,281.63	10,292.54	10,281.63	37.43	36.89	-90.51	309.33	-52.14	484.84	411.11	73.73	6.576	
10,400.00	10,381.63	10,392.54	10,381.63	37.78	37.24	-90.51	309.33	-52.14	484.84	410.41	74.43	6.514	
10,500.00	10,481.63	10,492.54	10,481.63	38.12	37.60	-90.51	309.33	-52.14	484.84	409.71	75.14	6.453	
10,600.00	10,581.63	10,592.54	10,581.63	38.47	37.95	-90.51	309.33	-52.14	484.84	409.00	75.84	6.393	
10,700.00	10,681.63	10,692.54	10,681.63	38.81	38.31	-90.51	309.33	-52.14	484.84	408.30	76.55	6.334	
10,800.00	10,781.63	10,792.54	10,781.63	39.16	38.67	-90.51	309.33	-52.14	484.84	407.59	77.25	6.276	
10,900.00	10,881.63	10,892.54	10,881.63	39.51	39.02	-90.51	309.33	-52.14	484.84	406.89	77.96	6.219	
11,000.00	10,981.63	10,992.54	10,981.63	39.85	39.38	-90.51	309.33	-52.14	484.84	406.18	78.66	6.163	
11,100.00	11,081.63	11,092.54	11,081.63	40.20	39.73	-90.51	309.33	-52.14	484.84	405.47	79.37	6.109	
11,200.00	11,181.63	11,192.54	11,181.63	40.55	40.09	-90.51	309.33	-52.14	484.84	404.77	80.08	6.055	
11,300.00	11,281.63	11,292.54	11,281.63	40.90	40.44	-90.51	309.33	-52.14	484.84	404.06	80.78	6.002	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #132H - Wellbore #1 - Design #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
15,200.00	12,198.00	15,020.81	12,006.00	65.73	64.89	-90.38	-2,925.69	-205.97	686.54	560.30	126.25	5.438	
15,300.00	12,198.00	15,120.81	12,006.00	66.98	66.14	-90.38	-3,025.68	-205.31	686.51	557.85	128.67	5.336	
15,400.00	12,198.00	15,220.81	12,006.00	68.24	67.41	-90.38	-3,125.68	-204.64	686.48	555.36	131.12	5.235	
15,500.00	12,198.00	15,320.81	12,006.00	69.52	68.69	-90.38	-3,225.68	-203.98	686.45	552.85	133.61	5.138	
15,600.00	12,198.00	15,420.81	12,006.00	70.82	69.99	-90.38	-3,325.68	-203.31	686.42	550.30	136.12	5.043	
15,700.00	12,198.00	15,520.81	12,006.00	72.13	71.30	-90.38	-3,425.67	-202.65	686.39	547.73	138.67	4.950	
15,800.00	12,198.00	15,620.81	12,006.00	73.45	72.63	-90.38	-3,525.67	-201.98	686.36	545.13	141.24	4.860	
15,900.00	12,198.00	15,720.81	12,006.00	74.79	73.97	-90.38	-3,625.67	-201.32	686.33	542.50	143.83	4.772	
16,000.00	12,198.00	15,820.81	12,006.00	76.14	75.33	-90.38	-3,725.67	-200.65	686.30	539.85	146.45	4.686	
16,100.00	12,198.00	15,920.81	12,006.00	77.50	76.69	-90.38	-3,825.67	-199.99	686.27	537.18	149.10	4.603	
16,200.00	12,198.00	16,020.81	12,006.00	78.87	78.07	-90.38	-3,925.66	-199.33	686.24	534.48	151.76	4.522	
16,300.00	12,198.00	16,120.81	12,006.00	80.25	79.45	-90.38	-4,025.66	-198.66	686.21	531.77	154.44	4.443	
16,400.00	12,198.00	16,220.81	12,006.00	81.65	80.85	-90.38	-4,125.66	-198.00	686.18	529.03	157.15	4.366	
16,500.00	12,198.00	16,320.81	12,006.00	83.05	82.26	-90.38	-4,225.66	-197.33	686.15	526.28	159.87	4.292	
16,600.00	12,198.00	16,420.81	12,006.00	84.46	83.67	-90.38	-4,325.66	-196.67	686.12	523.51	162.61	4.219	
16,700.00	12,198.00	16,520.81	12,006.00	85.88	85.10	-90.38	-4,425.65	-196.00	686.09	520.72	165.37	4.149	
16,800.00	12,198.00	16,620.81	12,006.00	87.31	86.53	-90.38	-4,525.65	-195.34	686.06	517.92	168.14	4.080	
16,900.00	12,198.00	16,720.81	12,006.00	88.74	87.97	-90.38	-4,625.65	-194.68	686.03	515.10	170.92	4.014	
16,957.82	12,198.00	16,778.63	12,006.00	89.57	88.80	-90.38	-4,683.47	-194.29	686.01	513.47	172.54	3.976	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #201H - Wellbore #1 - Design #1 — Offset Site Error: 0.00 usft

Survey Program: 0-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,100.00	5,089.71	5,174.99	5,164.26	18.57	18.87	-90.24	170.37	-1,068.56	1,313.27	1,276.50	36.77	35.716	
5,200.00	5,189.47	5,274.99	5,264.01	18.94	19.25	-90.24	174.47	-1,062.91	1,313.25	1,275.75	37.50	35.021	
5,300.00	5,289.23	5,374.99	5,363.77	19.32	19.62	-90.24	178.56	-1,057.25	1,313.24	1,275.01	38.23	34.352	
5,400.00	5,388.98	5,474.99	5,463.53	19.69	19.99	-90.24	182.66	-1,051.60	1,313.23	1,274.27	38.96	33.708	
5,500.00	5,488.74	5,574.99	5,563.28	20.06	20.37	-90.24	186.76	-1,045.94	1,313.21	1,273.52	39.69	33.088	
5,600.00	5,588.50	5,674.99	5,663.04	20.44	20.74	-90.24	190.86	-1,040.29	1,313.20	1,272.78	40.42	32.490	
5,700.00	5,688.25	5,774.99	5,762.79	20.81	21.11	-90.24	194.96	-1,034.63	1,313.18	1,272.04	41.15	31.913	
5,800.00	5,788.01	5,874.99	5,862.55	21.18	21.49	-90.24	199.06	-1,028.98	1,313.17	1,271.29	41.88	31.357	
5,900.00	5,887.77	5,974.99	5,962.30	21.56	21.86	-90.24	203.16	-1,023.32	1,313.16	1,270.55	42.61	30.819	
6,000.00	5,987.53	6,074.99	6,062.06	21.93	22.23	-90.24	207.26	-1,017.67	1,313.14	1,269.81	43.34	30.300	
6,100.00	6,087.28	6,174.99	6,161.82	22.30	22.61	-90.23	211.35	-1,012.02	1,313.13	1,269.06	44.07	29.798	
6,200.00	6,187.04	6,274.99	6,261.57	22.68	22.98	-90.23	215.45	-1,006.36	1,313.12	1,268.32	44.80	29.312	
6,300.00	6,286.80	6,374.99	6,361.33	23.05	23.35	-90.23	219.55	-1,000.71	1,313.10	1,267.57	45.53	28.842	
6,400.00	6,386.55	6,474.99	6,461.08	23.42	23.73	-90.23	223.65	-995.05	1,313.09	1,266.83	46.26	28.386	
6,500.00	6,486.31	6,574.99	6,560.84	23.80	24.10	-90.23	227.75	-989.40	1,313.07	1,266.09	46.99	27.945	
6,600.00	6,586.07	6,674.99	6,660.60	24.17	24.47	-90.23	231.85	-983.74	1,313.06	1,265.34	47.72	27.517	
6,700.00	6,685.82	6,774.99	6,760.35	24.54	24.85	-90.23	235.95	-978.09	1,313.05	1,264.60	48.45	27.102	
6,800.00	6,785.58	6,874.99	6,860.11	24.92	25.22	-90.23	240.05	-972.43	1,313.03	1,263.86	49.18	26.700	
6,900.00	6,885.34	6,974.99	6,959.86	25.29	25.59	-90.23	244.14	-966.78	1,313.02	1,263.11	49.91	26.309	
7,000.00	6,985.10	7,074.99	7,059.62	25.66	25.97	-90.23	248.24	-961.12	1,313.01	1,262.37	50.64	25.930	
7,100.00	7,084.85	7,174.99	7,159.37	26.04	26.34	-90.23	252.34	-955.47	1,312.99	1,261.62	51.37	25.561	
7,200.00	7,184.61	7,274.99	7,259.13	26.41	26.71	-90.23	256.44	-949.81	1,312.98	1,260.88	52.10	25.202	
7,300.00	7,284.37	7,374.99	7,358.89	26.78	27.09	-90.23	260.54	-944.16	1,312.96	1,260.14	52.83	24.854	
7,400.00	7,384.12	7,474.99	7,458.64	27.16	27.46	-90.23	264.64	-938.51	1,312.95	1,259.39	53.56	24.515	
7,500.00	7,483.88	7,574.99	7,558.40	27.53	27.84	-90.23	268.74	-932.85	1,312.94	1,258.65	54.29	24.185	
7,600.00	7,583.64	7,674.99	7,658.15	27.91	28.21	-90.23	272.83	-927.20	1,312.92	1,257.91	55.02	23.864	
7,700.00	7,683.40	7,774.99	7,757.91	28.28	28.58	-90.23	276.93	-921.54	1,312.91	1,257.16	55.75	23.551	
7,800.00	7,783.15	7,874.99	7,857.67	28.65	28.96	-90.23	281.03	-915.89	1,312.90	1,256.42	56.48	23.246	
7,900.00	7,882.91	7,974.99	7,957.42	29.03	29.33	-90.23	285.13	-910.23	1,312.88	1,255.67	57.21	22.949	
8,000.00	7,982.67	8,074.99	8,057.18	29.40	29.70	-90.23	289.23	-904.58	1,312.87	1,254.93	57.94	22.660	
8,100.00	8,082.42	8,174.99	8,156.93	29.77	30.08	-90.23	293.33	-898.92	1,312.85	1,254.19	58.67	22.378	
8,173.44	8,155.69	8,248.44	8,230.20	30.05	30.35	-90.23	296.34	-894.77	1,312.84	1,253.64	59.20	22.175	CC
8,200.00	8,182.18	8,269.64	8,251.35	30.15	30.43	-90.24	297.18	-893.61	1,312.89	1,253.51	59.38	22.110	
8,300.00	8,281.94	8,347.79	8,329.38	30.52	30.72	-90.31	299.68	-890.15	1,314.12	1,254.10	60.02	21.895	
8,337.03	8,318.88	8,376.71	8,358.28	30.66	30.82	-90.34	300.37	-889.20	1,314.99	1,254.74	60.25	21.824	
8,400.00	8,381.73	8,425.87	8,407.42	30.89	31.00	-90.40	301.25	-887.99	1,316.58	1,255.94	60.64	21.710	
8,500.00	8,481.64	8,503.92	8,485.45	31.25	31.27	-90.48	301.88	-887.12	1,318.73	1,257.48	61.25	21.531	
8,600.00	8,581.63	8,600.09	8,581.63	31.60	31.60	-90.51	301.90	-887.10	1,319.85	1,257.92	61.92	21.314	
8,603.37	8,585.00	8,603.46	8,585.00	31.61	31.61	-90.51	301.90	-887.10	1,319.85	1,257.90	61.95	21.306	
8,700.00	8,681.63	8,700.09	8,681.63	31.94	31.94	-90.51	301.90	-887.10	1,319.85	1,257.23	62.61	21.079	
8,800.00	8,781.63	8,800.09	8,781.63	32.28	32.28	-90.51	301.90	-887.10	1,319.85	1,256.54	63.31	20.849	
8,900.00	8,881.63	8,900.09	8,881.63	32.62	32.62	-90.51	301.90	-887.10	1,319.85	1,255.85	64.00	20.623	
9,000.00	8,981.63	9,000.09	8,981.63	32.96	32.96	-90.51	301.90	-887.10	1,319.85	1,255.16	64.69	20.403	
9,100.00	9,081.63	9,100.09	9,081.63	33.31	33.30	-90.51	301.90	-887.10	1,319.85	1,254.46	65.38	20.186	
9,200.00	9,181.63	9,200.09	9,181.63	33.65	33.65	-90.51	301.90	-887.10	1,319.85	1,253.77	66.08	19.975	
9,300.00	9,281.63	9,300.09	9,281.63	33.99	33.99	-90.51	301.90	-887.10	1,319.85	1,253.08	66.77	19.767	
9,400.00	9,381.63	9,400.09	9,381.63	34.33	34.33	-90.51	301.90	-887.10	1,319.85	1,252.38	67.46	19.563	
9,500.00	9,481.63	9,500.09	9,481.63	34.68	34.67	-90.51	301.90	-887.10	1,319.85	1,251.69	68.16	19.364	
9,600.00	9,581.63	9,600.09	9,581.63	35.02	35.02	-90.51	301.90	-887.10	1,319.85	1,250.99	68.86	19.168	
9,700.00	9,681.63	9,700.09	9,681.63	35.36	35.36	-90.51	301.90	-887.10	1,319.85	1,250.30	69.55	18.977	
9,800.00	9,781.63	9,800.09	9,781.63	35.71	35.70	-90.51	301.90	-887.10	1,319.85	1,249.60	70.25	18.789	
9,900.00	9,881.63	9,900.09	9,881.63	36.05	36.05	-90.51	301.90	-887.10	1,319.85	1,248.90	70.94	18.604	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #201H - Wellbore #1 - Design #1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
13,800.00	12,198.00	13,833.03	12,234.00	50.77	50.85	-90.38	-1,530.02	-875.05	1,319.87	1,218.73	101.14	13.050	
13,900.00	12,198.00	13,933.03	12,234.00	51.64	51.72	-90.38	-1,630.01	-874.39	1,319.85	1,216.96	102.89	12.828	
14,000.00	12,198.00	14,033.03	12,234.00	52.55	52.62	-90.38	-1,730.01	-873.74	1,319.82	1,215.12	104.71	12.605	
14,100.00	12,198.00	14,133.03	12,234.00	53.49	53.56	-90.38	-1,830.01	-873.08	1,319.80	1,213.20	106.60	12.381	
14,200.00	12,198.00	14,233.03	12,234.00	54.47	54.54	-90.38	-1,930.01	-872.42	1,319.77	1,211.22	108.55	12.158	
14,300.00	12,198.00	14,333.03	12,234.00	55.48	55.54	-90.38	-2,030.00	-871.76	1,319.75	1,209.18	110.57	11.935	
14,400.00	12,198.00	14,433.03	12,234.00	56.51	56.58	-90.38	-2,130.00	-871.10	1,319.72	1,207.07	112.66	11.715	
14,500.00	12,198.00	14,533.03	12,234.00	57.58	57.65	-90.38	-2,230.00	-870.45	1,319.70	1,204.90	114.80	11.496	
14,600.00	12,198.00	14,633.03	12,234.00	58.68	58.74	-90.38	-2,330.00	-869.79	1,319.67	1,202.68	116.99	11.280	
14,700.00	12,198.00	14,733.03	12,234.00	59.80	59.85	-90.38	-2,430.00	-869.13	1,319.65	1,200.42	119.23	11.068	
14,800.00	12,198.00	14,833.03	12,234.00	60.94	61.00	-90.38	-2,529.99	-868.47	1,319.62	1,198.10	121.53	10.859	
14,900.00	12,198.00	14,933.03	12,234.00	62.11	62.16	-90.38	-2,629.99	-867.81	1,319.60	1,195.73	123.87	10.653	
15,000.00	12,198.00	15,033.03	12,234.00	63.30	63.35	-90.38	-2,729.99	-867.16	1,319.57	1,193.33	126.25	10.452	
15,100.00	12,198.00	15,133.03	12,234.00	64.51	64.55	-90.38	-2,829.99	-866.50	1,319.55	1,190.88	128.67	10.255	
15,200.00	12,198.00	15,233.03	12,234.00	65.73	65.78	-90.38	-2,929.98	-865.84	1,319.52	1,188.39	131.13	10.063	
15,300.00	12,198.00	15,333.03	12,234.00	66.98	67.02	-90.38	-3,029.98	-865.18	1,319.50	1,185.87	133.63	9.874	
15,400.00	12,198.00	15,433.03	12,234.00	68.24	68.29	-90.38	-3,129.98	-864.52	1,319.47	1,183.31	136.16	9.691	
15,500.00	12,198.00	15,533.03	12,234.00	69.52	69.56	-90.38	-3,229.98	-863.87	1,319.45	1,180.72	138.73	9.511	
15,600.00	12,198.00	15,633.03	12,234.00	70.82	70.86	-90.38	-3,329.98	-863.21	1,319.42	1,178.10	141.32	9.336	
15,700.00	12,198.00	15,733.03	12,234.00	72.13	72.16	-90.38	-3,429.97	-862.55	1,319.40	1,175.45	143.94	9.166	
15,800.00	12,198.00	15,833.03	12,234.00	73.45	73.49	-90.38	-3,529.97	-861.89	1,319.37	1,172.78	146.60	9.000	
15,900.00	12,198.00	15,933.03	12,234.00	74.79	74.82	-90.38	-3,629.97	-861.23	1,319.35	1,170.07	149.27	8.838	
16,000.00	12,198.00	16,033.03	12,234.00	76.14	76.17	-90.38	-3,729.97	-860.58	1,319.32	1,167.35	151.98	8.681	
16,100.00	12,198.00	16,133.03	12,234.00	77.50	77.53	-90.38	-3,829.97	-859.92	1,319.30	1,164.60	154.70	8.528	
16,200.00	12,198.00	16,233.03	12,234.00	78.87	78.90	-90.38	-3,929.96	-859.26	1,319.27	1,161.82	157.45	8.379	
16,300.00	12,198.00	16,333.03	12,234.00	80.25	80.28	-90.38	-4,029.96	-858.60	1,319.25	1,159.03	160.22	8.234	
16,400.00	12,198.00	16,433.03	12,234.00	81.65	81.67	-90.38	-4,129.96	-857.94	1,319.22	1,156.22	163.01	8.093	
16,500.00	12,198.00	16,533.03	12,234.00	83.05	83.07	-90.38	-4,229.96	-857.29	1,319.20	1,153.38	165.81	7.956	
16,600.00	12,198.00	16,633.03	12,234.00	84.46	84.48	-90.38	-4,329.95	-856.63	1,319.17	1,150.53	168.64	7.822	
16,700.00	12,198.00	16,733.03	12,234.00	85.88	85.90	-90.38	-4,429.95	-855.97	1,319.15	1,147.67	171.48	7.693	
16,800.00	12,198.00	16,833.03	12,234.00	87.31	87.32	-90.38	-4,529.95	-855.31	1,319.12	1,144.78	174.34	7.566	
16,900.00	12,198.00	16,933.03	12,234.00	88.74	88.76	-90.38	-4,629.95	-854.65	1,319.10	1,141.88	177.22	7.443	
16,957.82	12,198.00	16,990.85	12,234.00	89.57	89.59	-90.38	-4,687.77	-854.27	1,319.08	1,140.20	178.88	7.374	ES, SF

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #212H - Wellbore #1 - Design #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,100.00	5,089.71	5,078.21	5,067.96	18.57	18.50	-80.16	251.04	-190.82	440.36	403.83	36.53	12.054	
5,200.00	5,189.47	5,177.75	5,167.26	18.94	18.87	-80.14	256.89	-194.56	449.91	412.65	37.26	12.074	
5,300.00	5,289.23	5,277.29	5,266.56	19.32	19.24	-80.12	262.73	-198.30	459.47	421.48	37.99	12.093	
5,400.00	5,388.98	5,376.83	5,365.86	19.69	19.61	-80.11	268.58	-202.04	469.03	430.30	38.73	12.111	
5,500.00	5,488.74	5,476.37	5,465.16	20.06	19.98	-80.09	274.42	-205.78	478.58	439.12	39.46	12.129	
5,600.00	5,588.50	5,575.92	5,564.46	20.44	20.36	-80.08	280.27	-209.52	488.14	447.95	40.19	12.146	
5,700.00	5,688.25	5,675.46	5,663.76	20.81	20.73	-80.07	286.11	-213.26	497.69	456.77	40.92	12.163	
5,800.00	5,788.01	5,775.00	5,763.06	21.18	21.10	-80.06	291.96	-217.01	507.25	465.60	41.65	12.179	
5,900.00	5,887.77	5,874.54	5,862.36	21.56	21.47	-80.04	297.80	-220.75	516.80	474.42	42.38	12.194	
6,000.00	5,987.53	5,980.58	5,968.18	21.93	21.86	-80.05	303.50	-224.39	525.97	482.82	43.15	12.188	
6,100.00	6,087.28	6,090.59	6,078.11	22.30	22.26	-80.26	306.94	-226.60	533.33	489.40	43.93	12.140	
6,200.00	6,187.04	6,198.53	6,186.04	22.68	22.64	-80.71	307.77	-227.13	538.82	494.14	44.68	12.059	
6,300.00	6,286.80	6,298.29	6,285.80	23.05	22.98	-81.23	307.77	-227.13	543.75	498.35	45.40	11.978	
6,400.00	6,386.55	6,398.05	6,385.55	23.42	23.32	-81.75	307.77	-227.13	548.72	502.61	46.11	11.901	
6,500.00	6,486.31	6,497.80	6,485.31	23.80	23.67	-82.25	307.77	-227.13	553.74	506.92	46.82	11.826	
6,600.00	6,586.07	6,597.56	6,585.07	24.17	24.01	-82.74	307.77	-227.13	558.80	511.26	47.54	11.755	
6,700.00	6,685.82	6,697.32	6,684.82	24.54	24.36	-83.23	307.77	-227.13	563.90	515.65	48.25	11.687	
6,800.00	6,785.58	6,797.07	6,784.58	24.92	24.71	-83.70	307.77	-227.13	569.04	520.07	48.96	11.622	
6,900.00	6,885.34	6,896.83	6,884.34	25.29	25.05	-84.17	307.77	-227.13	574.21	524.54	49.67	11.560	
7,000.00	6,985.10	6,996.59	6,984.10	25.66	25.40	-84.63	307.77	-227.13	579.43	529.04	50.39	11.499	
7,100.00	7,084.85	7,096.35	7,083.85	26.04	25.74	-85.08	307.77	-227.13	584.68	533.58	51.10	11.442	
7,200.00	7,184.61	7,196.10	7,183.61	26.41	26.09	-85.52	307.77	-227.13	589.97	538.15	51.81	11.386	
7,300.00	7,284.37	7,295.86	7,283.37	26.78	26.44	-85.96	307.77	-227.13	595.29	542.76	52.53	11.333	
7,400.00	7,384.12	7,395.62	7,383.12	27.16	26.79	-86.38	307.77	-227.13	600.64	547.40	53.24	11.282	
7,500.00	7,483.88	7,495.37	7,482.88	27.53	27.13	-86.80	307.77	-227.13	606.03	552.08	53.95	11.233	
7,600.00	7,583.64	7,595.13	7,582.64	27.91	27.48	-87.21	307.77	-227.13	611.45	556.78	54.67	11.185	
7,700.00	7,683.40	7,694.89	7,682.40	28.28	27.83	-87.62	307.77	-227.13	616.90	561.52	55.38	11.140	
7,800.00	7,783.15	7,794.64	7,782.15	28.65	28.18	-88.02	307.77	-227.13	622.38	566.29	56.09	11.096	
7,900.00	7,882.91	7,894.40	7,881.91	29.03	28.53	-88.41	307.77	-227.13	627.89	571.09	56.81	11.053	
8,000.00	7,982.67	7,994.16	7,981.67	29.40	28.88	-88.79	307.77	-227.13	633.43	575.91	57.52	11.013	
8,100.00	8,082.42	8,093.92	8,081.42	29.77	29.23	-89.17	307.77	-227.13	639.00	580.77	58.23	10.973	
8,200.00	8,182.18	8,193.67	8,181.18	30.15	29.58	-89.54	307.77	-227.13	644.59	585.65	58.95	10.935	
8,300.00	8,281.94	8,293.43	8,280.94	30.52	29.93	-89.90	307.77	-227.13	650.21	590.56	59.66	10.899	
8,337.03	8,318.88	8,330.37	8,317.88	30.66	30.06	-90.04	307.77	-227.13	652.30	592.38	59.92	10.886	
8,400.00	8,381.73	8,393.22	8,380.73	30.89	30.28	-90.24	307.77	-227.13	655.44	595.07	60.37	10.857	
8,500.00	8,481.64	8,493.14	8,480.64	31.25	30.63	-90.44	307.77	-227.13	658.70	597.62	61.08	10.784	
8,600.00	8,581.63	8,593.12	8,580.63	31.60	30.98	-90.51	307.77	-227.13	659.84	598.06	61.78	10.680	
8,603.37	8,585.00	8,596.49	8,584.00	31.61	30.99	-90.51	307.77	-227.13	659.84	598.04	61.81	10.676	
8,700.00	8,681.63	8,693.12	8,680.63	31.94	31.33	-90.51	307.77	-227.13	659.84	597.36	62.48	10.561	
8,800.00	8,781.63	8,793.12	8,780.63	32.28	31.68	-90.51	307.77	-227.13	659.84	596.66	63.18	10.444	
8,900.00	8,881.63	8,893.12	8,880.63	32.62	32.03	-90.51	307.77	-227.13	659.84	595.97	63.88	10.330	
9,000.00	8,981.63	8,993.12	8,980.63	32.96	32.38	-90.51	307.77	-227.13	659.84	595.27	64.58	10.218	
9,100.00	9,081.63	9,093.12	9,080.63	33.31	32.73	-90.51	307.77	-227.13	659.84	594.57	65.28	10.109	
9,200.00	9,181.63	9,193.12	9,180.63	33.65	33.09	-90.51	307.77	-227.13	659.84	593.87	65.98	10.001	
9,300.00	9,281.63	9,293.12	9,280.63	33.99	33.44	-90.51	307.77	-227.13	659.84	593.17	66.68	9.896	
9,400.00	9,381.63	9,393.12	9,380.63	34.33	33.79	-90.51	307.77	-227.13	659.84	592.47	67.38	9.793	
9,500.00	9,481.63	9,493.12	9,480.63	34.68	34.14	-90.51	307.77	-227.13	659.84	591.77	68.08	9.693	
9,600.00	9,581.63	9,593.12	9,580.63	35.02	34.50	-90.51	307.77	-227.13	659.84	591.07	68.78	9.594	
9,700.00	9,681.63	9,693.12	9,680.63	35.36	34.85	-90.51	307.77	-227.13	659.84	590.37	69.48	9.497	
9,800.00	9,781.63	9,793.12	9,780.63	35.71	35.20	-90.51	307.77	-227.13	659.84	589.66	70.18	9.402	
9,900.00	9,881.63	9,893.12	9,880.63	36.05	35.55	-90.51	307.77	-227.13	659.84	588.96	70.88	9.309	
10,000.00	9,981.63	9,993.12	9,980.63	36.40	35.91	-90.51	307.77	-227.13	659.84	588.26	71.58	9.218	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Charles Ling Fed Com - Charles Ling Fed Com #212H - Wellbore #1 - Design #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
13,900.00	12,198.00	14,174.06	12,474.00	51.64	52.19	-90.38	-1,625.67	-214.41	715.18	616.49	98.69	7.247	
14,000.00	12,198.00	14,274.06	12,474.00	52.55	53.08	-90.38	-1,725.67	-213.75	715.16	614.77	100.38	7.124	
14,100.00	12,198.00	14,374.06	12,474.00	53.49	54.01	-90.38	-1,825.67	-213.09	715.13	613.00	102.14	7.002	
14,200.00	12,198.00	14,474.06	12,474.00	54.47	54.98	-90.38	-1,925.66	-212.43	715.11	611.15	103.96	6.879	
14,300.00	12,198.00	14,574.06	12,474.00	55.48	55.97	-90.38	-2,025.66	-211.78	715.09	609.25	105.84	6.756	
14,400.00	12,198.00	14,674.06	12,474.00	56.51	57.00	-90.38	-2,125.66	-211.12	715.07	607.29	107.78	6.635	
14,500.00	12,198.00	14,774.06	12,474.00	57.58	58.05	-90.38	-2,225.66	-210.46	715.04	605.28	109.77	6.514	
14,600.00	12,198.00	14,874.06	12,474.00	58.68	59.14	-90.38	-2,325.66	-209.80	715.02	603.21	111.81	6.395	
14,700.00	12,198.00	14,974.06	12,474.00	59.80	60.24	-90.38	-2,425.65	-209.14	715.00	601.10	113.90	6.278	
14,800.00	12,198.00	15,074.06	12,474.00	60.94	61.38	-90.38	-2,525.65	-208.49	714.97	598.94	116.03	6.162	
14,900.00	12,198.00	15,174.06	12,474.00	62.11	62.53	-90.38	-2,625.65	-207.83	714.95	596.74	118.21	6.048	
15,000.00	12,198.00	15,274.06	12,474.00	63.30	63.71	-90.38	-2,725.65	-207.17	714.93	594.50	120.43	5.937	
15,100.00	12,198.00	15,374.06	12,474.00	64.51	64.91	-90.38	-2,825.64	-206.51	714.90	592.22	122.69	5.827	
15,200.00	12,198.00	15,474.06	12,474.00	65.73	66.13	-90.38	-2,925.64	-205.86	714.88	589.90	124.98	5.720	
15,300.00	12,198.00	15,574.06	12,474.00	66.98	67.36	-90.38	-3,025.64	-205.20	714.86	587.55	127.31	5.615	
15,400.00	12,198.00	15,674.06	12,474.00	68.24	68.62	-90.38	-3,125.64	-204.54	714.84	585.17	129.67	5.513	
15,500.00	12,198.00	15,774.06	12,474.00	69.52	69.89	-90.38	-3,225.64	-203.88	714.81	582.75	132.06	5.413	
15,600.00	12,198.00	15,874.06	12,474.00	70.82	71.17	-90.38	-3,325.63	-203.22	714.79	580.31	134.48	5.315	
15,700.00	12,198.00	15,974.06	12,474.00	72.13	72.47	-90.38	-3,425.63	-202.57	714.77	577.84	136.93	5.220	
15,800.00	12,198.00	16,074.06	12,474.00	73.45	73.79	-90.38	-3,525.63	-201.91	714.74	575.34	139.40	5.127	
15,900.00	12,198.00	16,174.06	12,474.00	74.79	75.12	-90.38	-3,625.63	-201.25	714.72	572.82	141.90	5.037	
16,000.00	12,198.00	16,274.06	12,474.00	76.14	76.46	-90.38	-3,725.62	-200.59	714.70	570.27	144.43	4.949	
16,100.00	12,198.00	16,374.06	12,474.00	77.50	77.81	-90.38	-3,825.62	-199.93	714.67	567.70	146.97	4.863	
16,200.00	12,198.00	16,474.06	12,474.00	78.87	79.18	-90.38	-3,925.62	-199.28	714.65	565.11	149.54	4.779	
16,300.00	12,198.00	16,574.06	12,474.00	80.25	80.55	-90.38	-4,025.62	-198.62	714.63	562.50	152.13	4.698	
16,400.00	12,198.00	16,674.06	12,474.00	81.65	81.94	-90.38	-4,125.62	-197.96	714.61	559.87	154.73	4.618	
16,500.00	12,198.00	16,774.06	12,474.00	83.05	83.33	-90.38	-4,225.61	-197.30	714.58	557.23	157.36	4.541	
16,600.00	12,198.00	16,874.06	12,474.00	84.46	84.74	-90.38	-4,325.61	-196.65	714.56	554.56	160.00	4.466	
16,700.00	12,198.00	16,974.06	12,474.00	85.88	86.15	-90.38	-4,425.61	-195.99	714.54	551.88	162.65	4.393	
16,800.00	12,198.00	17,074.06	12,474.00	87.31	87.57	-90.38	-4,525.61	-195.33	714.51	549.19	165.33	4.322	
16,900.00	12,198.00	17,174.06	12,474.00	88.74	89.00	-90.38	-4,625.61	-194.67	714.49	546.47	168.02	4.253	
16,957.82	12,198.00	17,231.88	12,474.00	89.57	89.83	-90.38	-4,683.42	-194.29	714.48	544.90	169.58	4.213 SF	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Roy Batty Federal COM - Roy Batty Federal COM #2H - Wellbore #1 - Surveys — **Offset Site Error:** 0.00 usft

Survey Program: 100-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,000.00	4,989.96	4,900.00	4,899.73	18.20	16.93	-177.81	-4,733.22	49.03	4,909.08	4,874.11	34.98	140.345	
5,100.00	5,089.71	4,953.42	4,953.08	18.57	17.12	-177.77	-4,734.47	51.39	4,915.45	4,879.92	35.53	138.363	
5,200.00	5,189.47	5,045.22	5,044.78	18.94	17.45	-177.75	-4,737.04	55.02	4,922.37	4,886.15	36.22	135.913	
5,300.00	5,289.23	5,193.78	5,193.23	19.32	17.97	-177.74	-4,740.35	59.47	4,928.80	4,891.68	37.12	132.766	
5,400.00	5,388.98	5,313.08	5,312.48	19.69	18.40	-177.71	-4,742.08	62.48	4,934.46	4,896.54	37.92	130.130	
5,500.00	5,488.74	5,414.22	5,413.58	20.06	18.76	-177.68	-4,743.30	65.08	4,939.87	4,901.22	38.65	127.820	
5,600.00	5,588.50	5,500.00	5,499.31	20.44	19.06	-177.64	-4,744.67	67.58	4,945.63	4,906.31	39.32	125.787	
5,700.00	5,688.25	5,576.76	5,576.02	20.81	19.33	-177.61	-4,746.18	69.85	4,951.74	4,911.79	39.95	123.937	
5,800.00	5,788.01	5,690.95	5,690.15	21.18	19.74	-177.58	-4,748.35	72.97	4,957.86	4,917.13	40.73	121.719	
5,900.00	5,887.77	5,783.64	5,782.79	21.56	20.07	-177.55	-4,749.99	75.49	4,963.83	4,922.40	41.43	119.816	
6,000.00	5,987.53	5,881.33	5,880.43	21.93	20.42	-177.52	-4,751.84	78.02	4,969.93	4,927.78	42.14	117.925	
6,100.00	6,087.28	5,985.20	5,984.25	22.30	20.79	-177.49	-4,753.77	80.73	4,976.00	4,933.12	42.88	116.033	
6,200.00	6,187.04	15,660.00	11,101.11	22.68	88.30	-129.26	-1.83	32.18	4,945.10	4,892.20	52.90	93.474	
6,300.00	6,286.80	15,660.00	11,101.11	23.05	88.30	-129.19	-1.83	32.18	4,846.12	4,792.97	53.14	91.192	
6,400.00	6,386.55	15,660.00	11,101.11	23.42	88.30	-129.13	-1.83	32.18	4,747.17	4,693.78	53.39	88.922	
6,500.00	6,486.31	15,660.00	11,101.11	23.80	88.30	-129.07	-1.83	32.18	4,648.27	4,594.63	53.63	86.665	
6,600.00	6,586.07	15,660.00	11,101.11	24.17	88.30	-129.01	-1.83	32.18	4,549.41	4,495.52	53.89	84.421	
6,700.00	6,685.82	15,660.00	11,101.11	24.54	88.30	-128.96	-1.83	32.18	4,450.61	4,396.46	54.15	82.189	
6,800.00	6,785.58	15,660.00	11,101.11	24.92	88.30	-128.90	-1.83	32.18	4,351.86	4,297.45	54.42	79.970	
6,900.00	6,885.34	15,660.00	11,101.11	25.29	88.30	-128.85	-1.83	32.18	4,253.18	4,198.48	54.69	77.764	
7,000.00	6,985.10	15,660.00	11,101.11	25.66	88.30	-128.80	-1.83	32.18	4,154.55	4,099.57	54.97	75.572	
7,100.00	7,084.85	15,660.00	11,101.11	26.04	88.30	-128.75	-1.83	32.18	4,055.99	4,000.73	55.26	73.392	
7,200.00	7,184.61	15,660.00	11,101.11	26.41	88.30	-128.71	-1.83	32.18	3,957.50	3,901.94	55.56	71.226	
7,300.00	7,284.37	15,660.00	11,101.11	26.78	88.30	-128.66	-1.83	32.18	3,859.09	3,803.23	55.87	69.074	
7,400.00	7,384.12	15,660.00	11,101.11	27.16	88.30	-128.62	-1.83	32.18	3,760.77	3,704.58	56.18	66.936	
7,500.00	7,483.88	15,660.00	11,101.11	27.53	88.30	-128.58	-1.83	32.18	3,662.53	3,606.02	56.51	64.811	
7,600.00	7,583.64	15,660.00	11,101.11	27.91	88.30	-128.54	-1.83	32.18	3,564.40	3,507.55	56.85	62.700	
7,700.00	7,683.40	15,660.00	11,101.11	28.28	88.30	-128.50	-1.83	32.18	3,466.37	3,409.17	57.20	60.603	
7,800.00	7,783.15	15,660.00	11,101.11	28.65	88.30	-128.46	-1.83	32.18	3,368.46	3,310.89	57.56	58.520	
7,900.00	7,882.91	15,660.00	11,101.11	29.03	88.30	-128.42	-1.83	32.18	3,270.67	3,212.73	57.94	56.451	
8,000.00	7,982.67	15,660.00	11,101.11	29.40	88.30	-128.38	-1.83	32.18	3,173.02	3,114.69	58.33	54.397	
8,100.00	8,082.42	15,660.00	11,101.11	29.77	88.30	-128.35	-1.83	32.18	3,075.52	3,016.78	58.74	52.357	
8,200.00	8,182.18	15,660.00	11,101.11	30.15	88.30	-128.31	-1.83	32.18	2,978.19	2,919.02	59.17	50.332	
8,300.00	8,281.94	15,660.00	11,101.11	30.52	88.30	-128.28	-1.83	32.18	2,881.04	2,821.42	59.62	48.322	
8,337.03	8,318.88	15,660.00	11,101.11	30.66	88.30	-128.27	-1.83	32.18	2,845.11	2,785.31	59.80	47.581	
8,400.00	8,381.73	15,660.00	11,101.11	30.89	88.30	-128.25	-1.83	32.18	2,783.96	2,723.87	60.09	46.328	
8,500.00	8,481.64	15,660.00	11,101.11	31.25	88.30	-128.23	-1.83	32.18	2,686.52	2,625.95	60.57	44.357	
8,600.00	8,581.63	15,660.00	11,101.11	31.60	88.30	-128.23	-1.83	32.18	2,588.68	2,527.65	61.03	42.413	
8,603.37	8,585.00	15,660.00	11,101.11	31.61	88.30	-128.23	-1.83	32.18	2,585.38	2,524.33	61.05	42.348	
8,700.00	8,681.63	15,660.00	11,101.11	31.94	88.30	-128.23	-1.83	32.18	2,490.72	2,429.21	61.51	40.492	
8,800.00	8,781.63	15,660.00	11,101.11	32.28	88.30	-128.23	-1.83	32.18	2,392.92	2,330.91	62.01	38.586	
8,900.00	8,881.63	15,660.00	11,101.11	32.62	88.30	-128.23	-1.83	32.18	2,295.32	2,232.77	62.55	36.697	
9,000.00	8,981.63	15,660.00	11,101.11	32.96	88.30	-128.23	-1.83	32.18	2,197.93	2,134.81	63.12	34.822	
9,100.00	9,081.63	15,660.00	11,101.11	33.31	88.30	-128.23	-1.83	32.18	2,100.78	2,037.05	63.73	32.964	
9,200.00	9,181.63	15,660.00	11,101.11	33.65	88.30	-128.23	-1.83	32.18	2,003.92	1,939.53	64.39	31.123	
9,300.00	9,281.63	15,660.00	11,101.11	33.99	88.30	-128.23	-1.83	32.18	1,907.38	1,842.28	65.10	29.298	
9,400.00	9,381.63	15,660.00	11,101.11	34.33	88.30	-128.23	-1.83	32.18	1,811.21	1,745.33	65.88	27.491	
9,500.00	9,481.63	15,660.00	11,101.11	34.68	88.30	-128.23	-1.83	32.18	1,715.49	1,648.74	66.75	25.702	
9,600.00	9,581.63	15,660.00	11,101.11	35.02	88.30	-128.23	-1.83	32.18	1,620.28	1,552.58	67.70	23.933	
9,700.00	9,681.63	15,660.00	11,101.11	35.36	88.30	-128.23	-1.83	32.18	1,525.68	1,456.91	68.77	22.185	
9,800.00	9,781.63	15,660.00	11,101.11	35.71	88.30	-128.23	-1.83	32.18	1,431.82	1,361.84	69.98	20.460	
9,900.00	9,881.63	15,660.00	11,101.11	36.05	88.30	-128.23	-1.83	32.18	1,338.85	1,267.49	71.36	18.761	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Roy Batty Federal COM - Roy Batty Federal COM #2H - Wellbore #1 - Surveys — **Offset Site Error:** 0.00 usft

Survey Program: 100-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
13,600.00	12,198.00	14,340.04	11,097.20	49.15	69.23	-89.90	-1,320.70	79.76	1,141.64	1,071.80	69.84	16.346	
13,700.00	12,198.00	14,222.75	11,097.32	49.94	67.64	-92.62	-1,437.99	80.08	1,141.75	1,072.33	69.42	16.447	
13,800.00	12,198.00	14,087.17	11,102.35	50.77	65.80	-98.20	-1,573.43	82.87	1,137.37	1,068.46	68.91	16.506	
13,900.00	12,198.00	14,001.90	11,104.60	51.64	64.66	-95.94	-1,658.59	86.80	1,133.60	1,064.95	68.65	16.513	
14,000.00	12,198.00	13,902.62	11,106.17	52.55	63.34	-95.87	-1,757.75	91.32	1,130.86	1,062.55	68.32	16.553	
14,100.00	12,198.00	13,813.06	11,107.54	53.49	62.17	-94.22	-1,847.17	96.09	1,127.98	1,059.92	68.06	16.572	
14,200.00	12,198.00	13,731.95	11,107.35	54.47	61.12	-91.13	-1,928.17	100.31	1,126.78	1,058.88	67.90	16.595	
14,228.00	12,198.00	13,708.56	11,107.03	54.75	60.82	-90.36	-1,951.51	101.62	1,126.72	1,058.87	67.85	16.606	
14,300.00	12,198.00	13,647.38	11,105.65	55.48	60.03	-88.53	-2,012.57	105.27	1,127.09	1,059.38	67.71	16.646	
14,400.00	12,198.00	13,542.04	11,102.55	56.51	58.70	-89.39	-2,117.71	111.11	1,128.45	1,061.08	67.37	16.750	
14,500.00	12,198.00	13,417.36	11,102.22	57.58	57.16	-93.61	-2,242.22	117.33	1,127.30	1,060.35	66.95	16.837	
14,600.00	12,198.00	13,332.09	11,101.81	58.68	56.13	-91.05	-2,327.31	122.88	1,126.08	1,059.24	66.84	16.847	
14,618.52	12,198.00	13,317.47	11,101.57	58.88	55.95	-90.36	-2,341.89	123.85	1,126.05	1,059.21	66.84	16.848	
14,700.00	12,198.00	13,228.13	11,099.97	59.80	54.89	-91.74	-2,431.02	129.81	1,126.06	1,059.47	66.59	16.910	
14,800.00	12,198.00	13,110.93	11,099.74	60.94	53.53	-94.87	-2,547.97	137.64	1,124.53	1,058.25	66.28	16.967	
14,900.00	12,198.00	12,992.02	11,102.24	62.11	52.18	-98.42	-2,666.60	145.18	1,120.82	1,054.78	66.03	16.973	
15,000.00	12,198.00	12,916.00	11,102.81	63.30	51.34	-94.01	-2,742.49	149.49	1,118.55	1,052.42	66.13	16.914	
15,058.22	12,198.00	12,877.01	11,102.40	64.00	50.93	-90.36	-2,781.43	151.45	1,118.32	1,052.07	66.26	16.878	
15,100.00	12,198.00	12,838.72	11,101.97	64.51	50.52	-89.69	-2,819.68	153.02	1,118.39	1,052.11	66.28	16.874	
15,200.00	12,198.00	12,742.76	11,100.76	65.73	49.51	-88.90	-2,915.59	156.07	1,118.92	1,052.58	66.35	16.865	
15,300.00	12,198.00	12,598.25	11,102.61	66.98	48.07	-97.48	-3,060.03	158.90	1,117.21	1,051.02	66.19	16.879	
15,400.00	12,198.00	12,497.40	11,105.63	68.24	47.10	-97.66	-3,160.83	160.53	1,114.06	1,047.70	66.37	16.786	
15,500.00	12,198.00	12,404.85	11,108.54	69.52	46.25	-96.25	-3,253.30	162.93	1,110.55	1,043.95	66.60	16.676	
15,600.00	12,198.00	12,327.31	11,109.13	70.82	45.56	-91.87	-3,330.79	165.49	1,109.05	1,042.14	66.91	16.575	
15,700.00	12,198.00	12,231.78	11,109.36	72.13	44.76	-90.99	-3,426.29	168.03	1,108.30	1,041.14	67.16	16.502	
15,711.89	12,198.00	12,223.05	11,109.34	72.29	44.69	-90.36	-3,435.01	168.22	1,108.29	1,041.08	67.21	16.490	
15,800.00	12,198.00	12,156.00	11,108.32	73.45	44.15	-86.17	-3,502.04	169.59	1,109.22	1,041.65	67.57	16.415	
15,900.00	12,198.00	12,068.90	11,105.80	74.79	43.47	-83.58	-3,589.09	171.29	1,111.69	1,043.75	67.93	16.364	
16,000.00	12,198.00	11,939.25	11,103.64	76.14	42.56	-89.47	-3,718.67	174.38	1,112.67	1,044.64	68.04	16.354	
16,100.00	12,198.00	11,857.20	11,102.21	77.50	42.03	-85.83	-3,800.69	176.19	1,113.95	1,045.46	68.49	16.264	
16,200.00	12,198.00	11,749.72	11,099.36	78.87	41.38	-87.31	-3,908.11	178.47	1,116.18	1,047.36	68.81	16.220	
16,300.00	12,198.00	11,619.49	11,100.30	80.25	40.69	-93.48	-4,038.32	180.08	1,115.07	1,045.96	69.11	16.134	
16,400.00	12,198.00	11,533.44	11,100.81	81.65	40.30	-90.63	-4,124.35	181.70	1,114.21	1,044.55	69.66	15.994	
16,407.25	12,198.00	11,527.50	11,100.79	81.75	40.27	-90.36	-4,130.29	181.79	1,114.21	1,044.50	69.71	15.984	
16,500.00	12,198.00	11,452.66	11,100.13	83.05	39.96	-86.68	-4,205.13	182.66	1,114.89	1,044.61	70.28	15.864	
16,600.00	12,198.00	11,396.00	11,097.79	84.46	39.75	-77.94	-4,261.72	183.32	1,118.63	1,047.56	71.07	15.741	
16,700.00	12,198.00	11,365.00	11,094.84	85.88	39.64	-65.25	-4,292.58	183.54	1,127.36	1,055.26	72.10	15.636	
16,800.00	12,198.00	11,317.33	11,088.40	87.31	39.48	-57.01	-4,339.80	183.77	1,140.86	1,067.80	73.06	15.615	
16,900.00	12,198.00	11,274.00	11,079.65	88.74	39.33	-49.48	-4,382.23	184.19	1,159.76	1,085.69	74.07	15.658	
16,957.82	12,198.00	11,274.00	11,079.65	89.57	39.33	-43.34	-4,382.23	184.19	1,173.13	1,098.18	74.95	15.652	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Roy Batty Federal COM - Roy Batty Federal COM #3H - Wellbore #1 - Surveys

Survey Program: 100-GYRO-NS, 10518-MWD

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,000.00	4,989.96	4,832.94	4,832.39	18.20	16.68	165.08	-4,696.77	1,534.26	5,040.42	5,005.60	34.82	144.767	
5,100.00	5,089.71	4,926.44	4,925.80	18.57	17.01	165.12	-4,698.70	1,537.55	5,045.82	5,010.30	35.51	142.081	
5,200.00	5,189.47	5,100.65	5,099.91	18.94	17.61	165.15	-4,701.92	1,542.63	5,051.09	5,014.58	36.51	138.358	
5,300.00	5,289.23	5,218.36	5,217.59	19.32	18.03	165.20	-4,702.82	1,544.98	5,054.83	5,017.54	37.29	135.547	
5,400.00	5,388.98	5,308.38	5,307.59	19.69	18.34	165.26	-4,703.56	1,546.57	5,058.59	5,020.61	37.98	133.204	
5,500.00	5,488.74	5,432.22	5,431.41	20.06	18.77	165.31	-4,704.30	1,548.71	5,062.11	5,023.33	38.78	130.524	
5,600.00	5,588.50	5,529.04	5,528.22	20.44	19.11	165.37	-4,704.69	1,550.45	5,065.48	5,025.99	39.49	128.266	
5,700.00	5,688.25	5,618.90	5,618.06	20.81	19.42	165.43	-4,705.23	1,551.91	5,069.00	5,028.83	40.18	126.171	
5,800.00	5,788.01	5,707.22	5,706.37	21.18	19.73	165.48	-4,705.95	1,553.41	5,072.76	5,031.90	40.85	124.170	
5,900.00	5,887.77	5,818.25	5,817.38	21.56	20.12	165.54	-4,706.86	1,555.29	5,076.52	5,034.90	41.61	121.990	
6,000.00	5,987.53	5,928.55	5,927.67	21.93	20.50	165.60	-4,707.56	1,556.70	5,080.00	5,037.63	42.37	119.891	
6,100.00	6,087.28	6,034.31	6,033.42	22.30	20.87	165.66	-4,708.23	1,558.07	5,083.50	5,040.38	43.11	117.911	
6,200.00	6,187.04	6,191.73	6,190.83	22.68	21.42	165.72	-4,708.22	1,559.33	5,086.25	5,042.21	44.04	115.492	
6,300.00	6,286.80	15,392.00	11,126.11	23.05	82.92	109.97	-206.52	1,497.41	5,015.85	4,961.30	54.55	91.947	
6,400.00	6,386.55	15,392.00	11,126.11	23.42	82.92	110.23	-206.52	1,497.41	4,918.38	4,863.48	54.89	89.599	
6,500.00	6,486.31	15,392.00	11,126.11	23.80	82.92	110.50	-206.52	1,497.41	4,821.00	4,765.76	55.25	87.266	
6,600.00	6,586.07	15,392.00	11,126.11	24.17	82.92	110.76	-206.52	1,497.41	4,723.74	4,668.13	55.61	84.948	
6,700.00	6,685.82	15,392.00	11,126.11	24.54	82.92	111.03	-206.52	1,497.41	4,626.60	4,570.61	55.98	82.645	
6,800.00	6,785.58	15,392.00	11,126.11	24.92	82.92	111.30	-206.52	1,497.41	4,529.57	4,473.21	56.37	80.359	
6,900.00	6,885.34	15,392.00	11,126.11	25.29	82.92	111.57	-206.52	1,497.41	4,432.68	4,375.92	56.77	78.088	
7,000.00	6,985.10	15,392.00	11,126.11	25.66	82.92	111.84	-206.52	1,497.41	4,335.94	4,278.76	57.18	75.834	
7,100.00	7,084.85	15,392.00	11,126.11	26.04	82.92	112.12	-206.52	1,497.41	4,239.34	4,181.74	57.60	73.596	
7,200.00	7,184.61	15,392.00	11,126.11	26.41	82.92	112.39	-206.52	1,497.41	4,142.90	4,084.86	58.04	71.375	
7,300.00	7,284.37	15,392.00	11,126.11	26.78	82.92	112.67	-206.52	1,497.41	4,046.64	3,988.14	58.50	69.171	
7,400.00	7,384.12	15,392.00	11,126.11	27.16	82.92	112.95	-206.52	1,497.41	3,950.56	3,891.59	58.98	66.985	
7,500.00	7,483.88	15,392.00	11,126.11	27.53	82.92	113.23	-206.52	1,497.41	3,854.69	3,795.22	59.47	64.816	
7,600.00	7,583.64	15,392.00	11,126.11	27.91	82.92	113.51	-206.52	1,497.41	3,759.02	3,699.04	59.99	62.666	
7,700.00	7,683.40	15,392.00	11,126.11	28.28	82.92	113.80	-206.52	1,497.41	3,663.59	3,603.07	60.52	60.534	
7,800.00	7,783.15	15,392.00	11,126.11	28.65	82.92	114.08	-206.52	1,497.41	3,568.41	3,507.33	61.08	58.422	
7,900.00	7,882.91	15,392.00	11,126.11	29.03	82.92	114.37	-206.52	1,497.41	3,473.50	3,411.84	61.66	56.329	
8,000.00	7,982.67	15,392.00	11,126.11	29.40	82.92	114.66	-206.52	1,497.41	3,378.89	3,316.61	62.28	54.256	
8,100.00	8,082.42	15,392.00	11,126.11	29.77	82.92	114.95	-206.52	1,497.41	3,284.59	3,221.67	62.92	52.204	
8,200.00	8,182.18	15,392.00	11,126.11	30.15	82.92	115.24	-206.52	1,497.41	3,190.64	3,127.05	63.59	50.173	
8,300.00	8,281.94	15,392.00	11,126.11	30.52	82.92	115.53	-206.52	1,497.41	3,097.07	3,032.76	64.30	48.165	
8,337.03	8,318.88	15,392.00	11,126.11	30.66	82.92	115.64	-206.52	1,497.41	3,062.52	2,997.94	64.57	47.426	
8,400.00	8,381.73	15,392.00	11,126.11	30.89	82.92	115.81	-206.52	1,497.41	3,003.98	2,938.92	65.06	46.176	
8,500.00	8,481.64	15,392.00	11,126.11	31.25	82.92	115.98	-206.52	1,497.41	2,911.69	2,845.81	65.88	44.196	
8,600.00	8,581.63	15,392.00	11,126.11	31.60	82.92	116.04	-206.52	1,497.41	2,820.39	2,753.60	66.79	42.229	
8,603.37	8,585.00	15,392.00	11,126.11	31.61	82.92	116.04	-206.52	1,497.41	2,817.33	2,750.51	66.82	42.163	
8,700.00	8,681.63	15,392.00	11,126.11	31.94	82.92	116.04	-206.52	1,497.41	2,729.97	2,662.20	67.77	40.283	
8,800.00	8,781.63	15,392.00	11,126.11	32.28	82.92	116.04	-206.52	1,497.41	2,640.24	2,571.42	68.82	38.366	
8,900.00	8,881.63	15,392.00	11,126.11	32.62	82.92	116.04	-206.52	1,497.41	2,551.27	2,481.33	69.94	36.480	
9,000.00	8,981.63	15,392.00	11,126.11	32.96	82.92	116.04	-206.52	1,497.41	2,463.15	2,392.02	71.13	34.628	
9,100.00	9,081.63	15,392.00	11,126.11	33.31	82.92	116.04	-206.52	1,497.41	2,375.97	2,303.56	72.41	32.812	
9,200.00	9,181.63	15,392.00	11,126.11	33.65	82.92	116.04	-206.52	1,497.41	2,289.83	2,216.05	73.78	31.034	
9,300.00	9,281.63	15,392.00	11,126.11	33.99	82.92	116.04	-206.52	1,497.41	2,204.87	2,129.62	75.26	29.298	
9,400.00	9,381.63	15,392.00	11,126.11	34.33	82.92	116.04	-206.52	1,497.41	2,121.22	2,044.38	76.84	27.605	
9,500.00	9,481.63	15,392.00	11,126.11	34.68	82.92	116.04	-206.52	1,497.41	2,039.05	1,960.51	78.54	25.961	
9,600.00	9,581.63	15,392.00	11,126.11	35.02	82.92	116.04	-206.52	1,497.41	1,958.53	1,878.16	80.37	24.369	
9,700.00	9,681.63	15,392.00	11,126.11	35.36	82.92	116.04	-206.52	1,497.41	1,879.89	1,797.56	82.33	22.834	
9,800.00	9,781.63	15,392.00	11,126.11	35.71	82.92	116.04	-206.52	1,497.41	1,803.36	1,718.93	84.43	21.359	
9,900.00	9,881.63	15,392.00	11,126.11	36.05	82.92	116.04	-206.52	1,497.41	1,729.22	1,642.55	86.67	19.951	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Roy Batty Federal COM - Roy Batty Federal COM #3H - Wellbore #1 - Surveys — **Offset Site Error:** 0.00 usft

Survey Program: 100-GYRO-NS, 10518-MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
13,600.00	12,198.00	14,293.97	11,156.74	49.15	67.01	89.06	-1,303.79	1,517.64	1,486.10	1,390.38	95.72	15.526	
13,700.00	12,198.00	14,204.57	11,157.27	49.94	65.77	88.50	-1,393.15	1,520.09	1,487.22	1,391.75	95.46	15.579	
13,800.00	12,198.00	14,122.15	11,157.12	50.77	64.63	87.57	-1,475.53	1,522.61	1,489.12	1,393.79	95.33	15.621	
13,900.00	12,198.00	14,036.99	11,156.33	51.64	63.46	86.79	-1,560.61	1,526.34	1,492.44	1,397.24	95.20	15.677	
14,000.00	12,198.00	13,945.08	11,153.99	52.55	62.21	86.36	-1,652.44	1,529.31	1,496.10	1,401.13	94.97	15.753	
14,100.00	12,198.00	13,859.98	11,151.51	53.49	61.07	85.59	-1,737.41	1,533.24	1,500.96	1,406.08	94.88	15.819	
14,200.00	12,198.00	13,759.25	11,149.42	54.47	59.72	85.63	-1,837.98	1,538.51	1,505.72	1,411.06	94.67	15.905	
14,300.00	12,198.00	13,678.26	11,147.91	55.48	58.65	84.66	-1,918.76	1,544.16	1,511.58	1,416.83	94.76	15.952	
14,400.00	12,198.00	13,567.52	11,146.25	56.51	57.21	85.23	-2,029.18	1,552.37	1,517.55	1,422.99	94.56	16.049	
14,500.00	12,198.00	13,472.05	11,146.99	57.58	55.98	85.01	-2,124.27	1,560.80	1,523.04	1,428.39	94.65	16.092	
14,600.00	12,198.00	13,389.92	11,146.81	58.68	54.94	84.12	-2,206.03	1,568.58	1,529.66	1,434.77	94.89	16.120	
14,700.00	12,198.00	13,295.44	11,145.40	59.80	53.76	83.86	-2,300.12	1,577.06	1,536.81	1,441.80	95.00	16.176	
14,800.00	12,198.00	13,201.24	11,142.81	60.94	52.61	83.59	-2,393.92	1,585.40	1,544.71	1,449.58	95.13	16.238	
14,900.00	12,198.00	13,060.00	11,143.19	62.11	50.92	85.67	-2,534.52	1,598.58	1,550.90	1,455.98	94.92	16.340	
15,000.00	12,198.00	12,925.03	11,147.82	63.30	49.36	87.41	-2,668.88	1,610.63	1,554.74	1,459.85	94.89	16.385	
15,100.00	12,198.00	12,845.00	11,149.69	64.51	48.47	86.43	-2,748.67	1,616.38	1,558.12	1,462.77	95.35	16.341	
15,200.00	12,198.00	12,761.41	11,149.65	65.73	47.56	85.63	-2,832.07	1,621.90	1,562.66	1,466.90	95.76	16.318	
15,300.00	12,198.00	12,673.94	11,148.58	66.98	46.62	85.04	-2,919.35	1,627.69	1,568.01	1,471.87	96.14	16.310	
15,400.00	12,198.00	12,513.62	11,148.32	68.24	45.01	87.97	-3,079.47	1,635.20	1,570.59	1,474.72	95.86	16.384	
15,500.00	12,198.00	12,419.62	11,148.28	69.52	44.11	87.68	-3,173.40	1,639.06	1,573.21	1,476.94	96.27	16.342	
15,600.00	12,198.00	12,314.78	11,149.11	70.82	43.15	87.92	-3,278.13	1,643.68	1,575.53	1,478.88	96.64	16.302	
15,700.00	12,198.00	12,231.10	11,149.84	72.13	42.42	87.14	-3,361.71	1,647.68	1,578.13	1,480.87	97.26	16.225	
15,800.00	12,198.00	12,139.80	11,148.84	73.45	41.66	86.72	-3,452.89	1,652.14	1,582.03	1,484.21	97.82	16.173	
15,900.00	12,198.00	12,025.35	11,145.06	74.79	40.77	87.42	-3,567.25	1,654.63	1,585.35	1,487.23	98.12	16.157	
16,000.00	12,198.00	11,869.49	11,142.87	76.14	39.68	90.09	-3,723.08	1,656.20	1,586.58	1,488.44	98.14	16.166	
16,100.00	12,198.00	11,712.00	11,144.59	77.50	38.71	92.84	-3,880.53	1,654.16	1,584.54	1,486.29	98.24	16.129	
16,200.00	12,198.00	11,618.00	11,146.40	78.87	38.21	92.55	-3,974.47	1,651.54	1,580.68	1,481.71	98.97	15.971	
16,300.00	12,198.00	11,546.79	11,147.08	80.25	37.88	91.17	-4,045.66	1,650.28	1,578.10	1,478.16	99.94	15.790	
16,389.23	12,198.00	11,489.47	11,147.01	81.50	37.63	89.64	-4,102.99	1,649.60	1,577.04	1,476.17	100.87	15.635	
16,400.00	12,198.00	11,483.55	11,146.88	81.65	37.61	89.40	-4,108.90	1,649.54	1,577.05	1,476.07	100.98	15.617	
16,500.00	12,198.00	11,429.00	11,144.60	83.05	37.38	87.21	-4,163.40	1,649.14	1,578.79	1,476.75	102.04	15.472	
16,600.00	12,198.00	11,384.87	11,140.62	84.46	37.23	84.52	-4,207.34	1,648.82	1,583.74	1,480.61	103.13	15.357	
16,700.00	12,198.00	11,345.13	11,135.04	85.88	37.10	81.62	-4,246.68	1,648.61	1,592.30	1,488.14	104.16	15.287	
16,800.00	12,198.00	11,317.32	11,129.59	87.31	37.01	78.21	-4,273.95	1,648.53	1,604.95	1,499.76	105.19	15.257	
16,900.00	12,198.00	11,303.00	11,126.03	88.74	36.97	74.28	-4,287.82	1,648.52	1,622.30	1,516.09	106.21	15.275	
16,957.82	12,198.00	11,272.00	11,116.55	89.57	36.89	73.01	-4,317.32	1,648.57	1,634.30	1,527.74	106.56	15.337	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Stevens "11" - Stevens 11 1 - Wellbore #1 - Surveys — **Offset Site Error:** 0.00 usft

Survey Program: 170-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
4,900.00	4,890.20	4,876.87	4,876.44	17.82	97.43	-177.87	-2,938.54	115.52	3,108.42	2,993.31	115.11	27.003	
5,000.00	4,989.96	4,997.09	4,996.46	18.20	100.30	-177.76	-2,939.20	115.52	3,113.31	2,994.96	118.35	26.305	
5,100.00	5,089.71	5,096.85	5,096.21	18.57	102.58	-177.66	-2,939.20	115.52	3,117.62	2,996.62	121.00	25.765	
5,200.00	5,189.47	5,171.46	5,170.79	18.94	104.28	-177.56	-2,938.22	115.52	3,121.07	2,998.00	123.07	25.361	
5,300.00	5,289.23	5,296.44	5,295.73	19.32	106.94	-177.46	-2,939.20	115.52	3,126.27	3,000.17	126.11	24.791	
5,400.00	5,388.98	5,396.20	5,395.48	19.69	108.82	-177.36	-2,939.20	115.52	3,130.61	3,002.26	128.36	24.390	
5,500.00	5,488.74	5,491.12	5,490.40	20.06	110.61	-177.26	-2,938.86	115.52	3,134.62	3,004.11	130.51	24.018	
5,600.00	5,588.50	5,583.81	5,583.09	20.44	112.36	-177.16	-2,939.10	115.52	3,139.25	3,006.62	132.62	23.670	
5,700.00	5,688.25	5,695.49	5,694.75	20.81	114.54	-177.07	-2,939.20	115.52	3,143.69	3,008.51	135.17	23.257	
5,800.00	5,788.01	5,795.25	5,794.51	21.18	116.50	-176.97	-2,939.20	115.52	3,148.06	3,010.56	137.50	22.895	
5,900.00	5,887.77	5,886.79	5,886.05	21.56	118.30	-176.87	-2,938.65	115.52	3,151.91	3,012.24	139.67	22.567	
6,000.00	5,987.53	5,977.23	5,976.48	21.93	120.07	-176.77	-2,939.02	115.52	3,156.71	3,014.90	141.81	22.260	
6,100.00	6,087.28	6,094.55	6,093.78	22.30	122.31	-176.67	-2,939.20	115.52	3,161.25	3,016.83	144.42	21.889	
6,200.00	6,187.04	6,194.31	6,193.54	22.68	124.20	-176.58	-2,939.20	115.52	3,165.66	3,018.99	146.68	21.583	
6,300.00	6,286.80	6,294.07	6,293.30	23.05	126.08	-176.48	-2,939.20	115.52	3,170.09	3,021.16	148.93	21.286	
6,400.00	6,386.55	6,393.82	6,393.05	23.42	127.97	-176.38	-2,939.20	115.52	3,174.52	3,023.34	151.18	20.998	
6,500.00	6,486.31	6,493.58	6,492.81	23.80	129.85	-176.28	-2,939.20	115.52	3,178.96	3,025.52	153.44	20.718	
6,600.00	6,586.07	6,592.82	6,592.03	24.17	131.73	-176.19	-2,937.33	115.52	3,181.55	3,025.87	155.68	20.436	
6,700.00	6,685.82	6,689.08	6,688.29	24.54	133.55	-176.09	-2,937.40	115.52	3,186.08	3,028.21	157.87	20.182	
6,800.00	6,785.58	6,785.33	6,784.54	24.92	135.37	-175.99	-2,937.57	115.52	3,190.73	3,030.67	160.05	19.936	
6,900.00	6,885.34	6,881.58	6,880.79	25.29	137.18	-175.90	-2,937.85	115.52	3,195.49	3,033.26	162.24	19.696	
7,000.00	6,985.10	6,977.82	6,977.02	25.66	139.00	-175.80	-2,938.24	115.52	3,200.38	3,035.96	164.42	19.464	
7,100.00	7,084.85	7,074.05	7,073.25	26.04	140.82	-175.71	-2,938.73	115.52	3,205.39	3,038.78	166.61	19.239	
7,200.00	7,184.61	7,191.95	7,191.11	26.41	143.05	-175.61	-2,939.20	115.52	3,210.30	3,041.09	169.21	18.972	
7,300.00	7,284.37	7,291.71	7,290.87	26.78	144.94	-175.52	-2,939.20	115.52	3,214.81	3,043.35	171.47	18.749	
7,400.00	7,384.12	7,390.21	7,389.37	27.16	146.80	-175.42	-2,938.72	115.52	3,218.86	3,045.16	173.70	18.531	
7,500.00	7,483.88	7,484.01	7,483.17	27.53	148.58	-175.33	-2,938.84	115.52	3,223.52	3,047.68	175.84	18.332	
7,600.00	7,583.64	7,591.00	7,590.14	27.91	150.60	-175.24	-2,939.20	115.52	3,228.40	3,050.17	178.23	18.113	
7,700.00	7,683.40	7,690.76	7,689.90	28.28	152.87	-175.14	-2,939.20	115.52	3,232.95	3,052.08	180.87	17.874	
7,800.00	7,783.15	7,790.52	7,789.65	28.65	155.14	-175.05	-2,939.20	115.52	3,237.51	3,054.00	183.51	17.642	
7,900.00	7,882.91	7,889.78	7,888.91	29.03	157.40	-174.96	-2,938.24	115.52	3,241.12	3,054.99	186.13	17.413	
8,000.00	7,982.67	7,982.80	7,981.93	29.40	159.51	-174.86	-2,938.35	115.52	3,245.81	3,057.20	188.61	17.209	
8,100.00	8,082.42	8,075.81	8,074.94	29.77	161.63	-174.77	-2,938.66	115.52	3,250.72	3,059.63	191.09	17.011	
8,200.00	8,182.18	8,189.69	8,188.68	30.15	164.24	-174.68	-2,939.20	115.52	3,255.82	3,061.74	194.08	16.776	
8,300.00	8,281.94	8,276.98	8,275.96	30.52	166.37	-174.59	-2,938.61	115.52	3,259.86	3,063.29	196.57	16.584	
8,337.03	8,318.88	8,299.96	8,298.93	30.66	166.93	-174.55	-2,938.75	115.52	3,261.79	3,064.53	197.26	16.536	
8,400.00	8,381.73	8,389.30	8,388.23	30.89	169.06	-174.50	-2,939.20	115.52	3,264.68	3,065.04	199.64	16.353	
8,500.00	8,481.64	8,479.16	8,478.08	31.25	171.19	-174.45	-2,938.65	115.52	3,266.80	3,064.69	202.11	16.163	
8,600.00	8,581.63	8,589.26	8,588.13	31.60	173.81	-174.43	-2,939.20	115.52	3,268.26	3,063.17	205.09	15.935	
8,603.37	8,585.00	8,592.63	8,591.50	31.61	173.89	-174.43	-2,939.20	115.52	3,268.26	3,063.08	205.19	15.928	
8,700.00	8,681.63	8,689.26	8,688.13	31.94	176.26	-174.43	-2,939.20	115.52	3,268.26	3,060.38	207.88	15.722	
8,738.38	8,720.01	8,726.68	8,725.53	32.07	177.17	-174.43	-2,938.12	115.52	3,267.19	3,058.26	208.93	15.638	
8,800.00	8,781.63	8,775.68	8,774.53	32.28	178.37	-174.43	-2,938.23	115.52	3,267.33	3,056.99	210.34	15.534	
8,900.00	8,881.63	8,889.38	8,888.13	32.62	181.15	-174.43	-2,939.20	115.52	3,268.26	3,054.80	213.47	15.310	
8,965.23	8,946.86	8,954.56	8,953.31	32.84	182.69	-174.43	-2,938.76	115.52	3,267.83	3,052.60	215.24	15.183	
9,000.00	8,981.63	8,975.76	8,974.51	32.96	183.20	-174.43	-2,938.81	115.52	3,267.90	3,052.05	215.85	15.140	
9,100.00	9,081.63	9,089.42	9,088.13	33.31	185.84	-174.43	-2,939.20	115.52	3,268.26	3,049.42	218.84	14.934	
9,200.00	9,181.63	9,189.45	9,188.13	33.65	188.11	-174.43	-2,939.20	115.52	3,268.26	3,046.80	221.47	14.757	
9,300.00	9,281.63	9,289.45	9,288.13	33.99	190.32	-174.43	-2,939.20	115.52	3,268.26	3,044.24	224.02	14.589	
9,400.00	9,381.63	9,389.45	9,388.13	34.33	192.53	-174.43	-2,939.20	115.52	3,268.26	3,041.69	226.57	14.425	
9,441.03	9,422.67	9,428.95	9,427.62	34.47	193.40	-174.43	-2,937.88	115.52	3,266.95	3,039.36	227.59	14.355	
9,500.00	9,481.63	9,480.40	9,479.07	34.68	194.54	-174.43	-2,937.96	115.52	3,267.05	3,038.12	228.93	14.271	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Offset Design Stevens "11" - Stevens 11 1 - Wellbore #1 - Surveys — **Offset Site Error:** 0.00 usft

Survey Program: 170-INC-ONLY — **Offset Well Error:** 0.00 usft

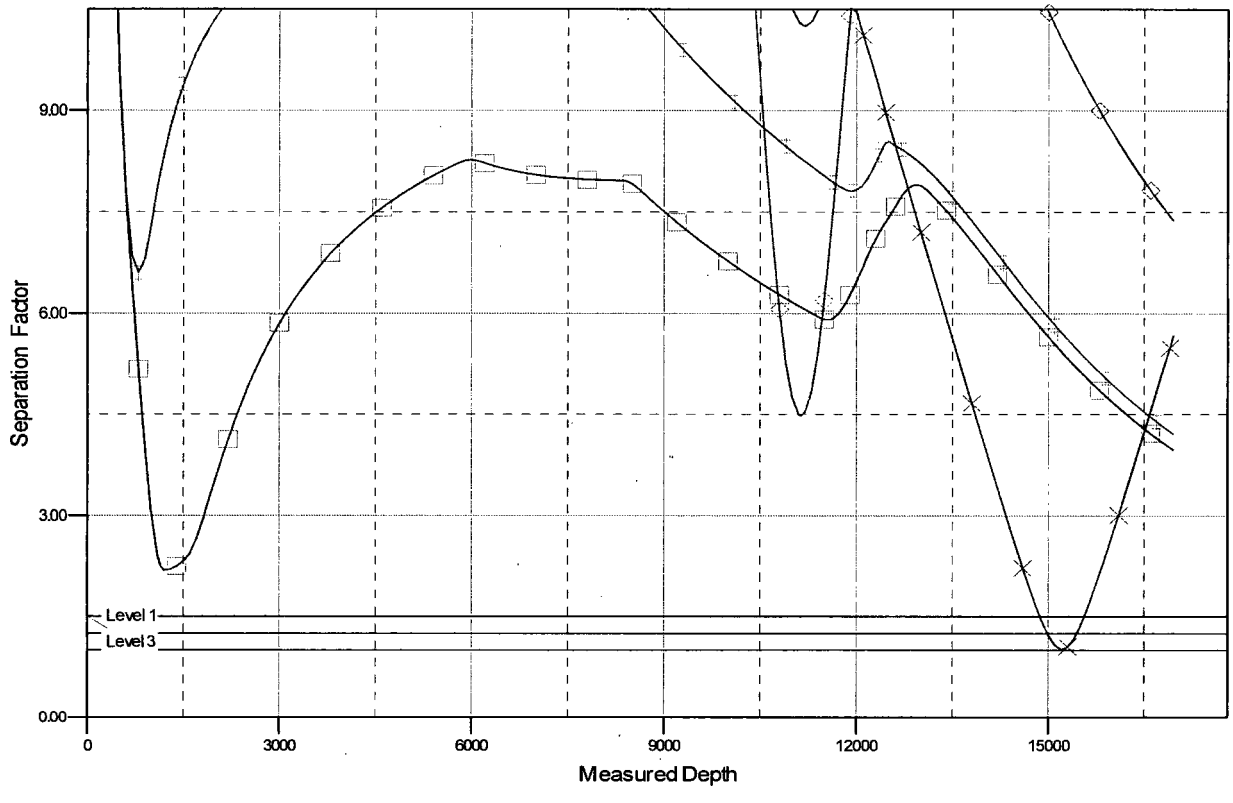
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,604.28	12,198.00	12,207.22	12,204.50	43.89	267.56	-172.99	-2,939.20	115.52	2,633.23	2,322.22	311.01	8.467	
12,700.00	12,198.00	12,207.22	12,204.50	44.17	267.56	-172.72	-2,939.20	115.52	2,538.33	2,227.27	311.06	8.160	
12,800.00	12,198.00	12,207.22	12,204.50	44.51	267.56	-172.40	-2,939.20	115.52	2,439.25	2,128.15	311.10	7.841	
12,900.00	12,198.00	12,207.22	12,204.50	44.91	267.56	-172.06	-2,939.20	115.52	2,340.26	2,029.10	311.16	7.521	
13,000.00	12,198.00	12,207.22	12,204.50	45.37	267.56	-171.70	-2,939.20	115.52	2,241.35	1,930.13	311.22	7.202	
13,100.00	12,198.00	12,207.22	12,204.50	45.87	267.56	-171.29	-2,939.20	115.52	2,142.54	1,831.25	311.29	6.883	
13,200.00	12,198.00	12,207.22	12,204.50	46.43	267.56	-170.85	-2,939.20	115.52	2,043.85	1,732.48	311.37	6.564	
13,300.00	12,198.00	12,207.22	12,204.50	47.04	267.56	-170.36	-2,939.20	115.52	1,945.30	1,633.84	311.46	6.246	
13,400.00	12,198.00	12,207.22	12,204.50	47.69	267.56	-169.83	-2,939.20	115.52	1,846.90	1,535.33	311.57	5.928	
13,500.00	12,198.00	12,207.22	12,204.50	48.40	267.56	-169.23	-2,939.20	115.52	1,748.68	1,436.99	311.69	5.610	
13,600.00	12,198.00	12,207.22	12,204.50	49.15	267.56	-168.56	-2,939.20	115.52	1,650.68	1,338.85	311.83	5.294	
13,700.00	12,198.00	12,207.22	12,204.50	49.94	267.56	-167.80	-2,939.20	115.52	1,552.93	1,240.93	312.00	4.977	
13,800.00	12,198.00	12,207.22	12,204.50	50.77	267.56	-166.94	-2,939.20	115.52	1,455.49	1,143.29	312.19	4.662	
13,900.00	12,198.00	12,207.22	12,204.50	51.64	267.56	-165.97	-2,939.20	115.52	1,358.41	1,045.99	312.43	4.348	
14,000.00	12,198.00	12,207.22	12,204.50	52.55	267.56	-164.84	-2,939.20	115.52	1,261.80	949.09	312.71	4.035	
14,100.00	12,198.00	12,207.22	12,204.50	53.49	267.56	-163.52	-2,939.20	115.52	1,165.76	852.70	313.06	3.724	
14,200.00	12,198.00	12,207.22	12,204.50	54.47	267.56	-161.97	-2,939.20	115.52	1,070.44	756.94	313.49	3.415	
14,300.00	12,198.00	12,207.22	12,204.50	55.48	267.56	-160.12	-2,939.20	115.52	976.06	662.01	314.05	3.108	
14,400.00	12,198.00	12,207.22	12,204.50	56.51	267.56	-157.87	-2,939.20	115.52	882.91	568.16	314.76	2.805	
14,500.00	12,198.00	12,207.22	12,204.50	57.58	267.56	-155.10	-2,939.20	115.52	791.44	475.76	315.69	2.507	
14,600.00	12,198.00	12,207.22	12,204.50	58.68	267.56	-151.62	-2,939.20	115.52	702.30	385.37	316.93	2.216	
14,700.00	12,198.00	12,207.22	12,204.50	59.80	267.56	-147.14	-2,939.20	115.52	616.51	297.89	318.61	1.935	
14,800.00	12,198.00	12,207.22	12,204.50	60.94	267.56	-141.27	-2,939.20	115.52	535.66	214.76	320.90	1.669	
14,900.00	12,198.00	12,207.22	12,204.50	62.11	267.56	-133.43	-2,939.20	115.52	462.36	138.44	323.92	1.427	Level 3
15,000.00	12,198.00	12,207.22	12,204.50	63.30	267.56	-122.93	-2,939.20	115.52	400.79	73.17	327.62	1.223	Level 2
15,100.00	12,198.00	12,207.22	12,204.50	64.51	267.56	-109.28	-2,939.20	115.52	357.04	25.78	331.26	1.078	Level 2
15,200.00	12,198.00	12,207.22	12,204.50	65.73	267.56	-93.03	-2,939.20	115.52	338.12	4.91	333.21	1.015	Level 2
15,215.75	12,198.00	12,207.22	12,204.50	65.93	267.56	-90.36	-2,939.20	115.52	337.76	4.50	333.26	1.014	Level 2, CC, ES, SF
15,300.00	12,198.00	12,207.22	12,204.50	66.98	267.56	-76.36	-2,939.20	115.52	348.10	15.91	332.19	1.048	Level 2
15,400.00	12,198.00	12,207.22	12,204.50	68.24	267.56	-61.75	-2,939.20	115.52	384.74	55.80	328.94	1.170	Level 2
15,500.00	12,198.00	12,207.22	12,204.50	69.52	267.56	-50.28	-2,939.20	115.52	441.45	116.25	325.20	1.357	Level 3
15,600.00	12,198.00	12,207.22	12,204.50	70.82	267.56	-41.68	-2,939.20	115.52	511.59	189.59	322.00	1.589	
15,700.00	12,198.00	12,207.22	12,204.50	72.13	267.56	-35.26	-2,939.20	115.52	590.40	270.84	319.56	1.848	
15,800.00	12,198.00	12,207.22	12,204.50	73.45	267.56	-30.40	-2,939.20	115.52	674.85	357.07	317.78	2.124	
15,900.00	12,198.00	12,207.22	12,204.50	74.79	267.56	-26.63	-2,939.20	115.52	763.07	446.59	316.48	2.411	
16,000.00	12,198.00	12,207.22	12,204.50	76.14	267.56	-23.66	-2,939.20	115.52	853.89	538.35	315.53	2.706	
16,100.00	12,198.00	12,207.22	12,204.50	77.50	267.56	-21.27	-2,939.20	115.52	946.56	631.72	314.83	3.007	
16,200.00	12,198.00	12,207.22	12,204.50	78.87	267.56	-19.30	-2,939.20	115.52	1,040.59	726.28	314.31	3.311	
16,300.00	12,198.00	12,207.22	12,204.50	80.25	267.56	-17.67	-2,939.20	115.52	1,135.64	821.73	313.91	3.618	
16,400.00	12,198.00	12,207.22	12,204.50	81.65	267.56	-16.28	-2,939.20	115.52	1,231.47	917.86	313.61	3.927	
16,500.00	12,198.00	12,207.22	12,204.50	83.05	267.56	-15.10	-2,939.20	115.52	1,327.92	1,014.54	313.38	4.237	
16,600.00	12,198.00	12,207.22	12,204.50	84.46	267.56	-14.07	-2,939.20	115.52	1,424.86	1,111.66	313.20	4.549	
16,700.00	12,198.00	12,207.22	12,204.50	85.88	267.56	-13.18	-2,939.20	115.52	1,522.19	1,209.13	313.06	4.862	
16,800.00	12,198.00	12,207.22	12,204.50	87.31	267.56	-12.40	-2,939.20	115.52	1,619.85	1,306.90	312.96	5.176	
16,900.00	12,198.00	12,207.22	12,204.50	88.74	267.56	-11.70	-2,939.20	115.52	1,717.78	1,404.90	312.88	5.490	
16,957.82	12,198.00	12,207.22	12,204.50	89.57	267.56	-11.34	-2,939.20	115.52	1,774.51	1,461.66	312.84	5.672	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well Charles Ling Fed Com #202H
Project:	Lea County, New Mexico (NAD 27)	**TVD Reference:**	WELL @ 3640.50usft (Patterson 282)
Reference Site:	Charles Ling Fed Com	**MD Reference:**	WELL @ 3640.50usft (Patterson 282)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Charles Ling Fed Com #202H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Conroe DB
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 3640.50usft (Patterson 282) Coordinates are relative to: Charles Ling Fed Com #202H
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: 0.42°

Separation Factor Plot



LEGEND